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# Time, Space and Matter in the *Periphyseon*

## An Examination of Eriugena's Understanding of the Physical World

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Eriugena has unusual theories of space, time and matter, theories which have led him to be called an immaterialist in the manner of Berkeley, or a critical idealist in the manner of Kant.<sup>1</sup> He may properly be termed an immaterialist with regard to his theory that sensible corporeal bodies are only apparently corporeal—for him physical bodies are a collection or assembly of incorporeal, insensible properties. He is labelled an idealist for his theory of place and time as categories in the mind, prior to all objects, and within which all empirical objects are contained. On this basis, the claim has been made that Eriugena is an original thinker and that his views should be accorded a respectful place in the history of philosophy. This article will examine Eriugena's originality with regard to his theory of the nature of the material world.<sup>2</sup> It will emerge that Eriugena indeed holds an immaterialist account of matter and of physical things, but that there are nuances in his theory which need to be addressed.

Eriugena's views are complicated, indeed somewhat confused. The confusion stems partly from the multiplicity of his sources—drawing as he did on both the Greek and Latin Christian traditions; partly from the general misinformation concerning the world which was current in the encyclopaedic knowledge of the day; partly from his own attitude as a philosopher of synthesis and mediation. Eriugena is very loose in his use of philosophical terminology; for example, in the distinction between essence (*οὐσία*, *essentia*) and substance (*υπόστασις*, *substantia*). His aim is to deliver the secret, hidden knowledge (Eriugena's phrase is: *gnostica scientia*) to achieve salvation and

1 The nineteenth century commentators on Eriugena noticed the comparison with Kant. See T. Christlieb, *Leben und Lehre des Johannes Scotus Erigena in ihrem Zusammenhang mit der vorhergehenden und unter Angabe ihrer Berührungspunkte mit der neueren Philosophie und Theologie* (Gotha, 1860); see also W. Beierwaltes, 'The Revaluation of John Scottus Eriugena in German Idealism', in J. J. O'Meara and L. Bieler, eds., *The Mind of Eriugena* (Dublin, 1973), pp. 190-9.

2 A version of this paper was first read at the Conference on 'Johannes Scottus Eriugena and the Neoplatonic Tradition', held by the National Committee for Philosophy of the Royal Irish Academy, Dublin, 22-23 May 1989. I would like to thank Fran O'Rourke for his instructive comments.

although a knowledge of physical theory (*φύσικη θεωρία*) is important for this end, Eriugena does not believe we should argue endlessly about competing theories. As with Augustine and the early Christian Fathers, there is little interest in absolute accuracy regarding the physical world; indeed there is a general belief (stemming ultimately from Plato's *Timaeus*) that the visible world is not completely knowable as it is not true being, but rather belongs to the sphere of becoming.<sup>3</sup> Despite these qualifications, Eriugena has a very clear vision of the goal towards which his thought is moving. *Φύσις*, nature, understood as a dynamic process of self-manifestation, at once manifesting itself as Creator and created, and in the same dialectical process withdrawing into its nameless origin, stands as the absolute frame of his thinking. Matters of consistency are subordinated to the task of explicating this dynamic concept of *φύσις*. Eriugena speaks of God as the 'divine cosmographer' (*divinus cosmografus*, III.710c) whose work is recounted in the physical (*φυσική*, III.705b) level of understanding Scripture. To understand this work belongs to the fourfold division of wisdom (*quadriformis sophiae divisio*, III.705b).

Given this complexity of doctrine, our aim is first of all to give an exposition of Eriugena's complex views on the nature and genesis of the physical world and, secondly, to interpret them as to their originality. We shall see that Eriugena argues that corporeal nature is in fact not fully real but is totally dependent on incorporeal nature—the realm of the 'intellectuals' and 'intelligibles', and that this incorporeal nature is in the last analysis beyond comprehension. Nevertheless, its mysterious, marvellous and ineffable ways may in part be catalogued, and we shall follow Eriugena's attempt to do this.

#### I: THE CATEGORIES CONTAIN THE CREATED UNIVERSE

Eriugena's philosophy of the spatio-temporal created world is based, like that of all the major NeoPlatonists, on his interpretation of Aristotle's *Categories*. The visible world is enclosed by the categories. Eriugena did not know Aristotle at first hand. Porphyry and Boethius as well as Martianus Capella were important sources for Eriugena on the nature of the Aristotelian categories, but the key source was the widely circulated Pseudo-Augustinian *Categoriae decem*.<sup>4</sup> The *Categoriae decem* lists the categories in the order in which Aristotle himself lists them, and Eriugena follows this order.<sup>5</sup> Eriugena

3 Eriugena probably knew the *Timaeus* in the Latin translation of Calcidius, whose commentary he cites in the *Annotationes in Marcianum*, ed. C. Lutz (Cambridge, Mass., 1939), p. 10 [7,10] and p. 22 [13,23]. Eriugena refers to Plato 15 times in the *Periphyseon*.

4 Porphyry's *Isagoge* and his two Commentaries on the *Categories* (one now lost) were most important for shaping the medieval reaction. Porphyry did not think the categories were about things (*τὰ ὄντα, τὰ πράγματα*) or genera of being, nor were they simply grammatical categories about words; they were about 'vocal significant sounds (*φωναί*) which signify things'. Porphyry disagrees with Plotinus' rejection of the categories and accepts that they apply to the sensible world.

5 Aristotle himself gives different lists of categories in different places. In the *Categories* there are ten, and the *Topics* follows this list; but *Metaphysics* XIV.2.1089b20 lists only

treats of categorial problems in his Commentary on the *De nuptiis Philologiae et Mercurii* of Martianus Capella, and in the *Periphyseon*, especially in Book I.463a-489b and Book II.588b-89a. In Book II.588b the categories are listed in Greek and are treated as answers to questions (what? how great? and so on) as in Aristotle's *Topics*. Eriugena, while taking his list of categories from Aristotle, appears not to accept Aristotle's table of ten categories as definitive.

Eriugena holds that the categories do not apply to the divine 'uncreated' world. Following Augustine, he argues that the categories do not apply to God, since he is infinite, and the categories as the widest genera define or delimit things in certain ways. The categories describe everything other than God:

Aristotle, the shrewdest among the Greeks, as they say, in discovering the way of distinguishing natural things (*naturalium rerum discretionis*), included the innumerable variety of all things which come after God and are created by him in ten universal genera which he called the ten categories, that is, predicables. For, as he holds, nothing can be found in the multitude of created things and in the various motions of minds (*variisque animorum motibus*) which cannot be included in one of these genera. (I.463a17-23)<sup>6</sup>

Eriugena sees only the christianized Aristotle—the categories mark the distinction between a timeless God and a temporal, created reality.<sup>7</sup> God is outside the categories and so categorial terms such as substance and accident do not apply to him. Augustine and Boethius both agreed that God can have no accidents and Eriugena repeats this view. Eriugena also develops Augustine's view that God is not properly called substance into a general thesis that God is beyond substance, *supersubstantialis*.

It is true that the categories tell us the nature of the highest grades of reality—for Eriugena there really exists such an entity as the most general substance, the most general quality and so on, down to the most specific

three—substances (*οὐσίαι*), passions (*παθή*) and relation (*τὸ πρὸς τι*). Brentano in his book, *On the Several Senses of Being in Aristotle*, trans. R. George (Berkeley, 1975), p. 50, assumes that Aristotle did want to have a determinate number and that ten was that number (on Neopythagorean grounds). Possibly Aristotle was already reducing a number of the categories (action, passion, position, having) to movement (*κίνησις*), a category suggested by Plotinus.

6 Sheldon-Williams' translation, Vol. 1, p.85. In this essay we shall refer to the *Periphyseon* in the following way: for Books One, Two, Three, we shall make use of I.P. Sheldon-Williams' edition, *Iohannis Scotti Eriugena Periphyseon (De Divisione Naturae)*, Volume 1 (Dublin, 1968); Volume II (Dublin, 1970); Volume III (Dublin, 1981). For Books Four and Five we shall refer to the text as printed in Migne, *Patrologia Latina*, Vol. CXXII. A translation of all five books by I. P. Sheldon-Williams, corrected by J. J. O'Meara is available in J. J. O'Meara, ed., *Eriugena. Periphyseon (Division of Nature)* (Montréal, 1987).

7 Eriugena adopts from Maximus Confessor the notion that the category which stands between God and creation is the category of time (or the conjoined categories of place and time).

species and individuals. At times Eriugena speaks as if the world itself is made up of these widest genera, intermediate species and individuals. The categories are for him the names of the ultimate constituents of the universe. Regarding universals, Eriugena appears in these passages to be a realist of the Platonic kind.<sup>8</sup> He sometimes speaks as though God were the highest being, the highest substance, the most universal category. Yet, at the same time, this highest essence, *οὐσία*, 'contains' all things and is present in all things. Therefore God 'runs' through all the genera and species as well as being above them and containing them. Everything else depends on him in some way. Substance therefore is a name for the highest being. Of course Eriugena will always modify this with a Dionysian *via negativa* where God is ultimately beyond being, beyond substance and beyond life, beyond even non-being itself. To speak of the highest *οὐσία* is permitted, and God may be called that *οὐσία* so long as we reserve the right to apply apophatic negations at a more advanced stage of the discussion.

Despite their inapplicability to the divine realm, the categories are most important in Eriugena's thought—to such an extent that I. P. Sheldon-Williams thought the *Periphyseon* was really a work on the categories.<sup>9</sup> It is through the categories that Eriugena is able to think the nature of created reality. Eriugena is an innovator in his application of the categories and is not slavishly following Aristotle. In fact, his outlook on the categories differs from that of Aristotle in a number of interesting ways which I briefly list here:

1. The categories do not apply to God or to the primary causes (II.588b).<sup>10</sup> The categories apply only to created reality. Aristotle holds that the category of substance also applies to the eternal intelligences in the upper world.
2. Eriugena states that the ten Aristotelian categories are not complete—others could be added if the author had more time for the analysis.
3. The categories can be structured in different ways, e.g. subsumed under the wider categories of rest and motion (II.597a). Eriugena implies that the categories can actually be subsumed under higher and more general

8 The philosophical discussion on the nature of universals which dominated twelfth century philosophy actually began in the ninth century (with Ratramnus of Corbie for example), but never clarified the terms sufficiently. Eriugena sees the logical classes as ontological categories, but sometimes says that these divisions are purely our mind's ways of viewing things, and have existence *in mente* rather than *in re*. For him, the unfolding of the world through the categories is both the unfolding of the divine will, and also a product of human knowing or human *θεωπία*.

9 See Sheldon-Williams, Vol. I, p. 5. See also Sheldon-Williams' essay in A.H. Armstrong, ed., *The Cambridge History of Later Greek and Early Medieval Philosophy* (Cambridge, 1967). The standard work on Eriugena remains M. Cappuyens, *Jean Scot Erigène: sa vie, son œuvre, sa pensée* (Louvain, 1933). On the categories, see also J. Marenbon, *Early Medieval Philosophy* (London, 1983). See also, J. Marenbon, 'John Scottus and the *Categoriae decem*', in W. Beierwaltes, ed., *Eriugena: Studien zu seinen Quellen* (Heidelberg, 1980).

10 He cites Augustine's *De Trinitate* at *Periphyseon* I.463b but he could just as easily have cited Boethius' *De Trinitate*, Ch. 4.

(*superior et generalior*, I.469b) categories of motion and rest, which themselves can be subsumed under the greatest category of the All (*universitas*, Greek: *τὸ πᾶν*, I.469b19). This is in line with Plotinus' discussion of the categories.<sup>11</sup> Eriugena divides the categories under the higher categories of rest and motion: four of the categories are at rest (*οὐσία*, quantity, situation and place), the other six are in motion (I.469a).

4. The categories intermingle and interpenetrate so that it is difficult to distinguish what belongs precisely to any one category: 'almost all the categories are so interrelated (*concatenata*) that they can scarcely be distinguished from one another in a definite way' (I.472b-c).
5. Quantity is the first accident; this is a variation from the tradition of Martianus Capella, Calcidius and Boethius, for which authors quality is primary (I.497a). Indeed as we shall see in our discussion of material bodies, quantity operates in the physical world as the underlying substance.<sup>12</sup>
6. The categories can be divided into those which are circumstances (*περιοχαί*, *circumstantiae*, I.471c) standing around substance, and those which can be genuinely seen as accidents (Eriugena uses the Greek term *συμβάματα*, rather than Aristotle's term *συμβεβηκόσ*; Latin: *accidens*, I.471c). This is a crucial point to which we shall return.<sup>13</sup>
7. *Οὐσία* in itself is incorporeal; so also are the other categories because they depend on *οὐσία*: 'therefore all the categories are incorporeal when considered in themselves' (I.479a).
8. However some of the categories combine through a '*coitus*' to give the appearance of corporeality (I.479a).
9. The categories of place and time are metaphysically prior to the things enclosed in those categories (I.482b).<sup>14</sup>

The context of the discussion of the categories in Book One of the *Periphyseon* is their applicability to God. Augustine and Boethius had already raised this question in their writings on the Trinity, arguing that God cannot have accidents, and indeed that God is not truly substance but is super-substantial (see, for example, Augustine, *De Trinitate* IV.11). Boethius denies

11 John P. Anton, 'Plotinus' Approach to Categorial Theory', in R. Baine-Harris, ed., *The Significance of Neoplatonism* (Norfolk, Va., 1976), pp. 83-100.

12 Sheldon-Williams, *Periphyseon*, Vol. I, p. 232, n. 98.

13 In treating accidents as circumstances, literally 'standing around' the substance, Eriugena is reflecting accurately the meaning of the Greek term *περιοχαί*, which referred to the villages lying outside the polis of Athens.

14 Eriugena cites Augustine's *De musica* VI as the source of this view. Augustine says that the number of places and times precedes the things that are measured by them. This 'transcendental' turn allows Eriugena to argue that things conform to the measure of the mind rather than the other way around. This transcendental shift is theologically inspired: God's knowledge produces things, it is not things which produce the knowledge of them.

that God is in any place, and explains that he is not in time but is eternal—meaning here present to all times, just as omnipresent means present to all places. Eriugena will say that God is really more-than-substance (*supersubstantialis*) and that it is only by metaphor that the category of substance applies to him.

## II: THE PRIMARY CATEGORY: SUBSTANCE

Let us examine the category of substance in more detail. Eriugena, following the tradition of Aristotle and Augustine, understands substance as that which stands by itself, which has *per se* subsistence (I.470b), and is that upon which everything else depends (*fulciri* I.470b26; Aristotle's word is *ὑπάρχειν*). Aristotle in the *Categories* sees everything as either a substance or 'either predicable of a substance or present in a primary substance' (iv.2a33-35). Eriugena simplifies this scheme. For him there are essentially only two kinds of being: everything is either a subject and has being in and through itself (*per se*), or is in a subject, and has its being in something else (*in aliquo*).<sup>15</sup> *Οὐσία* has being in and through itself. Accident for Eriugena exists in another (*in aliquo*), and has a natural desire for the subject to which it adheres, an appetite (*appetendum*) for being.

The Aristotelian tradition is wedded to a Neoplatonic outlook, which dissolves Aristotle's plurality of substances into a single essence. As a Neoplatonist, Eriugena accepts that ultimate reality is one. In so far as the One is nameable at all it may be called essence or *οὐσία*, but this *οὐσία* cannot be known and in fact all we ever know are emanations out from the essence which are termed *ὑποστάσεις* or substances (*substantiae*). *Οὐσία* in itself is accessible neither to sense nor to intellect (I.471b). These substances or hypostases are emanations from the hidden One, and do not in themselves have ultimate reality. Eriugena's original term for them is the primary causes (*primordiales causae*, II.529b). They occupy the second level of his four-fold division of nature.

Eriugena's understanding of *οὐσία* derives directly from Dionysius and Maximus and indirectly from Proclus. For the Greek Christian tradition *οὐσία* is the hidden infinite source from which particular *ὑποστάσεις* (substances) 'radiate' or emanate, the precise nature of this emanation never being clarified in Greek Christian thought. Maximus in particular provided the triadic conception of being as a trinity of essence, power and operation

15 Eriugena does not display a grasp of the problem to which Porphyry and others were referring—a problem which continues to haunt discussion of the categories; rather Eriugena speaks of them both as logical and as ontological descriptions of things. This is partly due to the fact that, for Eriugena, logic (*logica, dialectica*) is both the structure of argument and also the structure of being. See D. Moran, *The Philosophy of John Scottus Eriugena. A Study of Idealism in the Middle Ages* (Cambridge, 1989), pp. 123-53.

(*οὐσία, δύναμις, ἐνέργεια; essentia, virtus, operatio*, I.507c27-8). This trinity means that an entity is understood as not revealing itself as it is in itself, but only through its powers and operations, and its 'circumstances'. This *οὐσία* in its trinity is timeless and outside of space (I.507d); all other things exist in time and space. There is an unknown underlying source of all things (which must be one because there exists nothing which could differentiate it) and there exist also the spatio-temporal manifestations of all things—a view which might call to mind Hindu thought or that of Schopenhauer.<sup>16</sup> Above all else Eriugena wants to emphasize the infinity and incomprehensibility of this underlying substratum.

Following Maximus, Eriugena first argues that the primary ontological distinction is that between uncreated (unmanifest) and created (manifest) being. This distinction corresponds to the distinction between the realm of the timeless and placeless and spatio-temporal reality. At *Periphyseon* I.481b-c Eriugena quotes Maximus' assertion that everything apart from God 'is understood to be in place, with which time is always and in every way simultaneously understood'. Secondly, Eriugena—here adapting Aristotle's distinction between subject and what is in a subject or said of a subject—argues that there are only two kinds of thing: namely substance and accident, or, as he also puts it, 'subject' and 'what is in a subject'. Regarding the reduction of all things to substance and accident, it is the opinion of 'dialecicians', according to Eriugena at I.470d, that everything which exists precisely in so far as it belongs in one of the following four classes: subject, in a subject, of a subject, in and of a subject.<sup>17</sup> Eriugena knows very little about Aristotle's own conception of substance, but he does attempt on the basis of his knowledge of the categories to reclassify the determinations of 'subject', 'in a subject', 'of a subject' and 'in and of a subject' into a simpler scheme. Eriugena reduces these four to two at I.470d. 'Subject' and 'of a subject' are identified: to say 'Cicero' is to say 'man'. We are saying the same thing; all that differs is the degree of generality: one is an individual and the other is a species (I.471a). The species is complete in the individual and the individual fully represents the species, therefore 'subject' and 'of a subject' can be identified. Then 'in a subject' and 'in and of a subject' are merged into one by Eriugena. We are left with a simple twofold classification—'subject' and 'what is in a subject', i.e. substance and accident. This clears the way for the further reduction of everything to one incorporeal essence, God or *natura*.

Regarding the division of the world into timeless and temporal: strictly speaking God is not properly called *οὐσία*. God is indefinable, and hence is neither a defined substance (*diffinita substantia*, II.591a1) nor a defined subject (*diffinitum subiectum*, II.591a2). God is infinite and unbounded and hence not

16 Schopenhauer was impressed by this aspect of Eriugena.

17 Eriugena could have found this classification in Aristotle. Sheldon-Williams in his edition, Vol. I, p. 102, refers to Boethius' *Commentary on the Peri Hermeneias of Aristotle*, ed. Meiser, i. 3, p. 57, 28 -58; ii, 3, p. 68, 9-10.



a 'what'. None of the categories applies to God and for that reason he has no place: 'because it [the divine essence] is infinite and uncircumscribed and does not allow itself to be located by any intellect nor by itself.'<sup>18</sup> Nevertheless God may be described as the place of all things (*locus omnium*, II.592c24), or the 'place of places' (*locus locorum*). Indeed metaphorically God may be called Place or Time because he is the cause of all places and times (I. 468c). On the other hand, all bodies are contained within their essences or substances and cannot, while they remain bodies, overstep the limits of their natures (II.590c). It is a very important principle for Eriugena that things are contained by their essential definitions, and God is not so contained being infinite, hence he is also indefinable. Now essential to defining and delimiting are the categories of place and time, since substances in the ordinary created world are what they are by virtue of their location in space and time. When things return to God at that point they overstep (Eriugena uses the Latin verb, *transcendere*) their given natures (I.483a). In a crucial addition to the text, transcendence of nature is explained—to transcend one's nature means that one's nature is no longer apparent or manifest. For Eriugena creation is manifestation, but in the *reditus* the individual manifest essence is absorbed and hidden in the unmanifest whole, as air is no longer seen when light shines.<sup>19</sup>

### III: ACCIDENT AND MATTER AS A COLLECTION OF ACCIDENTS

Next let us examine the meaning of accident and specify more precisely the relation of substance to accident in Eriugena. Although all accidents by definition are those which are 'in a subject', some accidents are outside the substance and so determine it in special ways. Grouping the accidents according to whether they are outside or inside the substance: those which 'stand outside' appear to be quantity, place, time and situation (*locus, tempus, quantitas, situs*). Since we do not know *οὐσία*, we end up knowing only that which surrounds substance. Eriugena cites Maximus as his authority for this notion (I.471c).<sup>20</sup>

Eriugena has modified the theory of the categories by importing Eastern Greek thinking found in Maximus and also in Basil. This tradition argues that place, time and quantity are not strictly speaking accidents, but are circumstances, literally bystanders (*περιοχαί*, I. 471c7), surrounding the invisible ungraspable essence.<sup>21</sup> *Οὐσία* can only be known by its circumstances (*circumstantiae*, I.471b34; *circumstantes*, I.471c7). These are not strictly speaking accidents because they are outside (*extrinsecus*) substance, yet they cannot

18 *Periphyseon* II.592c25-592d26: quia infinita est et incircumscripita et a nullo intellectu neque se ipsa locari, id est diffiniri et circumscribi permittit.

19 This passage at *Periphyseon* I.483a-b is added to the Rheims version of the manuscript in Eriugena's supposed hand. It is surely an authorial addition.

20 See Maximus, *I Ambigua* xiii, PG XCI. 1225.

exist apart from it. Eriugena uses the image of a centre around which the circumstances revolve; *οὐσία* is at the centre of the revolutions of time and the dispositions of place, quantity and situation. All the other categories, however, are genuinely in the subject; these he terms accidents or *συμβάματα* (I.471c8). This theory is a development of Gregory of Nazianzus and other Eastern writers, but it also bears some similarities to Sorabji's portrayal of the Aristotelian interpretations of Simplicius and the Christian, John Philoponus.<sup>22</sup> It is definitely not the classical Aristotle. This is an instance of Eriugena's unresolved adoption of two conflicting sources—on the one hand he wants a simple ontology of substance and accident, on the other a threefold classification of substance, circumstance and accident. Nevertheless, as we shall see, the theory of circumstance is crucial to his explanation of the nature of matter.

At I.478c Eriugena says that none of the categories is in fact accessible to sense. *Οὐσία* itself transcends the senses and the other categories are either in or around *οὐσία* so that they also in themselves are not known to the senses. The argument is simple: if *οὐσία* is incorporeal, then its accidents must also be incorporeal since they inhere in it (or stand around it):

You are aware, I think, of the fact that none of the aforesaid ten categories which Aristotle defined, when thought of by itself, that is, in its own nature, in the light of reason, is accessible to the bodily senses. For *οὐσία* is incorporeal and the object of no sense, while the other nine categories are about it or within it. But if the former is incorporeal, surely it must be apparent to you that everything which is either attached to it or subsists in it (*omnia quae aut ei adhaerent aut in ea subsistunt*) and cannot exist apart from it is incorporeal? Therefore all the categories are incorporeal when considered in themselves (I.478c).<sup>23</sup>

Eriugena goes on to explain that some of these categories 'commingle' (*coitus*) with one another to produce the effect of corporeality:

[Some] of them, however, by a certain marvellous commingling with one another (*earum tamen [quaedam] inter se mirabili quodam coitu*), as Gregory says, produce visible matter, while some appear in nothing (*in nullo apparent*) and remain for ever incorporeal. For *οὐσία* and relation, place, time, action, passion are not reached by any bodily sense, while quantity and quality, situation and condition, when they come together

21 All these terms are derived from Greek words which contain the prefix 'περι' meaning 'about' or 'around'. See M. Cristiani, 'Lo spazio e il tempo nell'opera dell'Eriugena', *Studi Medievali* 14 (1973), 39-136. At I.471b Eriugena refers to a Gregory and his commentator Maximus. Cristiani treats this as a very important passage and understands the Gregory here to be Gregory of Nazianzus. See also M. Cristiani, 'Le problème du lieu et du temps dans le livre Ier de *Periphyseon*', in J. J. O'Meara and L. Bieler, eds., *The Mind of Eriugena* (Dublin, 1973), pp. 41-8.

22 Richard Sorabji, *Matter, Space and Motion* (Cornell, 1988).

23 Sheldon-Williams' translation, Vol. I, pp. 119-21.

and constitute matter, as we said just now, are normally perceived by bodily sense (I.479a).<sup>24</sup>

Eriugena sees material bodies as made up of a congruence of accidents. The terms he gives to this congruence are varied; it is termed *concursum* (I.498b23, I.503a4), *contemeratus coitus* (I.498b26-7), *armonia* (I.501b9), *confluxus* (III.713 c19), *conventus* (III.714a31), *synodus* (III.714a33). The most frequent terms are *concursum* and *coitus* (e.g. III.712b7).<sup>25</sup>

The Gregory referred to in this passage is Gregory of Nyssa. The work is *De hominis opificio*, Chapter XXIV (PL XLIV.212d),<sup>26</sup> or in its original Greek title, *Περὶ κατασκευῆς ἀνθρώπου*. It was written in 379 to supplement his brother Basil's *Hexaemeron*. It gives an account of the creation of man on the Sixth Day. An important work, it was translated into Latin four times between the sixth and the sixteenth century; the earliest translation being that of Dionysius Exiguus who entitled it *De conditione hominis*. Eriugena called it *De imagine*.<sup>27</sup>

In Chapter XXIV, Gregory is wondering how an immaterial God could have produced a material world. Gregory refers to the categories of quantity and quality. When we think of a body, according to Gregory, we can formulate different ideas about it—that it is two cubits long, heavy and so on; these ideas can be separated from each other, and from the idea of the body in itself. When they have all been removed, no idea of the body remains. There is no underlying subject of predication, no *ὑποκείμενον*.<sup>28</sup> Gregory argues that matter is not co-eternal with God, but is composed of qualities mingled together. Each of the qualities on its own is grasped as an intellectual idea which is incorporeal (we can for example distinguish the idea of colour from the idea of weight). For Gregory these qualities are ideas independent of one another and independent of any substratum; it is only when thought together that we get the idea of materiality. When all the ideas are withdrawn, the idea of body itself dissolves.

Eriugena accepts this view, but is more specific about which accidents are active in the production of our idea of body. They are: quantity, quality,

24 Sheldon-Williams' translation, Vol. I, p. 121.

25 Eriugena is committed to the view that all nature acts harmoniously, so this coming together of qualities to form bodies is not chaotic or disordered. Many of Eriugena's terms suggest an analogy with the sexual act. Through an act of congress, things are produced. This notion would reappear in later writings of the medieval alchemists.

26 There is a similar idealistic passage in Gregory's work *De anima et eius resurrectione* which, however, appears to have been unknown to Eriugena.

27 See M. Cappuyns, 'Le *De imagine* de Grégoire de Nysse traduit par Jean Scot Erigène', *Recherches de théologie ancienne et médiévale* 32 (1965), pp. 205-62. See also, Philip Levine, 'Two Early Latin Versions of St. Gregory of Nyssa's *Περὶ κατασκευῆς ἀνθρώπου*', *Harvard Studies in Classical Philology* 63 (1958), 473-92. It is translated by W. Moore and H.A. Wilson in *Gregory of Nyssa. Selected Works and Letters*, The Nicene and Post-Nicene Fathers, Vol. 5 (Grand Rapids, Michigan, 1972), pp. 387-427. A new Greek edition of Gregory of Nyssa's text is in preparation by Carlos Steel of the University of Leuven.

28 Richard Sorabji, *Matter, Space and Motion*, p. 53.

situation and condition. As far as I have been able to determine, this selection of a group of categories as productive of corporeality is original to Eriugena.

Another possible source for Eriugena's theory is Gregory's brother, Basil, who had already commented on the nature of sensible substance in his *Hexaemeron* 1.8.21a-b, where he says:

Let us recommend to ourselves concerning the earth, not to be too curious what its substance is; nor to wear ourselves out by reasoning, seeking its very foundation; nor to search for some nature destitute of qualities, existing without quality of itself; but to realize well that all that is seen around it is related to the reason of its existence, forming an essential part of its substance. You will end with nothing if you attempt to eliminate by reason each of the qualities that exists in it. In fact, if you remove the black, the cold, the weight, the density, the qualities pertaining to taste, or any others which are perceptible, there will be no basic substance.<sup>29</sup>

Gregory and Basil presumably inherited this idea from Plotinus who argued that sensible substances are a mere conglomeration (*συμφορησις*) of matter and qualities.<sup>30</sup> What is at issue in Basil's case is the nature of the material substance of the earth. He is arguing that earth is coldness, solidity, hardness and nothing more. There is nothing underlying these qualities of earth, holding them up, as it were. Basil is trying to rule out the question: what gives a foundation to the earth? Actually at the beginning of the same chapter Basil indicates that there are two kinds of substance—that accessible to the mind, and that accessible to the senses, so he may only be ruling out a self-subsisting underlying material substance.

With regard to the theory that physical things are really incorporeal, it is clear then that Eriugena drew on the Greek Christian tradition, which in turn drew its account of matter from Plotinus. Eriugena accepts the Greek view that creation is manifestation, appearance (*φαινόμενον*), that it is a spatio-temporal interval (*διάστημα*) underlying which is the mysterious infinite reality of hidden *οὐσία*.<sup>31</sup> Eriugena defines creation as manifestation (*creatio, hoc est in aliquo manifestatio*, I.455b) and indeed as self-manifestation. In Book III he speaks of the One, Nature, as creating itself by self-manifestation: it 'creates itself, that is, allows itself to appear in its theophanies' (III.689a-b).

29 Trans. by Sr. Agnes Clare Way, in *Saint Basil. Exegetical Homilies*, Fathers of the Church series, Vol. 46 (Washington, 1963), p. 14. Sorabji calls attention to this passage in his study on *Matter, Space and Motion*. Sorabji maintains that both Basil and Gregory are committed to what he terms 'the bundle theory of substance'; a substance is nothing other than the collection of its properties.

30 Sorabji, *Matter, Space and Motion*, p. 51. See Plotinus *Ennead* VI 3, 8, 19-37. The term *συμφορησις* itself comes from Epicurus.

31 Eriugena uses the word *creatio* for creation, but also the terms *processio, descensio, emanatio*. Indeed he also translated Dionysius' Greek term *πρόδος* as *exitus*. There is one instance of Dionysius using the term *θέσις* instead of the more usual *πρόδος* in a quotation from Scripture.

Given Eriugena's account of substance and accident as immaterial and incorporeal, we now turn to a more detailed treatment of Eriugena's understanding of matter in order to understand his account of the constitution of physical things.

#### IV: MATTER AND THE FOUR ELEMENTS

Greek physics saw the physical corporeal world as made from the four elements. What role do the elements play in Eriugena's theory? Eriugena sees the four elements as stumbling blocks in his attempt to reduce everything to the immaterial causes. Here he did not look to Dionysius who has no real discussion of material bodies, but turned instead to Gregory of Nyssa's *De imagine* and Augustine's *De Genesi ad litteram*.

Eriugena explores various theories concerning the nature of the four elements in a series of exchanges between the participants in the dialogue. The junior interlocutor, Alumnus, has a theory that the four elements are each produced by two causes—namely the two qualities which are specific to each element. Thus fire is produced by warmth and dryness (II.604a-b). Alumnus claims this is a theory supported by the *sapientes mundi*, the wise natural philosophers. Nutritor, Eriugena's mouthpiece, rejects this theory on the grounds that qualities cannot be the causes of substances and in any case do not exist on their own (II.605a8-605b13). Nutritor has his own theory, namely that fire is an incorporeal substance. This incorporeal fire in turn descends from the most general substance (*generalissima essentia*, II.605b15) whereas the quality warmth descends from the most general quality (*generalissima qualitas*).<sup>32</sup> The four elements then are contained in the causes—general or universal essence and accident.

In themselves the four elements are simple, incorporeal and not known by the senses (II.606c), and are called 'pure' by Eriugena. They are four effects of the most general substance (II.606c). The four qualities although they are opposites are also the result of the one cause, namely the most general quality (*generalissima qualitas omnium qualitatum*, II.606d). In the peaceful concord of universal nature (*ineffabilis universalis naturae pacifica concordia*, II.606d5-607a6) they all co-exist. Eriugena relocates the elements in the hierarchy of being. Rather than being at the lowest level, above unformed matter and below individual corporeal things (especially below living things), the elements are actually very high on the scale—they are incorporated into the primary causes, and are either themselves those causes, or principles (*rationes seminales*) contained in the causes. In Book V Eriugena says that the elements are drawn back so that they will all be contained by fire: water changes into vapour and vapour into flame and flame returns to

32 It is part of his theory to reify the universals and see them as the highest principles of being. The highest genus of substance contains all the other particular and general substances, the highest genus of 'accident' contains all general and particular accidents. In Eriugena's terms the lower is always 'contained in' the higher.

the element of fire (V.953a). Fire then returns to its causes in substance and quality. Eriugena regards 'the natural stability of substances and the mutability of natural qualities' to be the two components which make up the natural creature (V.958b-c). All things return into substance and quality.

To take the example of the element fire: there are, according to Eriugena, really two fires—the invisible insensible fire (*ignis per se invisibilis*, II.608b27) which is incomprehensible in itself and dwells in the causes (II.604c23-25), and the visible fire which is sensible and corporeal and proceeds from it like a ray (*radius visibilis*, II.608b).<sup>33</sup> A forerunner of this theory is to be found in Plato's *Timaeus* 53a-54b, where the four elements are forms which exist in themselves, but also which have traces or likenesses in this world.<sup>34</sup> Alumnus believes that even this lower fire would itself be invisible where it does not mingle with grosser natures. Thus he maintains that the actual sun's rays are invisible in themselves (and incomprehensible to the senses of animals, II.608b) but as the rays from the sun move downwards they mingle with grosser natures until they can be seen. First it mingles with ether, then with air, until it is reflected by bodies so as to reveal itself in colours. This explanation is typically Neoplatonic and depends on a theory of emanation. Eriugena speaks of a gradual descent (*gradatim descendit*, II.608b32-33) of the ray from the hidden causes to the material sensible realm.

The teacher goes further and stresses that the fire which departs from its source still carries with it the immaterial fire which is its cause (II.609a)—the cause remains in the effect. Eriugena's account is suitably triadic: there is first the immaterial 'father' fire; second, the ray or 'son' fire (which also is

33 At *Periphyseon* II.608b Eriugena speaks of the invisible fire begetting from itself the visible ray (*de se gignit*). This is analogous to the Father giving birth to the Word, or to the act of creation whereby the created world proceeds from the invisible primary causes.

34 The idea of two fires derives from the *Timaeus* 48e-53c. See Sorabji, *Matter, Space and Motion*, pp. 32-5. For Plato the elements can change into one another e.g. fire into air, or air into water. Fire then is not a 'this' but a 'such'. In *Timaeus* 51b-c Plato asks if there is a self-subsisting fire, a fire-in-itself; or does only sensible fire exist, which on Plato's account could not be fully real? Originally the elements existed only as shadows or traces (*ἴχνη*) of themselves, so the creator began to mark them out and give them form in shapes and numbers. Fire is a solid body for Plato and has been constructed. Fire is constructed from the pyramid shape. It also appears as if fire gains the sensible qualities it has—namely warmth and dryness when considered in connection with the human domain. Possibly in itself it does not have these qualities. But Eriugena picks up on this to describe an immaterial insensible fire and then a sensible fire that flows forth from it. Cornford in his book, *Plato's Cosmology* (London, 1937), pp. 180-1, interprets Plato to mean that fire is a bundle of properties, and certainly Albinus and other Middle Platonists follow him here. (See Sorabji, *ibid.*, p. 33). But Eriugena seems to be opting for a different explanation, whereby sensible fire is an emanation of intellectual fire, which itself is somehow contained in the genus of substance. I agree with Sorabji (p. 35) that Plato appears to be talking of fire not just as a bundle of properties but as things endowed with properties. There is a form of fire. But there is indeed an ambiguity and it is interesting to see what Eriugena does with that ambiguity.

immaterial but can become visible when mingled with the other elements), and third, the brightness (*splendor*) which is a result of the fire. These three are taken to be an image of the Trinity (II. 609a-b). Eriugena explicitly says the brightness proceeds (*procedit*) from the Father fire through the ray (*per radium*)—a typical Latin Trinitarian formulation. Eriugena then drops the discussion of the elements and proceeds to a discussion of the vestiges of the Trinity.<sup>35</sup> Clearly his investigation into natures (*naturarum inquisitio*, II.608a5) has the intention of showing that the invisible Trinity is present in all natural processes.

In Book I.479a-b Eriugena maintained that the four elements are bodies in themselves (*corpora per se*), but they are of such a fine nature that in themselves they are invisible, and elude every mortal sense (*sensus mortalis*). In Book III.701a Eriugena repeats the view that all bodies are made of the four elements which themselves are incorporeal and invisible; but he goes on to list the five greatest bodies (*maxima corpora*), earth, water, air, ether and heaven (*terra, aqua, aera, aethera, caelum*). This lists the four elements in a different way: they are now ranked as cosmic zones: the lowest is earth, and ether stands for the realm of fire which is highest, below the firmament which Eriugena calls '*caelum*'.<sup>36</sup>

Despite the apparent solidity and corporeality of the elements from which physical things are formed, the visible world is nonetheless really incorporeal but appears solid due to a concourse of accidents.<sup>37</sup> Eriugena cites Gregory of Nyssa as his authority on the nature of matter and material things: 'matter is nothing else but a certain composition of accidents which proceed from invisible causes to visible matter.'<sup>38</sup> Then he gives the explanation: material things are corruptible. If material things had a simple and immutable essence then they would not be corruptible—'for genera and species and ἄτομα (Eriugena uses the Greek ἄτομα to mean 'individuals') are eternal and endure for the very reason that there is in them something which is one and indivisible which can neither be dissolved nor destroyed.' For each element

35 Eriugena's digression into the vestiges of the Trinity may be prompted by thinking of the manner in which fire is a vestige for Plato. But it is noteworthy that both Eriugena and Plato take fire as their main example of an element. Eriugena says little of the other elements except to give etymological definitions of their natures and to argue that all things are made up of a commingling of all the elements. In Periphyseon III.714b Eriugena explains that fire is called '*πῦρ*' in Greek because it penetrates all things through their pores (*per poros*, 714b).

36 See Sheldon-Williams, Vol III, p. 318 note. Eriugena's use of the notion of ether is not developed further.

37 Here Sorabji has not noticed that two aspects of the tradition are maintained together: material things are mere 'bundles of properties', yet on the other hand they have (or are really) essences which are invisible and are real bearers of properties.

38 *Periphyseon* I.479b-c: Nil aliud dicens materiam esse nisi accidentium quandam compositionem ex invisibilibus causis ad visibilem materiam procedentem, trans; Sheldon-Williams, Vol. I, p. 120. This definition appears faulty as it includes the *definiendum* in the definition; however, the main idea is clear—matter is a visible effect produced from invisible causes.

there is an invisible incorporeal substance and also an emanation which in the last instance will be shifting and transitory.

In Book III.712a-715a Eriugena returns to the account of the four elements, deriving their nature from traditional etymologies of their Greek names. Again he stresses that material bodies are not composed of the substances of the elements which are indestructible and immutable, but of the qualities of those substances (III.712b). All bodies are made up of coldness, dryness, moistness, warmth, but this time Eriugena adds that bodies are made up of the elements together with superadded forms (*formae*, III. 712b4). What is the nature of these superadded forms? Corporeal entities consist of matter and form. Eriugena argues that every body has actually two kinds of form—a stable substantial form and a fluctuating ‘qualitative’ form, which is receptive of accidents and accounts for change in a body. Things change when different qualitative forms mingle with the unstable flux which is unformed matter. The unstable forms themselves are created from the coming together of quantity and quality. Eriugena calls this form the qualitative form (*forma qualitativa*, III.701d25) which is fleeting and insubstantial. Thus he says that the scriptural statement ‘Heaven and Earth shall pass away’ means that unformed matter and qualitative form will pass away but not the stable four elements out of which things are made, nor their ‘substantial form’ (*substantialis forma*, III.702a). Here he sees the elements as belonging to the sphere of the unchanging incorporeal substantial forms, whereas physical things as we know them come together into unstable forms due to the commingling of the categories of quantity and quality supported by unformed matter.

Eriugena has a peculiar view of these stable substantial forms which remain in their genera and are eternal. He says that they are free of the *concursum* (III.702d31) of accidents, whereas the bodies (*corpora*) which are subject to change are the commingling of accidents. Pure substances have no accidents. Eriugena goes on to explain that each substantial form is one and is neither multiplied nor diminished:

For that form, for example, which is called ‘man’ is no greater in the infinite multiplication of human nature into its indivisible species than in that unique and first man who became the first to partake of it, nor was it less in him than in all whose bodies are multiplied out of him, but in all it is one and the same and in all it is equally [whole] and in none does it admit any variation or dissimilarity. . . . But that form which is joined to matter so as to constitute body (is) always variable and changeable and dispersed among diverse differences by accident. For it is not from natural causes that the manifold differences of visible forms proceed in one and the same substantial form, but they come from without. For the dissimilarity of men one from the other in feature, size and quality of their several bodies, and the variety of custom and conduct result not from human nature, which is one and the same in



all in whom it exists . . . but from things which are understood about it (*circa eam*), namely from places and times, from generation, from quantity and quality of their diets, their habitats, the conditions under which each is born, and to speak generally, from all things that are understood about (*circa*) the substance, and are not the substance itself. (III.703b-c)<sup>39</sup>

In Book One Eriugena gives a slightly different account of the constitution of physical bodies. Here he acknowledges that some may think there is a contradiction between the account of matter as a commingling of the four elements, and the account of matter as the coming together of quantity and quality with *οὐσία* (I.495d-496a). But there is no contradiction to those who know that the world is really a concourse of the categories of accident. Quantity (*quantitas*) and quality (*qualitas*) combine together to produce a *quantum* and a *quale* which is the physical body as spatially extended (*spatiose*, I.497a13).<sup>40</sup> The other accidents are superadded to these two. Here quantity serves as a 'second subject' (*secundum subiectum*, I.496a9) after *οὐσία*. Quality, Alumnus says, has been established to be the cause not only of matter but also of form (I.496c). The Master quickly points out that *οὐσία* is the source of substantial form (I.497c)—and indeed God is the absolute form of all things (*forma omnium*, I.502a).<sup>41</sup>

#### V: THE NATURE OF LIGHT

Although he says little about individual elements, he does focus on the nature of light, presumably because of its importance in the biblical cosmology of *Genesis*. Light is the first born of creation, and is quasi-divine.

Though light is not itself one of the four elements, it seems to belong to them, because its nature is fire (*natura lucis est ignis*, I.521a). It appears to have two aspects. Sensible light (*lux sensibilis*) fills the whole universe and is

39 Sheldon-Williams' translation, Vol. III, p. 219.

40 The distinction between a quality and what has quality is made in the *Categories* of Aristotle in VIII 10a27. A body is a real thing—but it is like a shadow which is a commingling of body and light (501c). At I.501c-d Eriugena digresses to give an account of the nature of shadows and argues that they are cones on the other side of a body from the light, whether they be finite or infinite. Here Eriugena appears to be allowing for the possibility of an infinite shadow (if we accept the interpolation in Eriugena's supposed hand to the text of Rheims). This is a textual interpolation of an expansive scientific kind which has not been given due notice by commentators. An infinite shadow would be very confusing in his system as it would postulate an infinite body, or a body the same size as the sun, so that the shadow thrown is not a cone but an infinitely long cylinder. This may represent a mistake on the part of the author.

41 Eriugena's invocation of the Augustinian phrase *forma omnium* for God was noticed and praised by Nicholas of Cusa in his annotations to *Periphyseon* Book One. The phrase recurred in the 12th century where Amaury of Bene held that God was the form of all things, a view which was condemned as heretical in 1210 and 1225.

actually immutable in itself and immobile (I.520d).<sup>42</sup> Eriugena then says that this light has a vehicle (*vehiculum*)—the solar body (*solare corpus*, I.520d15) which is in eternal motion and from which light radiates out in such a way that it fills everywhere at once. The light itself is immobile but its vehicle is ever moving. In Book I.521b Eriugena cites Dionysius (*Celestial Hierarchy* IX. 3. 206c–d) and Basil (*Hexaemeron* II. 7. 45a, 48b) in support of the view that light is everywhere in the universe and is essentially timeless, changeless and immutable.<sup>43</sup> In fact, Eriugena modifies this slightly to say that light is everywhere except for a small space near the earth which it leaves empty so that night (the earth's shadow) can come.

In Book III Eriugena notes that Basil and Augustine differ in their account of the nature of the light which was created on the First Day: was it fire as Basil had thought (III.693c)? Or was it the creation of the heavenly powers as Augustine had thought? Eriugena, true to his spirit of synthesis, is not prepared to choose between these authorities but adds a third possibility—it is the succession of the causes into the effects, i.e. the manifestation of effects. Through the procession of light, the effects become manifest, because Christ is the light of the world. We are given to understand that the true light is incorporeal and not available to the senses, but the sensible light is an emanation from the divine light. Eriugena is aware of a darkness above the light.<sup>44</sup> In part his interest is governed by his theological understanding of the '*lux inaccessibilis*', the inaccessible light in which God dwells. This highest light, *lux per excellentiam*, is in fact to our eyes a darkness. Therefore above the light, a realm of darkness is postulated, though this darkness is really superessential light which dazzles the mind.

## VI: THE SUN, MOON, STARS, PLANETS

So far we have seen that corporeal bodies, the elements and even light appear to be corporeal—but in reality their essences are invisible and incorporeal. Is this also true of the great solar bodies? If light is incorporeal, are the 'light-filled' bodies (the sun, moon and stars) also incorporeal?

The Neoplatonists believed that the sun is the cause of both colour and sight. The sun both produces the ray of light and enables the eye to receive the ray. Eriugena inherited this Neoplatonic view of the sun, but he also inherited conflicting accounts of the nature of the solar body. Eriugena is

42 Eriugena uses the words *media spatia* here to refer to the whole cosmic region between the ether and the earth which is filled by light.

43 Eriugena could also have cited Gregory of Nyssa's *De hominis opificio* XXI.3 on this account.

44 This notion was already articulated by Origen in the *Περί ἀρχῶν* (*De principiis*) and in his *Commentary on John*. Plotinus (following Alexander of Aphrodisias) holds light to be incorporeal (see for example VII, 5, 5). The Neoplatonic tradition in general regarded light as incorporeal, and Eriugena is following in this tradition.

unsure of the size of the sun and, in fact, cites Basil in Book III, showing that the sun is of an immense and unmeasurable size, that is, 'infinite' (*infinitas*, III.721d31-2).<sup>45</sup>

In regard to the location of the sun in the heavens, at least three times Eriugena puts it in a central position. At III.722b11 he puts the solar orbit (*ambitus solis*) in the centre of the cosmic circles (*in medio totius spatii*), i.e. between the earth and the outer sphere which circumscribes the sensible world. Similarly at III.697d he says the sun is in the middle region of the world (*medium mundi [spatium]*) and equidistant from the earth and the fixed stars. Of what nature is the body of the sun (*corpus solare*)? It is a body between the physical and the celestial or spiritual.

It draws some of its characteristics from the upper world of the fixed stars (which are light and cold, pale and 'spiritual', III.697c36), and some from the lower region (which is hot and ruddy coloured, III.698a18). The sun draws these opposite characteristics into balance and hence achieves its own medium hot colour. The sun draws its kind of corporeality (*corporentia*, III.697d10) from lower natures, but it receives its spirituality from the natures above it. Since it has light then it must possess the element fire. In fact it is made up of the four elements like all the celestial bodies, Eriugena says at III.695d. Nevertheless, he denies that the sun is a wholly physical entity; rather it is a quasi-spiritual being. Already, at III.695a, Eriugena had theorized (cutting across his fourfold division of nature) that there is a threefold division of created being: that which is wholly body (*omnino corpus*), wholly spirit (*omnino spiritus*), and something which is an intermediate (*medium quod nec omnino corpus est nec omnino spiritus*) between the two. This is reminiscent of Proclus' positing of an intermediate realm between the intelligible and the sensible regions. Eriugena has an intelligible world (wherein the four elements live in their immaterial purity in the reasons and primordial causes) and a sensible world; the sun acts as a dividing line between the two. The sun therefore shares in both the corporeal and the incorporeal realms and gives a concordant harmony (*concor armonia*, III.695c26) to the whole universe.

Given Eriugena's view that time is what separates the Creator from the created world, it is not surprising that the sun, which measures time in the world, should be at the perimeter of the created universe, between the sensible and spiritual regions, and measures both. This Eriugena could have found in Maximus. Furthermore, the sun is the cause of what is below it. The causes of all things are gathered together as one in the sun, '*simul et uniformiter*'. The primary causes proceed into the reasons (*rationes*), which themselves proceed into the incorporeal simple elements, and these in turn as fire and light and produce their vehicle, the sun, and from it all other things flow forth (III.696a). Eriugena does not use the sun as the explanation

45 Eriugena argues that the size of heavenly bodies is computed from the size of their shadows. But the sun casts no shadow, therefore it is immeasurable. 'Infinite' here means immeasurable.

of the nature of time. Following both Augustine and Basil, who themselves are following Plotinus, Eriugena held that time was not dependent on the movement of the heavenly bodies as Aristotle had thought. For Eriugena, Scripture confirms that the sun could stand still in the heaven and yet time would continue to pass.<sup>46</sup> We shall return to the nature of time.

Given Eriugena's spiritualization of the cosmos, is it fair to draw a cosmological theory about the actual movements of the planets from Eriugena's text? Scholars are divided over which cosmological system is presented in the text, but perhaps we are reading it too literally in attempting to find a coherent theory, since Eriugena's aim is to show only the manner in which this world derives from invisible causes. Eriugena himself is partly responsible for giving the misleading impression that he is a cosmologist in the traditional sense, since he parades his knowledge of nature, drawing on Pliny and other classical sources, and is forced into a cosmological description which may not fit well with his hierarchical metaphysical description of the cosmos.<sup>47</sup>

The question of whether, in Eriugena's account, the planets revolve around the sun or the earth is complex. Evidence leans towards the view that Eriugena believed some of the planets revolve around the sun (III.698a). At III.697d, Eriugena sees Saturn, since it is cold and pale, to be closer to the stars, and the sun, since it is intermediate, to hold a middle position in the universe. This could be interpreted as saying that the sun is in a fixed position and does not move; Eriugena says it has a 'natural situation' (*naturalis situs*, III.698a), like the balance point on a scales. On the supposed authority of Plato's *Timaeus*, Eriugena suggests that Mars, Jupiter, Venus and Mercury revolve around the sun (*circa solem*, 698a22). Eriugena is here confusing Plato with his faulty recollection of Calcidius. In Book One of the *Annotationes in Marcianum*, Eriugena cites Calcidius as claiming that all planets revolve around the sun, whereas in Plato's *Timaeus* (38c) the planets revolve around the earth.<sup>48</sup> Prudentius of Troyes was obviously correct when he reported

46 I am grateful to Professor James J. McEvoy of the Institut Supérieur de Philosophie, Louvain, for pointing out to me the importance of the sun as a symbol of life, energy, time, truth and justice. Indeed Eriugena at one point speaks of the '*sol iustitiae*'. In the *Homilia*, the forms of all bodies are said to proceed from the sun.

47 P. Duhem, *Le système du monde: histoire des doctrines cosmologiques de Platon à Copernic*, Vol. III (Paris, 1915, reprint 1958) is responsible for first attributing to Eriugena a system of planetary movement close to that of Tycho Brahe, based on the Heraclidean system he found in the *De nuptiis Philologiae et Mercurii* of Martianus Capella. Two studies by R. von Erhardt and E. von Erhardt-Siebold: *The Astronomy of Johannes Scotus Erigena* (Baltimore, 1940), and *Cosmology in the Annotationes in Marcianum: More Light on Eriugena's Astronomy* (Baltimore, 1940), have given a more balanced picture, pointing out that Eriugena does not depart from the information available in Pliny and is describing not a heliocentric physical theory but a metaphysical system where the sun is a quasi-divine principle which separates and mediates between the invisible timeless world of the primary causes and the visible temporal world of the effects.

48 *Annotationes in Marcianum*, ed. C. Lutz (Cambridge, Mass., 1939), p. 22, lines 20-8 [13,23]. In fact Calcidius nowhere says that the planets revolve around the sun.

that Eriugena was drawn to new and daring cosmological speculations by his reading of Martianus. However it is more correct to say that Eriugena misread Martianus to provide support for his own heliocentric theory. There is no doubt that Eriugena believes that some or most of the planets go around the sun. The problem is: what does 'around' (*circa*) mean here? The planets change colour as they traverse different regions in space. This is explained as their becoming pale when they are above the sun and getting ruddier when they traverse the regions below the sun. Duhem points out that Eriugena is departing from tradition in his explanation of this phenomenon. Bede had explained it differently, saying that colour depended on the depth into the waters about the world into which the planet wandered.<sup>49</sup> Eriugena may not be saying that the centre of the orbits of these planets is the sun, but only that, in their orbits, the planets go above and below the sun. In fact at III.715d Eriugena concedes that the 'opinions of the natural philosophers' (*opinio sapientum mundi*) on these matters are many and varied and have never been reconciled. It is possible therefore to hold any opinion which is 'likely and conformable to reason' (*verisimile aut rationi conveniens*).

Concerning the moon, Eriugena is similarly perplexed. The centre of its orbit is the earth (III.717c), but opinions vary as to its size. Some say it is equal in size to the earth (III.720a), but Eriugena following Martianus holds that its amplitude is one sixth that of the earth. Eriugena also produces some calculations to measure the distance from the moon to the earth and from the sun to the moon.

Eriugena rejects the view that there are waters above the sun— incidentally on this point disagreeing both with Basil (III.694c) and with Augustine (III.694d)—and argues that the waters above the firmament referred to in *Genesis* are in fact the 'spiritual reasons' (695d33-696a34) from which all things derive, including the four elements.

We must mention here that Eriugena appears to believe in the existence of the world soul. All living bodies participate in the most general or universal life (*generalissima vita*, III.728d-729a) which is the form of life. This form is called by the philosophers 'the universal soul' (*universalissima anima*, III.729a14-15). Eriugena speaks of this soul as if it were an emanation of the divine life, and in fact identifies it with the Holy Spirit.<sup>50</sup> Eriugena goes further and claims that no creature, whether sensible or intelligible, can survive without direct participation in this Life. It is not just the support of living things, but of all things. It operates like the sun, but is greater than the sun in that it penetrates to the core of each thing (III.729a-b).

Eriugena has a new hierarchical picture: God emanates as the Verbum, who in turn emanates as the Spirit. Both Son and Spirit are in a sense the life of this world and contain the primary causes of all things. The primary

49 P. Duhem, *Système du monde*, Vol. 3.

50 Augustine was disturbed over the problem of the existence of the world soul (*Retractiones* i, 5, 3; i, 11, 4). If it existed then it must be a creature. Eriugena on the other hand identifies it with God.

causes produce the seminal reasons, which in turn produce the elements, which produce visible bodies. The reasons are as superior to the elements as the elements are to the physical bodies (III.696a). The four elements themselves do not partake of time or place but are above those regions, yet the elements are associated with time and place since these are contained within them. The reasons and causes on the other hand are completely above time and place. If man had not sinned then he would know precisely the boundaries of this world, but his present sinful state means that many things are now hidden from him (III.723c).

#### VII: UNFORMED MATTER

All things proceed from *οὐσία* through the causes (which themselves are contained in the Verbum, who is the light of the world) and then through their reasons, a process which at some point involves the sun and sensible light. Gradually there is a spreading outwards of the 'divine ray' until the whole cosmos is generated into its particular species and forms. First in rank among all things to be produced is unformed matter (*materia informis*). All things are created timelessly and there is really no before and after in the order of production, nevertheless there is an order of value which places some things higher than others.<sup>51</sup> At I.499c Alumnus says that after God, unformed matter is the most important thing to inquire into, since many important questions depend on it. Eriugena wonders where it comes from, what it is, whether it is definable, and whether it is accessible to sense or to intellect. The authority of the Fathers establishes that prime matter, like God, is indefinable (I.500a). It is incorporeal. Eriugena quotes Augustine as having given what comes closest to a definition: 'matter is the mutability of mutable things which is receptive of all forms.'<sup>52</sup> He supports this with definitions drawn from Plato's *Timaeus* and Dionysius' *Divine Names*.<sup>53</sup> At III.701c Eriugena repeats his definition of unformed matter but introduces new elements into the discussion. Here he sees matter as pure flux (*instabilis inundatio*, 701c22) and explains change as coming about through the mingling of this flux with the unstable qualitative forms which we have already discussed. In fact, unformed matter is identified with the waters beneath the heaven of the simple elements in the cosmological hierarchy (III.702a). For Eriugena matter is both the bottom rung of the cosmic hierarchy and also expresses the formless nature of the spiritual world. This is similar to Proclus' view that matter is the last emanation from the One and yet because it is single and undifferentiated is also next to the One.

51 Eriugena struggles with this in his *Hexameron*. On the one hand, he wants to argue that human nature is highest and so was created last, on the other hand he argues that those things which come first in order were created first. He solves this dilemma by saying that there are two ways of regarding the same thing—as it is in the causes and it is produced in the effects (III.704b).

52 I.500c: Mutabilitas rerum mutabilium omnium capax omnium formarum informis materia est. See also III.701c-d.

53 *Timaeus* 48e-51b. Dionysius, *Divine Names*, IV. 729a.

Given that all things proceed from *οὐσία* which contains the most general essence and the most general quality and the most general life, from which derive all other things, including the four elements, and given that all physical reality is nothing more than a combination of immaterial qualities and equally immaterial forms, what need is there in Eriugena's system for prime matter (*materia informis*)? As a Christian he believes the world is formed out of nothing (*ex nihilo*), and is concerned to reject as false the claim that the things of this world are made out of a pre-existent matter. Especially in Book III Eriugena denies that there can be such a thing as pre-existing matter, and argues that the nothing from which all things are made is God. For Eriugena creation *ex nihilo* really means creation *ex Deo*. To generate from nothing means to generate from God. Eriugena understands non-being to be of two distinct kinds: there is non-being through transcendence (*nihil per excellentiam*), which God enjoys and from which nothingness he generates both his own nature and also all existing things; and there is pure nothingness of privation (*nihil per privationem*). In the first sense, unformed matter means God; in the second sense unformed matter can only stand for nothing at all—by which Eriugena means the opposite of *οὐσία* (III.634c-d).

Despite the equation of non-being with God, Eriugena retains the concept of unformed matter in his system, and gives it the lowest place in created reality. At III.636c it is stated that God, who made the world from unformed matter, made unformed matter from nothing at all (*de omnino nihilo*). Unformed matter is almost nothing (*prope nihil*). It does not exist on its own, and is merely a capacity to receive qualities. Prime matter is certainly not place and Eriugena rejects the view that God prepared a place into which he would put creation (643c)—or into which he would diffuse himself. God needs no place. Prime matter then is not place or extension. Neither is it the ultimate subject as in the Aristotelian system. The ultimate subject for Eriugena is always divine *οὐσία*. If prime matter has any function at all in Eriugena's system—and indeed it seems something of an embarrassment to him, something that must be explained away—it simply serves as another name for the mysterious hidden recesses of the primary causes from which all creation emerges. Since corporeality is created by the categories and by the invisible primary causes (sometimes identified with the categories), what need is there for a pure potentiality?—except that Eriugena believes it is what is receptive of qualitative form, and qualitative form turns out to be a conglomeration of accidents that accrue around the substantial form which remains in the primary causes. Receptivity or potentiality is not something for which Eriugena has a more detailed account. Receptivity, possibility and potentiality are all somehow emanations of the Word which is power (*δύναμις*), and which contains all things in itself in their potencies.

According to the five modes in which things may be said to be or not to be, prime matter is on the side of the things that are not. It escapes being because of the excellence of its nature (I.443a23) and hence is classified

beside God, as it were. Prime matter is essentially incorporeal and despite appearing as corporeal matter when mingled with qualitative form, in itself it remains eternal and incorporeal and is really a name for the hidden darkness of God or his primary causes, which exist in the Word, which is one with God the Father. Matter then is incorporeal.

#### VIII: THE CATEGORIES OF PLACE AND TIME

Finally let us look briefly at two of the ten categories, those which—after substance—are most important and which are said to differentiate individuals: the categories of place and time. Eriugena's theories on place and time are unique and radical. Let us note here that Eriugena uses the word 'space' (*spatium*) when speaking of the cosmos, but he uses the word 'place' (*locus*) when speaking of the category. It is not clear how he understood the two to be related.

In Book One (468c-d) Eriugena calls place and time created things, and says they are that within which the rest of the world is contained (i.e. all things excluding *οὐσία* which is timeless and non-spatial). They are 'that without which nothing can exist' (*ὄν ἄνευ τὸ πᾶν*, I.468c). Here Eriugena says that everything within time and place moves; but time itself also moves and place itself is in a place (468d). For place to be in a place means that place is defined by God, who is the place of all places (*locus locorum*, I.468d3, III.643).<sup>54</sup> Eriugena goes on to argue, as we shall see, that place is definition and definition is in the mind; therefore place is in the mind. Before discussing this thesis, let us look at the traditional account of the category of place.

Aristotle says almost nothing about place (*τόπος*) in the *Categories*, but devotes considerable attention to it in *Physics*, Book 4, where he discusses the nature of the infinite, place and the void. It is here that Aristotle criticizes Plato's confusing account of space (*Χώρα*) in the *Timaeus* and gives his own definition of place as 'the primary motionless boundary of that which contains' (Book 4, ch. 4, 212a20). For Aristotle place is the inner containing surface by which one body enfolds another body. A body is in a place if it is contained by another body, if it is not contained by another body then it is not in a place. The void (*τὸ κενόν*) is place deprived of a body (208b26-27), it is an interval (*διάστημα*, 213a29) in which there is no sensible body. Aristotle believes a void is impossible. But he also believes that the universe as a whole (everything contained within the outer sphere) is not in any place, since it is not contained by any other body. The outer sphere itself, relative to the others, may be referred to as 'up', while the centre (towards which heavy bodies tend) is down. Eriugena also denies that there

54 In Book III, in his discussion of the creation of dry land on the third day, Eriugena argues that this means all things are made in their eternal reasons and also marked out for their particular time and places because God is the time of times and the place of all things (III.699c12-13: *locus omnium et tempus temporum*).



is an absolute up or down in the universe. Strictly speaking, when one considers the universe as a whole there is no 'up' or 'down' (*sursum et deorsum*, I.467a), but up and down emerge only from a consideration of the parts. This is standard Aristotelian thinking. Furthermore, Aristotle denies that place is equivalent to the form of the body, because things in motion are going towards their proper place and are not in their place, whereas they do have their form. Similarly, for Aristotle, place is not the matter of a thing.

Later Neoplatonists developed very complex theories of place and time.<sup>55</sup> Plotinus disagreed with Aristotle that place and time were necessary as separate categories. Indeed he argued that place and time were measurements, then as such they would be contained in the category of quantity.<sup>56</sup> Afterwards, Porphyry, in his *Commentary on the Categories of Aristotle*, agrees that place and time can only be present if quantity is present but he does not deny that they are proper categories in their own right. Eriugena several times refers to time and place as quantitative measures, and follows Augustine in holding that what measures is prior to the measured, hence place and time are prior to the things in space and time, a view which would not necessarily have found sympathy with Aristotle.<sup>57</sup>

Eriugena also denies that place is to be identified with the matter of a thing (I.488a), since earth is more properly the matter of a thing but it is not its place. He thus rejects the view that earth is the place of things. Similarly, air is not the place of certain bodies (I.488d), and the same is true of the other elements. If the elements were the places of bodies, when things decay they would return to those elements; there they would simply be air or light and hence they would have no definite place. We must either conclude that things have no definite place, or else that the elements are not the correct places of things. For Eriugena no right thinking person could agree with the suggestion that things might have no place (I.489a). He rejects the view that everything which surrounds a body can be taken to be its place. He gives the example of colour—if colour surrounds a coloured body, is colour the place of that body? That is an absurdity: a quality cannot be a place—presumably because they belong to different categories (I.489a-b).<sup>58</sup> What then is place?

Eriugena gives a definition: 'place is nothing else but the boundary by which each thing is enclosed within fixed terms.'<sup>59</sup> Eriugena states that there are many kinds of places and even that there are incorporeal places which

55 See Richard Sorabji, *Time, Creation and Continuum* (London, 1983).

56 Plotinus, III 7, 7 disputes the view that time is a measure of motion. For him time comes from the unquiet soul's rebellion which produces the sensible cosmos.

57 The full metaphysical analysis of place which Eriugena gives is an amalgam of commentaries on the *Categories*, including the pseudo-Augustinian *Categoriae decem*, and *De nuptiis Philologiae et Mercurii* of Martianus Capella, as well as the *Hexaemeron* of Basil and *De officio mundi* of St. Gregory of Nyssa. Eriugena also refers to St. Augustine's account of the measurement of place and time in *De musica*.

58 At this point Eriugena is led into a digression to argue that *οὐσία* is not a body.

59 I.474b: Nil aliud est locus nisi ambitus quo unumquodque certis terminis concluditur. Sheldon-Williams, Vol. I, p. 110.

bound incorporeal things. The boundary, limit or form of all rational and intellectual spirits is the Word of God, the boundary of irrational spirit is sensible things, the boundary of bodies is the four elements. Place is boundary. Nutritor goes further: 'place is constituted in the definitions of things that can be defined' (I.474b). The definitions of all things are contained in the knowledge (*scientia*) of the liberal arts, therefore the liberal arts are the places of things which can be defined. All things find their place in the arts. Eriugena concludes that place is in the mind, since the arts are in the mind. His argument is as follows:

What contains is other than what is contained.<sup>60</sup>

Bodies are contained in their places, therefore place is not a body.<sup>61</sup>

Place is definition.<sup>62</sup>

Definiton exists in art and every art is in the mind.<sup>63</sup>

Place exists only in the mind.<sup>64</sup>

Eriugena is running together the logical notion of place as definition, which involves placing a thing in the sense of locating it in the fixed scheme of science (from which he draws the conclusion that definition is place), and the more problematic statement that, since place is definition, therefore place in a real sense resides in the mind, since all knowledge and science has no other being but in the mind. The ambiguity of the term 'place' (*locus*, *τόπος*), which can have a grammatical-logical meaning as well as a physical meaning, is responsible for this confusion.

Eriugena's purpose is clear: he is arguing in respect of place what Augustine and Plotinus hold in respect of time, namely, that it exists in the mind, and through it the mind measures things. Thus he now rejects as foolish those who say that earth is the place of animals, water is the place of fish, air is the place of birds and ether is the place of the planets. The true place of everything is its essential definition, which is changeless, and which as *λόγος* or rationale is preserved in the mind. Whose mind? Clearly Eriugena means the human mind, since he has just been talking about the liberal arts as containing the definitions of all things. The human mind has the power to define, hence all things which it defines are set in their proper places. Of course, the human mind, since it transcends definition and place, cannot define itself, and hence it is located in no place. We are half-way towards the Kantian theory that space and times are the forms of outer and inner intuition which organize all appearances. Of course, since the Word is the true knowledge (*cognitio*) of all things, then the true definitions are

60 I.478b26-7: Aliud est enim quod continet et aliud quod continetur.

61 I.478 c27-29: Corpora continentur locis suis; aliud igitur est corpus et aliud locus. Body is in the category of quantity, definition in that of place.

62 I.475b17: Locus omnis quia diffinitio est.

63 I. 475b15-17: Si enim diffinitio omnis in disciplina est et omnis disciplina in animo, necessario locus omnis, quia diffinitio est, non alibi nisi in animo erit.

64 I.475b17: Non erit nisi in animo.

contained in the Word, but there is no suggestion that the restored human self is any less omniscient than the Word; indeed Eriugena explicitly says that unfallen man is omniscient. The unfallen human mind (Christ, pre-fall humans and humans after the return of all things) is the place of all things. But is Eriugena ruling out that the fallen mind also constitutes the places of things? There is no evidence to suggest that Eriugena denied that the fallen mind functions in the same way, in fact his discussion of the liberal arts makes it all the more likely that he is referring explicitly to the fallen mind. We may conclude that the fallen mind gives us the individual places for all things. Whether these are the same places as those given by the unfallen mind is another question. While Eriugena does not discuss this point, his linking of place with time should be sufficient to suggest a possible answer.

For I am here following the Greeks, who do not hesitate to assert that everything which moves through space must also move in time, while everything that lacks motion through space must also be without motion in time. For these two, space and time, must either both be present together, or both equally absent, for it is impossible to separate the one from the other.<sup>65</sup>

The fallen mind generates the places and times of this material corporeal world. The unfallen mind generates the eternal timeless ordering of things in their true invisible places.

One final point we should note—God, the angels and human minds all escape being defined and hence none of these is in a place. Human nature itself is without place, and indeed has a kind of omnipresence, similar to that of God.

#### IX: TIME

Now let us look at Eriugena's concept of time. In some ways the derivation of time is one of the most difficult features of Neoplatonism. As we have seen, Eriugena, following Augustine (and indeed Basil and Plotinus), sharply distinguishes the supra-temporal and temporal worlds. In Book III Eriugena distinguishes between the timeless region beyond the firmament and the region of time and place within it. In this he is following the Greek Christian writers in particular. Of course the *Timaeus* distinguishes between true being and becoming and sees time as a moving image of eternity. Eriugena's thought is within that general framework. As a Christian, he has even more reason to separate created from uncreated by the recognition that created things have a beginning in time, and indeed says that all created things are subject to time. Yet Eriugena will in fact argue finally that creature-

65 V.1001a; Sheldon-Williams' translation, in O'Meara, ed., pp. 688-9. Eriugena is distancing himself from Augustine who thought that spiritual substances did not move (V.1000d).

hood can be understood in two ways—as eternal in God, or as temporal in place and time (III.677a–b), and that creatures are eternally made (*aeternaliter facta*). Although time is a feature of the creation of the cosmos, it is not the defining feature: created for Eriugena simply means manifested or caused, and even eternal things (i.e. the causes themselves) may be created.<sup>66</sup> Time and place are actually modes in which the mind categorizes and orders things. There are two general modes of viewing (*duplex speculatio*, III.704b)—one way sees things temporally and spatially in the effects, the other sees things timelessly in the causes.

That is not to say that time is unreal, rather there are two kinds of time. Eriugena holds that God proceeds into time in the creation of all things (III.678c–d), so that creation is a self-manifestation of the eternal in time. This means that God really did intend to generate the temporal domain. Yet Eriugena speaks as if there is a ‘true’ or special time in which creatures are truly themselves. Another corrupting, ‘deviant’, time is introduced by the fall of human nature. Strictly speaking, there are not two times, but the one time seen in two different ways. In one view, things unfold naturally from their seminal reasons into their individual natures. In the other way, time introduces corruption and death. These two times will be restored into one by the return of all things. This return Eriugena always says is not itself a temporal movement but an eternal dialectical moment which is interwoven with, and indistinguishable from, the divine emanation outwards (*πρόδος*). Time is a created thing, but it must have an ‘eternal’ counterpart—the ‘form of time’ which is fully itself. As emerges in Book V, this eternal counterpart to time is the endless spiritual movement of souls in the return. Through the fall new characteristics were added to this form of time so that time appears to be both limiting and corrupt. What distinguishes Eriugena from other Neoplatonic accounts of time is that he gives to human nature the possibility of seeing both temporally in the fallen mode, and also seeing things *sub specie aeternitatis*. Humans have a *duplex intentio* or *duplex consideratio* that allows them to see the created world in both its apparent (temporal) and real (eternally temporal) ways.

What are Eriugena’s sources for this understanding of time? His view comes very close to Plotinus’ account, which Eriugena could not have known directly. Although one would expect a strong influence from Augustine, especially *Confessions* Book XI, Eriugena does not discuss Augustine’s thesis that time is the *distentio animi*.<sup>67</sup> Yet it is clear from what we have said that

66 Book III.677a states that creaturehood may be understood in two ways: ‘the one relating it to its eternity in the divine knowledge . . . the other to its temporal establishment which was, as it were, subsequent in itself’.

67 Augustine, *Confessions*, Book XI. 26. For Plotinus time is a distention of life (III 7, 11). Callaghan in his article, ‘A New Source for St. Augustine’s Theory of Time’, *Harvard Studies in Classical Philology* 63 (1958), 437–54, says Augustine could have found this view either in Basil’s *Adversus Eunomium* or in Gregory of Nyssa’s *Contra Eunomium* (although this is problematic). Is Eriugena really influenced by Basil? Sorabji and others have argued

Eriugena, in agreement with Augustine, sees time, like place, to be part of the defining power of the mind.

Did Boethius influence Eriugena on this point? This is difficult to judge. Eriugena uses the notions of eternity (*aeternitas*) and sempiternity (*sempiternitas*) without particularly distinguishing them, and even quotes St. Paul (Rom. 1:20) as saying that eternity is everlasting (III.690a).<sup>68</sup> It is more likely that Eriugena took his view of time from Dionysius and Maximus. In Book III Eriugena quotes from Dionysius to say that God is the eternity of things and the time of things, and uses the word *saeculum* to translate Dionysius' word *αἰών* (III.682a-b). Dionysius discusses time (*χρόνος*) and eternity (*αἰών*) in *De divinis nominibus* X. For him God may be called 'time' or 'eternity' but he also precedes time and eternity (937b). Dionysius says that not everything called eternal in the Scriptures is truly eternal—it may just mean very old; time refers to things which are in the process of change. Scripture speaks of a 'temporal eternity' and an 'eternal time' (940a). Eriugena also adopts this paradoxical manner of speaking. Time, for Dionysius, is related to becoming (*γένεσις*); eternity, with being (*τὰ ὄντα*). Dionysius clearly states that eternal things are not to be thought of as co-eternal with God who is beyond eternity. These things are more rightly thought of as between time and eternity. Dionysius is not more specific—but he does not appear to be articulating the doctrine of the inseparability of time and space. It is clear that Eriugena's thinking on time here owes a great deal to Dionysius.

The Greek Christian view of time (in Dionysius and Maximus) derives from Proclus and Plotinus who saw time as an aspect of the general soul (*Ψυχή*). As J. F. Callaghan puts it:

Plotinus is thinking of the universal principle of soul that creates the world and everything in it, and time is simply the productive life of this creature's soul, in which life, the universe and all its motions have their existence; in this sense the universe is said to be in time. Time, for Plotinus, therefore, is the power that produces motion, not the measure of it. Time may be said to exist in the individual souls of men, but here too it is conceived not in a psychological but in a metaphysical sense; it is that which produces the motions of men, not that which measures them.<sup>69</sup>

Time is a *διάστασις ζωῆς*, a distention of living soul (III 7,11). Added to this Neoplatonic view, in Maximus, there is a quasi-Aristotelian view of place as

that Basil produces a radical view of time in antiquity but there is no evidence that Eriugena was especially influenced by it. Eriugena appears to be following Maximus.

68 The concept of sempiternity only appears in the *Periphyseon* when he is quoting that passage of Scripture, except for one passage at III.654a where Eriugena speaks of numbers being eternal (*aeterna*) and the reasons being sempiternal, though he seems to equate these two terms.

69 J. F. Callaghan, *ibid.*, pp. 436-7.

the limit of a body. When the two traditions merge in Eriugena, we have the view of place and time as containers of the physical world, which since they are not first principles, must themselves be contained in something else, namely, the mind.

What is Eriugena's conclusion regarding the nature of time? Is it real or unreal? Clearly time has some reality, because Eriugena (following Dionysius) sees God as descending into time and he is at pains to defend the reality of the Incarnation. Following Dionysius, he says that God can be called 'time', but he also believes God is extended in time in a certain way. Here Eriugena is not just referring to the *inhumanatio* of God in the incarnation. He is referring to the *πρόοδος* or *exitus* of God from himself—the manner in which God extends himself, timelessly into time. God manifests himself in all things as those very things themselves, as Eriugena states forcefully in Book III.678c-d:

It follows that we ought not to understand God and the creature as two things distinct from one another, but as one and the same. For both the creature, by subsisting, is in God; and God, by manifesting Himself, in a marvellous and ineffable manner creates Himself in the creature, the invisible making itself visible . . . the infinite finite and the uncircumscribed circumscribed and the supratemporal temporal.<sup>70</sup>

God is both in time and beyond time. In this sense time is a mode of the divine being, a distention of the divine mind. The divine mind as it were 'spreads' itself out in time. There is, however, a second emanation of time, due to the fall. Here we need to see that time is also a distention of the human mind—especially the fallen mind. Time now emerges as a force of death and corruption rather than being simply a new modality of the infinite nature of God. Here time is the species under which humans view the world—they see it as temporal and thus as finite and enclosed. Is time in this sense then a 'form of intuition' in the Kantian manner? Allowing for the different philosophical context, I would argue that Eriugena's concept of time can be considered as Kantian, in that time is really a matter of the perceiver rather than the perceived. Eriugena also stresses, however, that we can either see the world under its aspect of time or under its aspect of eternity. Furthermore, human beings although they see the world through the framework of time are themselves in their essence beyond time, and in that sense they cannot define themselves and are unlimited. It is the business of philosophy to lead them from their limited, temporal, to their unlimited, timeless selves. Humans have a twofold power to see things temporally or eternally. It is this twofold power that accounts for human transcendence, and gives humans the Janus-faced ability to look towards their cause and creator and also look to the cosmos and its created being. Through the human mind (including the perfect human and divine mind of the Word) all things come to be and all things are contained and defined.

70 Sheldon-Williams' translation in O'Meara, ed., p. 305.

## X: CONCLUSION

What I have tried to do in this article is show the complexity of Eriugena's cosmological model and to provide some detail on his views about categorial reality—substance, quality, time and space, in so far as these categories are relevant to his theory of the generation of the physical world. It will be noticed that I have not dealt with the fourfold division of nature; this is Eriugena's portmanteau scheme for all of being and non-being, and it was introduced by him to keep his complex cosmology coherent. Eriugena was struggling with the great handicap of a faulty manuscript tradition (with regard to Aristotle and Plato), and was trapped into a world-view from which he endeavoured to escape but which he had to accommodate. It is a mark of the sheer genius of his intellect that he was able to keep together all of the divergent aspects of the Platonic, Aristotelian and Christian strands of the tradition. But no one can step completely outside of his time, and the attempted revolution in thought which Eriugena proposed was unintelligible to his day, as is evident from the misinterpretation of his cosmological theories by his followers.