

N. Polloni, *The Twelfth-Century Renewal of Latin Metaphysics. Gundissalinus's Ontology of Matter and Form*, Institute of Medieval and Early Modern Studies-Pontifical Institute of Mediaeval Studies, Durham-Toronto 2020, XIII + 317 pp.

The subject of this book is the metaphysical reflection by Dominicus Gundissalinus, philosopher and translator active in Toledo during the second half of the twelfth century. Nicola Polloni contributes, through his historical and philosophical analysis, to the recent re-discovery of Gundissalinus by the scholars, showing his “profound originality and pioneering contribution to the course of medieval philosophy” (p. VIII). Polloni does not analyse Gundissalinus’s philosophy by themes. He opts for examining Gundissalinus’s appropriation or rejection of some influential doctrines by different authors, especially in connection with his ontology. The organisation of the study reflects this approach (p. XI). Indeed, the book is articulated into four chapters: *Pioneering Transformations: Gundissalinus's Philosophical Reflection* (Ch. I, pp. 20-76); *Reshaping Frameworks: Gundissalinus and the Latin Tradition* (Ch. II, pp. 77-143); *Rooting Reality: Gundissalinus and Ibn Gabirol* (Ch. III, pp. 144-209); *Appraising Existence: Gundissalinus, Avicenna, and Ibn Daud* (Ch. IV, pp. 210-62). The volume is introduced by the author’s Preface (pp. VIII-IX) and a historical overview (*Seeding Transitions: A Historical Introduction*, pp. 1-19); it ends with a conclusive paragraph, *Unity into Duality* (pp. 263-271), the *Bibliography* (pp. 271-312), and a general Index of names, keywords, and other works (pp. 313-18).

In the Introduction, Polloni reconstructs, through the available data, the historical context in which Gundissalinus lived his intellectual experience. First, he describes what was supposed to be the Latin philosophical library at the beginning of the twelfth century. It follows an exposition on the historical reasons which made possible translations into Latin from the last years of the tenth century¹ and the description of the rise of the translation movement in the twelfth century. Polloni distinguishes two linguistic groups of translations: Greek-into-Latin (pp. 2-3) and Arabic-into-Latin, focusing the attention on the latter (pp. 3-4). The Author underlines two main features of the first phase of the Arabic-into-Latin translation movement (approximately during the first half of the 12th century): firstly, translators were active in different cities throughout the Iberian Peninsula; secondly, their main interest was on what we (but not them) would call “scientific” texts, in particular on astronomy (p. 3). In the second half of the century started a new phase of the translation movement, marked by a growing philosophical interest and the concentration of the translation activity in Toledo (p. 4). Toledo’s centrality in this second phase of the translation movement was brought about by a series of historical circumstances: the “re-conquered Toledo” (since 1085) had become a refuge for many Christian and Jews who fled from al-Andalus because of Almohad’s radical policies (pp. 4-7); the transfer of Banu Hud’s Library from Saragozza to Toledo,² rich in scientific textual material, around 1140 (p. 7); the economic wealth of the Toledan cathedral

¹ Among which (a) the constant cultural and trade contacts with the Arabic world, which led to the perception of cultural backwardness of the Latin philosophy and science (p. 1); (b) the re-organisation of the clerical education in an institutional context, with the establishment of cathedral schools in almost every dioceses (p. 2).

² As pointed by Polloni, Charles Burnett shed light on this factor. Cfr. Ch. Burnett, “The Coherence of the Arabic-Latin Translation Programme in Toledo in the Twelfth Century”, *Science in Context* 14 (2001), pp. 249-88.

chapter³ (p. 7). Two members of the cathedral chapter were central figures in the translation activity at that time: Gerard of Cremona (pp. 7-9) and Dominicus Gundissalinus. Polloni introduces the reader to Gundissalinus's intellectual experience discussing the divergences in documents and manuscripts about his name (pp. 9-10); then, he provides relevant biographical references, which recur in the following chapters, in order to grasp the reasons for particular developments in his philosophical reflection (pp. 10-19).

In the first chapter the author examines the treatises attributed to Gundissalinus (pp. 20-76). Traditionally, six are the original treatises ascribed to him: *On Unity and the One* (*De Unitate et uno*), *On the Immortality of the Soul* (*De Immortalitate animae*), *On the Sciences* (*De Scientiis*), *On the Soul* (*De Anima*), *On the Division of Philosophy* (*De Divisione philosophiae*), and *On the Procession of the World* (*De processione mundi*). However, the authorship of two among these treatises, *On the Immortality of the Soul* (*De Immortalitate animae*) and *On the Sciences* (*De Scientiis*), is doubtful (pp. 21-22). Polloni's analysis starts with these problems of attribution (Ch. I §1, pp. 20-29).

The treatise *On the Immortality of the Soul* (*De Immortalitate animae*) aims to demonstrate the error of who affirms that the soul is mortal, through philosophical argumentation. (p. 21). According to Polloni, the doctrinal point which seriously compromises the possibility of attributing the text to Gundissalinus concerns the ontological status of the soul. Indeed, the proofs that support its immortality are based on the thesis of the soul's formal existence: the soul is incorruptible and immortal because it is a separated form, beyond matter. This claim contradicts one of the founding doctrines in Gundissalinus's reflection: universal hylomorphism. Gundissalinus states that every being, be it spiritual or corporeal, is a compound of matter and form. Polloni reads in *De Immortalitate* an attempt to reject the universal hylomorphism, so he concludes that "it seems rather unlikely that Gundissalinus is the author of this treatise" (p. 22). After displaying the theoretical inconsistency between *De Immortalitate* and Gundissalinus's main ontological position, Polloni addresses the complex issue of the history of the text, by confronting the critical literature on the theme (pp. 22-4). Ultimately, the author suspends his judgment about *De Immortalitate*'s authorship until new additional evidence (p. 24).

Polloni takes into account another work, ascribed to Gundissalinus's circle by Charles Burnett and Anne-Marie Vlasschaert, but that came to us in the anonymous form: *Liber mahameleth* (*Book of Transactions*)⁴ (pp. 24-7). The problem emerging with the attribution of this treatise to Gundissalinus is linked to its topic. Indeed, it is a mathematical and commercial treatise, but the other works attributed to him with some confidence are philosophical treatises (p. 24). However, there are some clues which could indicate Gundissalinus as *Liber mahameleth*'s author: a) the style, it may be considered a Latin version, abridged and reworked, of an Arabic text, and these are features of another treatise related to Gundissalinus (the *De Scientiis*) (p. 25); b) *Liber mahameleth*'s opening lines seem to reflect an epistemological approach to mathematical sciences (p. 25); c) there is some geographical and chronological evidence that could ascribe the treatise to Gundissalinus or someone close to him (p. 25);

³ I would add on this point a reference to the study by P. Harris, "Prestige to Power: Toledo's Cathedral Chapter and Assimilated Identity", in Y. Beale-Rivay – J. Busic (eds.), *A Companion to Medieval Toledo. Reconsidering the Canons*, Brill, Leiden-Boston 2018, pp. 33-58.

⁴ *Le Liber mahameleth*. Édition critique et commentaires, ed. A.-M. Vlasschaert, Franz Steiner, Stuttgart 2010.

d) Gundissalinus quotes excerpts from this book, so he was at least aware of it (pp. 25-6). References to the circulation of some coins suggest that if Gundissalinus was the author of this treatise, he would have written it in Segovia, before his transfer to Toledo (p. 26).

Polloni then analyses the third problem of attribution, which concerns the treatise *De Scientiis* (pp. 27-9). *De Scientiis*'s composition meets the need of a new articulation of sciences and a new epistemological view (as Gundissalinus's original treatise *De Divisione philosophiae*), due to the introduction in the Latin world of "new Arabic sciences" (p. 27). This treatise was not considered an authentic one, because it could be read as a "creative translation" of its main and almost unique source, al-Fārābī's *Kitāb Ihsa al-'Ulum*. According to Polloni, even if it was a "scarcely original work", it is among the first philosophical contributions by Gundissalinus - beyond the exclusive translation work, but not yet a real original production (p. 29).

After dealing with these problematic treatises, Polloni starts the exposition of those four works undeniably by Gundissalinus (dedicating to each one a paragraph): *De Unitate et uno* (Ch. I §2 Unities, pp. 30-7); *De Anima* (chapter I §3 Souls, pp. 37-46); *De Divisione philosophiae* (chapter I §4 Sciences, pp. 47-54); *De processione mundi* (Ch. I §5 Cosmogogenesis, pp. 54-76). An analysis of the sources and some problematic doctrinal points allows considering *De Unitate et uno* as the first treatise written by Gundissalinus (p. 29). This treatise concerns the metaphysical concept of oneness and its main source is Ibn Gabirol's *Fons vitae* (p. 30). The theoretical device which supports the argumentation throughout the treatise is that "whatever exists [...] exists because it is one". Everything that exists, exists because it participates in unity, because it is one (p. 30). Creation is thus an act of unification: two things, form and matter, are "made one". This duality characterises the existence of created beings. Only the nature of the divine is not subject to this duality: God is absolutely simple and his unity is not the result of composition between two different things. The universal hylomorphism of all created beings distinguishes them from God (p. 31). But there are different levels of unity, thus different levels of perfection among beings (pp. 33-5). Polloni underlines that some doctrines exposed in *De Unitate* will be further developed by Gundissalinus (at times in a completely different perspective), while others will be abandoned (p. 37).

Polloni explores Gundissalinus's psychology following four main problems addressed in *De Anima*: existence and definition of the soul (pp. 37-8); its ontological status (pp. 38-40); its origin and immortality (pp. 40-3); powers of the soul (pp. 43-7). The peculiar trait of Gundissalinus's speculation on the soul detected by Polloni is the attempt to synthesize Avicenna's psychology and Ibn Gabirol's ontology (pp. 38-9). For Gundissalinus the soul is a compound of matter and form. But the matter of the soul isn't the body, but a spiritual one. Nevertheless, the soul works as a form for the body (p. 38). Polloni concludes the paragraph by providing a justification of the ex abrupto shift in the final passages of the work, where philosophical arguments leave room for biblical quotes: probably Gundissalinus was worried about an eventual reaction to his large use of Arabic sources at his time (a lucky choice for the Latin tradition) (pp. 46-47).

Next, the exam focuses on another crucial work for the future of Latin Medieval philosophy: *De Divisione philosophiae* (pp. 47-54). The treatise provides a new epistemological framework in which Gundissalinus organises both the new sciences, just introduced in the Latin world thanks to recent translation activities, and the Latin traditional sciences (pp. 47-8). The theoretical device through which this aim is achieved

is taken from Avicenna's *Kitāb al-Burhān* (p. 50). Gundissalinus borrows the distinction between partes and species (the subordinated sciences of a superior science) (p. 51). The peak of this hierarchical system of knowledge is metaphysics (for the first time in the Latin world the term is used to refer to a discipline and not to Aristotle's work). Metaphysics deals with being and oneness, common elements to the objects of every science, but not analysed by them. Therefore, Metaphysics is first and not subordinated to any other science (p. 51). Polloni dwells on a fascinating point. Gundissalinus describes in detail the metaphysical research procedure, quoting al-Fārābī's *Kitāb Ihsa al-'Ulum*: firstly, there is an ascendant phase, through the analysis of the created beings up to the First Cause; then there is a descendent process, from God back to created beings. Gundissalinus applies this *ordo inquirendi* in his own metaphysical treatise: *De processione mundi* (p. 52), which Polloni presents in the following paragraph (pp. 54-76).

The treatise *De processione mundi* has as its object a discussion about the origin of the universe, based essentially on two main doctrines: universal hylomorphism and modal ontology. Its sources are recent translated Arabic works, in particular Avicenna's texts (pp. 54-5). Polloni's analysis follows the articulation of Gundissalinus's work, taking into consideration: the opening religious justification (pp. 55-6); Gundissalinus's exposition of the method used (pp. 56-9); a posteriori arguments on God's existence (pp. 59-60); God's natural treatment (in which Gundissalinus largely quotes Avicenna's text on Necessary Existent, while there are scarce biblical references and no mention to Plato's Demiurge, a trending topic in the twelfth century) (pp. 60-4); a "second" analysis on created beings, founded upon their twofold ontological nature (pp. 64-70); a new cosmogonic description (pp. 70-5); the conclusive numerological digression (pp. 75-6). According to Polloni, *De processione mundi* marks a shift in the twelfth century. While the questions answered by the author emerge in Latin tradition, solutions come from elsewhere (p. 76).

The influence of the Latin philosophical tradition on Gundissalinus's reflection is great and evidently resulted from the historical context in which he was educated (pp. 77). In the second chapter, Reshaping Frameworks: Gundissalinus and the Latin tradition, Polloni inquires into some influential Latin sources of Gundissalinus's ontology (pp. 77-143): Boethius's theory of unity (Ch. II §1, *Aetas Boethiana*, pp. 78-88); Calcidius's theory of the three principles and his philosophical method (Ch. II §2, Decoding Timaeus, pp. 88-100); Thierry of Chartres's and William of Conches's theories of the Holy Trinity (Ch. II §3, *God and Numbers*, pp. 100-10); the controversy over primordial chaos (Ch. II §4, *Disordered Universes*, pp. 110-28); Hermann of Carinthia's cosmological account (Ch. II §5, *Furnaces of Being*, pp. 128-43). Polloni underlines that a similar sensitivity in Boethius and Gundissalinus is contrasted with different theoretical choices (p. 83). Both emphasise the radical difference between God's unity and the constitutive duality of created beings (p. 83). But this "created" duality involves different components: ipsum esse and id quod est in Boethius and form and matter (with their modal aspects) in Gundissalinus (p. 84-85). Instead, according to Polloni, the closest point of convergence between Boethius and Gundissalinus is the second term of this ontological dynamic: God is one and causes the existence of a manifold reality (p. 85). Boethius seems to be the main source of Gundissalinus's theory of metaphysical oneness. The Boethian axiom "whatever exists, therefore, exists because it is one" (*quicquid est, ideo est, quia unum est*) is the theoretical principle underpinning Gundissalinus's argumentation in *De Unitate et uno* and plays an important role in *De processione mundi* (pp. 85-6). In conclusion, Polloni states that Gundissalinus's speculation is rooted in Boethius's philosophy, because he had almost

certainly studied his texts during his educational training; nevertheless, Gundissalinus has a new perspective, crucially determined by “Arabic” sources, to which as a translator he had privileged access (p. 87).

In the paragraph about Calcidius’s influence on Gundissalinus’s reflection (pp. 88-100), Polloni demonstrates that his presence in Gundissalinus’s works is mostly mediated by intermediate sources (p. 95). Gundissalinus was familiar with Plato’s *Timaeus* and Calcidius’s Commentary on *Timaeus*. The cosmological paradigm in the twelfth century was founded on these works, so he certainly met them during his educational training, wherever he had studied (p. 92). However, some pivotal doctrinal points elaborated by Gundissalinus are very far from Calcidius: there is not in Gundissalinus’s prospective an eidetic world as exemplar cause of the sensible world; the doctrine of three principles (matter, ideas, God) returns in Gundissalinus within a quite different framework; the first cause has not a Demirurgical role and there is not any primordial chaos (p. 92). In matter’s description, there is some assonance with Calcidius’s speculation, for instance, the analogy between matter (receptive principle) - form (active principle) and mother-father (but its direct source does not seem to be Calcidius, but Hermann of Carinthia’s *De Essentiis*) (pp. 92-3). It is not clear whether Calcidius thought also spiritual beings would be made of matter and form. However, Gundissalinus’s hylomorphic doctrine has another well-documented source: Ibn Gabirol’s *Fons vitae* (p. 94). An interesting doctrine inherited by Gundissalinus is Calcidius’s epistemological method of *compositio* and *resolutio*.⁵ The source is certainly Calcidius but, according to Polloni, is very likely that Thierry of Chartres’s use and application of this doctrine is Gundissalinus’s direct source (pp. 95-9). Despite some points of contact, Gundissalinus’s cosmological thought could be considered, according to Polloni, an overcoming of Calcidius’s and *Timaeus*’ cosmology (p. 100).

Gundissalinus’s reflection seems to be closer to Chartrean masters than any other Latin tradition, suggesting Gundissalinus was educated in Chartres. Some of Gundissalinus’s position, though, could be read as an overcoming of Chartrean masters’ philosophical views, making the hypothesis of a Chartrean education harder to support (p. 105). Polloni explores the traces of the influence of Chartrean masters, Thierry of Chartres and William of Conches, in Gundissalinus’s treatment of God’s being (pp. 105-7) and the Holy Trinity (pp. 107-10), underlying the “eloquent” silence of Gundissalinus on the latter. There is only one explicit mention of the Holy Trinity in Gundissalinus’s cosmological work (*De Processione*) in which the influence of William of Conche can be seen. Gundissalinus was probably aware of the harsh reaction that William’s doctrine provoked, so he perhaps chose not to engage in a discussion on this theme, basing his cosmogonic description on a Jewish source: Ibn Gabirol’s *Fons Vitae* (pp. 109-10).

Afterwards, Polloni examines Gundissalinus’s reception of one of the most controversial doctrines debated in the twelfth century: the theory of primordial chaos (pp. 110-28). Gundissalinus deals with this issue in a long digression within *De processione mundi* (p. 119). In order to deny the existence of such a cosmological moment, against the theologians (according to Polloni, Hugh of St Victor and Peter Lombard, pp. 120-3) Gundissalinus opposes two arguments: 1) there are bodies made of matter and form which have matter but not elements

⁵ Through *compositio* the effect is demonstrated starting with its cause; while *resolutio* examines first the effect and then its cause.

(celestial bodies); therefore elements differ from matter, since they are not co-extensive (p. 124); 2) elements can be resolved in compounds made of matter and form, hence elements are not matter and matter is ontologically and logically prior to elements. Through these arguments, Gundissalinus demonstrates that there is no primordial chaos (of elements), and since theologians applied this doctrine to the creation narrative of the Genesis, he displays that their account is groundless (p. 124). According to Polloni, the second argument depends (probably) on William of Conches. Indeed, both authors' reasoning is based on the assumption that primordial chaos is made of elements and aggregated elements, logically posterior to matter (pp. 125-8).

The last paragraph of the second chapter deals with convergent and divergent doctrinal points between Gundissalinus and another philosopher and Arabic-into-Latin translator: Hermann of Carinthia (pp. 128-143). *De Processione* is full of quotes from Hermann of Carinthia's *De Essentiis* (p. 134), but the theory which strongly influenced Gundissalinus concerns the instituting causality of the universe (pp. 139-43).⁶ Gundissalinus's approach to *De Essentiis* is a good example of his contrasting attitude towards his sources: Gundissalinus found in Hermann's reflection many theories and solutions, which he adopts, modifies and inserts in a new and original framework, now distant from Hermann's perspective (p. 143).

In the third chapter Polloni analyses the meaningful relation between Gundissalinus's reflection and Ibn Gabirol's *Fons vitae* (pp. 144-209), translated into Latin by Gundissalinus himself and Johannes Hispanus (p. 144). Firstly, Polloni exposes his methodological choices, namely: 1) to consider the Latin version of Ibn Gabirol's work, without references to the original Arabic text, since it was not available to Latin readers;⁷ 2) to focus on Gundissalinus's interpretation and problematisation of *Fons Vitae*'s doctrinal apparatus, ruling out an exam on eventual additions and interpretations which lead translators' work from Arabic-into-Latin; rather, Polloni's starting point is the previously translated text (pp. 144-7). After the presentation of Ibn Gabirol's Hylomorphic and Hypostatic universe (chapter III §1, pp. 147-65), Polloni follows Gundissalinus's reception of Ibn Gabirol's thought in *De Unitate et uno* (chapter III §2, *Hylomorphism Without Act and Potency*, pp. 165-77), in *De Anima* (chapter III §3, *Psychological Hylomorphism*, pp. 177-189) and finally in *De Processione* (chapter III §4, *Structures of Functional Dualities*, pp. 190-209). The main (and almost exclusive) source of Gundissalinus's *De Unitate et uno* is Ibn Gabirol's *Fons Vitae* (p. 176). From *Fons vitae* Gundissalinus inherits the pivotal ontological doctrine of universal hylomorphism (all created beings are made of matter and form, and their existence emerges with the union of these components) and the tension between God's nature that

⁶ Gundissalinus's distinction in four kinds of causality (creation, primary and secondary composition, generation) and his posing angels, spheres, and nature as secondary causes (p. 143) are inspired by Hermann.

⁷ The Latin readers had no access to the original Arabic text, but Gundissalinus had it. Therefore, it might be useful to a full comprehension of the originality of Gundissalinus's thought taking also into consideration the interpretation which guided the translation from Arabic and noticing the eventual modifications produced during translation activities. To my knowledge, it is forthcoming an article by Polloni in which he discusses the authority of *Fons vitae*'s Latin translation ("Misinterpreting Ibn Gabirol? Questions, Doubts, and Remarks on a Problematic Latin Translation", in N. Polloni-M. Benedetto-F. Dal Bo (eds.), *Unravelling Ibn Gabirol's Metaphysics: Philosophical and Historical Studies*, Brepols, Turnout: forthcoming). Hence, this methodological choice could be linked to his doubts on the attribution to Gundissalinus of this translation. In any case, I suspend considerations until the publication.

is pure unity, as opposed to derivative unity of created beings (pp. 165-8). Moreover, in *De Unitate* Gundissalinus refers to Ibn Gabirol's hypostatic cosmology. Although in this work there isn't a specific cosmological section, he mentions all the hypostasis of Ibn Gabirol's chain of beings (pp. 175-6). Polloni concludes the paragraph claiming that Gundissalinus's first approach to Ibn Gabirol's metaphysics will change over time, starting with *De Anima* (p. 177).

If the most important source of Gundissalinus's *De Anima* is Ibn Sīnā's *Kitāb al-Nafs (On the Soul)*, Polloni underlines that Ibn Gabirol continues to exert a deep influence on the conception of the ontological status of the souls. Indeed, according to Gundissalinus, human, sensible, and vegetative souls are hylomorphic compounds. In *De unitate* Gundissalinus had stated that God creates matter and form and joins them in the first hypostasis: the Intelligence. But is God also the efficient cause of the human souls? Gundissalinus's answer is negative. God creates only *ex nihilo*, instead what is made of matter and form is "from matter", rather than "from nothing" (pp. 177-8). Human souls must be created by an intermediate principle: the angels. That God only creates *ex nihilo* and does not create souls are *Fons Vitae's* doctrines. But Ibn Gabirol does not claim that souls are created by angels (178-80). In *Fons Vitae*, hypostatic souls proceed from hypostatic intelligence. Gundissalinus replaces Ibn Gabirol's hypostatic souls with individual souls and, in consonance with Avicenna's *Liber De Anima* (pp. 180-1), he identifies separated intelligences with angels: so he states that souls are created by intelligences. This theoretical shift is linked to a deeper change in Gundissalinus's reflection: the abandonment of Ibn Gabirol's hypostatic cosmology, for a new "Porphyrian" view, in which at the origin of everything matter and form are joined, forming the substance; then this substance is divided into spiritual and corporeal. There is no reference to Ibn Gabirol's hypostatic progression (p. 185). Polloni thinks that in *De Anima* can be read a greater philosophical sensibility and a progressive problematisation of some of the precedent assumptions (p. 189). This caused the detachment from Ibn Gabirol's cosmology and the need for a new cosmology. The *De Processione mundi* is dedicated to this task (p. 189).

In the fourth paragraph of chapter three, Polloni deals with Gundissalinus's mature reception of *Fons vitae* in *De Processione mundi* (pp. 190-209). According to the author, this work can be read "as Gundissalinus's late attempt to resolves some problems and tensions arising from the doctrinal reception of Ibn Gabirol via a recourse to other sources" (p. 190) (mainly Avicenna and Hermann of Carinthia). Polloni underlines that the pivotal point of this more mature reading of Gundissalinus is a developed version of universal hylomorphism. Indeed in *De processione* Gundissalinus seems to accept for the first time Ibn Gabirol's doctrine about the intrinsic potential status, as one that is not only of matter, but also of form. Although matter and form have different proprieties (matter is passive and form is active), they share their ontological status, namely they are in potency before being joined into the compound (pp. 190-4). These different ontological states are described by Gundissalinus through the distinction between *esse materiale* and *esse formale*: *esse materiale* expresses the ontological state of matter and form before their union; *esse formale* describes a compound's actual state (pp. 195-6). Therefore, *esse materiale* and *esse formale* correspond respectively to potency and act. Polloni suggests that here Gundissalinus has an (implicit) corrective purpose: to correct the traditional and common identification of matter with potency and form with act, even if his lexical choice seems to be a compromise with tradition (pp. 197-8). This more intense theoretical adhesion to Ibn Gabirol's metaphysical principles contrasts

with Gundissalinus's detachment from Ibn Gabirol's cosmology (p. 190): Gundissalinus's cosmological account in *De Processione* is, indeed, a sort of «cosmologisation of Porphyry's tree, grounded in universal hylomorphism» (p. 205, pp. 205-9).

In chapter four, *Appraising Existence: Gundissalinus, Avicenna, and Ibn Daūd*, Polloni focuses on Gundissalinus's peculiar synthesis of Avicenna's modal ontology and Ibn Gabirol's universal hylomorphism, and the special contribution of the Jewish philosopher Abraham Ibn Daūd (Gundissalinus's translation colleague) to this original doctrine (pp. 210-62). After a presentation of Avicennian textual material, useful for analysing Gundissalinus's metaphysical thought (Ch. IV §1, *Modalities of Existence*, pp. 210-225), Polloni goes on to examine Ibn Daūd's "Avicennian" criticism of Ibn Gabirol's metaphysics (Ch. IV §2, *Theoretical Crossroads*, pp. 225-32); then, Polloni exposes Gundissalinus's *Ontology of Possible Being* (Ch. IV §3, pp. 232-44), and the differences between Gundissalinus and Avicenna's ontologies (chapter IV §4, *Contrasting Hylomorphisms*, pp. 244-53), returning in the final paragraph to the relation between Gundissalinus and Ibn Daūd's reflections (chapter IV §5, *Matter for Bodies*, pp. 253-62).

The work from Avicenna that had the greatest influence on Gundissalinus' ontology is *Ilāhyyāt* (the metaphysical section of the *Kitāb al-Sifā'*), translated from Arabic into Latin by Gundissalinus himself (*Philosophia prima*). While references to *Philosophia prima* can be already traced in *De Unitate et uno* and *De Divisione philosophiae*, only in *De processione mundi* do its doctrines play a key role (p. 232). In *De Processione mundi* Gundissalinus describes God's nature quoting long excerpts from *Philosophia prima* I, 6-7, where Avicenna distinguishes two modalities of existence: possibility and necessity. God is *per se* necessary existence, while creatures are *per se* possible existence. But when they are, are necessary *per aliud*, namely by virtue of their cause (and as a last resort caused by the only and unique necessary existent *per se*: God). (pp. 212-16) Thus Avicenna opposes the Creator's oneness and creatures' modal duplicity: created beings are possible *per se* and necessary *per aliud*. The structural feature that differentiates God from creatures is the lack of intrinsic necessity, not a compositional duality of matter and form, as it is for Ibn Gabirol (pp. 219-20). According to Avicenna, hylomorphism characterises one realm of being: the sublunar world.

Polloni shows how Gundissalinus establishes a deep relation between Avicenna's modal ontology and universal hylomorphism, by inserting two correspondences: possible existence corresponds to the potentiality of matter and form before their union in the compound; necessary existence corresponds to the actual being, result of matter and form jointly (pp. 237-40). So, in Gundissalinus's technical language, possible existence is *esse materiale* and necessary existence *per aliud is esse formale*. Polloni demonstrates, with textual evidence, that the interpretation given by Gundissalinus of Avicenna's modal ontology depends on two further sources: al-Ġazālī's *Maqāsid al-falāsifa* (translated by Gundissalinus) and Ibn Daūd's *The exalted Faith (Al-'aqīda al-rafi'a)* (pp. 240-4). Regarding Ibn Daūd, Polloni sees a bond between his criticism of Ibn Gabirol's universal hylomorphism and Gundissalinus progressive problematisation of some of the doctrines from *Fons vitae*. The difference between *esse formale* and *esse materiale* can be read as a solution (pp. 257-9) of this progressive problematisation. In particular, it seems that, in order to overcome Ibn Daūd's critics, Gundissalinus develops a more "functional" reading of matter and form (considering them as "aspects", rather than "real" components, of the compound). Also, some emendations of Ibn Gabirol's theories appear to be related to Ibn Daūd's avicennism (pp. 258-9, 261-2). The special relationship

between Avicenna, Gundissalinus, Ibn Daūd reflects the possible existence of a philosophical circle in Toledo, where philosophical texts were translated from Arabic into Latin to find answers to “autochthonous” philosophical questions (p. 262).

In the conclusive paragraph (“Unity into Duality”, pp. 263-71), Polloni retraces Gundissalinus’s main ontological doctrines analysed in the study (pp. 264-5); the most influential sources of his ontology and Gundissalinus’s peculiar approach to them (pp. 265-7). The author ends the study with some remarks about the reception and circulation of Gundissalinus’s original treatises in the Latin World (pp. 266-71).

This volume is rich and instructive and according to this reader its Author deserves the gratitude of those working in the field for having shown “the originality of [Gundissalinus] thought, the curiosity guiding his approach, the existential tensions he perceived in the universe, and the open-mindedness of a unique character of the Middle Ages” (p. 271).

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