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## FROM THE PROOF OF GOD'S EXISTENCE TO THE ABACUS

### OD DOWODU NA ISTNIENIE BOGA DO LICZYDŁA

#### ABSTRACT

This paper deals with observing the peripatetic motives and influences of Boethius on the education and thinking of the late 10th and 11th centuries. The connection between Anselm's proofs of God's existence from *Monologion* and *Proslogion* and so called *mensa geometricalis*, i.e. the abacus, a counting board used for arithmetical calculations and geometrical demonstrations circa 1,000 A.D., is presented as the entirely natural way of peripatetic interpretation of the intellectual world of Anselm of Canterbury, initiated by Franciscus Salesius Schmitt, through a search for other traces of Aristotelian heritage in the 11th century and in the period around the year 1,000 (primarily under the influence of Boethius's texts).

W artykule podjęto kwestię zauważonych arystotelesowskich motywów i wpływów Boecjusza na kształcenie i myśl na przełomie X/XIw. Powiązanie między dowodami Anzelma na istnienie Boga z *Monologionu* i *Proslogionu* oraz tzw. *mensa geometricalis*, czyli abakusem, liczydłem służącym do obliczeń arytmetycznych i przedstawień geometrycznych ok. 1000 r. n.e., jest przedstawione jako całkowicie naturalny sposób peripatetyckiej interpretacji intelektualnego świata Anzelma z Canterbury. Franciscus Salesius Schmitt zapoczątkował ten sposób myślenia przez poszukiwanie innych śladów spuścizny arystotelesowskiej w XI w. oraz ok. roku 1000 n.e (głównie pod wpływem tekstów Boecjusza).

The present study briefly concentrates on monitoring peripatetic influences in Latin thought of the late 10th and 11th century. These motives are used as a theme firstly by means of the analysis of selected concepts of the most famous person of the given era, i.e. Anselm of Canterbury (using the reminder of an influential article by F. S. Schmitt on the absence of Neo-Platonic intellectual heritage in Anselm's works), then an effort has been made to find Boethian and Aristotelian influences in the works of Anselm's contemporaries and predecessors. In a retrospective sequence attention is devoted to the changing approach to the role and importance of the knowledge that has been traceable in the Latin Christendom from the last quarter of the 10th century and symbolizes e.g. a new interest in the abacus in monastic schools of the time.

This paper has brought together two great personalities who have very much in common, although their lives were separated by eight and a half centuries.

It is difficult to find another 20th century thinker who, because of his interest in Saint Anselm of Aosta, would have produced a more careful edition of his works than F. S. Schmitt.<sup>1</sup>

While I am very far from speculating on their mutual interaction across time and particular historical epochs that are axiologically or preferentially based on completely different foundations, and although I prefer to research problems in the context of their epoch and concrete historical anchorage, it seems completely natural to connect these two Benedictines.

Anselm of Canterbury is generally known as the author of the proofs of God's existence, the so-called *unum argumentum* in his most famous and the most frequently quoted work *Proslogion*. There are many different views on this relatively short text of the best-known version of Anselm's proof. The various explanatory models (analytic-philosophical, intuitively religious, modal-logic) tend to regard Anselm as a Platonist (or Neo-Platonist) and favour an extremely realistic reading of the chapters of *Proslogion*. However, I detected in (not only) this work of Anselm significant traces of peripatetic reference, both in connection with the *unum argumentum* (*Proslogion*) and in the context of other works by the monk and abbot from Le Bec (in the first instance, especially in the *Monologion* and *De Grammatico*).

In 1969 an influential study *Anselm und der (Neu-)Platonismus* (1969)<sup>2</sup> by Franciscus Salesius was published. It is surely unnecessary to reiterate that Schmitt's text gave Anselmian research a remarkable impetus which evoked an immediate reaction. Its surprising diction and tone influences, provokes and to this day (45 years later) forces numerous interpreters of Anselm's thought to engage with aspects of Anselm's heritage and the suggested interpretation scheme of the starting point of Anselm's concepts detected by Schmitt. The fact that the reaction to it was in many cases critical or polemical does not detract from the uniqueness of Schmitt's study. On the contrary, the urge to comment on Schmitt's findings, experienced for more than four decades, shows how the author managed to draw attention to new ways of approaching Anselm's work.

The theses on the de-platonisation of Augustine or understanding Anselm as a thinker, who in many of his propositions cannot be seen as a supporter or a follower of Platonic or Neo-Platonic philosophy, served as a powerful stimulus for further contemplation of and reading through the writings of the Father of Scholasticism. More than by the actual thesis about a new and "Plato-free" reading of Augustine or by different perceptions and classifications of causes in Anselm's work, one is usually impressed by the passages in which Schmitt writes about the importance of abstraction in Anselm's understanding of the cognitive process, and conclusions that point to the absence of references to the (Neo-)Platonic participatory scheme in Anselm's writings.

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<sup>1</sup> *Sancti Anselmi Cantuariensis archiepiscopi Opera omnia* I–VI. Ed. F.S. Schmitt. Seckau – Roma – Edinburgh 1940–1961.

<sup>2</sup> F.S. Schmitt: *Anselm und der (Neu-) Platonismus*. „Analecta Anselmiana” 1969, nr 1, p. 39–71.

There is the final demonstration of the essential elements of Neo-Platonism, which established itself (not only) in the early Middle Ages (Patristics and early Scholastics): the metaphysical and ontological primacy of unity over multiplicity, the identicalness of unity and being, the ontological anchorage of multiplicity in primary and superior (noble) unity, the participatory relationship of multiplicity towards unity, the emanation link between successive stages of being from unity to multiplicity and a natural tendency of multiplicity to find the way back to unity. F. S. Schmitt argues quite forcefully that none of these characteristic features of the medieval Christian (Neo-)Platonism can be found in Anselm's writings. This also applies to the absence of evidence supporting the Neo-Platonic emanation model. Therefore, it is inappropriate to introduce it as representative of the Augustinian-Platonist tradition of Christian thought.

Being inspired by judgments (very controversial for many people) it is possible to perceive Anselm as a very specific personality of 11th century thinking. Although he stands somewhere at the beginning of the nascent scholasticism, he is not solely a follower of Augustine inspired by his heritage because his texts can be read as a relatively substantial peripatetic library. Indeed, is it just a coincidence that Anselm, besides the Holy Bible and Augustine, explicitly invokes only Aristotle's works?

Schmitt's propositions from the above-mentioned article often led to the presentation of the Father of Scholasticism as a sort of proto-Thomist, who essentially anticipated albeit only partly, and largely in an unfinished form, the later opinions and views of St. Thomas Aquinas. The present methodological research basis will be concerned with the possible influence of peripatetic sources (difficult to define precisely) from which Anselm himself could draw information. This method favours a search for the conditionality of dealing with a particular problem (in the given period), and is thus quite far from a view favouring timeless interpretation of the topics discussed, including the search for possible later anticipations. In fact, it almost predestined the focus of the primary search for variant readings of Anselm's texts.

It is a well known fact that Aristotle's thought and the legacy of his writings were not the most frequently referenced materials of monastic libraries of the 11th century. Therefore, it was necessary to find sources that were more or less close to Aristotle and the heritage of whom was used very intensely in the 11th century. A quite obvious line of connection is marked by Boethius who formed with his concepts (perhaps like Anselm – and is it just a coincidence?) an integral permeation/blending of Platonic, neo-Platonic and Aristotelian understanding of philosophy. Anselm undoubtedly knew Boethius' texts (at least some of them), though he did not actually refer directly to Boethius. A number of trains of thought, principles and conclusions in the works of the Father of Scholasticism can be seen as an effort to unfold, capture in detail, or even to enhance arguments and the opinions of the Last Roman and the First Scholastic.

Numerous Anselm's conceptions can be interpreted in such a way that would programmatically prefer the peripatetic motifs in his thought without denying the influence of Augustine (which, in my opinion, cannot be overlooked). This might have inspired Anselm thematically, rather than as mere conclusions in themselves or their content-conceptual outcome. They, therefore, it basically remained on the periphery of our attention as a useful supplement in such cases where the pursuit of peripatetic interpretation would display the features of insufficiency or too violent structures.

The approach to discussing various topics can start with regard to the reception of Anselm's ideas in the 20th century. Firstly, it can be focused on the proofs of God's existence, then on the interpretation of the methodological efforts of the Father of Scholasticism (especially the oft-repeated argument about the relationship between reason and faith – *fides quaerens intellectum, meditatio de ratione fidei, sola ratione*, etc., and later also in the context of a dispute between dialecticians and anti-dialecticians, often presented by the interpreters of medieval thought) and then subsequently on Anselm's understanding of universals. Other topics were mainly: Anselm's semantics and philosophy of language, his interpretation of the Trinitarian dogma and, last but not least, the passages in which he expressed his opinion on the omnipotence of God.

Not all of these results will be mentioned (in some cases it is apparent at first glance, e.g. Anselm's dialogue *De Grammatico*) and, to be brief, I will confine myself to three subjects: the proofs of God's existence, the dispute about universals and the omnipotence of God.

1. There is an obvious sequence and a perfect knowledge of syllogical Aristotelian logic in his *Monologion*, the evident proof of his interest in proceeding from effect to cause (“...although the good things whose very great we perceive by the bodily senses and distinguish by the mind's reason are so numerous...”<sup>3</sup>) and emphasis upon primary cause which is unique and individual, while everything else goes through this cause. We are convinced of this fact by the order of reason and the order of reality. All the above-mentioned things created the basic framework for the interpretation of (not only) the first four chapters of this work by Anselm's. *Proslogion* and a proof (or proofs respectively) contained within it, in response to Gaunilo, is characterised by Anselm himself almost identically – using Paul's Epistle to the Romans (Rom 1:20). It states that it is necessary to start from the created things, i.e. from the effects that are able to bring us to the primary cause, i.e. God: “But if a Catholic makes this denial, let him remember that ‘the invisible things of God (including His eternal power and divinity),

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<sup>3</sup> Anselmus Cantuariensis: *Monologion* 1. In: *Sancti Anselmi ... Opera omnia*. Ed. F.S. Schmitt. V. 1. Edinburgh 1946, p. 14: „Cum tam innumerabilia bona sint, quorum tam multam diversitatem et sensibus corporeis experimur et ratione mentis discernimus.“ English translation: Anselm of Canterbury: *Monologion*. In: *Complete Philosophical and Theological Treatises of Anselm of Canterbury*. Transl. J. Hopkins & H. Richardson. Minneapolis 2000, p. 7.

being understood through those things that have been made, are clearly seen from the mundane creation.”<sup>4</sup> The fact that similar reasoning can be found in Boethius’s work (from example *De consolatione philosophiae* III, 10<sup>5</sup>) and the hypothesis itself on the very necessity of existence ‘something than which a greater cannot be thought’ (*id quo maius cogitari nequit*) is clearly of a *posteriori* comparative origin, and its validity is determined by faith and for unbelieving fools by the sensory perception of faith. Anselm says in the second chapter of *Proslogion* directly: “But surely when this very same Fool hears my words... he understands what he hears.”<sup>6</sup> This clearly indicates the repeated movement from an effect to a cause. It depends on whether we want from sensory perception of the details of this world to reach their cause and origin. The inductive technique is a precondition for the following analytical-deductive approach presented by Anselm in *Proslogion* 2 and 3 which can be determined (again by Boethius?) by means of the mediated Aristotelian conception of science, which is always about the general and the necessary; scientific progress is purely deductive, i.e. syllogical derivation from premises whose truth was provided by earlier (e.g. inductive or pre-scientific) procedure.<sup>7</sup> This is exactly how the individual structure of Anselm’s argument in *Proslogion* can be perceived.

2. The attention was devoted to similar (let us say Boethian) conclusions by reading the relevant passages in which Anselm expresses his opinion on the question of universals. In addition to the open letter *Epistola De Incarnatione Verbi* which has undergone detailed analysis by many but resulting in similar conclusions, I might add in this context the frequently discussed document *Monologion*. Here Anselm, among other things, discusses the general determinations of single entities, indirectly mentions intellectual ascent by means of Porphyrian tree and significantly states that the higher we get, the farther we are from being real. That is to say, the most real being belongs to single entities, not (in the Platonic or Augustinian-Neo-Platonic spirit) to general stuff itself: “From some substance which lives, perceives, and reasons let us mentally remove [first] what is rational, next what is sentient, then what is vital, and finally the remaining bare existence. Now, who would not understand that this substance, thus destroyed step by step,

<sup>4</sup> Anselmus Cantuariensis: *Quid ad haec respondeat editor ipsius libelli* 8. In: *Sancti Anselmi ... Opera omnia*. Ed. F.S. Schmitt. V. 1. Edinburgh 1946, p. 137–138: „At si quis catholicus hoc neget, meminerit quia «invisibilia» dei »a creatura mundi per ea, quæ facta sunt, intellectus conspiciuntur, sempiterna quoque eius virtus et divinitas«.“ English translation: Anselm of Canterbury: *Reply to Gaunilo*. In: *Complete Philosophical...*, p. 129.

<sup>5</sup> Boëthius, *Philosophiae consolatio* III, Ed. L. Bieler. CCSL 94. Turnhout 1984, p. 10.

<sup>6</sup> Anselmus Cantuariensis: *Proslogion* 2. In: *Sancti Anselmi ... Opera omnia*. Ed. F.S. Schmitt. V. 1, p. 101: „Sed certe ipse idem insipiens, cum audit hoc ipsum quod dico ...intelligit quod audit.“ English translation: Anselm of Canterbury: *Proslogion*. In: *Complete Philosophical...*, p. 93.

<sup>7</sup> See Aristoteles: *Analytica posteriora* I, 1–28, 71b–87b. In: *Aristotelis Opera omnia*. Ed. I Bekker. Berlin: 1831.



*is gradually reduced to less and less existence – and, in the end, to nonexistence?*”<sup>8</sup> Even from this passage, I think it is clear that the most real being belongs to an individual substance, general definitions (e.g. of the second nature) are separable from the particulars of thought and without their own individual substance (first substance), they have no right to live. Then there are universals, but depending on single instances in which they have their being. Boethius and Aristotle would undoubtedly agree and Anselm's other texts (e.g. *De Grammatico*, *Epistola De Incarnatione Verbi*, *De Veritate*) point to similar conclusions.

3. In the case of God's omnipotence, it is the same as thematised by Anselm in several of his writings (e.g. *Proslogion*, *De Libertate Arbitrii*, *De Casu Diaboli*, *Cur Deus Homo*). Indeed, Anselm himself uses discretion in relation to Aristotle,<sup>9</sup> while at the same time the distinction between *necessitas sequens* and *necessitas praecedens* represents an attempt to answer the traditional questions of Aristotle (solved by Boethius, of course) concerning the nature and veracity of the courts, as well as future and random events. What cannot be repeatedly overlooked indefinitely is the use of Aristotle's logic and to a large extent, the conclusions presented by Anselm: God is able to change everything that has ever been created; God has the ability to influence the course of the universe and the laws that govern the entire cosmos, but everything God does, must be consistent with His will, which is immutable and permanent. Consequently, what God wants once, He wants always. That is why it is true that if God creates something, it will always be based on how God created it because He wanted it that way. If He assigned the free will to something created by Himself or if He determined coincidence as an accompanying effect of certain events, then it is obvious that in these cases there will always be liberty or chance at one's disposal. For God does only what He desires, His wishes and will cannot be changed and, what's more, God's will is tied by reason and intellect (e.g. as in the works of Aristotle), as Anselm says clearly: “... *the will of God is never unreasonable.*”<sup>10</sup>

The above-mentioned conclusions can be complemented briefly by, for example, the propositions of Anselm's interpretation of the Trinitarian dispute (perhaps merely trying to modify Boethius' arguments from *The Fifth Theological Treatise: Contra Eutychen et Nestorium*), where the key emphasis is placed on a firm grasp of individuality and singularity. It is not possible to demonstrate this without an

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<sup>8</sup> Anselmus: *Monologion* 31, p. 49–50: „*Nempe si cuilibet substantiae, quae et vivit et sensibilis et rationalis est, cogitatione auferatur quod rationalis est, deinde quod sensibilis, et postea quod vitalis, postremo ipsum nudum esse quod remanet: quis non intelligat quod illa substantia quae sic paulatim destruitur, ad minus et minus esse, et ad ultimum ad non esse gradat imperducitur?*“ English translation: Anselm: *Monologion* 31, p. 48.

<sup>9</sup> Anselmus Cantuariensis: *Cur Deus homo* II, 17. In: *Sancti Anselmi ... Opera omnia*. Ed. F.S. Schmitt. V. 2, p. 125.

<sup>10</sup> *Ibid.* I, 8, p. 59. English translation: Anselm of Canterbury, *Why God Became a [God-]man*. In: *Complete Philosophical...*, p. 309.

adequate understanding of the connection between the singularity and substance, respectively put more in the spirit of Aristotle's *Categories* – between the first and second substance. (In the case of God a single individuality is the only substance that finds realization in three divine persons, while for example in the case of human beings each individuality has a distinct substance, that is, each individual represents singularity, therefore he/she and other people have common generic scope, but where God is concerned, He is the only substance, that is, individuality.)<sup>11</sup> It would also be possible to add to these Aristotelian motifs thoughts on the possibility of predicting the ineffable God in *Monologion*<sup>12</sup> dialogue or, of course, explicitly (among others) in the treatise *De Grammatico* initiated by Aristotle's text and other examples of the active reception and development of the Stagirite's heritage. All these things together form a very large mosaic which constitutes a relatively strong Anselmian peripatetic basis (in my opinion, difficult to challenge) that he himself relied upon.

However, as it has been mentioned – the presented methodological efforts are dominated by attempts to interpret the problems solved in the context of a given period of time. To say that Anselm of Canterbury is more or less influenced by the peripatetic intellectual tradition and presenting him as an author, who was entirely inconsistent with his contemporaries, would be open to doubts. Therefore, the other flashback had to focus on the 11th century, possibly as early as A.D. 1000. The main motive of interest in this period was an effort to find other creative or at least indisputable receptions of Aristotle. Only in this context would it then be possible to prove whether Anselm can actually be understood as the heir to Aristotelian thought.

It would be impossible to start anywhere other than from Anselm's very own teacher, Lanfranc of Pavia. This teacher of *artes* was obviously familiar with the first two volumes of Aristotle's logical works, and made use of them in his most famous work *De Corpore et Sanguine Domini* in a dispute with Berengar of Tours about the interpretation of the Eucharist. Both of these strong personalities of 11th century philosophy declared their support for Aristotle and their treatises on the Sacrament of the Altar were clearly inspired by, *inter alia*, the peripatetic tradition (though both of them owed much to and propagated the Church Fathers, especially Augustine) – for example, they disagreed very strongly on the nature of the syllogism, its proper construction, etc. But logic is not the only matter discussed: Berengar argued in favour of his opinion, pointing in particular at the necessary connection between an accident and substance. Accordingly, he claims that it is not possible, for example, for the Host at Mass to change its substance when the accidents do not change.<sup>13</sup> In contrast, Lanfranc believed that substantial

<sup>11</sup> Anselmus Cantuariensis: *Epistola de incarnatione verbi* 16. In: *Sancti Anselmi ... Opera omnia*. Ed. F. S. Schmitt. V. 2, p. 34–35.

<sup>12</sup> Anselmus: *Monologion* 65, p. 75–77.

<sup>13</sup> Berengarius Turonensis: *Rescriptum contra Lanfrannum (De Sacra Coena)* I–II. Ed. R.B.C. Huygens. CCCM 84, Turnholt 1988.



change is possible (e.g. by the effect of a miracle) and the annihilation of one substance (here bread and wine) in the Eucharist is accompanied by the emergence of another substance (the body and blood of the Lord), without changing accidents – only the essence changes, not the accidents. The reason for this is given by Lanfranc very clearly: God does not want man to be frightened by the change of substance after the miracle; otherwise in his/her mouth there would appear the raw flesh of Christ's body and the real blood of Christ.<sup>14</sup> As early as the so-called Eucharistic controversy in the 11th century logical and metaphysical tools known primarily from Aristotle's *Categories* and other interpretations of this work of the Stagirite, are used quite clearly. Thanks to his teacher, Anselm was undoubtedly familiar with the nature of this dispute and its possible solution, i.e. using Aristotle's creative legacy.

These ideas could be used (and perhaps were in fact used) by Anselm when he entered into a dispute with Roscelin of Compiègne to interpret God's triune nature or when he returned to the above-mentioned theme of God's omnipotence (influenced by the open letter *De Divina Omnipotentia* by Peter Damian).

In specialised literature there has long been discussed, in connection with the 11th century, the other "major case", which, reportedly, occupied the minds of intellectuals at that time – a dispute about dialectics. Traditionally, in this controversy the names that have already been mentioned appear again – such as Peter Damian, Roscelin of Compiègne or Berengar of Tours. We could add other names: Manegold of Lautenbach, Otloh of St Emmeram, Anselm of Besate, etc. An unclear position is then attributed, in varying degrees, to Lanfranc and, of course, to Anselm of Canterbury. While the declared subject of the dispute was to be the level of involvement and the permissible role of Aristotelian logic (dialectics) in the study of Christian truths, dogma, respectively the importance of logic (and in the broader scope of secular knowledge) in the education of Christian believers, detailed study of the texts of these authors does not offer such a clear interpretation. On the one hand, e.g. the "peripatetic" Anselm of Besate knew Aristotelian logic mainly through Boethius' treatises, but on the other hand Manegold, Otloh and Peter Damian were also very well aware of Aristotle's *Categories* and *On interpretation* (and other comments and discussions on Aristotelian logic) and in their own texts they logically and precisely argued in favour of their opinions.<sup>15</sup> This could be difficult for someone who would reject logic and its involvement in doctrinal topics as a matter of principle. Certainly a group of so-called "anti-dialecticians" did not do so, which only underscores several important elements: Aristotle was an integral part of the intellectual heritage of the 11th century that was actively used and whenever the authentic texts of Aristotle were missing, the comments and

<sup>14</sup> Lanfrancus Cantuariensis: *De corpore et sanguine Domini* 18. Ed. J.-P. Migne. *PL* 150, c. 430.

<sup>15</sup> See e.g. Manegold von Lautenbach: *Liber contra Wolfelmum* 14. Ed. W. Hartmann. *MGH, QQ zur Geistesgesch.* Weimar 1972, p. 74–75; Petrus Damiani: *De divina omnipotentia* 9. Ed. J.-P. Migne. In: *PL* 145, c. 612; Othlonus S. Emmerammi Ratisponensis: *De suis tentationibus, varia fortuna et scriptis* 2. Ed. J.-P. Migne. In: *PL* 146, c. 51.

discussion of other authoritative personalities from the educational world, led by Boethius, served the given purpose.

Another direction of the present research activities therefore led to the influence of Boethius' texts in early scholasticism, i.e. in the 11th century, including the last two decades of the 10th century. The aim was to look at other ways of developing peripatetic motifs that were close in time to Anselm of Canterbury. The stream of so-called "vocalists" (led by John the Sophist and for the given period ending with John Roscelin of Compiègne) could not be avoided, as well as the debates about the division of science, which clung to the entire 11th century and we have very well-preserved reports about its recovery from the late 10th century. One can interpret as significant the famous dispute of Ravenna in A.D. 980, where under the patronage of Emperor Otto II a scholarly disputation took place, between Otric of Magdeburg – a supporter of the Stoic-Platonic-Carolingian concept of *artes liberales*, and an advocate of the peripatetic (Aristotelian-Boethian) division of sciences and their interpretation – Gerbert of Aurillac.<sup>16</sup> With great exaggeration we can understand the ideological clash between the trinitarian division of philosophy (physics – logic – ethics; *quadrivium* falls into the rank of physics, while the circuit of logic contains *trivium*) and the two-part division of philosophy (theoretical – practical; where physics, mathematics and theology according to theoretical knowledge belong, i.e. *quadrivium*, including the rational interpretation of theology and metaphysics) as a break with the Carolingian propedeutic conception of the role of liberal arts and philosophy itself, in favour of Ottonian mutual penetration of philosophy and theology, including a significantly increasing inclination towards an interest in the interpretation of nature, and therefore a powerful impetus for nurturing not only *trivium*, but also *quadrivium*.

Both of these tendencies are to a full extent reflected in the personality of Gerbert of Aurillac (later Pope Sylvester II) who is, among other things, the author of the rational and logical treatise *De Rationali et Ratione Uti*. For us the given work is the strongest evidence of the creative reception of the very fine conceptual distinctions within the scope of the peripatetic-logical legacy (there are other preserved historical fragments and glosses which deal with the same problem).<sup>17</sup> This arose not only from reading Aristotle, but also from other peripatetic-logical resources that were then available to scholars. Indeed, other authors also active around the year 1000 clearly demonstrated a new inventive approach to Aristotelian logic – we merely have to mention Abbo of Fleury and his work on syllogisms or Notker Labeo and his translations and commentaries on Aristotle and Boethius' books. In addition, according to reports from the given period (Richer of Reims

<sup>16</sup> Richerus Remensis: *Historiarum libri IIII* III, 55–65. Ed. H. Hoffmann. *MGH SS* 38. Hannover 2000, p. 199–205.

<sup>17</sup> See e.g. F. Sigismondi: *Gerberto d'Aurillac, il trattato De Rationali et ratione Uti e la Logica del X secolo*. Roma 2007; *Frühmittelalterliche Glossen des Angeblichen JEPA zur Isagoge des Porphyrius* 176–178. Ed. C. Baeumker & B.S. von Waltershausen. Münster 1924, p. 49; *Fragmenta de rationali et ratione uti*. Ed. G. D'Onofrio. In: *Excerpta isagogarum et categoriarum*, *CCCM* 120, Turnhout 1995, p. 136–139.

and his *History*), also even many years later Gerbert of Aurillac himself taught his students the *trivium* on the basis of their reading and analysis of standard logic texts and followed the clearly defined procedure of familiarisation with the logical issues: he started with Porphyrius' *Introduction to (Aristotle's) Categories* translated by Gaius Marius Victorinus and Boethius, followed by an analysis of Aristotle's *Categories* and *On interpretation*, then Cicero's *Topica* and Boethius' commentary on this piece of writing. It continued with another of Boethius' logical writings and a short treatise *De Definitionibus* by Victorinus.<sup>18</sup>

But Gerbert initially made his name not as a teacher of logic or *trivium*. His fame has long been associated primarily with the *quadrivium*, which (perhaps due to his stay in the Iberian Peninsula in the late 60s of the 10th century) tried to access the historically non-standard mathematical and natural sciences. But even in this field the influence of Boethius was quite noticeable – whether in the form of his compilation-translation called *De Institutione Arithmetica* or in the field of geometry, including the so-called pseudo-Boethian *Geometry II*, which contains, *inter alia*, the abacus. The abacus, which of course was also known by Aristotle,<sup>19</sup> but in a very different form, started to be used once again in the last quarter of the 10th century by the Latin Christian West, which was traditionally (and historically) attributed primarily to Gerbert (the author of a short treatise *Regulae De Numerorum Abaci Rationibus*), although the given merit was brought by other contemporaries of Gerbert – e.g. Abbo of Fleury (within his comments to the file *Calculus* by Victorius of Aquitaine), Heriger of Lobbes (*Regulae Numerorum Super Abacuma Ratio Numerorum Abaci*) or Bernelius Junior of Paris (*Liber Abaci*).

A very strange connection between Anselm's proof of God's existence and the spreading of *mensa geometricalis*, i.e. the abacus, a counting frame used for arithmetical calculations and geometrical demonstrations circa 1000 is apparent at first sight. Thus it seems to be an entirely natural way from (among others) peripatetic interpretation of the intellectual heritage of Anselm of Canterbury, initiated by Franciscus Salesius Schmitt, through a search for other traces of Aristotelian heritage in the period around and after the year 1000 (placing primary importance on the personality of Boethius) to the observation of a renewed interest in mathematical sciences circa 1000 (again under the influence of Boethius's texts).

Słowa kluczowe: wczesna filozofia scholastyczna, Anselm z Canterbury, uniwersalia, argument na istnienie Boga, sztuki wyzwolone  
 Keywords: early scholastic philosophy, Anselm of Canterbury, universalia, proof of God's existence, seven liberal arts

<sup>18</sup> Richerus: *Historiarum...* III, 46, p. 193–194.

<sup>19</sup> *Aristotelis Atheniensium respublica* 69, 1. Ed. F.G. Kenyon. Oxford 1958, p. 68.