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MUSIC IN THE PHILOSOPHY OF BOETHIUS¹

By L E O S C H R A D E

“TO RESOLVE, in some measure, the ideas of Aristotle and Plato into harmony”—in his commentary on Aristotle’s *De Interpretatione*, Boethius thus designated the object of his own philosophy. Endowed with a prodigious precocity, and guided by the wisdom and experience of Symmachus, his father-in-law and one of the most cultivated Roman patricians of his time, Boethius set about this immense task when he was little more than twenty years old. Appropriately he began with comments on Porphyry’s *Introduction*, which scholars of the 5th century took to constitute an integral part of Aristotle’s logical works grouped together under the title *Organon*. He proceeded in logical order from the work on the *Categories* to the four books *De topicis differentiis*. Between 510, the year of his Consulate, and 526, the year of his savage execution, he also wrote the *Opuscula Sacra*, the authenticity of which seems as yet not completely established. At the end there is the *Consolatio Philosophiae*. At the beginning of all his humanistic studies and entire literary work there is the *Quadrivium*, which consists of the *Institutio Arithmetica*, the five, incomplete, books on Music, the Geometry, whose extant version may not, however, be genuine, and a lost treatise on Astronomy, possibly in eight books, if we put faith in a remark made by Gerbert in a letter he wrote from Mantua in 983. The work chosen for discussion, the treatises on the mathematical disciplines, originated between 500 and 506. They are Boethius’ “first fruits”. That the *Quadrivium* preceded all his other philosophical studies has an extraordinary significance and far-reaching implications.²

Boethius, the most influential teacher of the medieval musi-

¹ This paper was read before the Greater New York Chapter of the American Musicological Society on May 22, 1946.

² For previous discussions of the subject see the author’s *Das propädeutische Ethos in der Musikanschauung des Boethius*, in *Zeitschrift für Geschichte der Erziehung und des Unterrichts*, XX (1930), 179-215; and *Die Stellung der Musik in der Philosophie des Boethius*, in *Archiv für Geschichte der Philosophie*, XLI (1932) 368-400.

cian, had a spiritual survival comparable to none. More than anyone else did he form the musical mind of medieval men. Most of them understood his treatise on music to be clearly a product of the Aristotelian doctrine; hence, they placed it into Aristotle's system of learning. But was the medieval musician thus a faithful interpreter of Boethius' thought? Did Boethius indeed speak as a representative of the Aristotelian philosophy when he wrote his *Quadrivium*? Or did his work on music share in the process of reconciling the philosophical thought of one school with that of the other? Or did the *Institutio Musica* perhaps precede this task of reconciliation which Boethius labored to materialize? First, then, it must be ascertained which of the philosophical schools held sway over his work on music. And the *Institutio Musica* must, furthermore, be classified as a type among learned treatises. For there again a question of far-reaching importance arises: is the treatise an "introduction" or an "exhortation to study"? The answers to these questions, if final answers can be given, should contribute in some way to an understanding of what should be regarded as the most essential factor in Boethius' world of music. How can we expect to comprehend the interpretation of Boethius in the Middle Ages, if we are not even clear about the nature of the very source?

In the preface to the *Institutio Arithmetica* Boethius declared that for the sake of reaching the "summit of perfection" granted by the philosophical discipline alone, it is necessary that man master preliminary fields of knowledge—that is, the mathematical disciplines, the *Quadrivium*, a term that Boethius himself seems to have introduced into the Latin world, probably in direct derivation from Nicomachus of Gerasa, who had spoken of "the four ways".³ The need to study the *Quadrivium*, to investigate the *Vis numerorum* in all its aspects, is indisputable. Boethius was convinced that whoever neglected such studies was totally and hopelessly ignorant of philosophy as a whole. Such neglect is without remedy: it forever withholds the reward from the student who aspires to the summit of perfection; unless he passes through the study of music within the scope of mathematics, he will be barred from the realm of philos-

³ The term *Quadrivium* (*Inst. Arith.*, ed. G. Friedlein, Leipzig, 1867, pp. 7, 8) does not occur again, as far as I know, in Boethius' works. See however the term *quadrifarius*, in the letter of King Theodoric the Great to Boethius, in *Cassiodori Variarum lib. I*, 45 (*Mon. Germ. Hist., Auct. Antiquiss.*, ed. Th. Mommsen, XII [1894], 40). For the term "the four ways" cf. *Nicomachus Geras. Pythag. Introd. Arith.*, ed. R. Hoche, Leipzig, 1866, I. C. 3, p. 7f.

ophy. In other words: to acquire a knowledge of mathematics is a necessity of the first order. The goal of study, the end of education, is always philosophy; but the only path to it leads through mathematics.

The necessity of such studies, established emphatically and in various sections of Boethius' mathematical books, suggests an important consideration. If knowledge of music must be obtained under all circumstances, is it because the discipline must be regarded as an *instrument* or a *part* of philosophy? This is precisely the same question that ancient thinkers raised when discussing the character and place of logic. And in exactly the same temper of mind they disputed the position of logic and mathematics in relation to philosophy. This problem, in fact, holds the key to the affiliation of Boethius to either Plato or Aristotle at the time when he wrote his books on music.

One of the most important among the few passages in which Plato discussed the course of philosophical study asserts the primarily didactic character of mathematics. It is the well-known and often-quoted paragraph from the seventh book of the *Republic*. From there Boethius derived the main characteristics of his *Quadrivium*; from there he took Plato's idea that there is inherent in mathematics a knowledge that draws the human soul from becoming to being.⁴ Indeed, Boethius' "summit of perfection", where philosophy resides and where man becomes able to contemplate the Being, exercises this very attraction which diverts man's mind from the confusing and deceptive world of change to the ever true and unalterable world of ideas. The conviction that mathematics is instrumental in this process has its origin in Platonic philosophy. Even in matters of external evidence, Plato stands above Aristotle in the whole of Boethius' *Quadrivium*: Plato alone is there called "the most learned", while Aristotle appears as "the greatest savant in all things" for the first time in Boethius' second commentary on Porphyry's *Introduction*; and not until he came to work on Aristotle's *De Interpretatione* did Boethius reckon himself and those who thought along the same lines to be "savants of the Aristotelian authority". No such expression ever occurs in any of his mathematical treatises. There Plato fathered the leading ideas and their formulation. The preface to the *Arithmetic* is governed by Platonic terms and thoughts. Boethius refers to the rise "towards the greater

⁴ *Republic*, VII, 521.

certainities of intelligence"; he speaks of the existence of a "purer reason of the mind"; he presents the process of training the human mind as a "progression" that culminates in the infallible deliberation of the philosophic intellect. The man who takes part in this progression responds to an ethical drive that lies in the nature of mathematics. And since the ethical impulse reaches its aim only when the human mind comes to rest in philosophy, mathematics is an instrument, rather than a part, of philosophy. All this goes clearly back to Plato. But Platonism made its way to Boethius often indirectly through the Pythagorean school, by means of sources that allow further substantiation of the attitude Boethius had taken in his *Musica*. They all show that mathematics, and music within it, is not the true "science", philosophy itself, but preliminary or preparatory, and beneficial only as long as it keeps the ethical impulse aiming at the freedom of man's mind from forms of empirical deception.

In order to substantiate the doctrine of ethical purpose and pre-philosophic character in Boethius' mathematics, we should do well to seek assistance in the sources used by Boethius. That the *Institutio Arithmetica* comes from the work of Nichomachus has been stated by Boethius himself. Other sources, however, influenced Boethius to at least as great a degree as the work of Nichomachus. At all events, they allow us to see how the ideas of the Platonic and Pythagorean schools converge in the *Quadrivium* of Boethius to form the type which made its appearance in his mathematical treatise at the beginning of the 6th century. There is first the *Precepts of Platonic Thought* by Albinos, not Alkinoos, under whose name the treatise has been published.⁵ In accordance with the plan of this work to give an educational outline for the study of Platonic ideas, the pre-philosophic task of mathematics is clearly specified. The mathematical studies have no purpose of their own; they are instrumental in whetting man's appetite for investigating the true Being. Thus they have a function to fulfil. Together with this function, there comes the preparatory or educational effect the study of mathematics has upon the human mind; it increases the mind's capacity for thought, for thinking; it makes the mind keen or, to put it in Albinos' words, it sharpens the human soul to be

⁵ *Platonis Dialogi*, ed. C. F. Hermann, Leipzig, 1858, VI, 152 ff. See also J. Freudenthal, *Hellenistische Studien* 3., *Der Platoniker Albinos und der falsche Alkinoos*, Berlin, 1879, p. 275 ff; in the same work, on p. 322 ff, a new edition of Albinos' prologue.

ready for the recognition of the Being; hence mathematics grants accuracy of vision into the nature of the Being. This is the same "mathematical accuracy" that Plato had discussed in his *Laws*. To give man the acuteness of mind needed for such knowledge is the sole purpose mathematics must serve.

The purely functional, ancillary character of mathematics has perhaps best, at any rate most briefly, been expressed by Nichomachus, who named mathematics a bridge man must cross to reach the realm beyond. All mathematical-musical studies must train the mind; they must free it from physical observations or exclusive perception by the senses. All our material experiences are bound up with the physical world. But the activity of the intellect should not be misguided or impeded by matter. Mathematics first and foremost sets the mind free from matter. And it is exactly this freedom of the mind from the body granted by mathematics to the student of philosophy of which Dante was thinking when he praised Boethius in Paradise: "There—in Paradise—the holy soul—Boethius—rejoices in the vision of the good for he had shown the falsity of the world of appearance to all those who had ears to listen to his word."⁶

The acuteness and accuracy of thinking, and the metaphorical bridge that must be crossed to rise to the heights, both indicate the nature and purpose of mathematics as seen by Nichomachus, Albinos, and Boethius, in common with Plato.

But the ethical value of mathematical-musical studies, for the sake of which Boethius wrote his treatises on the *Quadrivium*, has been characterized most comprehensively by Iamblichus, the Neo-Platonist, Pythagorean, and possible pupil of Porphyry. Iamblichus, too, wrote an introduction to the *Arithmetic* of Nichomachus; yet more important is his book *De communi mathematica scientia*. True to Platonism, Iamblichus speaks of "accuracy" as being the effect of mathematics; he also uses the "bridge" as a metaphor with which to qualify the function of mathematics; and he points to the summit to be reached by the student. Probably because of his affiliation to the Pythagorean school of thought, he strengthens the ethical side of the mathematical theory. To be sure, he takes up the Platonic idea of the force of mathematics that draws the human soul from becoming to being. Yet the ethical implications are carried much further. The "journey of man's soul" is imagined to be

⁶ *Divina Commedia, Paradiso X*, 124-26.

a rise from the darkness of night to the brightness of the truth of being. The rise furthered by mathematics has a cathartic effect on man. Whoever goes through the “mathematical practice” will be rewarded by the acquisition of ethical qualities such as symmetry and harmony. Hence the results that come from the study of mathematics are entirely educational, and in order to do justice to this quality Iamblichus calls the discipline as a whole a “mathematical education”, as though education and mathematics were inseparable terms. Inasmuch as Iamblichus sees the “Beautiful and the Good” as an end in the conduct of life, to be in harmony with the recognition of the Being, the process that leads up to it is carried forward by the energies of ethics.

In the doctrine of music that Boethius formulated in his youth two elements, both of ethical nature, converge, and in this conjunction the ethical value of music surpasses that of any other discipline in the *Quadrivium*. For music as the art of sound exerts in all events and by its very nature an influence upon the moral state of man, or, in the words of Boethius himself, music is capable of “improving or degrading the morals of men”. In addition to this, however, music as part of mathematics shares in those educational ethics that are inherent in the disciplines of the *Quadrivium*. It contributes to the training of the intellect, which in the end must be totally free from all bodily impediments. This is the meaning of the education in which music assists in liberating the human mind. The music Boethius described at the beginning of his literary activity is of Platonic-Pythagorean origin. It has no direct contact with the Aristotelian system of philosophy. Music stands before philosophy; and the student of music is driven by the ethical impulse to learn how to benefit intellectually from the instrument that holds the key to the “purer reason of the mind” in philosophy. With the assumption of a pre-philosophic position of music, with the thesis of its ethical function in the process of education, and finally with the denial that music as a “science” could be part of philosophy proper, Boethius gives evidence that he wrote his works on the *Quadrivium* essentially as a Platonist. In it he had no intention—and no need—of reconciling the Aristotelian and Platonic schools of thought with each other. This very conception that within the totality of the *Quadrivium* music has its place outside philosophy, that, furthermore, music embodies the ethical incitement to advance to the true discipline of thought, was

undoubtedly the reason why Boethius chose the *Quadrivium* as the subject he must investigate first. Thus, not only the character of the work, but also the reason for its existence resulted directly from that school of thought which regarded the study of music as an indisputable prerequisite for philosophy. The idea that originally called forth the treatise on music had been realized.

It may be puzzling to find that an incomplete book on music, written by a man of only twenty, exercised the most extraordinary influence upon centuries to come. It is less puzzling when we take into account both the ethical function and the position music was given in relation to philosophy. And it seems to be very characteristic of this school of thought that many a later philosopher actually did what Boethius had done, that is to say, started any work in philosophy with a treatise on music as a primary necessity, without ever returning to music again. This procedure is by no means accidental; it bears all the marks of the situation in which Boethius' work on music originated. The significance of this fact has been completely overlooked. Let us think of Augustine, to name only one author of the Latin world of humanities. The first work Augustine wrote is his treatise on music which, however, he did not complete in his youth. Though in later years he returned to the subject of music—in his commentaries on the Psalms—he did so merely for reasons of a religious nature which had nothing to do with the *Musica* as a discipline of the *Quadrivium*. When investigating the work of philosophers through the centuries we are surprised how often we find music opening the course of philosophical studies. Even Descartes, in 1618, still begins with an *Essay on Algebra* and the *Compendium of Music*. The theorists of music proper, also, in antiquity, the Middle Ages, through the 16th century (e.g., Glareanus) often first presented an "introduction" to music. But the reason for this would require a special discussion.

Although in later years Boethius did not continue to explore the subject of music, he discussed the position of mathematics, wherein music was always implied, if not expressly included. And this position changed completely. Beginning with his commentary on Porphyry's *Introduction* and continuing for the rest of his life, Boethius maintained the Aristotelian point of view in regard to the position of mathematics. In the system of Aristotle, mathematics became part of philosophy and ceased to function merely as an

"instrument". The complete Aristotelian system, as is well known, divides philosophy into the practical and theoretical spheres, with ethics, economics, and politics on the one side, and physics, mathematics, and metaphysics on the other. This order eliminated, at least partly, the disputes concerning whether to regard mathematics as part of or as an instrument for philosophy. Mathematics is a part of an objective system in which the purely ethical or preparatory functions have no longer the exclusive importance given to the *Quadrivium* in Boethius' earlier work.

Theoretical philosophy is divided in accordance with the objects to be discussed in each of its parts, the objects being the world of physical phenomena, the world of numbers, the world of the immaterial, abstract, true forms. This objective classification is based on the connection of each part with matter, and the degrees of abstraction from matter establish the rank of the disciplines, one above the other. To put this in Boethius' terms: physics comprise the bodily forms with matter, mathematics the bodily forms without matter, metaphysics the bodiless, immaterial forms, the ideas. The remoter the relation to bodies, the higher the discipline of philosophy. Hence in rank mathematics comes second and takes an intermediate position within the system as a whole.

While translating the work of Aristotle into Latin, Boethius made this system his own. It goes without saying that the immediate link to Aristotle offered itself as a matter of course. Since, however, Boethius' work contains many a feature supplementary to the Aristotelian system proper, he shows himself also under the influence of the Aristotelian tradition as a whole. As he proceeded in the *Organon* of Aristotle, he seems simultaneously to have acquired knowledge of a large part of a literature known as commentaries of the Aristotelian school. By the 6th century this literature had grown to vast proportions. It appears, indeed, that Boethius had studied most of the important commentaries from the 3rd to the 5th centuries. Not long before Boethius started his own literary work, Ammonius had made Alexandria a center of Aristotelian philosophy, being himself the rector of the school and the teacher of many of the distinguished philosophers of the 6th century. He wrote commentaries on the various parts of Aristotle's *Organon*, as did Boethius thereafter. Boethius seems to have known the commentaries of the Alexandrian school. At all events, this vast literature of the *Scholia* especially contributed to the further

qualifying of the various branches of philosophy. One problem in particular occupied the minds of the philosophers, including Boethius: the question of the various degrees of intellectual activity in the disciplines of theoretical philosophy. Since these disciplines had been put into a logical order that classified the objects in the form of a scale rising from the material substance to the immaterial idea, Boethius attempted to secure a special type of mental activity for each of the three branches; for physics, mathematics, and metaphysics. These attempts concern our problem because they affect the character of music as a science. In the course of his studies Boethius discussed the problem several times and with various results. Inasmuch as physics and physiology have the world of nature, the *naturalia*, as their object of investigation, mental activity relating to them is predominantly guided by impressions received through the senses, and hence is not at all free from deceptions and errors. In one of the later works Boethius named *ratio*, reason, as the mental force active in physics; but there is no uniformity of terms in his works. Inasmuch as the world of numbers is only partly related to material substance, since numbers can be mentally abstracted from bodies, mathematics stands above physics, accordingly the mental activity prevailing in mathematics ranks higher. It is the *intelligentia*, which takes the impression conveyed by the senses merely as the starting point. Metaphysics, whose object is the true idea, form without matter, has also the highest mental degree: the *intellectus*, completely free from all relation to the senses. It must, of course, be the ambition of man to reach this highest phase of intellectual activity. Once more, then, we find a didactic rise in the training of man's mind together with the rise of the disciplines themselves.

We are here interested in mathematics alone. Boethius once stated that in mathematics man thinks *disciplinaliter*, "according to the discipline". This is a rather mysterious term, and one must search far and wide to discover its implication. In fact, the term is unique in the hellenistic and late Roman literature; according to the *Thesaurus linguae Latinae* Boethius used the term for the first time. *Disciplinalis*, *doctrinalis*, "pertaining to the discipline, to the doctrine", such are the terms related to the process of thinking in mathematics. Indeed, we must go to the Middle Ages to find out what they mean; the medieval commentaries on Boethius' work actually give the explanation. Commenting on Boethius, Gilbert de

la Porrée states simply that the science the Greeks called “mathematics” has been named “discipline” by the Latins.⁷ A similar explanation was given by Clarenbaldus of Arras, who speaks of mathematics as though it were *the* discipline.⁸ And so does Thierry of Chartres, who commented on the passage of Boethius at great length.⁹ When taking up this very matter St. Thomas Aquinas declared that Boethius termed mathematics a “discipline” because of the demonstrative method. This statement leads the argument back to Ammonius, from whom Boethius may be believed to have taken up the discussion. For Ammonius also understood that in mathematics the process of reasoning is “mathematical”, and he pointed out that the method of the discipline is syllogism. This method, however, was regarded, because of its logical conclusiveness, as superior to any other process of thinking. Now it seems clear why mathematics could be called the *disciplina disciplinarum*, and why in the Middle Ages even music (as a part of mathematics) could sometimes be singled out as the discipline of all disciplines.

Once Boethius had started out to make the *Organon* of Aristotle accessible to the Latin West, he accepted, without any further doubt, music as a science within philosophy. Through the objective system of Aristotle music had obtained a logical position which did not change as long as the discipline was held to be part of philosophy. Together with this secure position, the method of argument, and the specific character of intellectual activity that gave mathematics a superior distinction, music came to have its definite share in ancient ontology. Thus it became an important element in the philosophical process of revealing the very essence of things.

It is in this form that Boethius handed down the doctrine of music as a science definitely placed in the Aristotelian system. This may seem strange, since his first work on the *Quadrivium* did not represent the system of Aristotle. It was, however, Boethius' treatise on music that the medieval musicians and thinkers studied. Many, of course, also knew the *Consolatio*, the most widely read book of the Middle Ages. But by no means all of them were familiar with his commentaries on the Aristotelian *Organon*. Most of them, none-

⁷ Gilberti Porretae *Commentaria in Librum de Trinitate*, in *Patrologia Latina*, Vol. 64, p. 1267 B/C.

⁸ See W. Jansen, *Der Kommentar des Clarenbaldus von Arras zu Boethius De Trinitate*, in *Breslauer Studien zur historischen Theologie*, VIII (1926), 28*.

⁹ *Ibid.*, p. 9*. See also Martin Grabmann, *Die Geschichte der scholastischen Methode*, Freiburg i. Br., 1911, p. 45, note 1.

theless, took for granted that music as interpreted by Boethius had, together with the rest of the *Quadrivium*, its intermediate place between physics and metaphysics. Through their study of Boethius' work on music they also became aware of the ethical function which Boethius, as a spokesman of Platonism, imparted to the discipline. Boethius presented the two schools still in separation, showing on the one side the Platonic-Pythagorean *Musica* of his *Quadrivium*, on the other the commentaries on the *Organon*, while Aristotle inspired him to the task of reconciling the two great philosophic systems with each other. And whereas Boethius was not allowed to complete this task, the medieval musicians carried out the act of reconciliation. They, in fact, combined the ethical function which was derived from the Platonic music as an instrument, with the objective, systematic order which came from the Aristotelian music as an actual part of philosophy. Thus the interpretation medieval musicians cast upon the *Musica* of Boethius achieved one of his chief aims: to reconcile Plato with Aristotle.

Finally, a problem should be discussed which, despite its extraordinary historical significance, has been entirely neglected. What kind, what type of learned treatise is it that Boethius' *Musica* represents? Greek philosophy had passed on to him two types according to which a learned subject could be treated: the "exhortation" and the "introduction". Boethius was familiar with both. For each, Greek philosophers had established a definite outline and structure by which any writer had to abide. What is an "exhortation to study"? In the field of philosophy the writer of such a discourse addressed the general reader to whom "persuasion, consolation, and encouragement" were to be given.¹⁰ Such a treatise was therefore written not for the sake of scholarship in the strict sense of the word, but in order to encourage the young student to devote himself to the study of philosophy. With the assumption that virtue is teachable, that knowledge—philosophy—and virtue are identical, philosophy is taken to be an end in itself; hence its study should not suffer from utilitarian considerations. The topics to be treated in an "exhortation" were such as to meet the intention of the work.

First, then, the writer showed that by comparison with other beneficial disciplines philosophy alone granted man the bliss of life, which is scarcely worth living unless meaning is found through

¹⁰ Seneca, *Epistolae*, Loeb Classical Library, London, 1917-1925, *Epistola* 95, 65 (Vol. III, p. 99).

philosophy. But only purely theoretical, scientific study can ultimately yield knowledge and virtue. And Boethius assumes for the *Musica* of his *Quadrivium* the necessity of study, the beneficial effect, and the purely theoretical character. Second, the writer of an "exhortation" gave definitions of philosophy, of its task, and of its parts. In his treatise on the *Quadrivium* Boethius presents a definition of music, though in a somewhat disconnected manner. Third, the relationship of philosophy to other disciplines, to the rest of the liberal arts, was taken up. Although there was no general agreement on the matter, many an "exhortation to study" had shown the preparatory character of the liberal arts: "because they prepare the soul for the reception of virtue."¹¹ And Boethius places all emphasis upon the ethical-educational power that the *Musica* of the *Quadrivium* holds over the preparation of the mind. Fourth, in an "exhortation" the sublime character of philosophy was derived from the natural disposition of man; for the noble, the divine, as well as the appetite for them, are inborn in man. And Boethius asserts that man possesses music as an innate quality; by devoting himself entirely to the theoretical study of *Musica*, man eliminates the possibility of a demoralizing influence of music. Fifth, the writer of an "exhortation" finally glorifies the metaphysical world, the character of which the study of philosophy was to reveal at last. Boethius declares that on the path towards the summit of perfection, music is the guide.

In applying this structure to the individual discipline such as music in the *Quadrivium*, we find that Boethius more or less closely followed the outline and purpose of an "exhortation". At any rate, in the general sections of all the mathematical treatises he clearly demonstrated the essential characteristics of such a work. Above all, the great stress Boethius placed on the side of the ethical significance of music has its prototype in the literature of the "exhortations". Boethius, himself a youth, dedicated the books on music to those of his own age, in order to stimulate them to the study of philosophy. In view of the fact that the "exhortations", Greek and Latin, influenced the structure of the *Institutio Musica*, we must conclude that Boethius did not design his work to be a textbook for use in the Roman rhetorical schools, as has always been taken for granted.

The time in which Boethius wrote his work on music repre-

¹¹ Seneca, *op. cit.*, *Epistola* 88, 20 (Vol. II, p. 361).

sented the very last phase of ancient literature in every field and form. The types of literature produced in the latter part of the 5th century often failed to show the traditional, that is, original, purity and clarity. Categories and types are often confusingly mixed, of course, when cultural epochs approach their end. Although Boethius' treatise on music had predominantly the character of an "exhortation", he allowed several features to enter which he drew from the type of an "introduction". An introductory treatise was schematically organized according to topics, headings, subject-matters. The number of topics varied. Among the preliminary ones there were subjects such as the essence of music, its usefulness, its origin, its history, its division, and so forth; in other words, questions of fundamental importance. Boethius did not go so far as to allow the topics to determine the organization of his work on music. But a few of the problems usually treated in an "introduction" were taken up and incorporated. They do not quite harmonize with the prevailing character of the treatise; they may even be somewhat disturbing, although they do not throw it out of proportion. The beginning and the end of *Arithmetic* and *Music* especially show the plan of the educational "exhortation" in all clarity. And here once more schools of thought may set the parting-line. For Boethius presented the type arranged properly according to the topics of an "introduction" for the first time in his commentary on Porphyry. Hence, the *Quadrivium* seems to stand out as an entity by itself, and to differ from the rest of Boethius' literary output.

The study of types of works on music, ancient and medieval, is not a matter that offers itself to purely statistical investigation. Were it merely that, it could surely be left at rest. But it has a more comprehensive significance. It holds an essential part of the history of musical thought and of ways of thinking. The typology of musical treatises is, in fact, the agent that in the end will best enable us to follow the narrow paths and often twisted roads along which the knowledge of music has travelled through the centuries.