

THE *APOLOGIA* OF FRANCHINO GAFURIO:
A CRITICAL EDITION AND TRANSLATION

A Thesis

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ABSTRACT

Franchino Gafurio's *Apologia* (Turin, 1520) is one musical treatise in a series of works that constituted the famous "pamphlet war" between he and Giovanni Spataro. The dispute originated with the publication of Bartholomeo Ramis de Pareia's *Musica practica* (Bologna, 1482). Unconventional and unapologetically critical, Ramis rejected venerated musical traditions in an attempt to align music theory with contemporary music practice. He opposed the Pythagorean division of the monochord and Guidonian solmization syllables, and instead proposed a division which produced pure thirds, and a solmization system based on the octave. His iconoclastic proposals and his highly sarcastic tone called forth a firestorm of backlash.

Gafurio entered the debate as an opponent of Ramis, though his main focus was on Spataro: his *Apologia*, *Epistula prima in solutiones obiectorum Io. Vaginarrii Bononiensis* (Milan, 1521), and *Epistula secunda apologetica* (Milan, 1521) all respond to claims made by Spataro. Gafurio and Spataro then engaged in a private correspondence lasting a quarter century, of which many of the letters are now lost. Thus, the works of Gafurio serve to frame the entire course of the controversy.

This fifty year period was very important in the development of music. The changes proposed by Ramis and later defended by Spataro constitute a distinct shift in the way in which earlier theoretical ideas were valued. Seemingly indisputable laws concerning the practice and composition of music were now re-examined under the lens of humanistic empiricism.

This new edition of Gafurio's *Apologia* will be a contribution to the larger body of research on Gafurio and his role in the controversy. Of Gafurio's nine printed works, only three, *Theorica musice* (Milan, 1492), *Practica musice* (Milan, 1496), and *De harmonia musicorum instrumentorum opus* (Milan, 1518), exist in English translation. The theorists involved in the

controversy were of the first generation to see their works printed, and of them, Gafurio was arguably the most influential.

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INTRODUCTION

The *Apologia Franchini Gafurii adversus Joannem Spatarium et complices musicos bononienses* (Turin, 1520),¹ dedicated to Jean Grolier,² was the first in a series of five published works that constitute the famous “pamphlet war” between the Italian theorists Franchino Gafurio (1451-1522) and Giovanni Spataro (1458-1541).³ In this public debate, Gafurio was a proponent of traditional musical ideologies as laid down in the writings of Boethius and Guido d’Arezzo, while Spataro championed the unorthodox views of his teacher Bartholomeo Ramis, whose *Musica practica* (Bologna, 1482) proved a watershed moment in the history of music theory.⁴

The *Apologia* is a response to a series of eighteen letters,⁵ now lost; sent by Spataro to Gafurio, in which Spataro discussed particular problems found in Gafurio’s *De harmonia musicorum instrumentorum opus*. This was not the first time that the two theorists had clashed theoretical swords. Prior to the said correspondence Spataro had sent a copy of the *Musica practica* to Gafurio which Franchino returned with added, and apparently unwanted, corrections.⁶ Spataro was so enraged that in a letter to Pietro Aaron wrote that “If I could find another one, I would buy it and throw this one into the fire so that no one should ever see the

¹ The primary source for this critical edition is the facsimile edition (New York: Broude Brothers Limited, 1979).

² Gafurio also dedicated his *De harmonia musicorum instrumentorum opus* (Milan, 1518) to Grolier.

³ The remaining four works are: Spataro’s *Errori de Franchino Gafurio da Lodi, da Maestro Ioanne Spataro musico bolognese, in sua deffensione et del suo preceptore maestro Bartolomeo Ramis hispano subtilemente demonstrati* (Bologna, 1521), Gafurio’s *Epistula prima in solutiones obiectorum Ioannis Vaginarium Bononiensis* (Milan, 1521), Spataro’s *Dilucide et probatissime demonstratione de Maestro Zoanne Spataro musico bolognese, contra certe frivole et vane excusatione, da Franchino Gafurio (maestro de li errori) in luce aducte* (Bologna, 1521), and Gafurio’s *Epistula secunda apologetica Franchini Gafurii Musicis solutiones obiectorum Ionnis Vaginarium Bononiensis* (Milan, 1521).

⁴ Ramis defiantly challenged long held opinions regarding Pythagorean tuning and Guido’s solmization system.

⁵ Spataro mentions this correspondence in a letter to Del Lago, dated Aug. 23, 1529. See *A Correspondence of Renaissance Musicians*, ed. Bonnie J. Blackburn, Edward E. Lowinsky, and Clement A. Miller (Oxford, Clarendon Press 1991), 373.

⁶ Bologna, Civico Museo Bibliografico Musicale, MS A. 80.

comments he scribbled on my copy.”⁷ Even nine years after Gafurio’s death, Spataro was still continuing the debate in his *Tractato di musica* (Venice, 1531).

The greater part of the *Apologia* is naturally borrowed from his *De harmonia*, but Gafurio also uses a wide variety of quotations, often obscure, from various classical writers including Aristotle, Cato, and Boethius, and in so doing fulfills his promise in the introduction of the *Apologia* to “recall into light—through the testimony of learned men—the truth, gushing from the sources of the Greeks and the Latins.” This extensive collection of quotations also serves to demonstrate his wide knowledge of classical writings and in turn his presumed superiority over Spataro, whom Gafurio, at every opportunity, describes as “illiteratus” in regard to Latin. Throughout the course of the work, Gafurio engages Spataro in discussions on a variety of topics: various divisions of the tone, the usefulness of Gafurio’s mixed genus in dividing the monochord, different harmonic means, the arrangement and classifications of modes, various definitions of the word “tetrachord,” the sizes of semitones used in contemporary musical practice, and a lengthy discussion of Ramis’s tenor “Tu Lumen, Tu Splendor Patris.” Gafurio also never misses the chance to deliver scathingly derogatory and imaginative opinions of Spataro’s character, which sets the overall tone of the *Apologia* apart from other theoretical treatises.

In the present edition, the Latin text is presented on verso pages, with marginal glosses and textual corrections appearing at the bottom. Medieval orthography is retained, but with i/j, u/v, double consonants, and assimilation normalized. An English translation appears recto pages, with critical commentary in footnotes. Also included are facsimiles of the woodcuts used for diagrams and pictures, appearing on their respective verso page, with a modernized transcription appearing on the facing recto page.

⁷ *Correspondence of Renaissance Musicians*, 455.

LATIN TEXT AND TRANSLATION

¶ Apologia Franchini Gafurii Musici aduersus Ioannem Spatarium & complices musicos Bononienses.

1. Occasionem dicendi de te prebes Ioannes Spatarie qui in alios dicere solitus es. Vnde eo iustius tibi succensendum est quo acrius futilia effingendo efferata quadam rabie in lucubrationes nostras inuehctus es: quod in nostri potius laudem cessit: ut cum nostra temere damnasse uidearis qui dementiæ proximus es / omnem prorsus inscitiam præ te feras quæ repræhensione non uacat. Deliri namque & petulantis hominis natura ea esse dignoscitur ut nisi acri obiurgatione aut fuste aut cathenis reprimatur adeo insolescat: ut sese cunctis præferri putet: & hominis modestiam ac taciturnitatem: timorem aut inscitiam credit. Sed cum hæc ea sint quæ apud doctos expectationem non habeant / dabimus operam ut exquisitissima doctrina rationibusque efficacissimis unicuique in musica exercitato ueritas elucescat: & is calumniator impudens habearis quem antea musicorum Bononiensium schola non dignouerat. Nunc tua deliramenta iamdiu latentia non qua debeo acerbitate: sed qua solitus sum modestia taxare fas sit. Non enim abs te quicquam dissimulatum iri arbitror / quod ad depræhendendam ignorantiam tuam pertineat. Plærumque fit ut qui interpellandi lacerandiue studio tenentur dum alienam eruditionem insectantur propriam petulantiam prodant.

The Apology of Franchino Gafurio against Giovanni Spataro
and his musical accomplices of Bologna.

1. Giovanni Spataro, you, who are accustomed to speak about others,⁸ present the opportunity to speak about you. Wherefore one should be the more justly enraged at you to the extent that you have attacked my studious works more harshly with a certain frenzy—and this has turned out to my credit—so that when you, who are very close to madness, seem to condemn my things rashly, you display every foolishness that is not free from blame. But the nature of a silly and insolent man is discerned to be such that unless it is reprimanded by either a sharp objection or stick or chain, it truly becomes overbearing; so that it thinks to prefer itself over all [others], and trusts in the modesty and taciturnity, the fear or ignorance of man. But since these are those things which are not expected among the learned, I will pay attention that by the most exquisite doctrine and most effective reasoning, truth may shine forth to anyone skilled in music, and you may be held the impudent false accuser, whom the school of Bolognese musicians had not recognized. Now let it be right to censure your long-hidden madnenses, not with the sharpness with which I should censure them, but with the modesty to which I am accustomed. Indeed I do not think that anything that is relevant to detecting your ignorance is going to be hidden from you. It often happens that those who are held by the pursuit of obstructing or slandering, when they pursue foreign learning, bring forth a particular petulance.

⁸ Spataro's *Bartolomei Ramis Honesta Defensio in Nicolai Burtii Parmensis Opusculum* (Bologna, 1491) was a scathing rebuttal of Niccolò Burzio's *Musices opusculum* (Bologna, 1487), which criticized Bartholomeo Ramis's *Musica practica* (Bologna, 1482).

Quo nam pacto conuiliator leuissime ad Parnasi aditum musarumque lares absque latinitate peruenire potuisti? qui a uulgari uestigio minime se motus non modo musicam sed & philosophiam / ac mathematicas cæterasque bonas artes profitearis? cum identidem nos admonueris hoc est si quando ad te scribere destinassem id omne materna lingua explicaretur quasi a uulgo non differas. A nullo alio hoste mihi maius bellum indici potuit quam ab litterarum experte. Hac tua labe discipulorum mentes inficis: disciplinamque ipsam peruertis. Quod lumina ad uidendum acomodata mihi non sufficiant / satis est Spatarie eo nos ad prospiciendum peruenisse ut errores tuos ac Bartholomæi rhamis præceptoris tui quos ipse nunquam intueri potuisti sedulo complecterer. Cum igitur ea distinguere nesciueris quæ ab eruditis perspecta sunt: relinquitur doctorum uirorum testimonio nos lynceo obtutu ueritatem tum græcorum tum latinorum fontibus scaturientem in lucem reuocasse.

But, most slippery reviler, how were you able to come to the entrance of Parnasus and the home of the Muses without Latin? How could you, having yourself been moved very little from the common track, lecture not only on music but also on philosophy and mathematics and the other noble arts?—since you repeatedly urged me (that is, if at any time I had intended to write to you) that everything should be explained in the mother tongue,⁹ as if you did not differ from the common herd. No other enemy was better able to declare war on me than one devoid of letters.¹⁰ You corrupt the minds of the students by your dishonor and pervert the discipline itself. Because eyes suited to seeing do not suffice for me, for that reason it is enough, Spataro, for me to come to see that I might carefully comprehend your errors and [those] of your teacher Bartholomeo Ramis, which you never could have considered yourself. Since, then, you have been unable to distinguish those things which have been observed by the learned, it remains for me, with the gaze of Lynceus,¹¹ to recall into light—through the testimony of learned men—the truth, gushing from the sources of the Greeks and the Latins.

⁹ I.e., in Italian.

¹⁰ I.e., knowledge of Latin.

¹¹ In Greek mythology Lynceus was an Argonaut famous for his keen eyesight.

2. Quum igitur adducis in quintadecima descriptione tua sesquioctauam hanc .9. ad .8. nouem in partes minutas arithmetice diuisam quam a Mathematico mendicasti. Hanc scias diuisionem non esse consideratam a musicis si mere arithmetica est: cum non habeat dilucida neque integra interualla sed obscura transitionum loca concinitati incongrua. Clarius enim integris numeris ac spaciis nouem sesquatas productiones continentem sesquioctauam ipsam Mathematicus tuus annotare potuisset /deductis scilicet extremis terminis reliquos intermedios continuos concingentibus ut hic .81. 80. 79. 78. 77. 76. 75. 74. 73. 72. Namque numerus .81. ad .72. sesquioctauam proportionem producit. At numerus .81. ad .80. sesquioctogesimam facit. Sed .80. ad .79. sesquiseptuagesimamnonam. Numerus .79. ad .78. sesquiseptuagesimamoctauam. Verum numerus .78. ad .77. sesquiseptuagesimamseptimam. Numerus autem .77. ad .76. sesquiseptuagesimamsextam probat. At .76. ad .75. sesquiseptuagesimamquintam ducit. 75. ad .74. sesquiseptuagesimaquarta est. Sed .74. ad .73. sesquiseptuagesimamtertiam implet. Postremo .73. ad .72. sesquiseptuagesimamsecundam perficit proportionem.

3. ¶ Quum autem Marcheti Patauini¹² auctoritatem in medium deduxisti / Bartholomæum Rhamin¹³ Beticum præceptorem tuum quem irrefragabilem prædicas / facile contemnere uideris. Is enim primo suæ practicæ post manum Guidonis Marchetum ipsum (quem Ioannes Carthusinus¹⁴ ferula indigentem notat) quattuor marchetis Venetorum nummis uenalem æstimat ac si erroneum reprobet & inutilem.

¹² Marchetus. *in margin.*

¹³ B. Rhamis. *in margin.*

¹⁴ Ioannes Carthusinus. *in margin.*

2. When, then, in your 15th letter you bring up this sesquioctave, 9:8, arithmetically divided into nine tiny parts, which you requested from a mathematician—you must know that this division is not taken into consideration by music theorists if it is really arithmetic, since it does not have intervals that are complete and clear but places of transition that are obscure [and] incongruent with harmony. Your mathematician could have notated a sesquioctave containing sequential productions more clearly with whole numbers and nine spaces, that is, with the derived outer terms surrounding the remaining intermediate terms in sequence as here: 81, 80, 79, 78, 77, 76, 75, 74, 73, 72;¹⁵ for in fact 81:72 produces the sesquioctave ratio and 81:80 makes a sesquioctogesima, but 80:79 makes a sesquiseptuagesimanona, and 79:78 a sesquiseptuagesimaoctava, whereas 78:77 makes a sesquiseptuagesimaseptima, 77:76 demonstrates the sesquiseptuagesimasexta, 76:75 introduces the sesquiseptuagesimaquinta, 75:74 is the sesquiseptuagesimaquarta, 74:73 makes up the sesquiseptuagesimatertia, and lastly, 73:72 completes the sesquiseptuagesimasecunda ratio.

3. Also, when you invoked the authority of Marchetus the Paduan, you seemed ready to condemn your teacher Bartholomeo Ramis of Baetica,¹⁶ whom you praise as iconoclastic. In the first book of his *Practica* after discussing Guido's hand, he values Marchetus (whom Joannes Carthusinus notes [as] needing the stick) at four Venetian *marcheti*, as if reproving him as wrong and useless.¹⁷

¹⁵ In his *Errori de Franchino Gafurio da Lodi* (Bologna, 1521) 5.2, Spataro gives the original notation as 9:8-8/9:8-7/9:8-2/3:8-5/9:8-4/9:8-1/3:8-2/9:8-1/9:8.

¹⁶ I.e., Andalusia.

¹⁷ Ramis *Musica practica* 1.5.

4. ¶ Quod tamen Marchetus¹⁸ ipse tonum diuidat in nouem dieses (ut scribes) puto te somniasse.¹⁹ Nam si diesis est dimidium semitonii minoris ut Boetius²⁰ & communis musicorum schola proponit. Tonus ispe quattuor minora semitonia ac dimidium semitonii contineret / quod est inauditum / Tonus namque duobus tantum minoribus semitoniis perficitur & commate / ut sexto atque septimo tertii musicæ Boetius concludit. Verum si bene meminerim Marchetus²¹ ipse tonum in quinque dieses diuidit / ac duabus minus semitonium notat / apotomen / tribus / quattuorque aliud semitonum instituit / quorum alterum diatonicum / alterum chromaticum / tertium enarmonicum uocat. Hanc tamen toni diuisionem quam falsa est: musici non admittunt.

5. ¶ Si autem tonum ipsum nouem commata continere existimes ut quidam putant Seuerinus ipse Boetius²² quintodecimo tertii musicæ te ferula castigabit. Ibi enim probat Tonum nouem commatibus esse minorem & maiorem quam octo. At de iis quartodecimo secundi de harmonia copiose dissertum est.

¹⁸ Marchetus. *in margin.*

¹⁹ Nota. *in margin.*

²⁰ Boetius. *in margin.*

²¹ Marchetus reprobatus a musicis. *in margin.*

²² Boetius. *in margin.*

4. I think that you dreamed that Marchetus divides the tone into nine dieses (as you write); for if the diesis is half the smaller semitone, as Boethius²³ and the common school of music theorists propose, the tone would [then] contain four smaller semitones and half a semitone, which is unheard of, for the tone is completed by only two smaller semitones and a comma, as Boethius concludes in the 6th and 7th chapters of the third book of the *Musica*.²⁴ But if I remember well, Marchetus divides the tone into five dieses, and he notes a smaller semitone of two, and an apotome of three, and he establishes another semitone of four; and he calls one of them diatonic, another chromatic, and the third enharmonic.²⁵ Music theorists, however, do not recognize this division of the tone, which is false.

5. But if you suppose that the tone contains nine commas, as certain writers hold,²⁶ Severinus Boethius will beat you with a stick in the 15th chapter of the third book of the *Musica*,²⁷ for there he proves that the tone is smaller than nine commas and larger than eight. I discussed these things at length in the 14th chapter of the second book of *De harmonia*.²⁸

²³ Boethius *De institutione musica* 1.21.

²⁴ Boethius *De institutione musica* 3.6, 7.

²⁵ Marchetto of Padua *Lucidarium* 2.5. The semitone composed of two dieses is the “enharmonic,” the one of three is the “diatonic,” and the one of four is the “chromatic.”

²⁶ Gafurio identifies these writers as John Hothby and Giorgio Anselmi in *De harmonia instrumentorum opus* 2.14.

²⁷ Boethius *De institutione musica* 3.15.

²⁸ Gafurio *De harmonia musicorum instrumentorum opus* 2.14.

6. ¶ Georgius anselmus²⁹ nisi principium integri systematis harmonici in chorda a proslambanomene tono depressa quam _ ut Guido descripsit: aut in eius octava grauiore instituisset / falsa esset depositio plectri chromatici inter secundam & tertiam chordam scilicet inter hypaten hypaton & parhypaten hypaton ducti: cum solo minore semitonio inuicem distent / & plectra ipsa secundum ipsum ad diuisionem toniæorum spatiorum in maius atque minus semitonium inserta sint. Atque iccirco chromatica huiusmodi Anselmi depositio parum aut nihil a permixti generis depositione decimoquinto primi de harmonia deducti / distare percipitur. Inde semitonia illa chromatica Anselmi & quae mathematicus ille tuus in tetrachordo huius descriptionis a proslambanomeno ad licanon hypaton annotauit non examussin³⁰ chromatica sunt. Nam in unoquoque tetrachordo³¹ chromatico duo grauiora semitoniorum spatia non implent tonum / ut primo ac secundo atque septimo secundi de harmonia duce Boetio monstratum est: quem si perficerent non chromaticum diceremus genus sed permixtum: hinc spatium ipsum esset compositus tonus.

²⁹ Georgius anselmus. *in margin.*

³⁰ I.e., examussin.

³¹ Duo grauiora spatia in tetrachordo chromatico non integrant tonum. *in margin.*

6. If Georgius Anselmus³² had not established the beginning of the whole harmonic system on the string lowered by a tone from the proslambanomenos, which Guido wrote as *_ ut*, or in his lowest octave; the placement of a chromatic plectrum between the second and third strings, that is, between the hypate hypaton and the parhypate hypaton, would be wrong, since they are distant from each other by only a minor semitone, and plectra, according to him, were inserted in order to divide the intervals of the tones into major and minor semitones; and for that reason Anselmus's chromatic construction is seen to differ little or not at all from the construction of the mixed genus in the 15th chapter of the first book of *De harmonia*.³³ Thence those chromatic semitones of Anselmus and those which your mathematician notated in the tetrachord of this letter from proslambanomenos to lichanos hypaton, are not exactly chromatic, for in each chromatic tetrachord the two lower intervals of semitones do not fill a tone, as is shown in the first, second, and seventh chapters of the second book of *De harmonia*,³⁴ following Boethius; and if they did complete it we would call it not the chromatic genus but the mixed; hence the interval would be a composite tone.

³² Here Gafurio cites the second book of Anselmi's *De Musica* (1434), which describes his division of the monochord.

³³ Gafurio *De harmonia musicorum instrumentorum opus* 1.15.

³⁴ Gafurio *De harmonia musicorum instrumentorum opus* 2.1, 2, 7.

7. ¶ Descripsimus enim permixtum genus quo singulos tonos in duo inæqua semitonia maius scilicet & minus plectro duximus partiendos / ut inde in unoquoque tetrachordo hac ipsa partitione tres diatesseron ideas facile apertiusque quisque contemplari possit. Addo ut Tritesenemenon chorda huiusmodi auxilio (etsi reliquæ tetrachordi coniunctarum chordæ non indigeant) plectro inter licanon hypaton & hypatenmeson ducto integrum diapentes diastema tribus scilicet tonis ac minore semitonio / sesquialtero concinat interuallo. Rursus plectro inter proslambanomenos & hypaten hypaton ducto diapason æquisonantiam propriis & integris diastematibus dupla dimensione correspondeat. Cætera quoque plectra permixte deposita proportionalibus dimensionibus integra inuicem producent atque perficient diastemata: quorum progressiones fictam seu acquisitam solent musicam uocitare. Nec tamen putes numerorum proportionibus musicis diastematibus congruere / nisi chordæ ipsæ sonabiles iuxta naturalem eorum commensurationem depositæ fuerint / ac numerorum ipsorum differentiis chordarum interualla conueniant / ut hoc integro systemate diatonico harmonice mediato facile contemplari potest & percipi.³⁵

³⁵ A ii *in lower right corner.*

7. I described the mixed genus in which I considered single tones to be divisible into two unequal semitones, large and small, by a plectrum, so that in each tetrachord anyone can observe three species of the diatessaron easily and clearly by this partition.³⁶ I add that with this kind of help the tritesinemenon string (even if the remaining strings of the tetrachord do not require conjunctae)³⁷ would sound an interval of a perfect diapente, that is, three tones and a minor semitone, by the sesquialter interval with the plectrum placed between lichanos hypaton and hypate meson.³⁸ Again it would harmonize—in the duple measurement with proper and whole intervals—an equisonant diapason with the plectrum placed between the proslambanomenos and the hypate hypaton.³⁹ Also the other plectra, placed according to the mixed genus, will produce and perfect full intervals with each other by proportional measurements, the progressions of which are customarily called *musica ficta* or *acquisita*. Yet you would not think that the ratios of the numbers are congruent with musical intervals, unless the sounding strings will have been placed according to their natural measurement, and the intervals agree with the differences of the numbers of the strings, as can easily be understood and perceived when this whole diatonic system has been harmonically divided.

³⁶ Gafurio *De harmonia musicorum instrumentorum opus* 1.15, 16.

³⁷ I.e., *musica ficta*.

³⁸ i.e., a perfect fifth between E^b and B^b.

³⁹ i.e., a perfect octave between B^b and the B^b above.

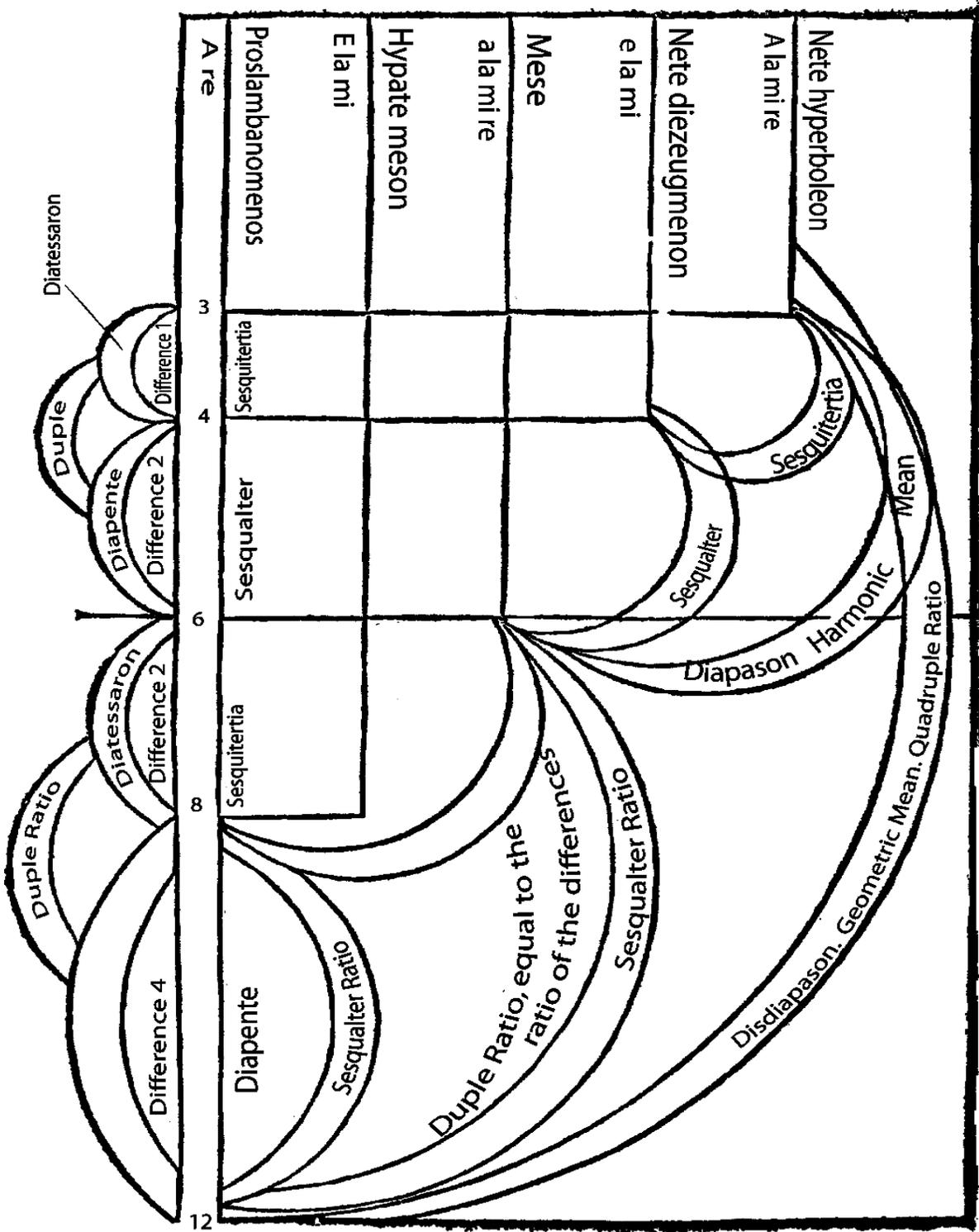


Figure 2b. Diagram of Harmonic and Geometric Means
(Translation)

Rursus cum clericis ecclesiastica quinti toni cantica iuxta ritum Guidonis⁴⁰ diatonice modulantibus minore semitonio sub propria finali descendere permissum sit: ut octauo primi practicæ nostræ notauimus: Plærisque tamen placet ad depositum usque plectrum inter licanon hypaton & hypaten meson descendere / a quo si ad tritensinemenon uoce contigerit modulari/ iutegra⁴¹ illico diapente tribus scilicet tonis ac minore semitonio / sesquialtero interuallo consonabit ut dictum est. Idem quoque consenties / quum plectrum inter proslambanomenen & hypaten hypaton positum quod a parhypate hypaton sesquioctauo toni spatio demissum est / & parhypatesmeson chordam simul percusseris: namque tribus tonis ac minore semitonio extremæ ipsæ chordæ hæmiolia dimensione ab inuicem distant.

8. ¶ Id quoque scitu dignum puto si a prima cuiusque tetrachordi chorda totum chordotonum in acutum nouem æquis partibus diuidas pars prima plectrum deponet inter secundam & tertiam ipsius tetrachordi chordam tono a prima distans.

⁴⁰ Guido. *in margin.*

⁴¹ I.e., integra.

Again, although it was permitted, according to the usage of Guido, for clerics singing ecclesiastic songs of the fifth tone diatonically to descend by a smaller semitone below the proper final,⁴² as I have noted in the eighth chapter of the first book of my *Practica*;⁴³ nevertheless, it pleases some to descend all the way to the plectrum placed between the lichanos hypaton and the hypate meson,⁴⁴ from which—if the singing voice will have arrived at the tritesinemenon—a complete diapente (of three tones and a smaller semitone) will sound in the sesquialter interval, as has been said. You will also agree [that] the same [is true] when you strike together the plectrum placed between the proslambanomenos and the hypate hypaton (which was lowered from the parhypate hypaton by the sesquioctave interval of the tone) and the parhypate meson string,⁴⁵ for the outer strings are distant from each other by three tones and a smaller semitone, in the hemiolic measurement.⁴⁶

9. I hold it to be worthwhile to know that if from the first string of each tetrachord you divide the whole monochord into nine equal parts upward, the first part will place a plectrum between the second and third strings of that tetrachord, distant from the first by a tone.⁴⁷

⁴² I.e., the pitch E below the final F.

⁴³ Gafurio *Practica Musicae* 1.8.

⁴⁴ Again, the pitch E^b.

⁴⁵ I.e., a perfect fifth between B^b and F.

⁴⁶ I.e., 3:2.

⁴⁷ This description, and the one following, of dividing the monochord according to the mixed genus, is a paraphrase from *De harmonia musicorum instrumentorum opus* 2.15.

10. Quod quum a secunda cuiusuis tetrachordi chorda totum in acutum chordotonum octo æquis partibus duxeris partiendum flexo circino uaristrorsum plectrum depones sesquioctauo spatio inter primam ipsius tetrachordi chordam & sibi continuam in graue tono distantem: atque ita perfacile in duo inæqualia semitonia maius scilicet & minus uel econuerso / unumquodque spatium toni diuisibile est / siue primaria diuisione scilicet diatonica / siue secundaria uidelicet permixta: uerum in primaria deductione interualla tonorum simplicia sunt / in secundaria uero composita. Et quidem tonus semper in sesquioctaua proportione collocatur / nec sesquionum spatium dicitur tonus: nam sesquioctogesima proportione minus est sesquioctauo / sed neque sesquiseptima tonum producit quippe que sesquioctauam ipsam sesquisexagesimatertia proportione transcendit. Rursus spatium sesquioctauum toni potest in duo minora semitonia atque comma scindi / at cum minimum sit commatis spatium quod auditionis sensu percipiatur ut decimo ac decimotertio tertii Boetius⁴⁸ asserit / nullum interuallum nullumque discretum sonum concinitati obtinuit accommodatum. Verum Baccheus⁴⁹ diesim ipsam minoris scilicet semitonii dimidio ductam concinitati congruere proposuit / quam enharmonicæ tetrachordorum depositioni Seuerinus⁵⁰ annotauit.

⁴⁸ Boetius. *in margin.*

⁴⁹ Baccheus. *in margin.*

⁵⁰ Seuerinus. *in margin.*

10. So that when from the second string of each tetrachord, you will have reckoned the whole monochord to be divided into eight equal parts upwards, by turning the points of a compass up and down, you will place a plectrum at the sesquioctave interval [from the second string], between the first string of that tetrachord and the next one lying below it, distant by a tone;⁵¹ and thus each interval of the tone is very easily divisible into two unequal semitones, major and minor or vice versa, whether through the primary, diatonic division or the secondary, mixed; however, in the primary construction the intervals of the tones are simple, but in the second they are composite. And indeed the tone is always set in the sesquioctave ratio: the sesquinonal interval is not called a tone, for it is smaller than the sesquioctave by the sesquioctogesimal ratio;⁵² nor does the sequeptima produce a tone, for it exceeds the sesquioctave by the sesquisexagesimatertial ratio.⁵³ Again, the sesquioctave interval of the tone can be divided into two smaller semitones and a comma, and since the interval of the comma is the smallest that can be perceived by the sense of hearing, as Boethius asserts in the 10th and 13th chapters of the third book,⁵⁴ it obtained no interval and no discrete, suitable sound accommodated to harmony. But Baccheus proposed that the diesis, having been brought into harmony, be congruent with half of the smaller semitone,⁵⁵ which diesis Severinus assigned to the enharmonic construction of the tetrachords.⁵⁶

⁵¹ Giovanni Spataro claims in *Errori de Franchino Gafurio da Lodi* 5.11 that Gafurio sent him a corrected copy of the *Apologia*, in which Gafurio stated that the phrase “tono distantem” is a mistake and should read “maiore semitonio distantem.” The Latin text is ambiguous in that the phrase could modify either the accusative “plectrum” or “continuum.” But regardless of which noun it modifies, either phrasing still produces the desired outcome: the pitch Bb. The translation given isolates the phrase in question, illustrating and preserving the ambiguity. Gafurio neither confirms nor denies this claim in any of his later writings.

⁵² I.e., $(9:8) - (10:9) = 81:80$.

⁵³ I.e., $(8:7) - (9:8) = 64:63$.

⁵⁴ Boethius *De institutione musica* 3.10, 13.

⁵⁵ Bacchius Geron *Introduction to the Art of Music*.

⁵⁶ Boethius *De institutione musica* 1.21

Congruum profecto⁵⁷ est admodumque necesse / chordarum sonitus animo atque auribus notos esse: pereunt namque soni ipsi ni memoria teneantur cum scribi non possint: ut Isidorus⁵⁸ inquit. Atque idcirco chordarum sonoritates ratione & scientia frustra colliguntur / nisi fuerint usu & exercitatione notissimæ: ad quarum attentionem integrum permixtæ dimensionis diagramma hic duximus inscribendum.⁵⁹

⁵⁷ Nota. *in margin.*

⁵⁸ Isidorus. *in margin.*

⁵⁹ A iii *in bottom corner.*

It is surely suitable and certainly necessary that the sounds of the strings are recognized by the mind and the ears; for sounds perish unless they are remembered, since they cannot be written down, as Isydorus says.⁶⁰ For that reason the sonorities of the strings are assembled in vain through reason and knowledge unless they will have been learned very well by use and practice; by whose application I have decided to inscribe this entire diagram of the mixed measurement.⁶¹

⁶⁰ Isidore of Seville *Etymologies* 3.15.

⁶¹ Gafurio borrowed the diagram from his *De harmonia musicorum instrumentorum opus* 1.15.

11. ¶ Diuisio toni in semitonium minus & maius uel in duo semitonia minora & comma:
 quam permixtum genus uoco: cum chromaticæ extensioni adhæreat a diatonica non recedens.

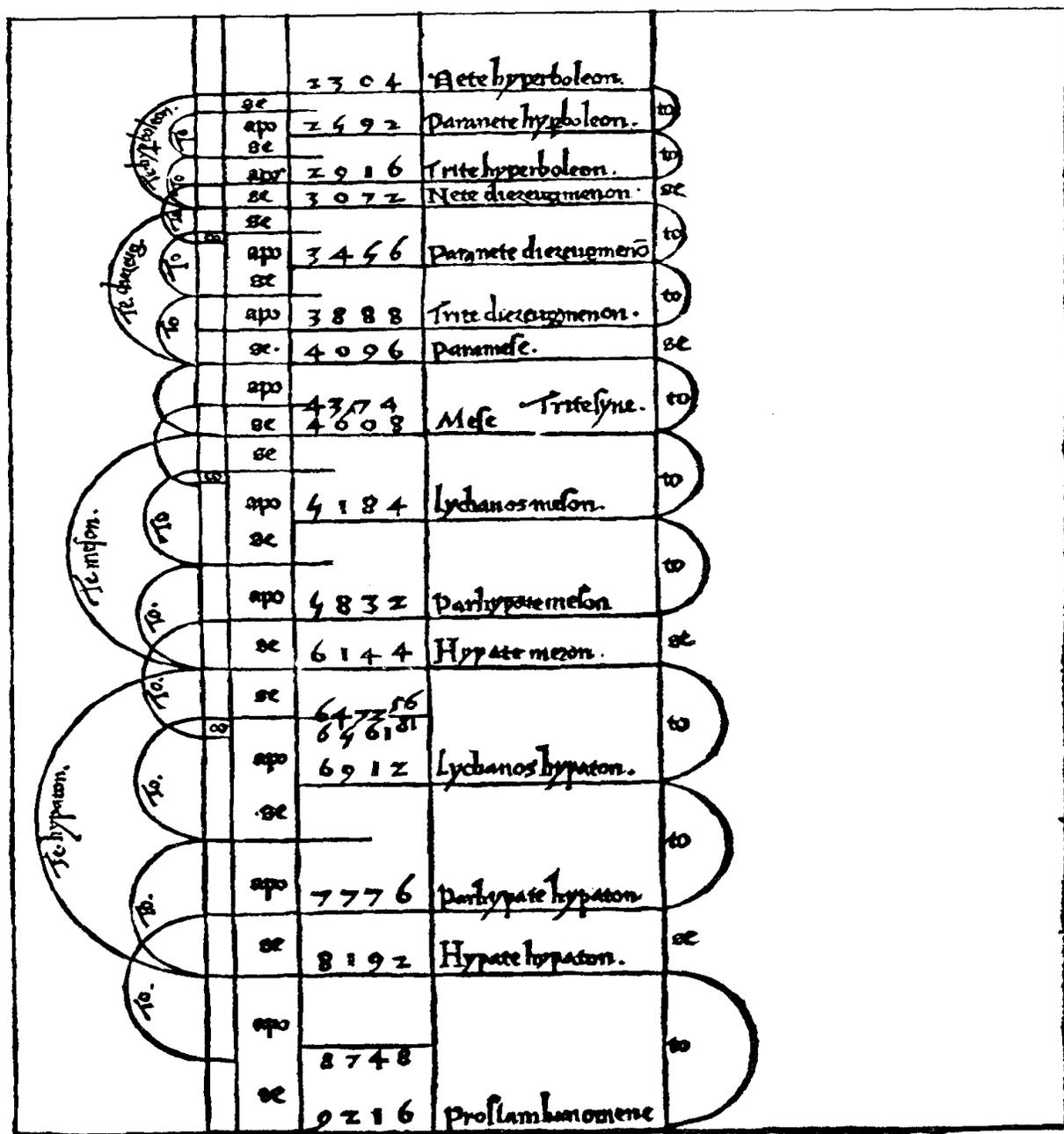


Figure 3a. Diagram of a Divided Monochord
 (Translation)

11. Division of the tone into small and large semitones or into two small semitones and a comma, which I call the mixed genus, since it includes the chromatic extension without departing from the diatonic.

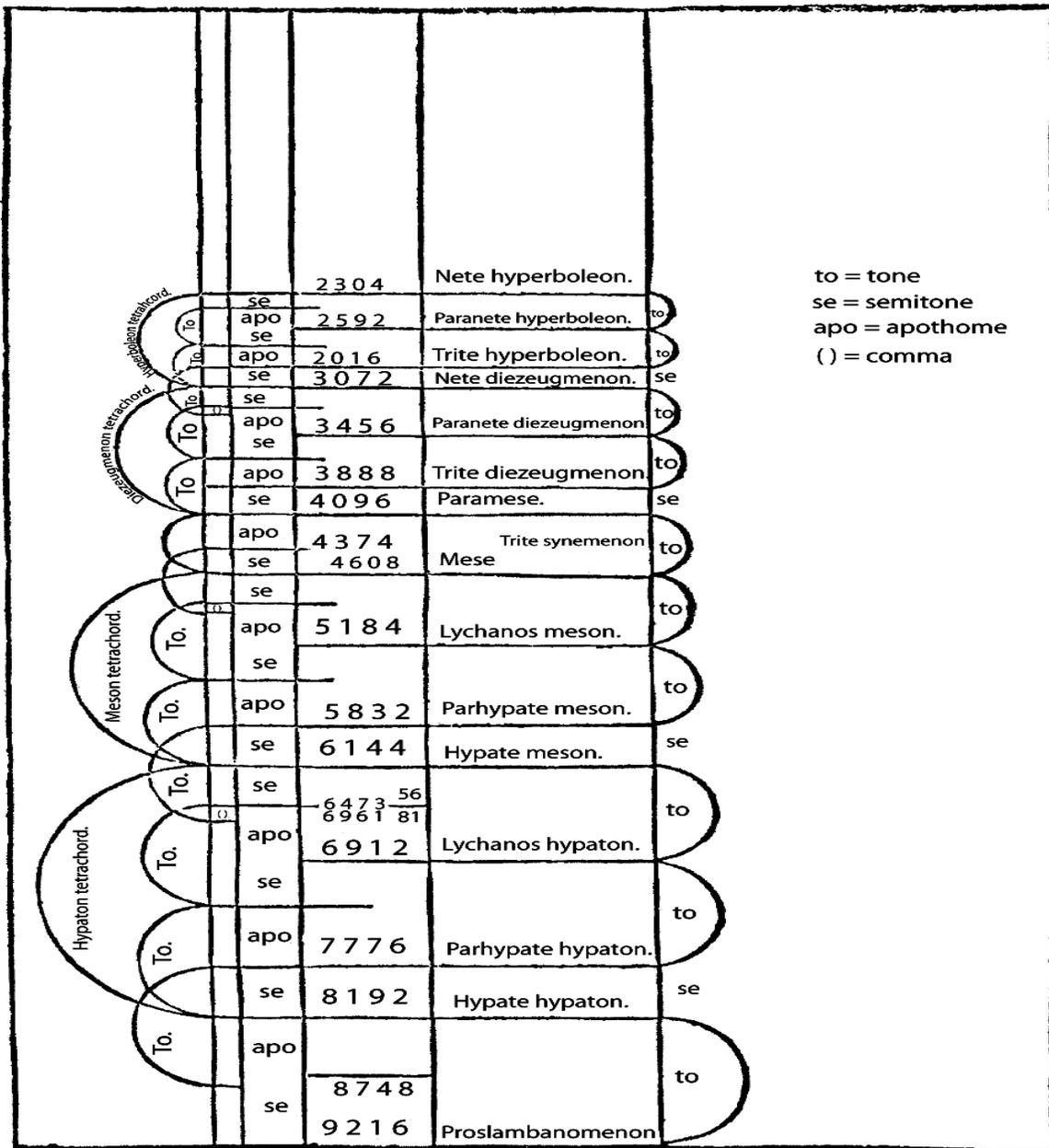


Figure 3b. Diagram of a Divided Monochord (Translation)

12. Caeterum in sextadecima descriptione tua quattuor chartarum plenitudine contenta ad ostentationem ingenii multa deducuntur superflua minimeque necessaria. Niteris enim probare medietatem hanc .6. 5. 3. esse harmonicam cum chordæ sonoræ ipsis numeris annotatæ simul tactæ quandam deducant concinitatem / quod quidem facile conceditur. Nam extremi termini sonoris chordis ascripti diapason consonantiam sonant dupla commensuratione. Inde maioris chorda ad chordam medii tertiam minorem sesquioctogesima proportione semiditonum excedentem. Atque medii termini chorda ad extremam scilicet minoris / sonat sextam maiorem (sesquioctogesima tamen proportione diminutam) Quæ quidem tres chordæ quum simul fuerint percussæ bonam concinitatem producent / non illam tamen suauiSSimam medietatem quam tres ipsæ chordæ iis terminis annotatæ .6. 4. 3. natura concinunt. Hanc precipue medietatem concelebrant harmoniam ut finalem concinnitatem Pythagoras & Plato atque Aristoteles.⁶² Namque hæc diapason integris diastematibus constat uidelicet diapente ex .6. ad .4. atque diatessaron ex .4. ad .3. quibus & ipsa diapason perficitur & dupla proportio pariter coaceruatur. Quod minime dissonant Rhami⁶³ tuo secundo tertii practicæ ubi scribit de hac ipsa medietate harmonica.

⁶² Pythagoras. Plato. Aristoteles. *in margin.*

⁶³ Rhamis. *in margin.*

12. Moreover, in your 16th letter filling four sheets of paper, you adduce many things that are superfluous and scarcely necessary for the display of your cleverness. You strive to prove that this mean 6:5:3 is harmonic since the sounding strings represented by these numbers, when struck together, produce harmony, which is indeed easily conceded, for the outer terms ascribed to the sounding strings sound the consonance of a diapason by the duple proportion; thence from the string of the largest term to the string of the middle term sounds a minor third, exceeding the semitone by the sesquioctogesimal ratio,⁶⁴ and from the string of the middle term to the outer term, that is, the smallest, sounds a major sixth, lessened by the sesquioctogesimal ratio.⁶⁵ And indeed, although these three strings produce a good harmony when struck together, it is not the sweetest mean that the three strings represented by the terms 6:4:3 sound by nature. Pythagoras, Plato, and Aristotle celebrate this harmonic mean, above all, as the ultimate harmony, for the diapason consists of whole intervals—the diapente of 6:4 and the diatessaron of 4:3—and these complete the diapason and add up to the duple ratio. They scarcely sound dissonant to your Ramis in the second chapter of the third book of the *Practica*, where he writes about this harmonic mean.⁶⁶

⁶⁴ I.e., $(6:5) - (32:27) = 81:80$.

⁶⁵ I.e., $(27:16) - (81:80) = 5:3$.

⁶⁶ Ramis *Musica practica* 3.2.

At diapente consonantia cum tribus tonis minoreque semitonio impleatur partes duas diastematicas mediata sustinet & concinnas: ditonum uidelicet & semiditonum. Verum quoniam aliquanto asperam producunt concinitatem (& si rationi Pythagoricæ⁶⁷ & naturali conquiescunt) Ptholomeus⁶⁸ tamen sensu ac ratione perpendit diapentes spatium in duas epimorias habitudines posse dissolui sesquiquartam scilicet & sequiquintam: quæ & si coniunctæ sesquialteram faciunt: ut hic .6. 5. 4. Hinc & diapenten tribus tonis ac minore semitonio productam/ non tamen sesquiquarta ditonum implet / sed & sesquiquinta semiditonum transcendit. Media itaque chorda mutuo huiusmodi participata / sesquioctogesima dimensione uariata pertransit. Hæcque clarius aperta sunt trigesimoquinto ac trigesimosexto atque trigesimoseptimo secundi de harmonia: & octauo tertii acerrime disputata.

13. In septima autem tua blatratoria descriptione deducis hanc medietatem .1. 2. 3. ut mere harmonicam per diapentem in graue & diapason in acutum /quod non admitto: nam differentiæ⁶⁹ terminorum nullam habent in proportione cum extremis terminis conuenientiam: iccirco non longe indifferentem ab hac suauissima concinnitate .6. 4. 3. modulationem producet. Rursus quoniam dupla ipsa .2. ad .1. supra sesquialteram ducta nullum habet naturaliter medium numerum quo integre ac rite possit harmonice mediari Harmonicæ huic .6. 4. 3. medietati coæquari pari suauitate non potest.

⁶⁷ Pythagoras. *in margin.*

⁶⁸ Ptholomeus. *in margin.*

⁶⁹ A iiii *in bottom right corner.*

While the consonance of the diapente, although it is filled by three tones and a smaller semitone, when mediated, bears two intervallic and harmonious parts, a ditone and a semiditone; seeing, however, that they produce a somewhat disagreeable harmony (even if they repose in the natural and Pythagorean relation)⁷⁰ Ptolemy yet carefully considers by sense and reason that the interval of the diapente can be divided into two epimorial ratios,⁷¹ that is, sesquiquarta and sesquiquinta.⁷² Although the conjoined ratios make a sesquialter, like 6:5:4, and the diapente is produced from three tones and a minor semitone, nevertheless, the sesquiquarta does not complete the ditone, and the sesquiquinta exceeds the semiditone. Thus the middle string, mutually tempered, moves, changed by the sesquioctogesimal measurement. These things are explained very clearly in the 35th, 36th, and 37th chapters of the second book of *De harmonia* and most shrewdly argued in the eighth chapter of the third book.⁷³

13. In your seventh babbling letter, you derive the mean 1:2:3 as purely harmonic with the diapente below and the diapason above, which I do not admit, for the differences of the terms do not agree with the outer terms in ratio;⁷⁴ for that reason it will produce a harmony not very distant from this most pleasant harmony 6:4:3. Again since the duple 2:1 placed above the sesquialter⁷⁵ has by nature no mean number by which it can be harmonically mediated wholly and in orthodox fashion, it cannot be made equal in sweetness to the harmonic mean 6:4:3.

⁷⁰ I.e., the Pythagorean ditone = 81:64, and the semiditone = 32:27.

⁷¹ I.e., superparticular ratios.

⁷² Gafurio borrowed this statement from his *De harmonia musicorum instrumentorum opus* 2.15; however, Ptolemy never explicitly states this in his *Harmonia*.

⁷³ Gafurio *De harmonia musicorum instrumentorum opus* 2.35, 36, 37; 3.8.

⁷⁴ I.e., $(3-2) : (2-1) \neq 3:1$.

⁷⁵ I.e., in the proportionality 1:2:3.

Addo quod id euenit propter ipsarum differentiarum (inde & interuallorum) æqualitatem: nam sesquialterum spatium in graue æquum est duplo interuallo ei immediate in acutum continuo Arythmetica medietate ducente: ut ex dimensione Systematis tibicinum trigesimoseptimo secundi de harmonia liquido constat.

14. ¶ Neque etiam sonoritatis amenitate huic æquabitur harmoniæ medietati ex tripla extremorum & differentiarum adinuicem habitudine producta hoc modo

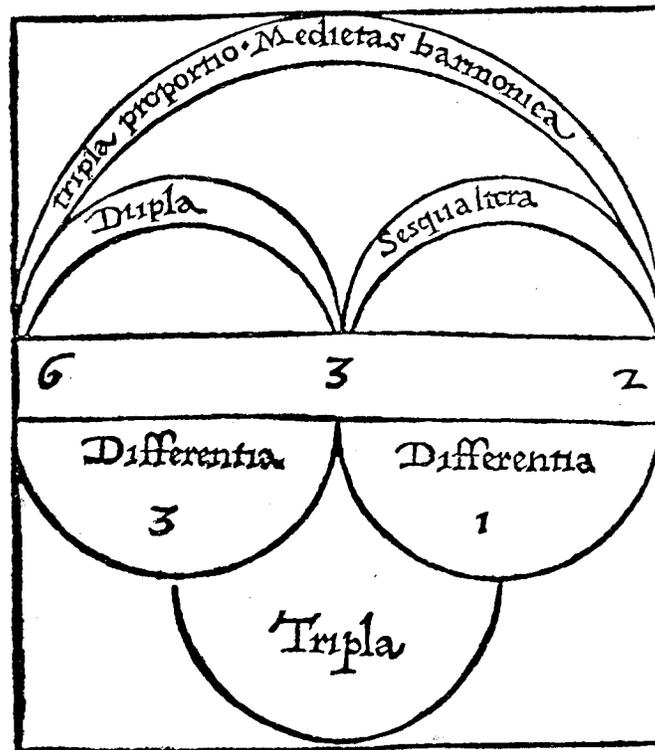


Figure 4a. Diagram of a Harmonic Mean (Latin)

Hic enim qua consideratione maximus terminus accedit ad minimum / ea ipsa / maiorum differentia minorum differentiam noscitur custodire / atque maiores termini ampliorem seruant proportionem minores minorem: quod proprium est mere harmoniciæ medietatis: secus in deducta superiore.

I add that this is so on account of the equality of the differences (and thus of the intervals), for (when governed by the arithmetic mean) the sesquialter interval below is equal to the duple interval immediately above it,⁷⁶ as is clearly manifest on the basis of the measurement of the flute players' scale in the 37th chapter of the second book of *De harmonia*.⁷⁷

14. Nor will it be equal in pleasantness of sonority to the harmonic mean produced by the triple ratio of the extremes and the respective differences [of the mean and the extremes] in this way:

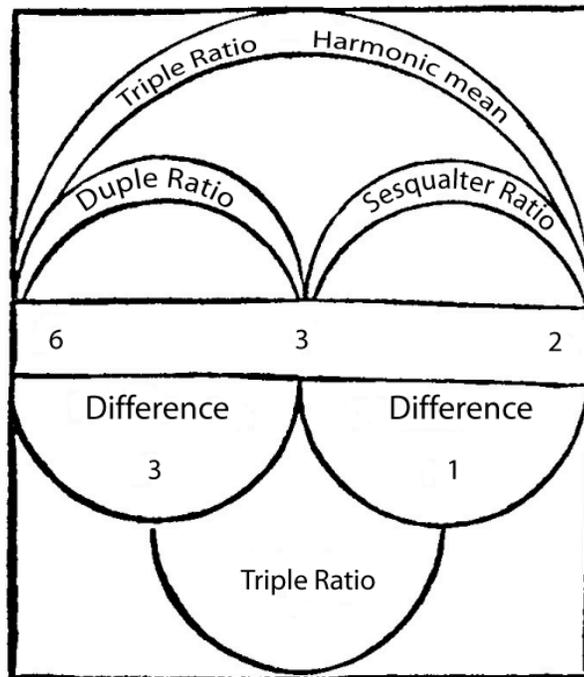


Figure 4b. Diagram of a Harmonic Mean (Translation)

For that reason, the difference of the two larger terms is seen to hold the difference of the two smaller terms by the same amount that the largest term approaches the smallest⁷⁸—which really is characteristic of the harmonic mean, as in the diagram above.

⁷⁶ I.e., $3-2 = 2-1$.

⁷⁷ Gafurio *De harmonia musicorum instrumentorum opus* 2.37.

⁷⁸ I.e., $(6-3):(3-2) = 6:2$.

15. ¶ Damnas insuper uir bone Pythagoram⁷⁹ secretorum naturalium exquisitorem: quod sesquiquartum & sesquiquintum interuallum in integro disdiapason systemate concinna non deduxerit. Id equidem factum existimari licet propter uarietatem accidentalem quæ ipsis obuenerit cum ab integro & proprio diastemate uidelicet a ditono & semiditono sesquioctogesima proportione recedunt. Ipse enim Pythagoras integra diastemata atque partes integras tanquam diastematum membra quæ multiplicitate & superparticularitate integre deducerentur ad harmonicæ medietatis constructionem natura duce considerauit. Hunc Socrates / ac diuinus Plato qui & Dracontem Atheniensem & Metellum Agrigentinum⁸⁰ in musicis audierat sunt secuti. Aristoteles quoque & postremo Torquatus Boetius⁸¹ sane contemplati sunt. Inde ipse Aretinus Guido⁸² ecclesiasticum cantum diatonice descripsit: sed ante eum sacri Pontifices Ignatius / Basilius / Hylarius / Ambrosius / Gelasius / Gregorius⁸³ Monodicam ipsam modulationem sacris ac diuinis obsecrationibus ascripserant.

16. ¶ Putet ne suiratapS ut cancer gradens cuius nomina sunt ipso pene timenda sono Prudentissimos Vates assiduis uigiliis & studiis indulsisse? Nihil profecto ommisit antiquitatis diligentia. At Rhamin illum præceptorem tuum (te non minus impurum) facile petulantia & ingratitude tua sequi uideris.

⁷⁹ Pythagorus. *in margin.*

⁸⁰ Socrates. Plato. Dracon. Metellus. *in margin.*

⁸¹ Torquatus Boetius. *in margin.*

⁸² Guido Aretinus. *in margin.*

⁸³ Ignatius. Basilius. Hylarius. Ambrosius. Gelasius. Gregorius. *in margin.*

15. In addition, good man, you damn Pythagoras, the investigator of natural secrets, because in the entire disdiapason system he did not derive the sesquiquarta and sesquiquinta intervals as consonant. Indeed this can be considered a fact on account of the accidental variation which accrues to them, since they diverge from the whole and proper intervals, that is, from the ditone and semiditone, by the sesquioctogesimal ratio, for Pythagoras himself, following nature, considered whole intervals and whole parts as members of intervals, which were derived entirely through multiplicity and superparticularity to the construction of harmonic means. Socrates and the divine Plato, who had heard both Dracon of Athens and Metellos of Agrigento speak on music, followed him; moreover, Aristotle and lastly Torquatus Boethius certainly studied him. Thence Guido d'Arezzo notated an ecclesiastical song diatonically, but before him the holy Popes Ignatius, Basil, Hylarion, Ambrose, Gelasius, and Gregory ascribed monophonic melody to sacred and divine services.⁸⁴

16. Suirataps, as a walking crab, should you not think that the most prudent prophets, whose “names are to be feared almost by the sound itself,”⁸⁵ gave themselves up to constant vigil and study? Surely diligence has laid aside nothing of antiquity. But in your petulance and ingratitude, you seem to follow your teacher Ramis readily (no less impure than you yourself).

⁸⁴ Gafurio discusses the achievements of these men in his *Theorica musica* 1.1.

⁸⁵ Ovid *Heroides* 13.54-55: “Ilion et Tenedos Simoisque et Xanthus et Ide/ nomina sunt ipso paene timenda sono.” The Latin text’s “cuius” must be read as “quorum” if the passage is to make sense.

Is enim si a Ptholomeo⁸⁶ sesquiquartam ac sesquiquintam (ut asseris) elicuerit concinitatem: quoniam authoris testimonio non est usus (pace tua dixerim) quanquam culpae mortuos leue sit non responsuros / fur sane predicatur & latro. Tu uero / quod Gafureis astructionibus eruditus euaseris (quanquam tibi durum sit contra stimulum calcitrare) incredibili ingratitude nota / liuore & petulantia Gafurium⁸⁷ tuum latranter & calumniose inuasisti.

17. ¶ Quem te præceptorem in instituendis ad musicam adolescentibus credent: qui & litteris uacuum & liuidis detractionibus / moribusque impurissimis ac petulantia plenum nouerint? Qua præceptoris tui irrefragabilis eruditione iuuenes ad musicam introducendi proficient? quum adeo obscurum atque confusum introductorium octo his syllabis psal li tur per uo ces is tas descripserit. Ibi enim minus semitonium naturale uaria & dissimili denominatione notatum est: ut hac animaduersione ipse conterritus ac penitentia ductus (eo ommisso) ad⁸⁸ diatonicum Guidonis introductorium cui & permixtum genus interdixit quasi chromaticis (falso tamen) condensationibus roboratum redire compulsus sit: ut in practicæ suæ processu apertius perspicitur.

⁸⁶ In Spatarius. *in margin.*

⁸⁷ In Rhamin. *in margin.*

⁸⁸ A v *in bottom right corner.*

For if (as you assert) he elicited the sesquiquartal and the sesquiquintal harmony from Ptolemy (inasmuch as—by the testimony of authority there is no need—I should have said, by your leave, though it is easy to blame the dead who will not answer), he would be readily called a thief and a liar. But you, because you have departed from the learned evidence of Gafurio (though it may be hard for you to kick against the pricks)⁸⁹ with well known incredible ingratitude, you attacked your Gafurius with spite and petulance, slanderously barking like a dog.

17. [According to] you, which teacher will they believe in instructing adolescents in music, and how will they have accepted one devoid of learning and full of spiteful slanderings, filthy morals, and petulance? By means of what doctrine of your iconoclastic teacher will young men progress in being introduced to music?—since, moreover, he wrote a dark and confused “Introductorium” with these eight syllables “psal-li-tur per vo-ces is-tas.” For there the natural minor semitone was marked by a different and dissimilar indication; so that by this observation, he himself, frightened and led by penitence (having neglected to mention it) was compelled to return to Guido’s diatonic “Introductorium,”⁹⁰ into which he also inserted the mixed genus as if supported by chromatic compressions (although falsely), as is very clearly observed throughout the course of his *Practica*.

⁸⁹ Acts 24:16.

⁹⁰ Guido’s “Introductorium” was a system of twenty-two pitches representing overlapping hexachords. Gafurio discusses this system in *Practica musicae* 1.2 and in *Theorica musicae* 5.6.

18. In decimaoctava & ultima descriptione tua citasti me quod capite tertio quarti libri de harmonia ascripserim terminum extremum Dorio modo in acutum nete sinemenon chordæ/ cum tetrachordum coniunctarum ulli diastematum figuræ non admittatur. Ibi nos ponimus Netem sinemenon ut chordam extremam / quam & Paraneten diezeugmenon nominare possumus cum unum eundemque simul pulsatae sonum emittant eodem loco consistentes. Verum ad diatessaron huiusmodi productionem neque tetrachordo coniunctarum opus est / neque tetrachordi disiunctarum integritas procedit. immo ea ipsa diatessaron idea competit: quam hypodorius ab assumpta ad lycanon hypaton observat sub diapente arithmetice mediatus. Est enim eadem replicata: tono (scilicet disiunctiuo) ac semitonio & tono a mese ad paraneten diezeugmenon seu ad netem sinemenon: ut dictum est: siue iuxta Guidonis institutionem ab a la mi re / ad d la sol re. Quod si (ut praeceptor⁹¹ ille tuus irrefragabilis primo tertii practicae suae proposuit) Quarta species diapason fiat a lycano hypaton in Paraneten diezeugmenon diuisa per lycanonmeson / idest procedens secundum Guidonem⁹² a D sol re ad d la sol re (mediata scilicet in G sol re ut: per primam diatessaron speciem in graue & quartam diapentes speciem in acutum) Primi ecclesiastici toni autentici⁹³ (est enim Dorius in quarta ipsa diapason figura consistens) naturalis auctoritas subuerteretur / & quod sacra modulatio egre ferret dux ipse tonus in comitem declinaret.⁹⁴

⁹¹ B. Rhamis. *in margin.*

⁹² Guido. *in margin.*

⁹³ Tonus authenticus in placalem converteretur. *in margin.*

⁹⁴ Guido. Tonus authenticus in placalem convertitur. *in marg.*

18. In your 18th and final letter you accused me of ascribing, in the third chapter of the fourth book of the *De harmonia*, the upper limit of the Dorian mode to the nete sinemenon pitch,⁹⁵ even though the tetrachord of the conjunctas is not allowed in any illustration of the intervals. There I do place the nete sinemenon as the highest string, and we can also call it the paranete diezeugmenon since, inasmuch as—sitting in the same place—they emit one and the same pitch when plucked together. But to produce this diatessaron, there is no need of the tetrachord of the conjunctae, nor does the completeness of the tetrachord of the disjunctae proceed from it. Rather, this diatessaron corresponds to that species which the Hypodorian, mediated arithmetically at the diapente below, observes from the proslambanomenos⁹⁶ to the lycanos hypaton, For going from the mese to the paranete diezeugmenon by a tone (through a disjunct one), semitone, and a tone is the same as going to nete sinemenon, as has been said: according to Guido's doctrine, from *a la mi re* to *d la sol re*.⁹⁷ But if (as your iconoclastic teacher proposed in the first chapter of the third book of his *Practica*) the fourth species of diapason is made from lycanos hypaton to paranete diezeugmenon divided by lycanos meson, that is, proceeding, according to Guido, from *D sol re* to *d la sol re* (mediated on *G sol re* ut by the first species of diatessaron below and the fourth species of diapente above), the natural authority of the ecclesiastical first authentic tone would be subverted, for it is the Dorian residing in the fourth figure of the diapason; and because the sacred melody would have proceeded weakly, the leader would have deviated to the follower.⁹⁸

⁹⁵ I.e., the pitch *d*.

⁹⁶ Because it was "added on" to the original system of Greek tetrachords, the proslambanomenos is often referred to as the "assumpta."

⁹⁷ Gaffurio seems to say that it does not matter whether *d* is named as a member of the synemmenon tetrachord or the diazeugmenon tetrachord, as long as the species of the diatessaron from *a* to *d* is seen to be the same as that from *A* to *D*. Perhaps the issue, for Spataro, was that the diezeugmenon tetrachord includes what we call B natural, the synemmenon tetrachord B-flat.

⁹⁸ I.e., the mode would change from authentic to plagal.

19. ¶ Cum autem nonum caput quarti de harmonia attigisti: ubi notatur hypermixolidius modus a Ptholomeo⁹⁹ octauus in ordine a mese ad neten hyperboleon cæteris acutior / consimilibus diastematibus hypodorio correspondens. Asseris Ptholomeum diuersis diastematibus (diapentes scilicet & diatessaron figuris) hypermixolidium ipsum ab hypodorio in pleno quindecim chordarum systemate diatonico / differenter construxisse. Id tibi notum esse uelim hypermixolidium ab hypodorio (non formaliter sed solo acumine) integro ipsius hypodorii systemate distare/ cum solam chordam communem uidelicet mesen possideant. Nam cum unusquisque modus diapason consonantiam seruet. Rursus diapason ipsam septem ideis scilicet uariis speciebus (una minus quam sint eius uoces) uariari contingat / quæ ultra septem huiusmodi figuras in euentum processerit: quoniam solam chordam cum prima communem habebit non ponitur formaliter ab ipsa differens / sed solo distant ab inuicem acumine: ut clarius expositum est nono ipso capite quarti: Boetii auctoritate tertriodecimo quarti musicæ roboratum. Inde hypermixolidius ipse modus quod supra mixolidium connumeratus sit / tono per totam eius constitutionem ipso mixolidio acutior est / quem & Ptholomeus¹⁰⁰ cæteris modis connumerauit ut a mese ad neten hyperboleon species ipsa diapason (quanquam ordine iterata) congrua denominatione notaretur.

⁹⁹ Ptholomeus *in margin.*

¹⁰⁰ Ptholomeus *in margin.*

19. Moreover you mentioned the ninth chapter of the fourth book of the *De harmonia*, where the Hypermixolydian mode is noted by Ptolemy [as] eighth in the order, from mese to nete hyperboleon, higher than the others, corresponding to the Hypodorian due to similar intervals. You assert that Ptolemy constructed the Hypermixolydian differently from the Hypodorian in the full diatonic system of fifteen strings by different intervals, that is, through the species of the diapente and the diatessaron. I should be glad for you to know that the Hypermixolidian is different from the Hypodorian (not in form but only in register) through the entire scale of the Hypodorian, since they possess only a single string in common, the mese. For, since each mode preserves the consonance of a diapason,⁸⁷ the diapason, in turn, happens to be varied by seven types, that is, by various species (one species fewer than there are notes) which will have progressed in the event beyond seven of these figures, inasmuch as it will have a single string in common with the first, it is not postulated as differing from the other in form, but they differ from each other only in register, as is clearly explained in the ninth chapter of the fourth book,¹⁰¹ reinforced by the authority of Boethius in the 13th chapter of the fourth book of the *Musica*.¹⁰² Thence the Hypermixolydian mode, which might be reckoned above the Mixolydian, is higher-pitched than the Mixolydian by a note through its entire structure, and Ptolemy reckoned it among the other modes, as this species of the diapason (although repeated in order) was notated by a similar indication from the mese to the nete hyperboleon.¹⁰³

¹⁰¹ Gafurio *De harmonia musicorum instrumentorum opus* 4.9.

¹⁰² Boethius *De institutione musica* 4.13.

¹⁰³ Gafurio continues an incorrect tradition that Ptolemy included the Hypermixolydian as the eighth mode. See Bower, *Fundamentals of Music*, p. 160 n. 91.

Neque hunc putes tonum illum esse quem ecclesiastici octauum & placalem ponunt: cum octauus ipse tonus placalis quartam speciem diapentes in acutum a licano meson ad paraneten diezeugmenon seu a G sol re ut ad d la sol re compræhendat / & primam diatessaron descendentem ab ipsa licano meson in licanon hypaton / seu ab ipsa G sol re ut in D sol re contineat. At hypermixolidius a mese ad neten hyperboleon seu a prima a la mi re ad alteram aa la mi re integram possidet constitutionem: ut septimo primi practicæ nostræ post septem annotatas diapason ideas perlucide descriptum est.

20. Cum manibus attrectarem duas primas detractorias descriptiones tuas: circa ea quæ nobis in librum hunc de harmonia musicorum instrumentorum ad nonnulla (etiam non necessaria) obiecisti duximus respondendum / ac primum ad primam obsignatam Bononiæ die ultima Februarii .1519. Dicimus Tetrachordum & Quadrichordum indifferentur consyderari: nam unumquodque quattuor compræhendit chordas.

21. ¶ At tetrachordum antiquissimum Mercurii duabus extremis chordis diapason consonabat atque ad medias inuicem diatessaron ac tonum quibus diapente respondebant rursus diatessaron his numeris producebant .6. 8. 9. 12.⁹⁴ Inde quattuor ipsarum chordarum hypate / parhypate / paranete nete.⁹⁵ Quattuor elementorum conuenientiæ instar.⁹⁶ Prima grauissimum sonum / Secunda minus grauem / Quarta acutissimum / Tertia minus acutum.

Nor should you think it to be that tone which ecclesiastics place as eighth, and plagal, since the eighth plagal tone includes the fourth species of diapente above, from lichanos meson to paranete diezeugmenon or from *G sol re ut* to *d la sol re*, and contains the first species of the diatessaron descending from the lichanos meson to the lichanos hypaton, or from *G sol re ut* to *D sol re*. But the Hypermixolydian will possess the entire structure from the mese to the nete hyperboleon or from the first *a la mi re* to the second *aa la mi re*, as is described very clearly in the seventh chapter of the first book of my *Practica* after the seven notated species of the diapason.¹⁰⁴

20. I should have dealt with your first two slanderous letters: I think that a response should be made concerning those things for which you reproached me with respect to some—unessential—points in the book *De harmonia musicorum instrumentorum*, and firstly to the first, signed Bologna the last day of February 1519, I say that the tetrachord and quadrichord are not considered differently, for each encompasses four strings.

21. But the most ancient tetrachord of Mercury sounded a diapason between the two outer strings, and the middle strings, to themselves and to the outer strings respectively, produced a tone, a dyapente, and a diatessaron by these numbers 6:8:9:12,¹⁰⁵ thence [they produced] four of the strings: hypate, parhypate, paranete, and nete; the form of the four harmonic elements—by the first the lowest note, the second the less low, the fourth the highest, and the third the less high.¹⁰⁶

¹⁰⁴ Gafurio *Practica musice* 1.7.

¹⁰⁵ Gafurio borrowed this from his *Extractus parvus musicae* (c.1474): “Prima autem corda ad quartam diapason resonabat, medie vero ad se inuicem atque extremas tonum, dyapente ac diatessaron offerebant, quibus nil repriebatur inconsonum, quarum Mercurium invenimus inventorem fuisse.” The Latin text “atque ad medias inuicem diatessaron ac tonum quibus diapente respondebant rursus diatessaron his numeris producebant. 6.8. 9. 12.” is problematic. The translation given is a combination of the two texts: “At tetrachordum antiquissimum Mercurii duabus extremis chordis diapason consonabat atque medie ad se inuicem atque extremas tonum, dyapente ac diatessaron his numeris producebant .6. 8. 9. 12.”

¹⁰⁶ Here Gafurio combines several different accounts of the tetrachord of Mercury: the description of the intervals is taken from Boethius *De musica* 1:10, the numbers themselves are customarily associated with Pythagoras, and the string names and associations with the elements are taken from *De harmonia musicorum instrumentorum opus* 1.1.

Verum cum extremæ inuicem diapason consonarent ac reliquæ secundum propositas proportiones: ut facile reliqua ipsarum quattuor chordarum spatia condensarent uariis terminis superducto plectro ad plenitudinem septem discretorum sonorum digitis contrectabant / quod & in simplici tritechorda lyra experimento peruidetur. Nec putes Tetrachordum semper intelligi Diatessaron consonantiam duorum scilicet tonorum ac semitonii sesquitertio productam interuallo. Nam unumquodque spatium quattuor chordis ductum tetrachordum seu quadrichordum uocitatur. Namque tritonus quattuor chordis ductus a parhypate meson ad paramesen & si diatessaron excedat tetrachordum est.

22. ¶ Rursus triplum interuallum harum quattuor chordarum proslambanomenos / hypates meson / meses. ac netes diezeugmenon processu ¹⁰⁷ diapason ac diapentem consonans / est tetrachordum: non tamen sesquiterciam.

23. ¶ Tonus item compositus permixti scilicet generis cum minore semitonio sibi continuo uti a Proslambanomeno ad parhypaten hypaton / est tetrachordum (non tamen sequitertium neque diatessaron.)

24. ¶ Ioannes Cocleus¹⁰⁸ noricus Nurimbergensis Phonascus librum quem de musica quadrifariam distinctum scripsit / tetrachordum nominat.

25. ¶ Samius lichaon¹⁰⁹ qui octauam chordam musico systemati iniunxit: ipse Pythagoras a plærisque creditur. Verum hæc ipsa historiæ non eruditioni ascribi solent.

¹⁰⁷ I.e., /.

¹⁰⁸ Ioannes Cocleus *in margin.*

¹⁰⁹ Samius lichaon *in margin.*

But since the outer ones sounded a diapason with each other and the remaining ones sounded according to the stated ratios, so that they easily packed the remaining intervals of the four strings together from various terms with an added plectrum and they touched the fullness of seven discrete pitches with the fingers, which is also perceived by demonstration in the simple three-stringed lyre. Nor should you think that a tetrachord is always understood as the consonance of a diatessaron, that is, the consonance of two tones and a semitone, produced by the sesquiterial interval. For any interval constructed from four strings is called a tetrachord or a quadrichord. To be sure, a tritone constructed from four strings from parhypate meson to paramese is a tetrachord, even though it exceeds a diatessaron.

22. Furthermore a triple interval by the progression of these four strings: proslambanomenos, hypate meson, mese, and nete diezeugmenon; sounding together a diapason and diapente, is a tetrachord, but not a sesquiteria.

23. Likewise a composite tone, that is, a tone of the mixed genus, with a minor semitone connected to it, as from proslambanomenos to parhypate hypaton, is a tetrachord (but neither a sesquiteria nor a diatessaron.)

24. The Austrian Johannes Cochleus, the music teacher of Nuremberg, names the four-part book, that he wrote concerning music, the *Tetrachordum*.¹¹⁰

25. Lychaon of Samos, who joined an eighth string to the musical system, is believed by very many to be Pythagoras himself.¹¹¹ But these things are customarily ascribed to legend and not fact.

¹¹⁰ Cochlaeus *Tetrachordum musices* (Nürnberg, 1511).

¹¹¹ See Bower *Fundamentals of Music*, p.32 n. 107.

26. In secunda tua detractoria latratione obsignata Bononiæ die .xxii. Martii .1519. asseris hoc minus semitonium . 256. ad .243. illud precise non esse quod usui euenit in consonantiis noui instrumenti harmonici: sed hoc maius atque auctius illo esse proportione sesquioctogesima. Id quidem uerum est: nam secundum Ptholomeum¹¹² ut trigesimoquarto secundi de harmonia aperuimus: duo illa spatia superparticularia scilicet sesquivigesimumtertium & sesquiquadragesimumquintum / loco ipsius minoris semitonii enharmonice compositi deducta sesquioctogesima eum proportione transcendunt: quod facile percipi potest ex his quæ trigesimoseptimo secundi inscripsimus admirantes congruentem potentiam sesquioctogesimæ proportionis in communicandis spatiis tum diminutione tum augmento: ut sane compræhenditur in hoc diagrammate in quo deposita sunt genera melodica Chromaticum Boetii¹¹³ Seuerini/ & Chromaticum molle Ptholomei:¹¹⁴ atque Enharmonicum utriusque.

¹¹² Ptholomeus *in margin.*

¹¹³ Boetius. *in margin.*

¹¹⁴ Ptholomeus. *in margin.*

26. In your second slanderous barking signed Bologna the 22nd day of March 1519, you assert that the minor semitone 256: 243 is not precisely that which comes about in actual practice in consonances of the new harmonic instrument; rather it is larger and increased beyond it by the sesquioctogesimal ratio. Indeed it is true, for according to Ptolemy, as I explained in the 34th chapter of the second book of the *De harmonia*,¹¹⁵ those two superparticular intervals, that is, sesquivigesimatertia and sesquiquadragesimaquinta, adduced in place of the minor semitone, placed enharmonically, exceed it by the sesquioctogesimal ratio, which can easily be perceived from what I wrote in the 37th chapter of the second book,¹¹⁶ with respect to the harmonious power of the sesquioctogesimal ratio in apportioning intervals by diminution or augmentation, as is certainly dealt with in this diagram in which the melodic genera have been placed—the chromatic of Severinus Boethius, the soft chromatic of Ptolemy, and the enharmonic of each.¹¹⁷

¹¹⁵ Gafurio *De harmonia musicorum instrumentorum opus* 2.34. I.e. $(24:23) + (46:45) - (256:243) = 81:80$

¹¹⁶ Gafurio *De harmonia musicorum instrumentorum opus* 2.37.

¹¹⁷ Gafurio borrowed the diagram from his *De harmonia musicorum instrumentorum opus* 2.18.

	Diatoni cū natura le genus secūdum Pythago rā & Boe tium.	Chroma ticum ge nus Py thagoræ secūdum Boetium.	Chroma ticū mol le genus secūdum Ptholo meum.	Ennar/ monicū genus Pytha goræ se cundum Boetium	Ennar/ monicum genus se cundum Ptholo meum.
	Aete hypbo.				
to.	¶ Danete hyp	tria se.	Seſq̄quātia	ditonus.	Seſq̄quarta
to.	¶ Tritē hypbo.	se.	Seſq̄ 14		Seſq̄ 23
se.	¶ Aete mezeug	se.	Seſq̄ 27		Seſq̄ 44
to.	¶ Danete die.	tria. se.	Seſq̄quātia.	ditonus	Seſq̄quarta
to.	¶ Tritē die	se.	Seſq̄ 14.		Seſq̄ 23.
se.	¶ Daramele	se.	Seſq̄ 27		Seſq̄ 44.
to.	¶ Eſe.				
to.	¶ Lycha. meſo.	tria. se.	Seſq̄quātia.	ditonus	Seſq̄quātia
to.	¶ Hypa. me.	se.	Seſq̄ 14.		Seſq̄ 23
se.	¶ Hypate me.	se.	Seſq̄ 27.		Seſq̄ 44.
to.	¶ Lycha. hypa.	tria. se.	Seſq̄quātia	ditonus.	Seſq̄quarta
to.	¶ Hypa. hy.	se.	Seſq̄ 14		Seſq̄ 23
se.	¶ Hypate hi.	se	Seſq̄ 27		Seſq̄ 44.
to.	¶ Nābano.				

Figure 5a. Diagram of Different Tetrachord Divisions
(Latin)

to = tone
se = semitone

	Natural Diatonic genus according to Pythagoras and Boetius	Chromatic genus according to Pythagoras and Boetius	Soft Chromatic genus according to Ptolemy	Enharmonic genus according to Pythagoras and Boetius	Enharmonic genus according to Ptolemy
	Nete hyperboleon				
to	Paranete hyperboleon	trihemitone	6:5	ditone	5:4
to	Trite hyperboleon	semitone	15:14	diesis	24:23
se	Nete diezeugmenon	semitone	28:27	diesis	46:45
	Paranete diezeugmenon	trihemitone	6:5	ditone	5:4
to	Trite diezeugmenon	semitone	15:14	diesis	24:23
se	Paramese	semitone	28:27	diesis	46:45
to	Mese				
	Lychanos meson	trihemitone	6:5	ditone	5:4
to	Parhypate meson	semitone	15:14	diesis	24:23
se	Hypate meson	semitone	28:27	diesis	46:45
	Lychanos hypaton	trihemitone	6:5	ditone	5:4
to	Parhypate hypaton	semitone	15:14	diesis	24:23
se	Hypate hypaton	semitone	28:27	diesis	46:45
to	Proslambanomenon				

Diagram 5b. Diagram of Different Tetrachord Divisions
(Translation)

27. Contingit plærumque hoc semitonium minus .256. ad .243. in frequentatis musicis instrumentis diminui hac proportione sesquisexagesimatertia .64. ad .63. ut in generis tonici diatoni depositione Ptholomeus¹¹⁸ statuit / producens tetrachordum a graui in acutum sesquiugesimoseptimo / ac sesquiseptimo / & sesquioctauo interuallis: quod uigesimonono secundi de harmonia notauimus.

28. ¶ At proportio hæc minoris semitonii .256. ad .243. & si superpartiens est / superparticularitati sesquidecimæoctauæ proximius adhæret: quam sesquidecimænonæ. Hoc tamen proposito nostro parum conferre uidetur.

29. ¶ Summopere insuper congruit usui musicorum instrumentorum tetrachordum ipsum diatonicum Boetii¹¹⁹ / quippe quod Ptholomeus¹²⁰ ipse tanquam naturale omnium diastematum exordium / a quo cætera genera collabuntur noscitur celebrare: ut uigesimo secundi de harmonia in calce deductum est. Atque iccirco omnia modulationum genera ex conuersione singulorum in diatonicum ipsum tanquam ad principium unde exorta sunt resoluuntur: ut uigesimoquarto & uigesimoquinto atque sequentibus secundi de harmonia aperte demonstramus.

30. Non insuper sum immemor quam incredibiliter garrulus latraueris dum asseuerares duplam ac sesqualteram coniunctas sesquitertiam producere hoc ordine .4. 2. 3. statuens duplam .4. ad .2. & sesqualtetam .2. ad .3. quod falso arbitraberis.

¹¹⁸ Ptholomeus. *in margin.*

¹¹⁹ Boeius. *in margin.*

¹²⁰ Ptholomeus. *in margin.*

27. Often, the minor semitone 256:243 happens to be diminished in numerous musical instruments by the sequisextagesimal ratio 64:63, as Ptolemy decrees in the construction of the tonic diatonic genus, producing a tetrachord from low to high through the sesquivigesimoseptimal, the sesquiseptimal, and the sesquioctave intervals, which I noted in the 29th chapter of the second book of *De harmonia*.¹²¹

28. But the ratio of the minor semitone, 256:243, even though it is superpartient, adheres more closely to the superparticularity of the sesquidecimoctava than to the sesquidecimanona; however this hardly seems to apply to my proposition.

29. In addition, the diatonic tetrachord of Boetius is exceedingly well suited to the practice of musical instruments, and of course Ptolemy himself is known to celebrate it as the natural origin of all intervals, from which the remaining genera are arranged,¹²² as is reckoned at the end of the 20th chapter of the second book of *De harmonia*.¹²³ And on that account, all the genera of melodies are reduced through the transposition of the individual genera to the diatonic itself, as to the beginning from which they emerged, as I clearly demonstrated in the 24th, 25th, and the following chapters of the second book of *De harmonia*.¹²⁴

30. Moreover, I am not forgetful of how incredibly loquaciously you barked when you were asserting that the duple and sesquialter intervals produce a sesquitertia, placing a duple 4:2 and a sesquialter 2:3 in this order, 4:2:3, which you judged falsely.

¹²¹ Gafurio *De harmonia musicorum instrumentorum opus 2.29*. I.e., 28:27, 8:7, 9:8

¹²² Literally, fall [into place].

¹²³ Gafurio *De harmonia musicorum instrumentorum opus 2.20*.

¹²⁴ Gafurio *De harmonia musicorum instrumentorum opus 2.24, 25*; etc.

Nam si .4. ad .2. est dupla: duo ad tria subsesqualteram probant: hinc .4. ad .3. sequitertiam: nam dupla & sesqualtera faciunt triplam hoc modo .6. 4. 3. sed dupla et subsesqualtera cum hæc minoris sit inæqualitaris / illa maioris / sesquitertiam monstrant hoc modo .4. 2. 3. cuius rationem notauimus uigesimo primi de harmonia ubi sic legitur Insuper est considerandum.

31. ¶ Verum si uidisses Volumni¹²⁵ Rodulphi Spoletani disputationem de proportione proportionum quam olim Ioannes Marlianus¹²⁶ Mediolanensis Mathematicus atque philosophus Physicusque celeberrimus / in Ticinensi Gymnasio celeberrime disputauerat atque descriperat: profecto cecitas ipsa in hunc errorem te non deduxisset.

32. Postremo cum uilitigatorum ac mistilionum complicum tuorum contumelias (immo tuas) petulantiamque perhorrescerem / decreueram penitus prudentis conquiescere dictis. Contra uerbosus noli contendere uerbis.¹²⁷ Verum cum mihi sese obtulerit / tertiadecima descriptio tua quintodecimo octobris transacti obsignata penitentia ductus huic ipsi respondere passus sum. In ea enim proponis huic quesito nostro te minime responsurum. Quesieram a te si consonantia est acuti soni grauisque mistura suauiter uniformiterque acribus accidens: quomodo sit illa mistura? per coniunctionem? an per adhærentiam unius alteri? Rursus in consonantia quis sonus alteri plus conferat acutus graui / an grauis acuto? & quis duorum præesset?

¹²⁵ Volumnius. *in margin.*

¹²⁶ Ioannes Marlianus. *in margin.*

¹²⁷ Cato. *in margin.*

For if 4:2 is the duple, 2:3 demonstrates the subsesqualter, hence 4:3 the sesquitertia, for the duple and sesqualter make the triple in this way, 6:3:2; but the duple and the subsesqualter (because the latter is of minor inequality, the former of major inequality) show the sesquitertia in this way, 4:2:3, the reason for which I noted in the 20th chapter of the first book of *De harmonia* where it reads thus: “Insuper est considerandum .”¹²⁸

31. But if you had seen the *De proportione proportionum disputatio* of Volunnio Ridolfi of Spoleto,¹²⁹ which the most celebrated mathematician, philosopher, and physicist Giovanni Marliani of Milan had formerly argued and described most famously at the Gymnasium of Ticino, that very blindness would certainly not have led you into this error.

32. Lastly although I trembled at the insults—yours!—and petulance of your accomplices (calumniators and half-breeds!), I had decided to remain completely silent. In the words of an expert: “Don’t match words with the verbose.”¹³⁰ But since your 13th letter, signed on the 15th of last October, arrived, having been led to repent, I submit to responding. For in it you show yourself hardly responsive to my question. I had asked you: if consonance is a mixture of a high sound and a low sound falling uniformly and sweetly on the ears, in what way is it a mixture—by conjunction, or by adhesion of one to the other? Again, which sound in the consonance is it that unites more to the other, the high to the low or the low to the high? And which of the two is predominant?

¹²⁸ Gafurio *De harmonia musicorum instrumentorum opus* 1.20.

¹²⁹ Vollunio Ridolfi *De proportione proportionum disputatio* (Rome, 1516)

¹³⁰ Cato *Disticha* 1.10; text available in facsimile at

<http://libezp.lib.lsu.edu/login?url=http://opac.newsbank.com/select/evans/20263>.

Nam tertiodecimo problemate partis harmonicæ elucidator Petrus Apponensis¹³¹ ita proposuit. Quod habet rationem acuti plærumque pertransit in graue. Et quod habet rationem grauis non permutatur in acutum: quod in permutationibus generum Seuerinus ipse Boetius¹³² a diatonico in chromaticum & in enharmonicum est prosecutus ob facilem chordarum depositionem. Nam facilis descensus auerni / & integram terminorum proportionem atque notam concinnorum interuallorum circinno duce dimensionem.¹³³ Verum ibi loquens de sonis Aristoteles¹³⁴ dicit grauis sustentat acutum. Inde quod scriptum sit Maledictus homo qui negligit famam suam: nam & si patior tellis uulnera facta meis / monstrum tamen illud horrendum non pertimescimus:¹³⁵ nam præuisa minus lædere tella solent. Putat enim ut ethnici solent in multiloquio & calumniosa latratione se peritiorem musicum haberi. Quis liuor o demens? quæ te petulantia duxit Caninos inferre morsus? rabiemque uenenumque Infigere & nobis cum te polliceris inique Si superstes eris / semper moleste deferri. An nescis belua monstruosa prudentis sententia In maliuolam animam sapientiam non introire?¹³⁶ Quibus non eueneris ludibrio/ cum ea te nouerint temeritate lapsum ut labores & uigilias sustinere fatearis quo Franchinum doceas a quo fere quicquid habes duobus ac triginta iam annis didicisti?

¹³¹ Petrus Apponensis. *in margin.*

¹³² Boetius Severinus. *in margin.*

¹³³ Vergilius. *in margin.*

¹³⁴ Aristoteles. *in margin.*

¹³⁵ Ovidius. *in margin.*

¹³⁶ Salomon *in margin.*

For in the 13th problem of the part on harmonics, the Elucidator Pietro D’Abano proposed thus, “because it certainly makes sense that the high passes through into the low, and because it makes sense that the low is not permuted to the high,”¹³⁷ a topic which Severinus Boethius himself pursued in the permutations of the diatonic to the chromatic and to the enharmonic in connection with the easy arrangement of the strings. “For the descent to Avernus is easy,”¹³⁸ draw with a compass the whole ratio of terms and the known measurement of the harmonious intervals. But in that context Aristotle says, speaking about sound, the lower supports the higher;¹³⁹ thence that which has been written, “Cursed will be the man who ignores his reputation,”¹⁴⁰ for even though I endure wounds made by my own weapons, nevertheless, I do not become afraid of that horrible monster, for “weapons foreseen hurt less.”¹⁴¹ For, through [his] verbosity and slanderous barkings (as pagans are wont to do), he thinks himself to be held a rather expert music theorist. What envy, oh madman, what petulance has led you to inflict dog bites?—and to thrust in madness and poison, and to be always annoyingly denounced when, if you survive, you will be promising unjustly to me. Don’t you know, you monstrous brute, that—in the opinion of the prudent man—wisdom does not enter into a malevolent spirit?¹⁴² To whom will you not emerge as a laughing stock?—when they know that you have fallen because of that boldness [so] that you admit that you undergo labors and wakefulness in order to teach Franchinus, from whom, now over thirty-two years, you have already learned almost everything you know.

¹³⁷ Pietro D’Abano *Expositio problematum Aristotelis cum textu* 19.13.

¹³⁸ Virgil *Aeneid* 6.126.

¹³⁹ Pietro D’Abano *Expositio problematum Aristotelis cum textu* 19.8. Gafurio uses the word “sustentat” for the original “fortificat.”

¹⁴⁰ Arpad Steiner, “The Vernacular Proverb in Medieval Latin Prose” (*American Journal of Philology* 65 [1944]: 37-68), identifies a similar “Qui sic neglexerit famam suam crudelis est” as coming from Pierre D’Ailli, *Sermones* (Brussels, 1483).

¹⁴¹ Source unidentified.

¹⁴² Wisdom 1.4.

Liurem tuum prænotaerat Hesiodus¹⁴³ dicens Cantor cantorem liuidus odit.

Citauerat te ac complices tuos (modestos excipio) Diogenes¹⁴⁴ Synopæus / nam & si chordas ac uoces concinitati coaptare studeatis incompositos atque inconcinnos corporis & animi motus permutari petulantis non permittit. Guido¹⁴⁵ Aretinus fatuis cantoribus sui temporis te prænumerauit.

33. ¶ Scribis insuper Laurentium Gazium¹⁴⁶ monacum Cremonensem in Musicis haud mediocriter eruditum ad te aduentasse ac de Canone illo preceptoris tui uidelicet. In perfectione minimorum per tria genera canitur melorum habuisse sermonem. Verum qua indubitanter credas Boetium¹⁴⁷ in musicis interpretem tantum fuisse non authorem (salua pace tua ac modestia nostra) falsum arbitraris. Namque & iuris consultum atque philosophum mathematicum / oratorem / poetam / astronomum / musicumque ætate sua celeberrimum fuisse infinita pene eius opera declarant. Testatur & eius musicam eruditionem Cassiodorus¹⁴⁸ in epistola Theodoricæ Imperatoris ad ipsum Boetium tenoris huiusmodi. Cum Rex Francorum conuuii nostri fama plectus a nobis citharedum multis precibus expetisset / sola ratione complendum esse promisimus. Quod te eruditionis musicæ peritum esse noueramus. Adiacet enim uobis doctum eligere / qui disciplinam ipsam in arduo collocatam potuistis attingere. Quid enim illa perstantius quæ cœli machinam sonora dulcedine modulatur & naturæ conuenientiam ubique dispersam uirtutis suæ gratia compræhendit? & reliqua.

¹⁴³ Haesiodus. *in margin.*

¹⁴⁴ Diogenes. *in margin.*

¹⁴⁵ Guido. *in margin.*

¹⁴⁶ Laurentius Gazius monachus. *in margin.*

¹⁴⁷ Boetius musicus doctissimum fuit & omnium disciplinarum eruditissimus. *in margin.*

¹⁴⁸ Cassiodorus Theodoricum Imperator. *in margin.*

Hesiod had predicted your envy saying, “This envious singer hates a singer.”¹⁴⁹ It was Diogenes Synopaeus who encouraged you and your accomplices (I make an exception for the restrained ones), for even if you desired to join strings and voices to harmony, he does not permit the clumsy and awkward stirrings of the body and soul of a person to be changed. Guido d’Arezzo would have reckoned you among the foolish singers of his time.¹⁵⁰

33. You write in addition that Lorenzo Gazio, the learned Cremonese monk, well skilled in music, had come to you and had words concerning that canon of your teacher, “It can be sung in perfection of the minims through three genera of melodies.”¹⁵¹ But because you indubitably believe Boethius to have been the great expositor of music (by your leave and my own modesty), you should believe no false authority. For his works, almost infinite in number, declare him to have been the most celebrated jurist, philosopher, mathematician, orator, poet, astronomer, and music theorist of his age. Cassiodorus also attests to his musical knowledge in a letter from the Emperor Theodoric to Boethius himself in this fashion: “Since the King of the Franks, having been charmed by the news of our banquet, had repeatedly requested a cithara player from us, we promised to comply just for that reason. Because we knew you to be skilled in the knowledge of music, it is up to you choose one who is learned, through whom you could arrive at a discipline that is difficult to master. For what could be more enduring than that which measures the fabric of the universe with sonorous sweetness and encompasses the harmony of nature dispersed everywhere as a result of its power? etc.”¹⁵²

¹⁴⁹ Hesiod *Works and Days*, 24.

¹⁵⁰ The print had the perfect indicative “praenumeravit.”

¹⁵¹ Ramis *Musica practica* 3.4.

¹⁵² Cassiodorus “Epistola XL: Boethio patricio Theodericus rex” (*Patrologia cursus completus, series latina*, ed. J. P. Migne, 221 vols. [Paris: Garnier, 1844-1904], 69:570-73).

At cantici ipsius preceptoris tui. Tu lumen tu splendor patris quod dum Bononiæ (illiteratus tum) publice legeret adnotauit/ tenoris hoc ordine descripti

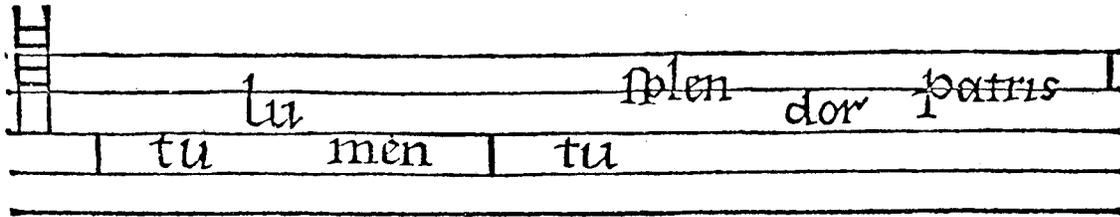


Figure 6a. Musical Notation of “Tu Lumen Tu Splendor Patris”
(Original Woodcut)

quarto tertii practicæ suæ enigmatis canonem sic elucidauit. Proponit enim quamlibet uoculam per syllabas in lineis & spatiis denotatas sex mensuras ualere / sicuti si esset hoc signum

☉ quoniam pausa temporis in principio ponitur: & ideo unaquæque syllaba unum tempus denotat. Nam canitur ter prima uice notula / secunda eleuatur a prima per trihemitonium: in secunda uice per tonum: & in tertia per semitonium. Quod si Tenor ipse in perfectione minimorum per tria genera canitur melorum. Quomodo erunt perfectæ minimæ: quæ nusquam tris in partes diuidi solent? nisi intelligi uoluerit in prolatione perfecta: quæ semibreuem tris in minimas partitur: tuncque sanius dixisset in perfectione semibreuium.

But concerning your teacher's song, "Tu lumen tu splendor patris," which he wrote down when he was lecturing at Bologna (even though he was then illiterate); he explained the canon of the tenor written in this way:

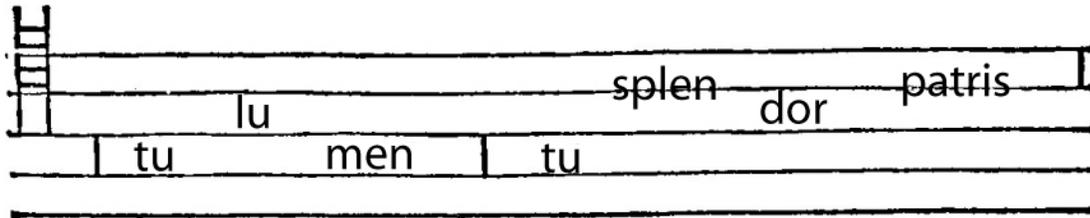


Figure 6a. Musical Notation of "Tu Lumen Tu Splendor Patris"
(Modern Edition)

as follows in the fourth chapter of the third book of his *Practica*.¹⁵³ He proposes that "each note equals six measures (through syllables notated on lines and in spaces) just as if this sign \textcircled{C} were there, inasmuch as the rest of a tempus is placed at the beginning, and thus each syllable denotes one tempus. For it is sung three times: the first time, the second note is raised from the first by a trihemitone, the second time by a tone, and the third time by a semitone."¹⁵⁴ But if the tenor is sung in perfection of the minims through the three genera of melodies, how will the minims, which are not customarily divided into three parts, be perfect?—unless he meant them to be in perfect prolation, which divides the semibreve into three minims; and in that case he would have called it more sensibly "in the perfection of the semibreves."

¹⁵³ Ramis *Musica practica* 3.4.

¹⁵⁴ Quoted from Ramis *Musica practica* 3.4, with "vocalum" for Ramis's "notulam." "Notulam" makes better sense and is the word translated here.

Præterea quo iure hoc signo \odot notula quæquæ syllabata sex mensuras obtinebit? cum omnis integra mensura systoles scilicet & dyastoles duabus tantum minimis contenta sit / siue in maiori prolatione: ut in tenore nostro Crucifixus etiam pro nobis & primi Agnus dei de Missa lommearme. Et in tenore Osanna de Missa Illustris princeps atque in tenore secundi Agnus dei / Misse le sonuenir quas celeberrimis cantoribus Leonis decimi Pontificis Maximi misimus / pernotatum est. Siue etiam in prolatione minori (quod usus docet) nisi subducto hoc canone crescit in duplo / aut ascripta fuerit proportio sub dupla/ ut in tenore nostro. Quoniam tu solus sanctus de Missa lommearme ubi signatur circulus cum puncto pro tempore perfecto & perfecta prolatione/ atque proportio sub dupla / hoc modo \odot^1_2 quorum inditiis¹⁵⁵ semibreuis tres minimas continet ac minima quæquæ crescit ad duplum sui ipsius: aut quibus Canon siue Enigma seu etiam proportio inscripta fuerit. Rursus pausa temporis in principio posita non est signum perfectionis in tempore / sed est figura: mensurabilis in taciturnitate/ nam signum temporis perfecti est circulus / imperfecti uero est semicirculus.

¹⁵⁵ I.e, inditiis

Moreover, by what rule will each syllabicated note obtain six measures through the sign \odot since every whole measure is contained in only two minims, systolic and diastolic—either in major prolation (as was notated in our tenor *Crucifixus etiam pro nobis* and in the first Agnus Dei of the Missa *L'homme armé*, and in the tenor *Hosanna* of the Missa *Illustris princeps* and in the tenor of the second Agnus Dei of the Missa *Le souvenir*, which I sent to the most celebrated singers of Pope Leo X), or in minor prolation (which practice teaches) except through application of the rule *crescit in duplo*,¹⁵⁶ or if the subduple proportion were indicated, as in our tenor *Quoniam tu solus sanctus* of the Missa *L'homme armé*, where a circle with a dot is marked for perfect time and perfect prolation, and the subduple ratio [is shown] in this way \odot^1_2 , by the indication of which the semibreve contains three minims and each minim doubles in value; or if any canon, puzzle, or even a ratio were written. Again, the rest of a tempus placed at the beginning is not a sign of perfection in time, but it is a figure measurable in terms of silence, for the sign of perfect time is a circle, but that of imperfect time is a semicircle.

¹⁵⁶ I.e., the note values double.

34. ¶ Cum itaque procedis diatonice a prima syllaba ad secundam intensiue uidelicet a tu ad lu facis semiditonum intensum: & a lu ad men econuerso demissum. Rursus a tu ad splen est diatessaron intensa & a splen ad dor tonus remissus: atque a dor ad patris erit intentus tonus. Hoc¹⁵⁷ quidem diatonicum ac naturale genus secundum Boetium¹⁵⁸ & Guidonem¹⁵⁹ sane productum est.

35. ¶ Verum chromatice concinens procedis a tu ad lu incompositus toni interuallo: quod si in F fa ut esset altera syllaba / tonus ipse a tu ad lu compositus diceretur ac duobus distinctis semitoniis cantaretur / ut asseris: sed hoc quidem falsum est. Nam in quocumque tetrachordo chromatico duo grauiora semitoniorum spatia non integrant tonum / ut Seuerinus¹⁶⁰ disponit: quod & nos quidem primo ac secundo atque septimo secundi de harmonia apertius monstrauius. Sed neque Aristoxenus¹⁶¹ siue chromaticum molle / siue chromaticum sesquialterum / seu etiam chromaticum toniæum deduxeris: duo grauiora tetrachordi spatia tono æquauit. Ptholomeus¹⁶² quoque duo ipsa spatia grauiora chromatici mollis tono longe minora constituit. Nam chromaticum tetrachordum nullum sustinet toni precise spatium duabus tribus ue chordis examussin¹⁶³ productum. Id idem dicis euenire a lu ad men scilicet tonum incompositum depressum: quod idem est inconueniens. Namque dato uno inconuenienti multa sequuntur.

¹⁵⁷ Diatonicus genus. *in margin.*

¹⁵⁸ Boetius. *in margin.*

¹⁵⁹ Guido. *in margin.*

¹⁶⁰ Severinus. *in margin.*

¹⁶¹ Aristoxenus. *in margin.*

¹⁶² Ptholomeus *in margin.*

¹⁶³ I.e., examussim.

34. Then when you proceed diatonically ascending from the first syllable to the second, that is, from *tu* to *lu* you make an ascending semiditone, and from *lu* to *men* the opposite, a descending semiditone. Again, from *tu* to *splen* there is an ascending diatessaron, from *splen* to *dor* a descending tone, and from *dor* to *patris* there will be an ascending tone. Indeed, this diatonic and natural genus was certainly implemented according to Boethius and Guido.

35. But singing chromatically, you proceed from *tu* to *lu* by the interval of a incomposite tone, because if there were another syllable on F fa ut, the tone from *tu* to *lu* would be called composite and would be sung through two different semitones, as you assert; but this, however, is false. For, in each chromatic tetrachord, the intervals of the two lowest semitones do not complete a tone, as Severinus prescribes, and which I indeed showed more clearly in the first, second, and seventh chapters of the second book of *De Harmonia*.¹⁶⁴ Nor, you will have deduced, did Aristoxenus equate the two lowest intervals of the tetrachord to the tone: neither [in] the soft chromatic, the sesquialter chromatic, nor even the tonic chromatic.¹⁶⁵ Likewise Ptolemy made those two lowest intervals of the soft chromatic much smaller than the tone. For no chromatic tetrachord precisely sustains the interval of a tone, produced exactly by two or three strings. You say that the same happens from *lu* to *men*, that is, a descending incomposite tone, which again is problematic, “for given one problematic thing, many follow.”¹⁶⁶

¹⁶⁴ Gafurio *De harmonia musicorum instrumentorum opus* 2.1, 2, 7.

¹⁶⁵ See Gafurio *De harmonia musicorum instrumentorum opus* 2.16.

¹⁶⁶ In *Declaratio musicae disciplinae* 3.6, Ugolino attributes this phrase to the first book of Aristotle’s *Physics*: “ut dicit Aristoteles, primo physicorum, dato uno inconvenienti multa contingent.” Gafurio borrowed extensively from this treatise in writing his own *Extractus parvus musicae* (c.1474) C.f. Aristotle *Physica* 185a (trans. Hope, p. 5).

Verum a tu ad splen nulli dubium est quin diatessaron intersit: nam a linea in spatium utrinque uel tonus uel semitonium per notulam uel syllabam describitur / discernitur & cantatur: & a splen ad dor fiet trihemitonium demissum: quod si in anteriore scilicet diatonica positione fuerit tonus remissus a splen ad dor / quomodo transmutabitur spatium toni in trihemitonium nisi ipsa syllaba dor uel eius notula fuerit semitono in graue deposita? Nam immobilis permanens nullam præstat spatio uarietatem ut ex annotatis libris facile percipitur. Secus autem in musicis instrumentis / ubi singula diastemata iuxta proprii generis formam / chordas recipiunt & interuallorum dimensiones, ut apud Boetium¹⁶⁷ Architam¹⁶⁸ Didimum¹⁶⁹ Aristoxenum¹⁷⁰ & Ptholomeum¹⁷¹ constat / quorum deductiones secundo de harmonia diligenter impressimus. Rursus cum a dor ad patris intensum trihemitonium putes: idem inconueniens non euitabis.

36. ¶ Ennharmonicus autem huius tenoris processus a te hoc ordine sumitur: nam a tu ad lu fit semitonium incompositum: quia si supra F moraretur altera syllaba / esset a tu ad lu semitonium compositum scilicet per diesim & diesim pronunciatum. idemque a lu ad men erit semitonium incompositum sed demissum. At contra hoc dicimus quod duæ syllabæ / duæ ue notulæ diuersisonæ sese non compatiuntur in F fa ut: neque in G sol re ut: cum sit ibi solus locus sola chorda sonum unicum producens. Inde immutata secunda mediarum corda acutior in quouis tetrachordo diuersis generibus non ascribitur.

¹⁶⁷ Boetius. *in margin.*

¹⁶⁸ Architas. *in margin.*

¹⁶⁹ Didimus. *in margin.*

¹⁷⁰ Aristoxenus. *in margin.*

¹⁷¹ Ptholomeus. *in margin.*

However, from *tu* to *splen* there is no doubt that a diatessaron should lie between them, for from a line to a space, up or down, a tone or semitone is written, understood, and sung by a note or syllable, and from *splen* to *dor* a descending trihemitone will be made. But if in the previous, that is the diatonic genus, there would have been a descending tone from *splen* to *dor*, how will the interval of a tone be changed into a trihemitone unless the syllable *dor* itself or its note will have been placed below by a semitone?—for, remaining immobile, it affects no variation on the interval, as is easily perceived in books with musical notation. Even so, in the case of musical instruments, where individual intervals receive strings and measurements of intervals according to the pattern of their own genus—as is manifest in the writings of Boethius, Architas, Didymus, Aristoxenus, and Ptolemy, whose computations I diligently printed in the second book of the *De harmonia*¹⁷²—again, since from *dor* to *patris* you reckon an ascending trihemitone, you will not avoid the same problem.

36. And you take the enharmonic progression of this tenor through this order: from *tu* to *lu* an incomposite semitone is made, because if another syllable stayed above F, from *tu* ad *lu* there would have been a composite semitone, that is, one sung through a diesis and a diesis; from *lu* ad *men* there will be the same incomposite semitone, but descending. Against this I say that two syllables or two different notes do not coexist on F fa ut or on G sol re ut, since there is but a single position in that place, producing only one pitch with a single string. Thence a second altered string (one of the middle strings) is not written higher in any tetrachord through the different genera.

¹⁷² Gafurio *De harmonia musicorum instrumentorum opus 2*.

Verum a tu ad splen proculdubio integrum diatessaron diastema mensuratur nihil profecto enharmonicæ densitatis ostendens. Rursus a splen ad dor erit ditoni remissi spatium / atque a dor ad patris præsupponis incompositum ditonum intensum. Adiacent itaque chromaticum & enharmonicum præscripto tenori in solo diatonico tetrachordo nullam propriæ densitatis formam demonstrantia. Inde enigma & Canonem ipsum Bartholomæus¹⁷³ præceptor tuus quem imitaris non sane disposuit: neque ipsorum generum spissorum formalem naturam intellexit. Dicas quæso quo procedis diatonice tetrachordo ad huiusmodi tenoris considerationem? Molli diatono an intento / an tonico diatono / siue diatono diatonico? Rursus quo chromatice? chromatico molli? an incitato? Quo ue enharmonicæ? Enharmonico Pythagorico scilicet Boetii? an Ptholomei? profecto uideris Pythagoricos ac Boetium sequi. Nunquid Ptolomeum spernis? a quo (ut asseris) Rhamis tuus nouum sistema harmonicum accæpit. Turpe enim mihi putauit Lectores optimi in musicis cum nebulone disserere. Quando quidem ea execranda rabie in theoricam musices ita debacatus sit: ut eam practicis cantoribus perinde ac uitium obiiciat. Quid est o caput etheroclitum quod cantoribus non suadeas litteras non congruere? ac ipsos moribus probatos esse non decere? Id enim prædicat Aristoteles¹⁷⁴ primo methaphysicæ: quod omnes homines natura scire desiderant. Propterea labores nostros assiduo studio comparatos quotquot in musicam disciplinam contuli abs te aboleri non iniuria passus sum.

¹⁷³ B. rhamis. *in margin.*

¹⁷⁴ Aristoteles. *in margin.*

But without doubt, from *tu* to *splen*, a whole interval of a diatessaron is measured, certainly showing nothing of the crowding together of the enharmonic genus. Again from *splen* to *dor* there will be an interval of a descending ditone, yet from *dor* to *patris* you suppose an ascending, incomposite ditone. Then, the chromatic and enharmonic genera, showing no aspect of a characteristic crowding together, lie alongside the tenor that is written above only in the diatonic tetrachord. Thus your teacher Bartholomeo, whom you imitate, did not really prescribe the puzzle and the canon, nor did he understand the formal nature of the compact genera. I ask, through which tetrachord do you say you proceed diatonically in the consideration of this kind of tenor?¹⁷⁵ Through the soft diatonic or raised diatonic, or through the tonic diatonic, or the diatonal diatonic? Again through which chromatically? Through the soft chromatic or the raised chromatic? Or through which enharmonically, the Pythagorean enharmonic, that is the enharmonic of Boethius, or of Ptolemy? You certainly seem to follow the Pythagoreans and Boethius. Surely you do not scorn Ptolemy, from whom (as you assert) your Ramis took the new harmonic system? For I held it shameful for me to treat the best lecturers along with a sorry wretch. But when, indeed, the wretch has raged with such detestable madness against the *Theorica musices* that he will present it to practiced singers just as if it were a sin. Why is it, O Irregular Leader,¹⁷⁶ that you do not convince singers that the letters do not agree?—and that it is not fitting that they [letters] themselves be approved in practice? Aristotle preaches the same in the first book of the *Metaphysics*, “All men by nature desire to know.”¹⁷⁷ For this reason I did not allow my labors, gathered by constant study, however many I have applied in musical teaching, to be destroyed undeservedly by you.

¹⁷⁵ For the following tetrachord divisions see Gafurio *De harmonia musicorum instrumentorum opus* 2.18, 19, 20.

¹⁷⁶ Thomas J. Mathiesen of Indiana University reports that the word comes from the Greek "heteros" and "klitos," i.e., irregular or unlawful. It is used in Renaissance Latin to refer to heterodoxy and unlawful actions or feelings (for example by Giordano Bruno), and is frequently used in association with baboons.

¹⁷⁷ Aristotle *Metaphysics* 1.1.

Comminaris mihi homo leuissime detractorias has latrationes tuas esse a calcographis cudendas. Nihil profecto aliud postulant lior calumnia & petulantia tua quam quales quantæque in te homine impuro fuerint cunctis gentibus declarari. Nempe (quod hactenus non perpendi) a demone cruciari facile crederis. Daudid Saulem a spiritu immundo arte modulationis liberum restituit.¹⁷⁸ Verum clarissimi modulatores Bononienses oppressioni tuæ huiusmodi steriles concinunt modulationes. Nec tamen putent Musicæ disciplinæ uires atque potentias defecisse: cum Musica ipsa operari non possit Aristotelis¹⁷⁹ sententia in patiente male disposito. Quod si Asclepiades¹⁸⁰ qui freneticos symphonia curabat aduenisset / dementia tua reprimere non posset. Assueuimus nos (quod impudenter asseris) oculos tenebris (arte quidem) quo scilicet authorum libros in tenebris sepultos studio ac diligentia nostra in lucem educeremus. Tibi autem quem natura ipsa malignum prænouerat: uisiuam potentiam & forte auditum integrum non admisit. Namque tritto adagio a signatis cauendum esse docemur. Itaque mentem tuam taciturnitas profecto sanius accurasset / quæ ab amico potissimum queri solet: ut Terentianus ille Simo in Sosia optabat / fidem scilicet taciturnitatem. Nam proximus ille deo est qui scit ratione tacere.¹⁸¹ Salomon quoque in prouerbiis: Fidelis spiritu celat uerbum.¹⁸²

¹⁷⁸ David. *in margin.*

¹⁷⁹ Aristoteles. *in margin.*

¹⁸⁰ Asclepiades. *in margin.*

¹⁸¹ Cato. *in margin.*

¹⁸² Salomon. *in margin.*

Most fickle man, you threaten that these slanderous barkings are to be struck by printers.¹⁸³

Certainly your envy, slander, and petulance demand nothing other than that whatever things (and how many of them there were) were in you—impure man—they should be declared to all.

Certainly (because I have not up to now weighed carefully) you will easily be believed to be tormented by a demon. David freed Saul from an evil spirit through the art of music.¹⁸⁴ But, the most celebrated singers of Bologna sing futile songs thanks to your oppression. Yet nor would they believe the strengths and powers of the discipline of music to be deficient, since by the opinion of Aristotle music itself does not work on a badly disposed patient.¹⁸⁵ But if Asclepiades had come, who used to cure the hysterical through harmony—he would not be able to restrain your madness. I adapted my eyes (which you impudently assert) to darkness (cunningly, to be sure) and through doing so brought to light authorities’ books buried in darkness, by means of my own diligence. To you whom nature itself foreknew as malignant, it denied the power of seeing and perhaps of fully hearing. By the third adage we are taught to beware the marked ones.¹⁸⁶ Likewise remaining silent—which is customarily sought from a friend—would surely have taken care of your frame of mind, just as Terence’s Simo desired faith—taciturnity in Sosia.¹⁸⁷ “For he who knows how properly to be silent is close to God.”¹⁸⁸ Also Solomon in Proverbs, “The faithful of spirit keeps a secret.”¹⁸⁹

¹⁸³ The following year Spataro published his *Errori de Franchino Gafurio da Lodi*, which was a collection of errors found in Gafurio’s works.

¹⁸⁴ 1 Samuel 16:23.

¹⁸⁵ Source unidentified.

¹⁸⁶ A form of the more popular phrase “cave a signatis.” In her article “The Domestic Enemy: The Eastern Slaves in Tuscany in the Fourteenth and Fifteenth Centuries” (*Speculum* 30 [1955]: 349), Iris Origo writes that during this time of increased xenophobia, the phrase was commonly shouted throughout Italian streets, and that “any mark or deformity was likely to be the sign of a criminal or slave.”

¹⁸⁷ Simo and Sosia are characters in Terence’s *Andria*; the latter is the freedman of the former.

¹⁸⁸ Cato *Disticha* 1.3. Text available in facsimile at <http://libezp.lib.lsu.edu/login?url=http://opac.newsbank.com/select/evans/20263>.

¹⁸⁹ Proverbs 11:13.

Nobis profecto de te scribendi occasionem præbuisti / qui famæ nostræ incredibili liuore niteris insidiari. Sed neque hæc nos scripsisse putes quod in libros nostros liuide & petulanter insurrexeris quippe qui dementiam tuam paruifacimus. Cum opera nostra sana sint si sane intelligantur / & sententiæ nostræ rectæ nisi peruertantur. Quo sit: ut & si inconcessa rabie torquearis: Harmonia Gafurii & Ioannes Grolierius patronus æternum uiuant.

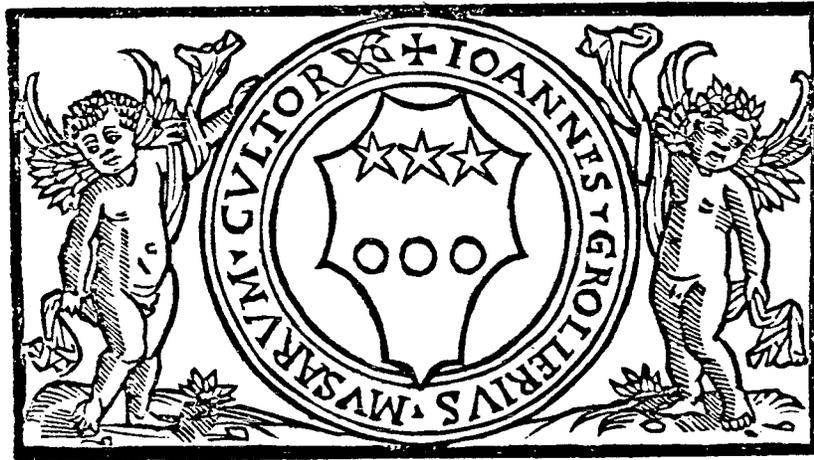


Figure 7a. Jean Grolier's Coat of Arms
(Latin)

¶ Impressum Taurini per magistrum Augustinum de Vicomercato.

Anno domini .M. D. XX. die. xx. Aprilis.

You certainly provided me the opportunity to write about you, and you strove with incredible malice to lie in ambush of my good name. But nor should you think that I, who indeed despise your madness, wrote these things, which you lividly and petulantly rose up against in my books. Since my works are sensible if they are understood sensibly, and my opinions are correct unless they are misrepresented, for that reason, let it be, that even if you are twisted by an impermissible rage, may the *Harmonia* of Gafurius, and may his patron Jean Grolier, live forever.



Figure 7b. Jean Grolier's Coat of Arms
(Translation)

Printed in Turin by Master Agostino da Vicomercato,
in the year of our Lord 1520, April 20.

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