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Nicola Vicentino vs. Ghiselin Danckerts OR The Heresy of the Ascending Major Semitone

Anne Smith

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Abstract: In May of 1551, Nicola Vicentino disputed with Vincenzo Lusitano in Rome over whether composers knew in which of the three genres – diatonic, chromatic or enharmonic – they were composing. Since then, although this dispute has been discussed repeatedly through the centuries, nobody has compared the argumentation in the two sources in detail. This article attempts to demonstrate that Danckerts' arguments were not directed against any specific tuning system, indeed that he did not really even understand Vicentino's contention as he did not have a true practical comprehension of the significance of distinguishing between a major and minor semitone; instead he was defending himself against what he perceived as a threat to his understanding of his Church's beloved music and how he performed it, a threat which he compared to heresy. It offers a close reading of Danckerts' criticism of Vicentino's proposition, followed by a discussion of Danckerts' theoretical understanding of the genera and an analysis of his examples in relation to his definitions of the intervals as well as in comparison to those of Vicentino. This information will then be looked at in relation to what Danckerts writes concerning the use of chromaticism by modern composers and evaluated in the context of other theorists of the time.

Keywords: microtonality, meantone tuning, Pythagorean tuning, music theory, 1500-1600

Anne Smith studied recorder and transverse flute at the Schola Cantorum Basiliensis, receiving her concert diploma in 1977. From 1979 until her retirement in 2016 she taught recorder and renaissance flute there herself, whilst otherwise actively participating in various chamber ensembles. One of her primary interests is bridging the gap between the knowledge of the writing of 16th-century musical theorists and its application in performance, as reflected in her book *The Performance of 16th-Century Music: Learning from the Theorists* (OUP New York, 2011). This was followed by an investigation of the sources of 20th-century performance of this music, culminating in her biography of the Dutch Early Music pioneer, *Ina Lohr (1903-1983): Transcending the Boundaries of Early Music*, (Schwabe Verlag: Basel, 2020). From 2020-2024 she worked on Vicentino21, a project at the Schola Cantorum Basiliensis devoted to a digital publication of Nicola Vicentino's *L'antica musica ridotta alla moderna Prattica* (Venice, 1555).

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1. Introduction

For both scholars and performers of 16th-century polyphony, Nicola Vicentino's *L'antica musica ridotta alla moderna prattica* has always had an air of the mysterious, the difficult, and the useless about it, in that it involves exotic instruments and intervals which are difficult to understand and seemingly of questionable value for most of the music of the period, whilst at the same time being one of the greatest sources for the performance practice of just that music. This means that most readers, because they have no access to an appropriate instrument – i.e. an archicembalo or arciorgano – skip those portions that concern his endeavour to expand the tonal system and its underlying theory in a way that accommodated both ancient theory and a new understanding of tuning systems, and only read the sections of more general interest.

I must include myself among those readers, as I could see no point in spending time reading those portions of the treatise without the instrument requisite for my being able to understand them. Indeed, it was not until I had actually heard an arciorgano live, with its varying timbres which I associate with solmization, that I began to be interested in those aspects of the treatise. This interest quickly grew in the course of my participation in the Vicentino21 project at the Schola Cantorum Basiliensis,[1] in which I had the task of providing a new English translation for its online digital publication of the volume. To this end, I regularly met with Martin Kirnbauer, Johannes Keller and Luigi Collarile for a close reading of the treatise. Although Johannes Keller had made recordings of some of the examples in the book, I felt a great sense of dissatisfaction, as I had no direct contact with an appropriate instrument and thus could not experiment with these intervals myself, could not create them with my own hands. This all changed, however, when Marco Tiella's reconstruction of an archicembalo (1974), based on Vicentino's description of such an instrument in his treatise, was loaned to me for two years. It was only then that I could connect his theoretical descriptions and notation with a sounding reality, could begin to imagine the harmonies, and to envision the possibilities of the instrument. It no longer seemed totally foreign to the music that I had been studying and performing for decades.

In the discussion group, I was the only one who did not enter the project with a great interest in the expansion of the number of steps within the octave, tuning systems or microtonality.[2] As a result, my perspective was quite conservative, perhaps due to the fact that my background in Renaissance theory was based on the conventions of the time, making it difficult for me to comprehend Nicola Vicentino's novel approach. This became strikingly evident when in one of these Vicentino21 meetings

[1] Vicentino21 (2020-2024) was a project dedicated to the production of a digital edition with commentary, translation and practical exploration of Nicola Vicentino's *L'antica musica ridotta alla moderna prattica* (Rome 1555) at the Schola Cantorum Basiliensis/FHNW which was supported by the Swiss National Science Foundation. All quotations from this treatise and their translation are taken from this edition in this article (see www.fhnw.ch/plattformen/vicentino21/).

[2] Martin Kirnbauer, *Vieltönige Musik: Spielarten chromatischer und enharmonischer Musik in Rom in der ersten Hälfte des 17. Jahrhunderts*, Basel: Schwabe Verlag 2013.

I suddenly found myself hotly debating what seemed to me to be an aberrant understanding of solmization with the others. I was amused at myself, as I am not one to normally get involved in such verbal altercations; but it also caused me to take a step back to pause and reflect, as I realised I had on a certain level taken on the position of Ghiselin Danckerts, the judge in the famous debate between Vincente Lusitano and Nicola Vicentino.[3] It forced me to acknowledge that if I were to understand why I had become so irritated, I must endeavour to understand BOTH Vicentino's AND Danckerts' theoretical background, in order to comprehend the nature of their dispute. This article is about my path of investigation.

Our team's discussions of Vicentino's treatise formed the basis for this article, combined with a close comparative reading of Danckerts' treatise in relation to that of Vicentino, with the benefit of having an archicembalo at my fingertips. I will attempt to demonstrate that Danckerts' arguments were not directed against any specific tuning system, indeed that he did not really even understand Vicentino as he did not have a true practical comprehension of the significance of distinguishing between a major and minor semitone, but that instead he was defending himself against what he perceived as a threat to his understanding of his Church's beloved music and how he performed it, a threat which he compared to heresy. I will begin with a description of the dispute, followed by a close reading of Danckerts' criticism of Vicentino's communication. Thereafter Danckerts' theoretical understanding of the genera will be discussed and his examples analysed in relation to his definitions of the intervals as well as in comparison to those of Vicentino. This information will then be looked at in relation to what Danckerts writes concerning the use of chromaticism by modern composers.

1.1. A necessary preliminary question: Does one need to know the exact size of an interval to be a good musician?

When babies learn music, they do so by ear, gradually matching what they produce to what they hear. Later we are taught basic intervals, and perhaps even the superparticular ratios that underlie them. Today most people absorb this information in relation to equal temperament, not being aware that it is only one of the many tuning compromises, and not knowing where exactly, and by how much, each interval is being

[3] See Jan de Bruyn, "Ghisilinus Danckerts, kapelaanzanger van de pauselijke kapel von 1538 tot 1565, zijn leven werken en onuitgegeven tractaat", in: *Tijdschrift voor Muziekwetenschap* 14 (1946), 217-52, and 15 (1949), 128-57; Lewis Lockwood, "A Dispute on Accidentals in Sixteenth-Century Rome", in: *Analecta Musicologica* 2 (1965), 24-40; Maria Augusta Alves Barbosa, *Vincentius Lusitanus: Ein Portugiesischer Komponist und Musiktheoretiker des 16. Jahrhunderts*, Lisbon: Secretaria de Estado da Cultura Direção-Geral do Património Cultural 1977; Paul A. Luke Boncella, "Denying Ancient Music's Power: Ghisilin Danckerts' Essays in the *Generi Inusitate"*, in: *Tijdschrift van de Vereniging voor Nederlandse Muziekgeschiedenis* 18 (1988), 59-80; Maria Rika Maniates, preface to her English translation: Nicola Vicentino, *Ancient Music Adapted to Modern Practice*, New Haven, CT & London: Yale University Press 1989 (Music Theory Translation Series), xi-xxiv; Stefano Campagnolo, "Guastatori e stroppiatori della divina scientia della musica", in: *Studi e Testi Musicali* 7 (1995), 193-242; and Arnaldo Morelli, "Una nuova fonte per la musica di Ghiselino Danckerts 'musico e cantore cappellano della cappella del papa'", in: *Recercare* 21 (2009), 15-110.

altered minimally to match the system. And when we change to different temperaments, at least speaking of myself, we often concern ourselves with the changes we have to make in the tuning of individual notes or intervals in order to make the temperament function, rather than endeavouring to understand the underpinning of it or any other system. We do not really begin to grasp the differences, until we discover something that does not work, such as an a-flat major chord in meantone tuning. This was certainly very true of me until I began working on this project. On a practical level I understood equal temperament, various baroque tunings and meantone tuning, and realised that they were concerned with how much some or all of the fifths in specific tunings were tempered and could even set a couple on a harpsichord. I had also had a lot of experience in some form of just adaptive tuning as that is the only way a Renaissance flute consort really functions. It was not until I began working on this project that I comprehended the extent of the deficiency of my comprehension of these systems.

On a certain level, when working with solmization or the hand, the basis of most music instruction in medieval and Renaissance times, this lack, if anything, was even more irrelevant. It was only necessary to know that all steps were whole tones in the hexachord but one, namely that between *mi* and *fa* which was a semitone, or – if its name were specified more precisely – a minor semitone (according to Boethius). As the instruction was oral, however, the size of the tones and semitones was dependent on the person singing them, and thus perhaps on where, when and which kind of music was being sung. In all probability those singers did not know the exact size of the intervals they called whole and halftones, but only whether they corresponded to what was expected of them in the context.

It was only with the development of various keyboard instruments in the 15th century that some musicians began to be aware of discrepancies between the sung practice and the tuning of these instruments. One can speculate that these discrepancies may have stemmed from the increasing structural prevalence of thirds and sixths in four-part polyphony leading to an unconscious move towards a system which gave increased preference to the purity of the major thirds and sixths, to the extent that keyboard instruments in Pythagorean tuning came to be seen as less well suited for the accompaniment of a choir. It was the size of the semitone, in particular, that was questioned: for if the size of the minor semitone were increased, becoming closer to what the major semitone had been, while the latter in turn was reduced commensurately in order to create the desired purer major thirds and sixths, then mutations from hexachord to hexachord beyond the coordinates of the basic gamut came to be seen as undermining the tonal system itself. In any case, beginning with Bartolomeus Ramos de Pareja's *Musica pratica* (1482) and John Hothby's *La Calliopea legale* (in the 1470s), theorists began discussing these discrepancies and proposing systems for dealing with them, with Vicentino's solution perhaps being the most elaborate and debatably most controversial of them all, leading to his dispute with Lusitano and Danckerts in 1551.

All of these proposed innovations were hotly discussed among theoreticians, and certainly among practical musicians, assuming they had any knowledge of them at all,

as is evidenced by the legendary volume of letters, *A Correspondence of Renaissance Musicians*, edited by Bonnie Blackburn, Edward Lowinsky, and Clement Miller, as well as by the controversy sparked by Adrian Willaert's composition, *Quid non ebrietas dissignat*, to say nothing of the dispute between Vicentino and Lusitano, as refereed by Danckerts.[4]

[4] *A Correspondence of Renaissance Musicians*, ed. by Bonnie J. Blackburn, Edward E. Lowinsky and Clement A. Miller, Oxford: Clarendon Press 1991.

2. Ghiselin Danckerts' *Sopra una differentia musicale sententiata*

Danckerts' manuscript treatise, *Sopra una differentia musicale sententiata,* is found in two manuscripts located in Rome, Biblioteca Vallicelliana (I-Rv), Ms. R 56A and Ms. R 56B, as well as in a transcription made by Giuseppe Baini in Rome, Biblioteca Casanatense, Ms. 2880. The earlier versions of the treatise are found in a collection of manuscripts and prints from the 16th and 17th centuries entitled *Raccolta di varie scritture spettanti all'istoria, erudizione, costume, varia et altre cose curiose*, I-Rv R 56A, and probably date from the period immediately after the dispute.[5] A final version in Danckerts' hand is found in I-Rv R 56B, prepared for print after the appearance of Vicentino's treatise, in the hopes of finally being able to bring a close to the entire discussion, naturally in his own favour. The transcription made by Baini is from the 19th century, and is made from Rome, Biblioteca Vallicelliana, Ms. R 56B, which is the only one of the original documents to contain the author's letter to the readers, *L'autore alli lettori*. Apparently the damage to the edges of the manuscript was less extensive then, as the scholar's transcription fills in the numerous blanks in the text that we find today. Further, it is to be noted that the Vallicelliana manuscripts all have two sets of foliation numbers, a handwritten one at the top of the recto page, and a mechanically printed one at the bottom. I have used the mechanically printed foliation, as it is the one the library itself employs.

Table 1 (see Appendix 1) gives an idea of the task with which the musicologist is faced, who wishes to understand Danckerts' reasoning in regards to his dispute with Vicentino. The various versions of the treatise are found in reverse chronological order from left to right, beginning with Baini's 19th-century transcription, followed by the various 16th-century manuscript sources. This order was determined by an evaluation of the corrections in the various versions: there are many in what I have called the earlier versions that are incorporated into the putative later ones, which seems a clear indication of their relative chronology. Stefano Campagnolo suggests that the rightmost one, I-Rv R 56A, no. 33, fol. 534-571, is in the hand of a professional copyist – indicating there may have been yet still another earlier version – with corrections by Danckerts, and that the others are in the hand of Danckerts.[6] I have used the latest version, i.e. that found in I-Rv R 56B, as a basis for the ordering of the chapters of the others in order to facilitate a direct comparison of the texts. The earliest deviates from this order most extremely; in addition, it alone contains two variants for the first two and the last three chapters.

[5] Campagnolo, "Guastatori" (see n. 3), 197 – based on the preparation of his as yet unpublished edition of Danckert's treatise – pointed out that there is, in addition, a single page of a smaller size with a fragment from the third part of the treatise which has been inserted into Ms. 56, no. 16, fol. 418. This page was originally folded and has a list of paid bills on one side, and on the other a short passage concerning proportions, which may have originally been intended for Part 3, Chapter IV, fol. 570v, or Part 3, Chapter VI, fol. 377r. Many thanks to David Gallagher for examining this insert more carefully for me.

[6] I-Rv R 56A, fol. 372v-374v and 560v-562v. Cf. Campagnolo, "Guastatori" (see n. 3), 197-98 in footnote 10 for further bibliographic information about the various manuscripts.

The first version reveals the difficulty that Danckerts had in formulating his text: it is full of marginal notes; major passages are crossed out, some of which are found later in the text; and it contains many other corrections of a diverse nature. It seems likely that many of these corrections were made while preparing the second version, as they are often seen in its text. The third version is only of the second part of the treatise and contains a much-expanded rewording of the theoretical background for Danckerts' treatise, with many more citations from other earlier theorists. I believe that it was undertaken in preparation for the later version of I-Rv R 56B, which Danckerts hoped to publish in direct response to the publication of Vicentino's *L'antica musica ridotta alla moderna prattica* in 1555. Noteworthy here is the addition of the letter to the readers, *L'autore alli lettori*, and the exclusion of the second dispute for which he also served as a judge found in Book 3, Chapter 2, *Differentia è scommessa fatta sopra il porre del* ♭ *molle in* ♮ *mi* which appeared in the first two versions.[7] It will be seen that Danckerts made these changes in order to keep the focus on what he perceived to be Vicentino's lack of musical understanding as well as the perfidious manner he refused to accept Danckerts' judgment. Baini's copy was made from this last version.

I had originally thought that I would make a transcription and translation of the entire treatise. On account of the complexity of the source material, however, I came to the realisation – no doubt like others before me – that it was far too great an undertaking in relation to that which could be gained from the process. As a result, I decided to limit myself to transcribing, translating and providing a commentary for selected chapters that seemed most relevant to questions concerning the dispute between Vicentino and Danckerts: Part 1, chapter 7; Part 2, chapters 7, 9, and 13; and Part 3, chapters 2 and 4. To avoid redundancy, I decided to only cite passages from the *L'autore alli lettori* when they are directly relevant to understanding aspects of a specific subject found within these chapters, although a complete transcription and translation may be found in Appendix 1. In addition, I have only indicated revisions where they seemed important in regard to the specific context of this article.

This path also seemed appropriate as Lewis Lockwood and Stefano Campagnolo have comprehensively covered the topics of the addition of a flat to only one voice of a motet and chromaticism in general in their articles.[8]

[7] See Lockwood, "A Dispute on Accidentals" (see n. 3).
[8] Ibid.; Campagnolo, "Guastatori" (see n. 3).

3. First things first: A description of the dispute

3.1. General context

The dispute took place in Rome at the end of May 1551 when Vicentino and Lusitano found themselves singing music together in the home of [Giovanni di] Bernardo Acciaioli-Rucellai, whose palace was on the Via dei Banchi (Danckerts, I-Rv R 56A, fol. 355r; I-Rv R 56B, fol. 6r). They sang a composition on *Regina coeli*,[9] and then began discussing it. And as Vicentino wrote he

> fell into a kind of dispute between the Reverend Don Vincentio Lusitanio and myself. And our principal discussion was this: that the said Don Vincentio was of the opinion that the music that was sung then was diatonic; and I, as in a debate, responded to him that it was not simple diatonic, and that the compositions that were being used were *miste,* from the longest parts [*parti più lunghe*] of the chromatic genus and the enharmonic, and from the species of the diatonic genus, and with the diatonic genus.

> interuene un modo di disputare frà il Reuerendo Don Vincentio Lusitanio, & Io, & il nostro principal parlare fù questo, che il detto Don Vincentio era d'oppinione, che la Musica che allhora si cantaua, era Diatonica: & Io in modo di disputare li rispuosi che non era Diatonica semplice, & che le compositioni che si usa uano, erano miste delle parti più lunghe del Genere cromatico, & del Enarmonico, et delle spetie del Genere Diatonico, & con il Genere Diatonico;
> (Vicentino, IV.43, fol. 95r)

According to the only known copy of the attestation of the two of them in regard to this matter, found in Danckerts' treatise (I-Rv R 56A, fol. 352r and 534r; I-Rv R 56B, fol. 4r), they decided that as they could not resolve the dispute, they would wager two *scudi d'oro* and resolve the question by placing it before two learned experts in music – the Spanish singer and member of the papal choir Bartholomeo Escobedo and Ghiselin Danckerts, singer and punctator of the papal chapel –[10] who would then rule upon it. A third judge was chosen for the case that Escobedo and Danckerts did not agree, Julio da Reggio (or Rezzio),[11] of whom nothing is known. On 2 June, they met at the Chiesa degli Orfanelli (Cardinal Ippolito d'Este's titular church) at the Piazza Capranica where members of the papal chapel sang a mass for the most Holy Sacrament at the behest of the Cardinal of Trani. There the disputants agreed to abide by the decision of the judges, pay up, and thereafter accept the consequences of the decision without complaint.

Cardinal Ippolito d'Este of Ferrara heard of the debate, and desiring to witness it, requested it be held and concluded with a verdict in his presence on 4 June. This

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[9] Robert Stevenson suggests that it might have been a composition by Lusitano himself found in *Liber primus epigramatum que vulgo motetta dicuntur* (Rome: Valerium Doricum & Aloysium Frates Brixienses, 1551) in "Vicente Lusitano: New Light on His Career", in: *Journal of the American Musicological Society* 15 (1962), 72-75: 74.

[10] According to Richard Sherr, this was the person who collected fines for infringements of the chapel's rules, "Ex Concordia Discors: Popes, Cardinals, Nationalities, Conflict, Deviance, and Irrational Behavior: A Crisis in the Papal Chapel in the Pontificate of Paul IV", in: *The Journal of Musicology* 4 (2015), 494-523: 501.

[11] Danckerts spells the judge's name in two ways in the manuscript.

was agreed to, but Danckerts was unable to be there, as his chapel duties demanded that he take part in a mass outside of the city on that day.[12] The debate was thus held before the judges Escobedo and da Reggio, as well as other interested parties. When the Cardinal asked the judges to pass the verdict, however, Escobedo refused, saying that the judgment was to be passed by himself and Danckerts, with only the intervention of da Reggio if they could not come to an agreement. The Cardinal therefore asked them to report their finding to Danckerts, so that a written decision could be made on 7 June.

The two of them met with Danckerts on 5 June, and as their reports were in part conflicting, Danckerts said that he could not make a judgment without having written statements from Vicentino and Lusitano outlining their arguments. These, according to Danckerts, were made at the judges' request,[13] whereas Vicentino claims that he of his own accord wrote down his ideas and sent them to Danckerts, and that perhaps Lusitano had gotten wind of this and done the same (Vicentino, *L'antica musica*, IV.43, fol. 95r).

On 7 June 1551, they all convened in the papal chapel of the Apostolic Palace where first a mass was sung by the choir, and following that the verdict against Vicentino was declared, as according to the judges he had not proved his claim, requiring him to pay the wager of 2 *scudi d'oro* to Lusitano.

The recriminations began thereafter, with all involved feeling misunderstood and maligned by the opposing party. Danckerts reported that he had heard from Marc'antonio Falcone, bishop of Cariati, that Vicentino had complained bitterly about the unjust verdict against him, which had surprised the Cardinal of Ferrara, due to the composer's previous boasting about his practical and theoretical prowess. Others had told him that they had heard from many people that Vicentino was claiming that he had been judged "unjustly, without reason or any knowledge" ("Et oltre a ciò ho inteso anchora da molti altri che esso va dicendo per tutto, che ingiustamente e senza ragioni o scientia alcuna, habbiamo sententiato contra di lui". I-Rv R 56B, fol. 5r). Danckerts comments wryly that this indicated a degree of forgetfulness on Vicentino's part, as he himself had agreed to having Danckerts and Escobedo as judges due to their knowledge. And then Danckerts reports that Vicentino went even further, maintaining that "there was no one in the papal chapel who could have judged the difference, who knew anything about music" ("et che nella Capella del Papa non vi è homo, ne che habbia possuto guidicare la differentia, che sappia cosa alcuna di Musica", I-Rv R 56B, fol. 5r) and casting aspersion on all musical works composed by the masters, naming a slew of the big names, which were not only sung in Italy but in all of Christianity, saying that they were "foolish, coarse, and worth nothing in comparison to those – of whom he boasted to his followers – who desire to compose in certain unused genera"

[12] Barbosa, *Vincentius Lusitanus* (see n. 3), 212 footnote 11, questions whether Danckerts might have intentionally created a situation whereby he could absent himself from the trial, so that he could make his judgment on the basis of the documentation provided by the litigants.

[13] It must be said, however, in the first version of the treatise Danckerts writes "per nostra sodisfatione" (fol. 538r, "our satisfaction"), whereas in the second version, he crosses "nostra" ("our") out and writes "mia" (fol. 352r, "my").

("dicendo che sono goffi, grossi, e di niun valore, a rispetto di quelli che esso si vanta appresso i suoi divoti di voler comporre in certi generi non usitati", I-Rv R 56B, fol. 5v).

It was not, however, until the publication of Vicentino's treatise in 1555 – of which Danckerts only really acknowledged chapter 43 of the fourth book, which dealt with the dispute – that Danckerts expressed the true extent of his indignation by adding the Letter to the Readers in the last version of his treatise in Ms. R 56B. To date, this text has largely been viewed as a justified, albeit exaggerated reaction to the acrimonious behaviour on the part of Vicentino, after his having lost the dispute. For example Alves Barbosa writes:

> Danckerts always insists upon the exclusive validity of the antique theory. His investment in it permits his great embitterment to shimmer through in regard to Nicola Vicentino's position. On the one hand he felt insulted by the aggressivity with which Nicola Vicentino called the ability of Danckerts, Escobedo and all Papal singers into question; on the other he sees it as his duty to clarify the errors of the teachings of his opponent for general understanding and to emphasise the correctness of the judgment made.

> Immer beharrt Danckerts auf der Alleingültigkeit der alten Lehre. Sein Einsatz dafür lässt eine starke Verbitterung gegen die Haltung von Nicola Vicentino durchblicken. Er fühlt sich einerseits verletzt durch die Aggressivität, mit der Nicola Vicentino die Fähigkeit von Danckerts, Escobedo und sämtlicher päpstlicher Sänger in Frage stellt, andererseits sieht er sich verpflichtet, die öffentliche Meinung über die Irrtümer der Lehre seines Gegners aufzuklären und die Richtigkeit des gefällten Urteils zu betonen.
> (Barbosa, *Vincentius Lusitanus*, 250)

I do not wish to imply any lack of care on Alves Barbosa's part, as she was just following the general tenor of research on the subject. To the contrary, she investigated the circumstances of the dispute in great detail and made a great effort to comprehend it from the perspectives of both parties.

We shall see that this is only part of the story, as in the course of the article it will become evident that although Danckerts' argumentation may indeed be in part valid for the actual dispute, some of the canon of ancient theory which was considered to be above question was no longer part of the actual practice. This is made abundantly clear throughout the rest of Vicentino's tome, particularly when taken in conjunction with his instruments; and that this was the real reason why he wrote the book.

4. The real issues behind the dispute – *Sopra una differentia musicale sententiata,* Part 1, Chapter 7

4.1 Questions concerning the validity of the documents published by Vicentino

Only by carefully examining the texts of both authors and investigating what each disputant was defending can we begin to come to grips with the highly divisive nature of the issues involved and why all those involved were so passionate about its outcome. In doing so, we will not only be forced to examine Boethius' definition of the genera, as that was the foundation of all the arguments, but also the sizes and the ambiguities of nomenclature of whole tones, semitones, dieses and commas. Vicentino's argumentation, as presented in his treatise, will be our point of departure, serving, as it does, also as a backdrop for Danckert's explanations.

Vicentino's written communication in Book IV, chapter 43 is very short and to the point:

My honorable M. Ghisilino, I proved to M. Vincentio Lusitanio that the music which we sing today and which everyone ordinarily sings is not simple diatonic, and he says that it is diatonic.

I explained to him the rules of the three genera, and that the diatonic is sung with the steps of *tono* and *tono* and *semitono*, and in its steps there has never to be [anything] other than the *tono* and *semitono*, as he himself has confessed to be the truth. But in our singing and way of proceeding with the *voci*, this is something manifest to the world: that one proceeds in melodies with *dittoni incomposti*, such as from *ut* to *mi*, and also with the *triemitono incomposto*, as from *re* to *fa* and from *mi* to *sol*, without anything in between, neither *tono* nor *semitono*, as in *re*, *mi*, *fa* which is in the diatonic; so that this *re*, *fa* or *mi*, *sol* is the *triemitono* or *semidittono* or step of a *terza minore*, which is in the chromatic genus; and the *dittono incomposto*, where in [musical] practice we say *ut*, *mi* or *fa*, *la*, is of the enharmonic genus.

Thus I explained to him that the music which is sung today is put together and *mista* from all three genera, without the many species of the chromatic genus such as the *diesis* [*cromatici*] and ♭ *molli*, which one places as accidentals [*accidentalmente*] to help the consonances, [and] which break with the diatonic order [*ordine*]. Therefore by my said explanation,

Mio honorando M. Ghisilino. Io hò prouato à M. Vincentio Lusitanio, che la musica, che noi cantiamo hoggidì, & che communamente ognuno canta, non è Diatonica semplice, & lui dice che è Diatonica.

Io gli hò dichiarato le Regole de i tre Generi, & che il Diatonico uà cantato, per i gradi di Tono, & Tono, & Semitono, & mai hà da essere ne suoi gradi, altro che Tono, & semitono, come lui istesso hà confessato esser il uero: ma nel nostro cantare, et procedere con le uoci, questa è cosa publica al Mondo, che si procede ne i canti, con i Dittoni incomposti, come saria, da ut. à mi. & anchora con il Triemitono incomposto, come da re. a fa. & da mi. à sol. senza alcuna cosa di mezzo di Tono, né di Semitono, come saria, re. mi. fa. che è nel Genere Diatonico, si che questo re. fa. et mi. sol. è il Triemitono, ò Semidittono, o passo di terza minore, che è nel Genere cromatico, et il Dittono incomposto, che in prattica dicemo, ut. mi. & fa. la. è del Genere Enarmonico:

siché gli hò dichiarato, che la Musica che si canta hoggidì, è composta, & mista de tutti i tre Generi, senza le molte spetie del Genere cromatico, come sono i Diesis, et i ♭. molli. che accidentalmente si metteno per aiutare le consonanze, che rompeno l'ordine Diatonico. Siche per detta mia dichia ratione che uedrette in Boetio, la Musica che noi cantiamo è mista de i tre Generi, et non

which you will see in Boethius, the music we sing is *mista* of the three genera, and it is not simple diatonic as M. Vincentio Lusitanio says.

è Diatonica semplice, come dice M. Vincentio Lusitanio.

From Rome, the 5th of June 1551.
Wholly your lordship's, Don Nicola Vicentino.

Di Roma li 5. Iunio. del LI.
Tutto di (V. S.) Vostra Signoria Don Nicola Vicentino.
(Vicentino, IV.43, fol. 95v)

Unfortunately for Vicentino, this communication, while clearly reflecting his understanding, did not take the perspective and knowledge of his adversary and the judges into account, thereby making too many assumptions about what the others might understand – and be able to perceive aurally – concerning these expansions of the tonal system, thus leaving too many loopholes open for discussion. The first point of irritation, lies in his assertion that the music "which is usually sung by everybody, is not simple diatonic", as in the versions of his statement found in Danckerts' treatise, both the word "simple" (*semplice*), and the words "is not simple diatonic" are not to be found.

Danckerts took great umbrage to this alleged addition on the part of his adversary, writing in his *L'autore alli lettori* that Vicentino in his chapter

tells a story, completely full of boasting and bragging, expounding upon how, for various reasons, in the dispute made in front of the Reverend Holy Cardinal of Ferrara and in the chapel of the Pope, he had proved to his adversary that the music that is normally sung today is not simple diatonic, etc. One never spoke of that simple diatonic music, or padded diatonic, or double in the said dispute, [nor] have the said Don Nicòla or his adversary ever made any mention of that simple diatonic in their documents which they sent me as their proofs, as one can see in the copies of them, printed in my treatise.

esso fa nel suo capitolo una Narrativa, tutta piena di Giattantia et vantamento, discorrendo, per varij ragionamenti, come nella disputa fatta dinanzi al Reverendiss. S. Cardinal di Ferrara, et nella C[appella] del Papa, esso havea provato al suo Avversario, che la Musica che si cantava com[unemente] non era Diatonica semplice etc de la qual Musica Diatonica semplice, o, Diatonica foderata, o, doppia, mai non si ragionò nela detta disputa, ne meno esso Don Nicòla [né il] suo Avversario, han fatto mentione alcuna di tal Diatonica semplice, in le loro infor[mationi] che mi mandarono, per loro prove, come si vedrà nelle copie di esse, stampate in ques[to] mio Trattato:

But having printed them in his chapter in his manner, he has added this word, that is "simple", in his and his adversary's documents, as well as in his tale, thereby preparing in it, in this manner, the material [for his] proposition, in order to make the poor musicians, his followers (ignorant of this fraud and [deception)] believe that he had been falsely condemned to pay the bet to his adversary.

Ma havendole esso fatto stampare nel suo capitolo a suo modo, vi h[a] aggiunto questa parola cioè semplice; cosi nella informatione sua et del suo Aver[sario] come ancho nella sua Narrativa, preparando in essa, di questa maniera, la materia [a suo] proposito, per far credere ai poveri Musicotti suoi seguaci (di tal fraude et in[ganno ignoranti)] che a torto sia stato condannato a pagare la scommessa al suo Avversario.
(I-Rv R 56B, fol. 3r)

If, however, one carefully looks at the wording in the various Danckerts versions, many oddities appear. First of all, it must be mentioned that the wording in all three versions is the same, except for minor orthographic differences stemming from the poor quality of the transcription of the Italian, no doubt in part due to the fact that it was not Danckerts' native tongue. As this spelling remains largely the same in the following two documents, it must be assumed that the latter documents were copied from the first transcription, rather than from the Vicentino's original document. The title of the chapter, however, has changed from version to version:

> 1) I-Rv R 56A, fol. 542r: Copy of the statement of the information sent by Don Nicola Vicentino to me, the aforementioned Ghisilino for his examination, ~~extracted from~~ drawn from his original, all written and signed by his own hand and corresponding ~~de verbo ad verbum~~ word for word.
>
> (Copia della Cedola della informatione mandata da Don Nicola Vicentino a me Ghisilino predetto per sua prova, ~~extratta del~~ cavata dal suo originale scritto tutto et sottoscritto di sua mano ꝑpria et Seconda ~~de Vbo ad Vbum~~ di parola in parola.)
>
> 2) I-Rv R-Ms. 56A, fol 356v: Copy of the original information sent [by] Don Nicola Vicentino to Ms Ghisilino for his examination.
>
> (Copia delle Original informatione manda Don Nicola Vicentino a Ms Ghisilino p^{to} per sua prova.)
>
> 3) I-Rv R-Ms. 56B, fol 7r: Copy of the ~~original information~~ statement and original information sent by Don Nicòla Vicentino, written in his own hand to the aforementioned judge M. Ghiselin ~~for his examination~~.
>
> (Copia della ~~originale informatione~~ Cedola et originale Informatione, manda Don Nicòla Vicentino scritta di sua Mano propria à M. Ghisilino giudice predetto ~~per sua prova~~.)

It is of note here, that he only uses the words "extract" or "drawn from" in the first version, which made me wonder whether some words might have been omitted in transcribing the text. At the same time, it is also the only one in which he refers to it being transcribed "word for word". Does the one cancel out the other?

A close comparison of Danckerts' versions with that of Vicentino reveals two significant variations. In the opening of his communication, Vicentino writes:

I proved to M. Vincentio Lusitanio that the music which we sing today and which everyone ordinarily sings is not simple diatonic, and he says that it is diatonic.	Io hò prouato à M. Vincentio Lusitanio, che la Musica, che noi cantiamo hoggidì, & che communamente ognuno canta, non è Diatonica semplice, & lui dice che è Diatonica. (Vicentino, IV.43, fol. 95v).

In all transcriptions of Danckerts it reads:

I proved to M. Vincentio Lusitanio that the music which we sing today, and which everyone ordinarily sings. He says that it is Diatonic.	io ho provato a M: Vincentio Lusitano, che la Musica che noi cantamo oggi di et che communamente ogniuno canta; lui dice che è Diatonica. (I-Rv R-56B, fol. 7r)

The omission of the clause "is not simple diatonic" in Danckerts' transcription is noteworthy in that it eliminates the substance of Vicentino's position concerning his beliefs in regard to the music that is usually sung by everyone, thereby making his argument unintelligible.

In the final sentence of the same document, Vicentino does indeed speak of "simple diatonic", whereas Danckerts only refers to "diatonic", as follows:

So that for the said explanation you will see in Boethius that the music we sing is *mista* of all three genera, and is not diatonic, as M. Vincente Lusitano says.	Si che per ditta dichiaratione che vederette in Boetio, la Musica che noi cantiamo: si è mista de tutti tre li generi, et non è Diatonica come dice M. Vincentio Lusitano. (I-Rv R 5, fol. 7r)

This confusing situation, the presence or the absence of the word "simple", could be attributed to either one of them. Taken together, does this suggest that the lack of the word "simple" in Danckerts' transcription of the final sentence of Vicentino's statement was a wilful act of omission on the part of Danckerts, or is its presence evidence of later manipulation on the part of Vicentino?

Thus – as long as the relevant documents have not been found – the veracity of Danckerts' claim that Vicentino altered his statement to his own advantage must be questioned. According to his letter to the readers, Danckerts compared his own copy to those "copies which were signed by the public notary, and recorded in the Roman archive" ("[le questi] copie saranno sottocritte da Notaro publico, matricolato nell' Archivo Roman", I-Rv R 56B, fol. 3r). Here the care taken in the transcription must be questioned, given the large number of orthographic errors in the copies. In addition, it should be recalled that Danckerts was absent at the debate itself. Can one be sure that Vicentino never used the adjective there?

Whatever the case, if Vicentino had indeed spoken of the "simple diatonic", it seems doubtful that others would have understood why this word was so important. His statement is so bare of information concerning his real interests, which lay in the practical exploration of a larger tonal system by means of his archicembalo – something he was still keeping secret at the time of the debate in the hopes of using his discoveries to obtain a secure position – that it is almost incomprehensible for those who were not "in the know".

And secondly, Danckerts speaks of "proceder con *la voce"* ("progressing with the *voce"*) instead of the "procedere con *le voci"* ("progressing with the *voci*") employed by Vicentino. This will be discussed in greater length below in relation to Danckerts line-by-line commentary of Vicentino's communication (see 4.3).

In this context, the whole question also arose of whether Vicentino intentionally omitted or falsified the full documentation of the trial. Danckerts complains, namely, that Vicentino publishes neither the exact same narrative of the dispute as he does, nor the communication concerning the nature of the bet, claiming that he does this maliciously, thereby making it appear possible "that the difference was about one thing and the verdict was about another" ("parendo che la Differentia fusse stata sopra una cosa, et la sentenza fosse data sopra un'altra." I-Rv R 56B, fol. 3r). One can question here whether it is logical on the part of Danckerts to expect Vicentino to have printed a narrative identical to his own about the course of the dispute. Danckerts was not present at the original altercation, nor at the first hearing of the dispute itself. Thus his narrative for these two occasions is hearsay; what Vicentino recorded was his own memory of the two occasions. Both are liable to bias.

Danckerts further claimed that copies of the documentation were only sent to Lusitano by the judges and not to Cardinal Ippolito of Ferrara, and that therefore Vicentino was also lying about how he had obtained access to the documentation when he wrote the following:

> The reasons which were sent in writing by me and by the aforesaid Don Vincentio Lusitanio, and the verdict, are now faithfully copied here below, without falsification, without subtracting or adding any word, not even by a dot more or less, copied from the authentic copy made by the above-mentioned judges and sent to the most illustrious and most reverend [Cardinal] of Ferrara, as everyone can read here with the testimonies written below.

> Hora le ragioni che furno mandate in scritto da me, & da il sopradetto Don Vincentio Lusitanio & la sententia sono qui sotto copiate fidatamente senza fraude né di diminuire, ne di augumentare alcuna parola, né pur di un punto di più, né di meno copiate dalla copia autentica, fatta dalli sopradetti Giudici, & mandata allo Illustrissimo & (Reuerendiss.) Reuerendissimo di Ferrara, come qui ognuno potrà leggere: con li sotto scritti testimonij.
> (Vicentino, IV.43, fol. 95v)

Therefore in regard to copies of the documents, Danckerts and Vicentino are in agreement that they were in the hands of Lusitano; Vicentino had only used the Cardinal's copy of the judgment as the basis for his transcription for his book, which Danckerts did not place in question. And consequently, the question of who is responsible for the differences in the communications cannot be decisively answered.

4.2 The rules of the three genera

In his treatise Vicentino then speaks of the three ancient Greek musical genera, which served as a foundation for music – diatonic, chromatic and enharmonic – based on concepts found in Boethius' *De institutione musica*. Danckerts began his argumentation with a citation of the opening words of Vicentino's statement, in order to establish the groundwork for his offensive:

First, where the said Don Nicola says in his statement with these words, that is: **I explained to him the rules of the three genera, and that the diatonic is sung with the steps of the *tono* and *tono* and *semitono, etc.*; and in its steps there has never to be [any] other than the *tono* and *semitono*, etc.**; that which I need to say about this law or rule, I will reserve to speak of at greater length in the ~~ninth~~ tenth [I-Rv R 56A, fol. 359v: sixth] [chapter] of the second part of this treatise. As the said Don Nicola quoted and cited Boethius as his author in his above-mentioned statement, it follows also that he maintained and maintains that the *semitono* which occurs as an interval in the diatonic tetrachord, or in the consonance of the *diatessaron*, is a *semitono minore*, in that the aforementioned Boethius maintained this, ~~with many other authors~~, who said in the ninth [chapter] of the third [book] of his [*De institutione*] *musica* 'the minor part of a tone is that interval by which the consonance of the *diatessaron* exceeds two tones'.[14] In the same chapter he says: 'If we subtract a *diatessaron* from three tones, the remainder is an *apotome*.'[15] I do not intend to contradict Boethius in regard to this at present, ~~in order not to impugn that which he wrote about it~~; and I also consider it to be the minor [one] in this treatise on account of the above-mentioned reason, availing myself of his authority, just as the said Don Nicola has done.

Prima dove dice il detto don nicola nella sua informatione per queste parole, cioè, **Io li hò dechiarato le Regole delli tre generi. Che il Diatonico va cantato per li gradi, di tuono et tuono et semitonio; et che mai ha da intervenire nelli gradi suoi, altro che tono, e, semitono, etc.** quel che mi occorre sopra questa sua legge o regola riserbo da dirne piu ampiamente nel ~~nono~~ decima [I-Rv R 56A, fol. 359v: sesto] della seconda parte di questo trattato. Et havendo il detto Don nicola allegato et, citato il Boetio per sua Authore nella sudetta sua informatione; seguità ancho che esso habbia tenuto, et tengha quel semitono che intervien per intervallo nel Tetrachordo Diatonico, o nella consonantia del diatessaron, per il semitonio minore a guisa che le hà tenuto il detto boetio ~~con molti altri scrittori~~: qual dice al nono, del terzo della sua musica, Minor vero Toni pars est, spatium, quo duos tonos diatessaron transcendit sit enim. al ditto capitolo dice, si a tribus tonis diatessaron auferamus, Apothome fit reliqua pars. Al qual boetio non intendo contradire al presente ~~per non rivoltare sottosopra quanto esso ne ha scritto~~; Et tenendolò ancho io per il minore in questo trattato per la sudetta causa, m'avvalerò della sua authorita, sicome ha fatto il detto don Nicola.
(I-Rv R 56B, fol. 9r)

Given the information in Vicentino's communication, Danckerts' conclusion that the semitone must therefore be minor is actually reasonable. But the concept lying behind Vicentino's *Prattica* is much different from that of Boethius, as is seen in a passage from Book I of his treatise:

The diatonic genus is that which contains its species in a *quarta*, that is two *toni* and a *semitono*, all of them contiguous and [thus] without interruption they generate a *quarta composta*, as is shown here by the example with the semibreve signs, called in practice *mi, fa, sol, la*.

And the student should be aware that this diatonic genus, which we use, is not entirely that of which Boethius writes, for that

Il Diatonico Genere sarà qnello, che complette in una Quarta le sue Spetie, cioè due toni, et un semitono, tutti continui, e senza interuallo genereranno una quarta composta, come qui l'essempio dimostra con le carattere delle semibreui, dette in prattica, mi. fa. sol. la.

e lo Studente aduertirà che questo Genere Diatonico, che noi usiamo, non è in tutto quello, che scriue Boetio; perche

[14] Translation Calvin M. Bower, *Boethius: Fundamentals of Music*, New Haven, CT & London: Yale University Press 1989 (Music Theory Translation Series), 99.
[15] Bower, *Boethius*, 100.

of Boethius is formed of a *semitono minore* and two *toni sesquiottavi*.

Now one should know that in the practice we use, the diatonic genus which we form is of a *semitono maggiori* and one *tono sesquinono* and another *tono*, [which is] *sesquiottavo*. This inequality of the *toni* gives rise to the convenience of being able to use the consonances of the *terze* and *seste*, both *maggiori* and *minori*.

The reader should note that in the division of Boethius, no *terza* or *sesta* can be accompanied in [our] practice, and that the *quarte* and *quinte* of Boethius are perfect, and those which we use are a bit blunted and shortened in tuning the instruments.

quello di Boetio è formato d'un semitono minore, et di due toni sesquiottaui.

Hora nella prattica che noi usiamo, si ha da sapere, ch'il Genere Diatonico che noi formiamo è d'un semitono maggiore, & d'un tono sesquinono, & d'un'altro tono, sesquiottauo. Onde questa inequalità di toni, fa nascere la commodità di poter usare le consonanze delle Terze, et delle Seste, così maggiori come minori.

Il Lettore auertirà ch'in quella diuisione di Boetio nessuna Terza ne Sesta si può con la prattica accompagnare; & che le Quarte & le Quinte di Boetio sono perfette, & quelle che noi usiamo, sono un poco spontate & scarse nel acordare li stormenti. (Vicentino, I.6, fol. 13v)

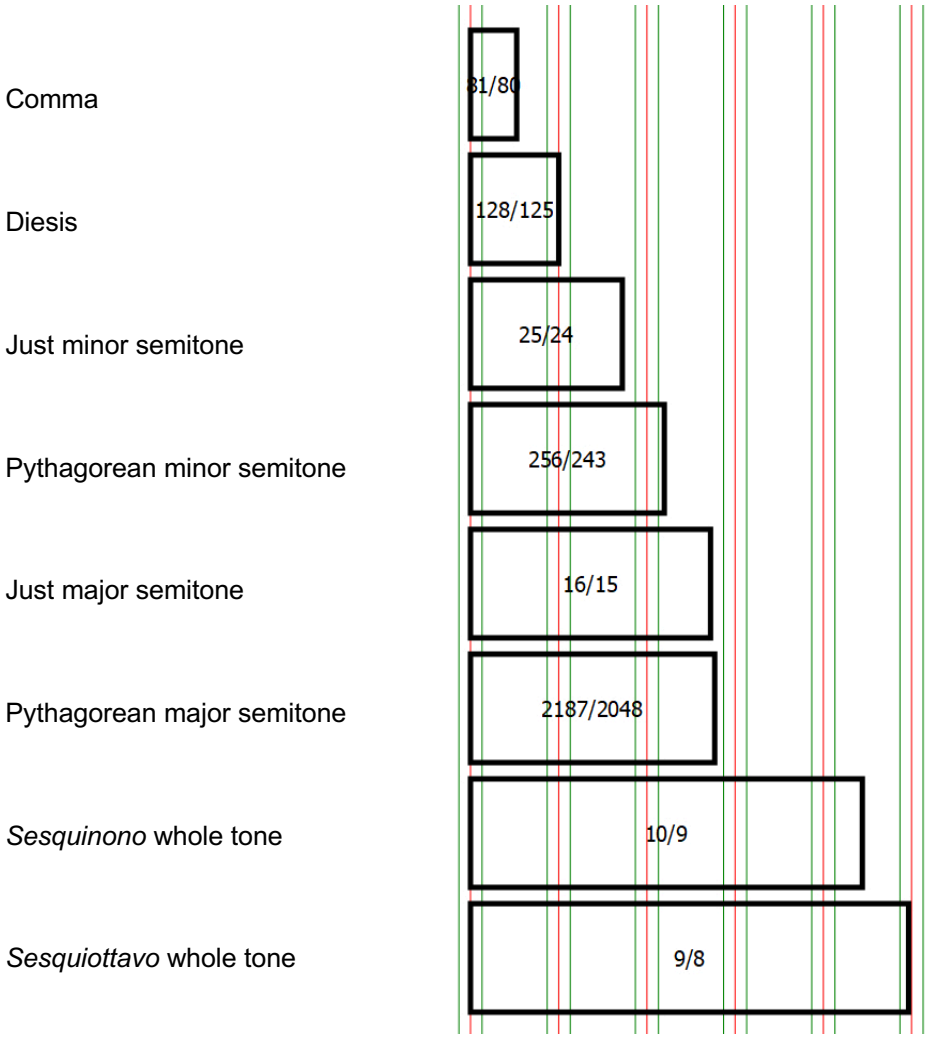

Figure 1: Graphic visualisation of the just and Pythagorean intervals up to the *sesquiottavo* whole tone in which their size is seen in relation to the number of dieses contained within them as well as in the ratios associated with them. Diagram: Johannes Keller, Schola Cantorum Basiliensis/FHNW.

This statement reveals a completely different level of knowledge than the language of his communication, as well as an understanding of tuning, which will be seen to be lacking in Danckerts' writing. He, however, also specifies that his genus differs from that of Boethius, in which the fourth was made up of a minor semitone, and two *toni sesquiottavi*, whereas in the practice current to his time one used a major semitone and two unequal whole tones, i.e. of different sizes, a *tono sesquinono* and a *tono sesquiottavo* (of which Vicentino writes that the difference between the two "are not discerned in singing": "quelli sempre s'intenderanno di quelli gradi di toni, che nascono per accidentia della medesima proportione, come i due naturali, che sono il sesquiottauo, & il sesquinono; auenga che le differentie loro, non si discernino nel cantare:" Vicentino, I.25, fol. 21r). This means that in this discussion, depending on the context, all of the intervals, i.e. the tone and minor and major semitones, could all be referring to at least two different sizes of interval (see Figure 1, for a graphic depiction of their comparative sizes). This is, of course, problematic, as everybody – not only Danckerts and Vicentino, but also today's readers – will be making assumptions about the sizes of the various intervals based on their own experience and knowledge.

In this diagram the difference in the sizes of the various intervals is immediately apparent to the eye. The ear also perceives the intervals from differing systems – although nominally the same – as being obviously different in sound from one another. Indeed the confusion arises from the fact that intervals with the same name and notation are different in size. The result of this confusion is immediately revealed in Danckerts' next comment on Vicentino's text:

But it seems to me that in our practice one clearly sees by experience that the said *semitono* which we use as the interval in the *diatessaron* (and consider to be the *minore*) is *maggiore* according to the sense of hearing, and also of sight, in the division made by the frets on the fingerboard of the viola [d'arco] or lute, because two such *semitoni minori* of the *diatessaron* joined together exceed the size of the *tono* ~~*perfetto*~~ *sesquiottavo* and the joining together of two of those others, which up until now we do not use as intervals in musical works and are considered to be *maggiori*, does not extend to the complete extent of the above-mentioned *tono*. And without saying anything more for now about it, I defer to experience. And returning to the examination of the infor[mation] where it is said that the diatonic genus has its progression in three intervals, that is *semitono minore*, *tono* and *tono* in one tetra[chord] (which was in accordance with Boethius, Ptolemy and many other authors), but it is not that which Don Nicola says, and he wants no intervals to intervene in its steps other than the *tono* and the banished *semitono maggiore*.

Ma mi pare che nella nostra pratica si vede chiaramente per esperientia, che'l detto semitonio che usamo per intervallo nel diatessaron (et è tenuto per il minore) sia il maggiore secondo il senso del odito, et ancho dell vista, nella divisione fatta delli tasti ne manico, dell viola, ò del liuto', per che giungendo insieme due di questi semitoni minori del diatessaron passano la quantita del tuono ~~perfetto~~ sesquiottavo e giungendo insieme due di quegli altri che fino al presente non sono usati per intervalli ne i canti, et sono tenuti per maggiori non arrivano al compimento del tuono sudetto; e senza dire altro per adesso circa ciò, me ne rimetto alla esperientia. Et tornando all' essamine della infor[matione] ove se dice ch'l genere diatonico ha il suo progresso per tre intervalli cio di semiton minore, tuono et tuono in un tetra[chord] (questa [era] cosi secondo Boetio, Ptolomeo et molti altri authori) ma non sta le che don nicola dice et non voglia, che mai ne habbia da intervenire nelli gradi suoi altro etc. intervalli que del tono et semitonio mag. sbandende.
(I-Rv R 56B, fol. 9r)

It seems almost inconceivable today, or extraordinarily naive that Danckerts, apparently being so certain of his position, would weaken his argument against Vicentino by commenting on how in practice two *semitoni minori* of the *diatesseron* joined together exceed a *tono*. But even in the earliest version of his treatise (I-Rv R 56A) on fol. 546r, he included a passage similar to that cited here, in which he commented on how the practice of his day in regard to the *semitoni* differed from the theory of Boethius, to whose authority, however, he was going to defer.

Here we see that he has a practical knowledge of what he was singing at the time, in that he realised he could not be singing the minor semitone of Boethian theory between *mi* and *fa*, as two minor semitones of that size would extend beyond the limits of a *sesquiottavo* whole tone, while at the same time was willing to maintain the fiction that a minor semitone was sung in the diatonic genus rather than to challenge Boethius' authority. This leaves us with the difficulty, however, when he speaks about these intervals and writes music for them, of knowing whether he is speaking of them and using them in compositions in terms of Boethius' theory or his own practice. The significance of these ambiguous remarks will be further examined in the discussion of the second part of Danckert's treatise on the theory about these intervals and how they are to be notated.

4.3 Singing and progressing with the *voci*

Danckerts proceeds further in the following manner, bringing the discussion back to Vicentino's statement:

and where he then continues, **But in our singing and proceeding with the *voce***, [this is something that is manifest to the world: that] **one proceeds** [in melodies with *dittoni incomposti*, such as from *ut* to *mi*, and also] **with the *triemitono incomposto***, [as from *re* to *fa* and *mi* to *sol*, without anything in between, neither *tono* nor *semitono*, as in *re*, *mi*, *fa* which is in the diatonic; so that this *re, fa* and *mi, sol* is a *triemitono* or *semidittono* or step of a *terza minore*,] **which is in the chromatic genus; and the *dittono incomposto***, [where in practice we say *ut, mi* and *fa, la*,] **is of the enharmonic genus**.

et ove poi seguita, **Ma nel nostro cantare, et procedere con la uoce, etc.** [questa è cosa publica al мondo, che si] **procede** [ne i canti, con i Dittoni incomposti, come saria, da ut. à mi. & anchora] **con il Triemitono incomposto,** [come da re. a fa. & da mi. à sol. senza alcuna cosa di mezzo di тono, né di Semitono, come saria, re. mi. fa. che è nel ɢenere ᴅiatonico, si che questo re. fa. et mi. sol. è il тriemitono, ò Semidittono, o passo di terza minore,] **che è nel Genere Cromatico, et il Dittono incomposto,** [che in prattica dicemo, ut. mi. & fa. la.] **è del Genere Enarmonico.**
(I-Rv R 56B, fol 8r as well as Vicentino, IV.43, fol. 95v, for the sections in square brackets)

After opening by repeating his interpretation of Boethius' definition of a diatonic tetrachord, in contradistinction to that of Vicentino, Danckerts then continues on with the next sentence in Vicentino's communication, citing it in a summarised fashion in order to give the reader a point of orientation for his comments. In the quotation above,

however, I have interlaced Vicentino's words in italics between those of Danckerts in bold, in order to facilitate comparison.

There is one critical difference between the two texts: Danckerts speaks of "la voce", whereas Vincentino wrote "le voci". The word *voce* had diverse meanings in the 16th century, ranging from sound, as in the production of sound by a human; to part, as in a specific vocal line of a polyphonic piece; and finally, to *voce*, as the solmization syllable sung for an individual note. The fact that Danckerts refers to "procedere con la voce" rather than Vicentino's "procedere con le voci" indicates that they were perhaps thinking of two different things, Danckerts solely of the use of the voice in singing a melody, whereas Vicentino was referring to the progressions of the syllables, which make it "clear to the world that one progresses in the songs with *dittoni incomposti*, such as would be from *ut* to *mi*", details that Danckerts omitted in his citation here. This is important, as Vicentino wished to prove that the difference between composite and noncomposite intervals in the genera was significant: indeed it was just this composite stepwise progression in tones from *mi* to *fa* to *sol* that distinguished it from the progression of the noncomposite interval of a *triemitono* from *mi* to *sol* that created the difference between the diatonic and the chromatic; and likewise, it was the noncomposite interval of a *dittono composto* of *ut* to *mi* in the enharmonic which distinguished it from the diatonic progression of *ut, re, mi*. This distinction was explained by Boethius as follows:

In this manner, then, the division is made through each tetrachord according to the special character of the genera, so that we divide all five tetrachords of the diatonic genus into two tones and a semitone. In this genus the tone is called 'noncomposite' (*incompositus*), since it is considered whole, and no other interval is added to it; rather, the tones in each interval are integral.

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Likewise in the enharmonic genus it consists of a diesis, a diesis, and a noncomposite ditone. We call this ditone 'noncomposite' for the same reason, for it is brought together in one interval.
(Translation: Bower, *Boethius*, p. 43)

Hoc igitur modo per singula tetrachorda in generum proprietates facta partitio est ut omnia quidem diatonici generis quinque tetrachorda duobus tonis ac semitonio partiremur Diciturque in hoc genere tonus incompositus idcirco quoniam integer ponitur nec aliquod ei intervallum aliud iungitur sed in singulis intervallis integri sunt toni.

In chromate vero semitonio ac semitonio incompositoque triemitonio posita divisio est Idcirco autem incompositum hoc triemitonium appellamus quoniam in uno collocatum est intervallo Potest enim appellari triemitonium in diatono genere semitonium ac tonus sed non est incompositum duobus enim id perficitur intervallis.

Et in enarmonio genere idem est Constat enim ex diesi et diesi et ditono incomposito quod scilicet propter eandem causam incompositum nuncupamus quoniam in uno conlocatum est intervallo. (Boethius, Book 1, Chapter 23, 216-17)[16]

[16] Anicius Manlius Severinus Boethius, *De institutione musica libri quinque*, in Gottfried Friedlein (ed.), *Anicii Manlii Torquati Severini Boetii De institutione arithmetica libri duo: De institutione musica libri quinque. Accedit geometria quae fertur Boetii* (Leipzig: B. G. Teubner 1887), Book 1, Chapter 23, 216-17.

Vicentino therefore claimed that the noncomposite intervals of the *triemitono* and *dittono* were not allowed in the diatonic genus. As both of these intervals appear in most of the music of their time that was generally held to be in the diatonic genus, he maintained that most people did not recognise that these intervals contravened the *diatonico semplice*, and therefore that they must not know in which genus they were singing. He was of the opinion that most music, as seen above, was *musica participata et mista*, *participata* because tempered fourths and fifths were used, and *mista* because it contained elements of both the chromatic and enharmonic genera. And it was in this context, in his later discussion of the dispute, that he expressed his satisfaction that Lusitano seemed to have acknowledged that Vicentino was correct in his assessment of the genera, in that he wrote in his own treatise that the intervals making up the genera must be noncomposite.[17]

4.4 What about the other intervals that are found in diatonic music?

Danckerts' attention, however, was drawn to something else entirely in this sentence:

I say that this writing of his seems to be very poorly supported, because he only makes mention of the intervals or leaps of the *ditoni* and *trihemitoni* which occur in the aforesaid music, and leaves out the many intervals or leaps of a *diatessaron*, *diapente*, *hexacordon*, *heptacordon*, *diapason*, *ennheacordon*, decadordon, and other *incomposti* intervals or leaps (called *incomposti*, on account of being joined together entirely in one interval) with which one progresses in the said diatonic music, of which (perhaps) he makes no mention whatever, perhaps because of his not knowing from which genus they are, ~~of which there will be~~ extensive and abundant documentation in the second part of this treatise.

Dico che questa sua diceria, mi pare esser molto magramente fondata, poi che fa solamente mentione delli intervalli, ò, salti delli ditoni e Trihemitonij che intervenghono nella musica predetta, e lascia a dietro i molti intervalli ò salti del Diatessaron: Diapentes: Hexacordon: Heptacordon: Diapason: Ennheacordon: Decadordon: et altri intervalli ò salti incompositi (chiamati per ciò incomposti, per esser collacati intieramente per un intervallo), con che si procede nel detto canto diatonico delli quali (forse) non ne fa mentione alcuna, forse, per non saper esso di che genere siano, delli quali se ne sara, ~~del che tutto se ne sarà~~ piena dimostratione, et darassene largo et fruttifero documento, nella seconda parte di questo trattato.
(I-Rv R 56B, fol. 9r)

It is true that Vicentino uses the noncomposite nature of the intervals in the genera to justify his expansion of the tonal system to encompass the minor and major semitones and minor and major dieses. and never took the larger intervals into consideration: they were said to have been constructed by adding smaller intervals to the perfect consonances of the fourth, fifth and octave, and were thus considered composite in nature. Vicentino did not address this issue directly, as it was in a sense

[17] Vicentino, *L'antica musica*, IV.43, fol. 97rv; Vicente Lusitano, *Introduttione facilissima et novissima di canto fermo, figurato contraponto semplice et in concerto*, Rome: Antonio Blado 1553, fol. Fii v.

not important within his system, as all perfect intervals were considered to be fundamental to it. It does, however, leave him open to criticism, as it seems to point to an inconsistency in his thinking, in that, on the one hand, he demands that the intervals making up the tetrachords be noncomposite, but on the other allows composite ones in larger leaps within the broader context of a composition. This, of course, makes it more difficult to bridge the gap between his thinking and that of the general musical public, both then and now.

4.5 What rules must be observed in chromatic and enharmonic music?

Danckerts goes on to complain about another aspect of the Vicentino's use of the genera:

Thereafter he continues and says, **Thus I explained to him that the music which is sung today is put together and *mista* from all three genera**, which appears to be wrong to me for this reason, that is, if in the pieces of the said music, no other progression of three contiguous intervals occurs in a tetrachord than that of the diatonic alone, and the difference between the said three genera (according to Boethius and other authors) consists of the progression of three various intervals in the tetrachord of each of the genera (which Don Nicola also says); and if one does not see in either the chromatic nor enharmonic, a single complete progression of three continuous intervals in a tetrachord in the said melodies, how can one ever say that the music is a mixture of that genus, of which one cannot only not see a complete progression of three intervals in a tetrachord, but also not a single interval proper to that genus as, for example, of a *diesis* in the enharmonic or in the chromatic of a *semitono maggiore*.

Dapoi seguita e dice, **Si che li ho declarato che la Musica che si canta hoggi di, e composta et mista di tutti tre li generi**, il che mi pare esser falso per questa ragione, cioè, se ne canti della sudetta musica mai non intervien altro progresso di tre intervalli continui in un Tetrachordo, che quello del diatonico solo: et la differentia delli detti tre generi (secondo Boetio et altri Authorij) consiste nel progresso di tre intervalli varij, nel tetrachordo di ciascun di essi generi (il che dice ancho il detto don Nicòla); et si, nè, del Chromatico, nè del Enharmonico non se vede pur un solo progresso intiero di tre intervalli continui in un Tetrachordo ne i detti canti, come si puo dire mai che la musica esser mista di quel genere, del quale non solamente non se ne vedo un progresso intiero di tre intervalli in un Tetrachordo: ma ne ancho un solo intervallo proprio di quel genere come per essempio nel Enharmonico d'un diesis: e nel Chromatico d'un semitono maggiore.
(I-Rv R 56B, fol. 9r-v)

Like the majority of people who take on the challenge of reading Vicentino today, Danckerts was blinded by his own understanding of the music of his time, which considered everything which remained within the gamut as being diatonic, as exemplified by the modal "scales". In composition with these scales, of course, it was permissible not only to use the steps of contiguous intervals, but also to leap from one pitch to another within the modal octave. He, and many others of both his time and thereafter, could not conceive of another way of applying Vicentino's writing to the music of his time. He therefore demanded, if one were to use this reasoning as a basis for resolving the dispute, that pieces in a specific genus retain the pristine form of their

tetrachordal progression, also composing his examples in this fashion. This, of course, led to rudimentary compositions, lacking in grace and interest beyond their presence in the most famous music-theoretical dispute of the 16th century. The corrections found in the last version of his treatise, were made after the appearance of Vicentino's opus to increase the strength of his argumentation.

At the same time, it is a manifestation of the incomprehensibility of Vicentino's position when it is solely based on his communication for the trial. While it contains the fundamental elements of how he seeks to connect his instrument theoretically to the foundations of the music current at that time, it is so circumspect as to almost be misleading. His statement can only be understood in context of his entire treatise and his instruments.

4.6 And what are species?

Danckerts then addressed the question of Vicentino's use of the word "species", particularly in the last version in I-Rv R 56B which dealt with the subject more extensively than the previous ones, adding a direct quotation from Boethius to underline his authority. He began by writing that his adversary

then added these words: **Without the many species of the chromatic genus such as the *diesis* ♯ and the ♭ *molli* which one places as accidentals** [*accidentalmente*] **to help the consonances that break with the diatonic order, etc.**, where Don Nicola errs glaringly in my opinion (disregarding that he improperly calls species that which one should call parts, steps, or intervals of genera or of species as Boethius says in [chapter] 13 of the fourth book of his [*De Institutione*] *Musica*: *est ~~enim~~ speties, positio quedam, sui proprij generis formam retinens, in terminis uniuscuiusque proportionis consonanti conducentis, constituta*) and because he says that the *diesi* are species of the chromatic genus, while they are parts or intervals solely of the enharmonic genus, whatever it may be, that according to the said Boethius and all the other theorists, the *diesis* is half the length of a *semitono minore* and must be indicated as is shown below in the second part of this treatise and not like this, ♯, as he said.

Da poi suggiunge queste parole **Senza le molte spetie del genere chromatico come sono li diesi ♯, et li ♭ molli, che accidentalmente si mettono per aiutare le consonantie che rompeno l'ordine diatonico etc.** ove don Nicòla erra grandemente, secondo il mio parere (lasciando che esso chiama impropriamente spetie, quelle, che si dovrebbono chiamare parti, o gradi, ò intervalli di genere ò di spetie dicendo Boetio alli 13°, del quarto della sua Musica, est ~~enim~~ speties, positio quedam, sui proprij generis formam retinens, in terminis uniuscuiusque proportionis consonanti concudentis, constituta) e poi che dire che li diesi sono spetie del genere Chromatico, essendo essi, parti, ò intervalli del solo genere Enharmonico, con ciò sia cosa, che secondo 'l detto Boetio et altri Theorici, il diesis è la metà del semitonio minore, e, si deve segnare come sarà dimostratò di sotto nella seconda parte di questo trattato è non cosi ♯ come ha detto lui.
(I-Rv R 56B, fol. 9v)

It must be said, however, that the formulation of the Boethius quotation differs slightly from that found in the version which is deemed standard. It seems to have been taken from the edition of *De Institutione Musica* printed in Venice in 1491-92, as the wording and the chapter numbering used by both Vicentino and Danckerts

correspond to that found in this edition. An example of the extent of the differences may be seen by comparing the definition of a species from both sources:

> Danckerts:
> A species is a certain position retaining the form of its own genus, established within the terms of some ratio leading to a consonance.
> *(Est speties, positio quedam, sui proprij generis formam retinens, in terminis uniuscuiusque proportionis consonanti conducentis, constituta.)*
>
> Standard:
> A species is a particular segment of notes in one of the genera with a unique pattern of intervals; the segment is arranged within the terms of some ratio yielding a consonance. (Translation: Bower, 148.)[18]
> (*Species autem est quaedam positio propriam habens formam secundum unumquodque genus in uniuscuiusque proportionis consonantiam facientis terminis constituta*. Boethius, Book 4, Chapter 14, 337.)

That even the standard version of this quotation demands considerable reflection may be seen by the fact that the translator of the English version, Calvin Bower, felt the need to clarify his understanding of the sentence in a lengthy footnote:

> Each word in this definition [337.22'-25] carries considerable weight, both grammatically and technically. Four elements are essential to the definition: the segment, the pattern, the genus, and the consonance. “Particular segment” is a translation of Boethius’ *quaedam positio;* it thus represents a discrete position of some interval in a more extended sequence of notes. “With a unique pattern” *(propriam habens formam)* refers to the intervallic structure within the segment. But the intervallic structure of any segment requires that it be considered “in one of the genera” *(secundum unumquodque genus).* Finally, the segment must be bounded by pitches set in a “ratio yielding a consonance” *(in uniuscuiusque proportionis consonantiam facientis terminis constituta)*.[19]

As a result one may also conclude that the complexity of the original formulation in itself gives rise to varying interpretations, which was perhaps a contributing factor to the differences in regard to the definition of “speties” on the part of Vicentino and Danckerts.

Vicentino, as we saw above, used Boethius’ definition of noncomposite intervals in relation to the genera to support his claim that noncomposite major and minor thirds did not belong to the diatonic genus. Calling them species, however, is in conflict not only with Boethius definition thereof, but also his own:

The consonances acquire their variety of species within themselves by varying the order of the tones which they contain. Inasmuch as the ordering of the *toni* which are	Le consonanze acquistano infra di loro uarietà di spetie nel uariare l’ordine de toni, quali esse contengano. Impercio che l’ordine delli toni che sono nella

[18] Anicius Manlius Severinus Boethius, *De institutione musica libri quinque*, in: Gottfried Friedlein (ed.), *Anicii Manlii Torquati Severini Boetii De institutione arithmetica libri duo: De institutione musica libri quinque. Accedit geometria quae fertur Boetii* (Leipzig, B. G. Teubner, 1887), Book 4, Chapter 14, 337; Bower, *Boethius* (see n. 14), 148.
[19] Bower, *Boethius*, 148 footnote 67.

in the *diatessaron* may be mutated in three ways, there are therefore three species.

One [the first] starts with *semitono, tono, tono*; the second with *tono, semitono, tono*; and the last with *tono, tono, semitono*, as is seen in the figure, in accordance with Boethius in chapter 13 [of book 4 of *De Institutione Musica*], although they are used differently in [musical] practice.

Diatessaron, in tre modi si mutano, & cosi tre sono le spetie.

Vna comincia per semitono, tono, & tono. L'altra per tono, semitono, & tono. L'ultima per tono, tono, & semitono, come in figura si uede, secondo Boetio nel Cap. xiij. bēche in prattica si usino altrimēti."
(Vicentino, Th. 9, fol. 5r)

His own definition of species is in line with others of the time, such as Tinctoris, Gaffurius, and Vanneo,[20] but the conflation of noncomposite intervals in the genera with the species of the perfect consonances is a source of confusion not only for Danckerts, but also for any reader of Vicentino. Danckerts, thinking logically, speculates that, if the structure of each genus is to be recognised in a piece of music, it then must appear in its basic form as a sequence, from which he drew the conclusion that if there are no pieces with the specific sequence found in the chromatic and enharmonic genera, one cannot claim they form part of a mixed genus. Danckerts later "proves" that music in the chromatic and enharmonic genera is unacceptable by writing examples that meet his own criteria. Given the paucity of information in Vicentino's communication, this response is justified. Later however, we will see that Danckerts, although well-trained for his work as a singer, did not actually understand the basic issues underlying Vicentino's claim, and that the dispute was being carried out on two entirely different planes.

4.7 The use of the word "diesis" in 16th-century Italian sources

And lastly in this section, Danckerts complains of Vicentino's use of the "diesis ♯" in reference to raised chromatic inflections. This was, I suspect, a wilful misunderstanding on Danckerts' part of Vicentino's colloquial designation for this character, as notes with a sharp sign indicating that they were to be sung a semitone higher were commonly called diesis in Italy at that time, as may be seen in the letter from Giovanni Spataro to Pietro Aron of 23 May 1524, and the treatises of Giovanni Maria Lanfranco (1533), and Locovico Zacconi (1596).[21]

[20] Johannes Tinctoris, *Liber de natura et proprietate tonorum* (1476), Chapter 2; Franchinus Gaffurius, *Theorica musice*, Milan: Philippium Mantegatium 1492, Book 5, Chapter 7, fol. kiir-kiiir; Stephano Vanneo, *Recanetum de musica aurea*, Rome: Valerius Doricus 1533, fol. 23v.

[21] Letter of Giovanni Spataro to Pietro Aron, see Blackburn, Lowinsky, and Miller (eds.), *A Correspondence of Renaissance Musicians*, 301-02 and 306-07; Giovanni Maria Lanfranco, *Scintille di musica*, Brescia: Lodovico Britannico 1533, 125; Lodovico Zacconi, *Prattica di musica*, Venice: Bartolomeo Carampello 1596, fol. 38r-40r.

4.8 Should the *semitono* in the diatonic genus be *maggiore* or *minore*?

As Danckerts was primarily concerned with the issue of the influx of chromaticism in newer vocal music, his invective was largely directed against Vicentino's use of it, not against the far more exotic enharmonic genus. Indeed, his whole opposition to Vicentino was based on his desire to maintain the purity of liturgical music, and therefore put a stop to what he saw as a dangerous influx of chromaticism within the church. In writing about the intervals, he was therefore speaking to his fellow singers, attempting to clarify the *melodic* intervals indicated by the sharps and flats. His intended audience was thus, for the most part, not the keyboard players or theorists who usually wrote on this subject.

For this reason, he places an emphasis on the chromatic divisions in the following discussion, desiring to maintain Boethius' theory, even though he knew that this did not correspond with current practice:

This figure (as I will discuss below) is used for the *semitono minore*. The intervals of the chromatic genus (as will be seen in the said second part) are the *semitono minore* and the *semitono maggiore*, but because in diatonic pieces one would customarily indicate this note, which would usually be sung as an ascending whole *tono*, with the sign of ♭ to make it sung as a *semitono minore*, removing the *semitono maggiore* from this *tono*; and that note which would normally be sung as a descending *semitono minore*, to make it be sung as a whole *tono*, adding the *semitono maggiore* to that *semitono minore* in order to complete the *tono*; likewise the same custom indicates that note which ordinarily would be sung with a descending whole *tono* with the sign ♯ to make it sung with a *semitono minore*, removing the *semitono maggiore* from that ordinary *tuono*; and to that which would ordinarily have been sung with an ascending *semitono minore*, [I-Rv R 56A, fol. 360r: ~~indicated with the same sign, i.e. ♯~~] to have it sung as a whole *tono*, adding to that *semitono minore* [I-Rv R 56A, fol. 360r: *ordinario*] the *semitono maggiore* [I-Rv R 56A, fol. 360r: to complete the whole tone]; in such a manner that just as with this sign ♭ the said custom indicates the ascending *semitono minore* and the descending *semitono maggiore* (or its content and not the interval), so with this sign ♯ [one indicates] the descending *semitono minore*; and the ascending *semitono maggior* ~~(or its content and not the interval)~~. Yet when it indicates the *semitono maggiore*, it lacks a *comma*; and it must be

La qual figura (come dirò di sotto) convien al semiton minore. Li intervalli del Genere Chromatico (come nella detta seconda parte si vedrà) sono il semiton minore, et il semiton maggiore, ma si come ne canti Diatonici la consuetudine segna quella nota che ordinariamente sarebbe esser intonata per un tono intiero ascendendo con questa figura . ♭ . per farla intonare per semitonio minore, sciemando da quel tuono il semiton maggiore; et quella nota che ordinariamente sarebbe esser intonata per semitonio minore discendendo, per farla intonare per tono intiero, aggiungendo a quel semitonio minore, il semitonio maggiore per compimento del tuono; Cosi segna la detta consuetudine quella nota che ordinariamente havrebbe da esser intonata per un tuono intiero discendendo, con questa figure ♯ per farla intonare per semiton[io] minore, sciemando di quel tuono ordinario il semiton maggiore: e quella che ordinarimente havrebbe da esser intonata per semitonio minore ascendendo [I-Rv R 56A, fol. 360R: ~~segna con la medesima figura cosi ♯~~] per farla intonare per tuono intiero, aggiungendo a quel semitonio minore [I-Rv R 56A, fol. 360r: ordinario], il semitonio maggiore [I-Rv R 56A, fol. 360r: per compimento del tuono intiero]: Di maniera che, sicome con questa figura . ♭ . la detta consuetudine segna il semitonio minore ascendendo, et il semiton maggiore discendendo (o, la continentia sua et non l'intervallo): Cosi ella segna con questa figura ♯ il semiton minore discendendo, et il semiton maggiore ~~(o, la continentia sua et non~~

indicated as will be shown more fully in the second part.

~~l'intervallo)~~ ascendendo. Anchor che quando è segno del semiton maggiore gli manchi una comma: et si dovrebbe segnare come di sotto nella seconda parte piu à pieno si dimostrarà.
(I-Rv R 56B, fol. 9v)

For the first time in this passage, Danckerts clarifies his understanding of the sharp and flat signs in relation to the size of the associated semitones. He ended the previous section by saying that Vicentino's use of the word "diesis" was incorrect, as the term diesis cannot be understood in terms of the chromatic genus, being half a length of the minor semitone, and is only found in the enharmonic genus. The major and minor semitones, however, are found in the chromatic genus. For Danckerts the sharp indicates a minor semitone, but can only be used in descent with this meaning, as in diatonic pieces the ascending minor semitone is usually indicated with a flat. It is, however, used to indicate a descending minor semitone in such pieces, whereas the flat indicates a descending major semitone. To indicate an ascending major semitone, one would have to add an additional stroke, as it would otherwise be one comma too small. Danckerts' explanation is at odds with meantone tuning, as he considers the sharps to be minor in descent, and major in ascent. This, like his earlier affirmation of Boethius, is against his practical experience in the size of these intervals, which leads me to believe that he does not understand the consequences of his statement on the auditory level. This in turn makes it difficult to establish the tuning system in which his examples should be performed.

He continues by insisting that instead of the sharp sign, one could use the natural sign introduced by Guido. And again he feels the need to criticise Vicentino's use of the word "diesis" in this context, as a diesis only has its place in the enharmonic genus.

In place of this sign ♯ one could more properly use the sign of ♮ *quadro*, i.e. ♮, as one also uses the sign of ♭ *molle*, i.e. ♭, in accordance with the introduction of Guido Aretino. Still, however you see it, this figure ♯ is always the sign of the *semitono*, whether *minore* or *maggiore*, and always has the effect of the one or of the other *semitono*. It can never occur as a *diesis*, by species or part or interval of the chromatic genus, as Don Nicola says. Nor (as all of those ignoramuses [say] who improperly call it a *diesis* in diatonic music) does it have the effect of the *diesis*, but indeed always that of the *semitono*. And therefore it cannot occur by part, or step, or interval of the *diesis* in the chromatic genus.

In cambio della qual figura cosi ♯ si potria usare piu propriemente la figura del ♮ quadro cosi . ♮ . come ancho se usa la figura del ♭ molle cosi . ♭ ., seguitando la introduttion del Guido aretino. Pure, sia come si voglia questa figura cosi ♯ è stato usato sempre per segno del semitono, ò minore, ò, maggiore, et sempre fa, l'effetto hor del uno, et hor del altro semitonio: et non può intervenire mai come diesis, per spetie, o, parte: o intervallo del genere chromatico, come dice il detto don Nicòla; Ne ancho (con tutto ciò che ne canti diatonici, gli ignoranti la chiamino impropriamente diesis) fa l'effetto del diesis, ma si sempre bene del semitonio: e, per questo non può intervenire per parte: ò grado: ò intervallo del diesis nel genere Chromatico."
(I-Rv R 56B, fol. 9v-10r)

4.9 Issues related to the use of the major semitone

Danckerts then goes on to claim that the interval of a major semitone indicated by a sharp has never existed in the diatonic genus or its music. With this statement he comes to the central aspect of the dispute, as far as he was concerned, for his interest lay in maintaining the purity of the music of the Roman Catholic Church as represented by the Vatican Chapel. This intent can be discerned in the vehemence of his language:

This *diesis* or its interval, together with the interval of a *semitono maggiore*, has until now been banned from diatonic music, and was never used, nor ever seen used in our times in the music which commonly has been used and composed by composers of some fame (I am not speaking of these new ~~ignoramus~~ composers, who, making hay from any weed without any law or reason, order, or science whatsoever, deserve to be expelled and repudiated from the brotherhood of the sacred muse). And for this and other reasons the said music could not have been mixed with this genus, in which the said *diesis* or true *semitono maggiore* does not appear properly as an interval or step. ~~Never were the said intervals of the *diesis* seen to be sung, nor of the *semitono maggiore* in the melodies of the said music~~.

Il qual Diesis o suo intervallo, insieme con l'intervallo del semitonio maggiore, in fin qui è stato sbandito delli canti Diatonici: e mai non è stato usato, ne veduto usare mai a tempi nostri, nella Musica che communemente è stata usata et composta dalli compositori di qualche fama (non dico de questi compositorelli novelli, ~~ignorantelli~~, quali, facendo fascio d'ogni herba senza legge ò ragione: ordine: o scientia alcuna sono degni d'esser scacciati et ripudiati del collegio delle sacre Muse). E per questa et altre ragioni la detta Musica non ha potuto esser mista di quel genere, nel quale detto diesis, o vero semiton maggiore non concorre propriamente per intervallo o grado: ~~non essendosi veduti mai intonare i detti intervalli del Diesis, ne del Semitonio maggiore nelli canti della detta Musica~~.
(I-Rv R 56B, fol. 10r)[22]

This is a late episode in a controversy that goes back to Bartolomeo Ramos de Pareja, John Hothby, Giovanni Spataro, and Pietro Aron, just to mention a few. It was fought furiously from the end of the 15th century to the middle of the 16th century and was concerned with the incompatibility of Guido's tonal system with a fully chromatic one. Its focus was on the size of the semitone between b-c and e-f, which Boethius, with Guido in his footsteps, had established was a minor semitone, the interval that was left over after subtracting two *sesquitottava* tones from a fourth. Both Mark Lindley and Luigi Ferdinando Tagliavini write about how this controversy was experienced by those in the real world who had to navigate between theory and practice, namely the instrumentalists, particularly the keyboard players who could not sit on the fence where tuning was concerned. Tagliavini highlighted the paradoxical nature of the "divergence between the views of the theorist and those of the practical musician" and singled out both Ramos and Bonaventura as having 'made the important attempt to draw theory and practice together, "reducing" – as Spataro asserted, defending his teacher, Ramos – "the Pythagorean intervals to the ones used by the musicians".[23] Similarly, Lindley

[22] It is not clear in I-Rv R 56B, whether Danckerts intended to cross out the last sentence or not.
[23] Luigi Ferdinando Tagliavini, "Notes on Tuning Methods in Fifteenth-Century Italy", in: Fenner Douglass, Owen Jander & Barbara Owen (edd.), *Charles Brenton Fisk, Organ Builder. Essays in His Honor*, Easthampton, MS: The Westfield Center for Early Keyboard Studies 1986, I, 191-96: 194 and 196.

speaks of Ramos recognising "that only 'good' major sixths and thirds being used in cadential progressions and later his disciple, Giovanni Spataro, remarked that according to Ramos 'the harsh Pythagorean monochord' (i.e., with pure fifths) had to be 'reduced by softening to the sense of hearing'".[24] He also pointed out that Franchino Gaffurio speaks of something similar in saying that "a fifth can be diminished by a very small, hidden and somewhat indefinite amount (as organists assert), which they call *participata"*.[25]

This is similar to Vicentino's remark cited above, that Boethius' division does not allow the thirds and sixths to "be accompanied in [our] practice, and that the *quarte* and *quinte* of Boethius are perfect, and those which we use are a bit blunted and shortened in tuning the instruments". But with this tuning, the gamut was expanded to include chromatic notes, leading to conflicts with traditional theory, for it called the rule into question that you may neither make a *fa* out of a *fa*, nor a *mi* out of a *mi*, i.e. b-double flat, f-flat, b-sharp, and e-sharp are all forbidden. What this signifies is perhaps best explained by Giovanni del Lago in a letter to Giovanni Spataro of 15 August 1533:

Then you proceed in your letter, saying this: "And since my teacher, Tinctoris, and Fra Giovanni Hothby, [both] say that such signs are not indicated in those aforementioned *naturali* places, they asked what is the reason?' [...] Answering I say that [...] it was said for two reasons, the first of which is that if the sign of a b *rotondo* or *molle* were placed in those letters or in other places where it would be naturally a *fa*, it would not be a real or true coniuncta, and the same holds if the sign of b *quadro* or *duro* is indicated where *mi* occurs naturally. The reason is because from ♮ to C and from the E to the F *naturali* the space of the *semitono minore* ensues immediately and not that of a whole tone which could be divided with the *semitono minore* below and the [*semitono*] *maggiore* above or with the [*semitono*] *maggiore* below and the [*semitono*] *minore* above. Therefore I say, as the *fa* and *mi naturali* are in the aforementioned places, it is not necessary to mark and indicate such *fa* and *mi* with accidental signs because they would be in vain and would also destroy and spoil the natural order. Given the above reasons, it is indeed true that this was ordered, and also later observed by musicians, that where you find this sign ♭ indicated, you

Da poi procedete in la vostra lettera dicendo così: 'Et perché el mio precettore et Tintoris et Fra Giovanni Ottobi dicono che tali segni non si segnano ne' luoghi preditti naturali, domandano a quella qual sia la ragione [...] Respondendo dico che [...] è stato detto per due ragioni, delle quali la prima è che se 'l segno di b rotondo o ver molle si ponesse in tale lettere o vero in altri luoghi ove naturalmente fusse fa, non saria real et vera coniunta, et similmente se il segno di b quadro o vero duro si segnasse dove naturalmente fusse mi. La ragione è perché da ♮ ad C et da E ad F naturali cade immediate lo spatio del semituono minore, et non del tuono, il quale si possa dividere per semituono minore in grave et maggiore in acuto, o ver per maggiore in grave et minore in acuto. Dico adunque, essendo ne' predetti luoghi fa et mi naturali, non oportet signari et demonstrari huiusmodi fa et mi per signa accidentalia, perché sariano indarno messi et anchora si destrueria et guasteria l'ordine naturale. Rationibus predictis è ben vero che gli è stato ordinato et poi anchora osservato da' musici, che dove sarà tal segno ♭ segnato, si debba dire sempre fa, et dove sarà dato questo segno ♯ si debba dire sempre mi, ma questo si

[24] Mark Lindley, "An Historical Survey of Meantone Temperaments to 1620", in: *Early Keyboard Journal* 8 (1990), 5-31: 14.

[25] Franchino Gaffurio, *Practica musicae*, Milan: Gulielmum signer Rothomagensem 1496, Book 2, Chapter 3, Rule 2 "quinta ipsa (quod organistae asserunt) minimae ac latentia incertaeque quodammodo quantitatis diminutionem patenter sustinet", as quoted in Lindley, "An Historical Survey", 14 fn. 9.

must always sing *fa* and where there is this sign ♯ you must always say *mi*, but that applies, however, [only] to each position in the hand of Guido where *fa* and *mi naturali* are not found.[26]

intende però in ciascun luogo nella mano di Guido dove non sono né fa né mi naturali.

Del Lago makes it clear here that you cannot make these shifts because the accidental signs are designed to divide the whole tone above or below a note into two semitones, one major, the other minor. If the note below is a semitone, you cannot divide it into two semitones. Therefore it simply cannot be done. Interestingly, Vicentino does not make use of b-sharp, e-sharp, c-flat or f-flat in the compositions in his treatise. Further, while del Lago speaks of the natural semitones as being minor, Vicentino says they are major, reflecting the change during this period in the practical world from Pythagorean to meantone tuning, which once again separates him from the theorists of the time, as we will see later in our examination of Danckerts theoretical discussion of semitones.

Del Lago also speaks of further reasons for not making such divisions:

The second reason is that if the aforementioned accidental signs were to be placed and indicated in the aforesaid natural letters ♮ and E or C and F, they would still not be conuiunctae, because the conjuncta, according to Giovanni Tinctoris, is nothing other than not making a *semitono* of a *tono* and a *tono* of a *semitono*. Since, however, above B and E and below C and F the adjoining space is a *semitono minore*, that space is fixed and immobile in accordance with the natural order, and is not a *tono*, such signs could not be operative in their effect in accordance with their nature and property, because it would follow that the definition and the defined would contradict one another. And also, because of this, it would follow that such conuiunctae could not be comfortably uttered by the singer in ascent as well as in descent with the voice without the greatest difficulty and effort as being a rarely used space or interval.

L'altra ragione è che se li predetti segni accidentali se ponessino et segnassino nelle antidette lettere naturali, cioè in ♮ et in E o ver in C et in F, non saria similmente congionta, perché la congionta, secondo piace a Giovanni Tintoris, altro non è se non far di tuono semituono et di semituono tuono. Essendo adunque sopra ♮ et E et sotto C et F spatio propinquo di semituono minore, il quale spatio secondo l'ordine naturale è fisso et immobile, et non di tuono, pertanto non poriano tali segni operare el suo effetto secondo la sua natura et proprietà, perché seguirebbe che la definition et il definite sarianno contrarii tra loro, et anchora per questo seguirebbe che non si potriano commodamente tali congionte pronuntiare dal cantore ascendendo et descendendo con la voce, se non con grandissima dificultà et fatica, per esser spatio o ver intervallo inusitato,

This is due to a defect of the practice which up to now, has not produced – nor will it do so in the future – any sign through which one can sing a *semitono maggiore* lower than C and F or a comma lower than ♮ and E (which is the same thing) so one can say *fa* to complement the *semitono minore* which should be between the ♭ and that

e questo è per defecto della pratica, la quale per infino a hora non ha dato, né manco è per dare per lo advenire, segno alcuno che sotto C et F di uno semituono Maggiore o ver sotto ♮ et E d'un comma (quod idem est) si possano dire fa per compire el semituono minore che doveria esser fra ♭ et esso sopradetto luogo, si come si fa

[26] Letter of Giovanni del Lago to Giovanni Spataro, 15 August 1533 in Blackburn, Lowinsky, and Miller (eds.), *A Correspondence of Renaissance Musicians*, 656-57 and 661. I have used the English translation/summary of Bonnie Blackburn and Edward Lowinsky as a basis for my translation.

above-mentioned place [i.e. B♭-C♭, E♭-F♭] as one does on all the other letters, all of which can be lowered by a *semitono maggiore*, but not C and F except in one's imagination and thus badly, etc. Thus, you may understand for the above-mentioned reasons why the said signs are not indicated of the aforesaid *naturali*, because they do not produce an interval suitable for harmony, and this is my opinion and point of view.[27]

in tutte le altre lettere, le quale tutte so possono sbassare de uno semituono maggiore, la qual cosa non possono C et F nisi imaginative, ergo male, etc. Adunque per le predette ragioni potete comprendere perché li detti segni non si segnano ne' luogi antidetti naturali, perché non producono intervallo comodo all'harmonia, et questo è el mio giuditio et parere.

Thus, flats on *fa* or sharps on *mi* would also, according to del Lago, lead to the building of other intervals than the minor semitones implicit within his view of the system, causing practical difficulties as the singers would not be able to sing them, except in their imagination. Therefore, they were not and should not be used in those places. As mentioned above, Vicentino neither uses these notes in the compositions in his treatise, nor does he consider the natural semitones to be minor. And having major semitones in these locations would certainly also have been considered impossible within the Guidonian system. In addition, the reference to conuiunctae or hexachords is interesting, implying that these notes would no longer actually be able to be accommodated within the hexachord system.

And it is just this issue which concerns Danckerts: he is fighting to uphold the tradition of Boethius and Guido, two pillars from the past upon which the tradition of Catholic liturgical music rested.

4.10 Can music really be written solely in the chromatic and enharmonic genera?

In the following passage, Danckerts questions Vicentino's compositional capabilities, and whether it is even possible to compose works solely in the chromatic and enharmonic genera, as well as Vicentino's belief that music in the chromatic and enharmonic genera is better and sweeter than that written in the diatonic.

Although the said Don Nicòla has written the opposite about it in his above-mentioned statement and boasted to some of his scarred musician [fans] and given them to understand that he wants to compose music solely in the chromatic genus, and solely in the enharmonic; and that the said chromatic and enharmonic pieces are better [I-Rv R 56A, fol. 360v: and sweeter] than the pieces in the diatonic genus that are sung in the said chapel; but if he does not understand the said *diesis* better, and works as badly as

Benche il detto don Nicòla ne ha scritto il contrario nella sudetta sua informatione et apresso alcuni musicotti soi segnaci si vanta, et dà loro ad intendere, che esso vuol comporre canti nel solo genere Chromatico et nel solo genere Enharmico; et che i detti Canti Chromatici et Enharmonici siano migliori [I-Rv R 56A, fol. 360v: e piu dolci] che non sono i canti Diatonici che si cantano nella detta Capella. Pure se esso non intende meglio il detto Diesis et lo operà cosi male, come in sua informatione ne hà

[27] Letter of Giovanni del Lago to Giovanni Spataro, 15 August 1533 in Blackburn, Lowinsky, and Miller (eds.), *A Correspondence of Renaissance Musicians*, 657-52 and 661-62. I have used the English translation/summary of Bonnie Blackburn and Edward Lowinsky as a basis for my translation.

he has written in his statement, he is in great error and I strongly doubt whether he would otherwise compose pieces in the said chromatic and enharmonic genera, the one separate from the other.

scritto; esso è in grande errore: et dubbito grandemente che esso non componerà altramente canti nelli detti soli generi Chromatici et Enharmonici separatamente l'uno dal altro.
(I-Rv R 56B, fol. 10r)

One is indeed obliged to admit that there are far fewer extant 16th-century pieces in the chromatic and enharmonic genera than the diatonic, and in that sense acknowledge this point. Noteworthy is that Danckerts first wrote that Vicentino claimed that the pieces in the chromatic and enharmonic genera were better "e piu dolci" (and sweeter) than those in diatonic in the earliest version of this text on I-Rv R 56A, fol. 546v. At a later date he copied this wording on fol. 360v, only to cross out "e piu dolci" at some still further point in time. I suspect that this is due to his having read Boethius and Gaffurius in the meantime, who describe the characteristics of the genera in the following manner:

- Boethius: "The diatonic is somewhat more austere and natural, while the chromatic departs from that natural intonation and becomes softer; the enharmonic is very rightly and closely joined together."
  ("*Et diatonum quidem aliquanto durius et naturalius, chroma vero iam quasi ab ill naturali intentione discedens et in mollius decidens, enarmonium vero optime atque apte coniunctum".* Boethius, Book 1, Chapter 21, 212-13. Bower, *Boethius*, 40)

- Gaffurius: "This [diatonic] genus, because it is somewhat harder and more natural, seems to have been esteemed by philosophers more than the others and is recognised in its frequent use by musicians and, guided by nature, by the discipline itself."
  ("*Hoc enim genus quoniam aliquanto durius et naturalius est ceteris a Philosophis obseruatum uidetur: frequensque musicorum usus et ipsa disciplina natura duce concelebrare noscitur."* Gaffurius, *Musica theorice*, Book 5, Chapter 2, fol. 51v; translated by Walter Kurt Kreyszig as Franchino Gaffurio, *The Theory of Music*, New Haven and London: Yale University Press 1993, 151)

- Gaffurius: "The chromatic and enharmonic genera, on account of their softness [*moliciem*] in performance and their difficulty, were rejected by the musicians."
  ("Chromaticum tamen atque Enarmonicum genus ob quam in sui pronunciatione moliciem difficultatemque tenebant a musicis reiecta sunt." Gaffurius, *Musica theorice*, fol. 53r, in the translation, 157)

As Boethius and Gaffurius use softness in their descriptions of the chromatic and enharmonic genera, perhaps Danckerts felt the need to remove that adjective from his own characterisation of the diatonic, as according to earlier authorities, this was an attribute of the other two less familiar genera, although it did not make them more used.

Vicentino, however, does indeed speak frequently of how the smaller steps and the genera that contained them were suaver and sweeter, and thus also more expressive, than the diatonic, as may be seen with the following selection of quotations:

- "The chromatic genus is sweeter than the diatonic."
  ("*IL cromatico genere è più dolce del diatonico."* Vicentino, Th. 6, fol. 4v)

- "The enharmonic genus is much sweeter and suaver than the others."
  ("*L'Enarmonico Genere molto più de gli altri è dolce & soaue*." Vicentino, Th. 7, fol. 4v)

- He remarks on how passages with shorter steps will be "very suave, as the shorter steps always give sweeter harmony than than the longer [ones]". ("All'hora il grado sarà soauissimo, si che i gradi più corti daranno sempre più dolce armonia, che non faranno i longhi." Vicentino, II.3, fol. 28v)

Thus, Danckerts has correctly reflected Vicentino's opinion concerning these genera, although he himself rejects them as being harsher than the diatonic, and totally worthless for composition:

In these genera no experienced and excellent musician-composer whatsoever has ever wanted to compose big works, except some small pieces as examples, solely for demonstrating the idiocy and the impractical strangeness of the pieces which are the result of it (as one can see below in the pieces composed by me as examples) or for displaying as a caprice that he understands the said genera. Knowing from true experience that pieces in the diatonic genus are better, more natural and a great deal more practical [I-Rv R 56A, fol. 360v: and also more suave] (for many reasons) than the pieces in the other two above-mentioned, chromatic and enharmonic, which up until now have been repudiated, [I-Rv R 56A, fol. 360v: banished], forsaken and dismissed by everybody (as being irksome, harsh and almost infeasible to sing), as much by the [I-Rv R 56A, fol. 360v: ancient [theorists]] Pythagoreans and Platonists according to the doctrine of Francesco Gaffurius in his Theorica musice ["according to … musice" crossed out and then reinstated] as by their successors, both ancient and modern learned, excellent and experienced musician-composers and singers, as is also attested to by Margarita philosophica, [I-Rv R 56A, fol. 360v: Franchino Gaffurio,] Pietro aron, Macrobio, and many other authors.

Nelli quali generi mai alcuno Musico compositore prattico et Eccellente ha voluto comporre grande opera, se non qualche cosellina per essempio, sol per mostrare la goffezza et questa impraticabile straniezza delli canti che ne riescono. (come di sotto alli canti da me per essempi composti si potra vedere) overo per mostrare per capriccio, che intende i detti generi: Sapendo per esperientia vera, che i canti del genere Diatonico, siano migliori: piu naturali: et di gran lungha piu pratticabili [I-Rv R 56A, fol. 360v: et ancho pui soavi] (per molte cause) che non sono i canti de gli altri due generi Chromatico et Enharmonico sopradetti; i quali in fin quì sono stati ripudiati, [I-Rv R 56A, fol. 360v: sbanditi] lasciati e dismessi (come fastidiosi, scabrosi: et quasi impraticabili nel cantare) da ogniuno: tanto da gli [I-Rv R 56A, fol. 360v: antichi] Pittagorici et platonici secondo doctrine Franchino Gaffurio nella sua theorica musicale ["secondo … musicale" crossed out and then reinstated] quanto da gli posteri antiqui et moderni Dotti eccellenti et espertimentati Musici prattici Compositori, et cantori; [I-Rv R-56B, fol. 10r: come ancho lo conferma Margarita philosophia: / I-Rv R 56A, fol. 360v: Franchino Gaffurio] Pietro aron, Macrobio et altri authori molti.
(I-Rv R 56B, fol. 10r; the first version of the material is found on fol. 546v-547r)

Here Danckerts first casts doubt on the sanity of any musician wanting to compose with the chromatic and enharmonic intervals, claiming that only those like himself

desiring to provide some examples of music in them "solely for demonstrating the idiocy and the impractical strangeness of the pieces" would have any reason for doing so. In this context, the question is forced upon the reader of whether one reason for the poor quality of his own examples is due to his wish to prove his point. Based on an analysis of these pieces, however, it seems more likely that this was more due to his inability, in the case of the chromatic genus, to conceive of the use of those inflections in any other way than the one he was accustomed to. This, however, was in contradiction to his definitions for the symbols he used for their indication, and thus led to some highly questionable vertical sonorities. In the case of the enharmonic genus, however, he did not dare to use the enharmonic dieses in chords, but only as passing notes, resulting in vertical sonorities that give the impression of being very out of tune. This leads me to believe that he himself could not hear what he had written, in particular because he had no singers to sing them. He then justifies this by correctly citing a number of authors who had specifically spoken of the difficulty and unpleasantness of using the chromatic and enharmonic genera.[28] Interesting here, in relation to Vicentino, Gregor Reisch speaks of the enharmonic genus as being something best left in the hands of a complete expert:

Of these, however, we only use the diatonic [genus]; whereas we ban the chromatic and enharmonic ones from our music, because the chromatic genus, due to its progression in semitones, is too soft; the enharmonic, however, too hard and difficult, due to its progression with a *ditono*. Also, one can only sing in the chromatic genus as a professional, in the enharmonic, however,

Ex his autem solo diatonico vtimur. Crothaticum vero et enarmonicum a cantu nostro omnino abijcimus: eo quod cromaticum per semitonium procedens mollius: enarmonicum vero per ditonum progrediens, durius atque difficilius sit. Et cromaticum a solis eruditis, enarmonicum vero a solis eruditissimis cantari potest: nec facile in vsum produci posset. Diatonicum

[28] Macrobius: "D: Whether performing music with the voice or artifice, which melodic genera may be used?
M: Only one.
D: Which?
M. The diatonic. For according to Macrobius the chromatic genus is infamous for its softness; the enharmonic, however is no longer used because of its difficulty."
"D Sive quis voce, sive artificiis musicam exerceat: quot cantilenae generibus uti poterit?
M Uno tantum.
D Quo?
M Diatonico. Nam teste Macrobio chromaticum genus propter infamem mollitiem, enharmonicum vero propter nimiam sui difficultatem ab usu recessit."
Musica Domni Heinrici Augustensis magistri, ed. Joseph Smits van Waesberghe, Buren: Knuf 1977 (Divitiae musicae artis, A/VII), 36.
Pietro Aron: "Of these three genera, two have long been abandoned by the ancient [philosophers], that is the chromatic and the enharmonic, and only the diatonic was used by them, which in its utterance does not have smaller consonances than the minor semitone. But in the enharmonic the *diesis*, due to the smallness of its interval's sound, cannot be uttered easily; and naturally one can understand that therefore such a genus is not used because of its great difficulty, and likewise the chromatic was cast aside."
"Di questi tre generi dui da gli antichi son stati abbandonati, cioe chromatico & enarmonico, & solo il diatonico da loro e frequentato, ilquale in pronontiatione non ha minore consonanza del semituono minore, ma nel enarmonico il diesis per il poco suo interuallo suono, non ha che sia con ageuolezza pronontiato, & naturalmente comprendere si possa, per tanto cotal genere per la sua difficulta non e uso, cosi anchora il chromatico e rilasciato." Pietro Aron, *Toscanello in musica*, Venice: Marchio Sessa 1539, fol. F.

only as an expert, and therefore it is difficult to introduce them into the [musical] practice. The diatonic genus, however, is found to be more natural and pleasing for the ears, and can be sung by anybody, even the untrained.

vero naturalius et auribus magis gratum reperitur: et a cunctis etiam rudibus modulatur.
(Gregor Reisch, *Margarita philosophica cum additionibus nouis: ab auctore suo studiosissima reuisione quarto super additis, Liber V: De principiis musicae*, Freiburg/Br.: Johann Schott 1504, Treatise 1, Chapter 18)

In the last version of the second part of his treatise, Danckerts cites all of these authors more thoroughly, desiring thereby to ensure that his arguments are supported by traditional music theory.

4.11 The application of accidentals

The following portion of Danckerts' response to Vicentino's affidavit concerns the application of accidentals. Here he categorically states that one can avoid forbidden intervals in the diatonic with the signs for ♮ *duro* and the ♭ *molle*, but that the sign of the *diesis* is not allowed:

Where thereafter the said Don Nicola says **That the species of the chromatic genus, such as the *diesis*** [I-Rv R 56A, fol. 360V: ~~indicated like this~~] ♯ **and the ♭ *molli* which one places as accidentals [*accidentalmente*] to help the consonances, etc.**, I say that with the sign of the *semitoni minori*, or, *maggiori* which are the ♮ *duro* and the ♭ *molle*, one aids the hard and crude imperfect consonances of the said pieces, and not with the symbol of the *diesis*, which is banned from these pieces, as mentioned above.

Ove poi il detto don Nicola dire **Che le spetie del genere chromatico come sono li diesis** [I-Rv R 56A, fol. 360v: ~~**segnandole cosi]**~~ ♯ **et li ♭ molli che accidentalmente si metteno per aiutare le consonantie etc.** dico, che con la figura dei semitoni minori, o, maggiori che sono del ♮ duro e del ♭ molle se aiutano le consonatie dure e crude non perfette nelli detti canti: et non con la figura delli dieses, i quali da essi canti sono sbanditi come di sopra è stato detto. (I-Rv R 56B, fol 10v)

He thus reiterates here that all accommodation of the consonances should, according to tradition, be achieved by use of flats and square b signs (♮), rather than sharps. This will later be a major point in his chapter against modern composers, thereby becoming the issue which he focuses upon in his dispute with Vicentino, whose own concerns lay elsewhere.

Danckerts then states where it is possible to make use of this banned sign (even though just before he has claimed that the sharp sign is banned from diatonic music), claiming that it is only to be used in hard keys, where they have the effect of semitones:

As to what he says following this **That the said species break with the diatonic order, etc.**, I say that as to the signs for the ♭ *molle* or for this ♯, which one places for ♮

Quanto a quello che seguitando dice **che le dette spetie rompeno l'ordine diatonico etc.** Dico che per li segni del ♭. molle, ò, di questo ♯ il quale se mette per il

duro (giving them the effect of the *semitoni*, as I have said, and also how the said Don Nicola makes them), they do not otherwise break the diatonic order. The said order consists only of the progression of the intervals of *tono*, *tono*, and *semitono minore* as mentioned before, and otherwise not going beyond those intervals [except] by placing this sign ♯ or this other one ♭ before some note to help the consonance with it, when it is [I-Rv R 56A, fol. 361r: dissonant] crude, or not very sonorous (as will be discussed much more extensively below), since by placing these signs one does not mutate the interval of the *semitono minore* into the interval of a *diesis*, nor that of the *tono* into that of the *semitono maggiore*, but they always remain intervals of the diatonic genus, that is of the *semitono minore* or *tono*, even if they change location by being inserted before or after the one or the other interval with those signs out of their natural position.

♮ duro (facendo essi l'effetto de semitonij come ho detto: et come gli fa operare ancho il detto Don Nicòla) non si rompe l'ordine diatonico altramente. Consistendo detto ordine, solomente nel progresso delli tre intervalli, cioè di tuono et tuono et semituono minore antedetti, delli quali intervalli non se escie altramente: per porre questo segno ♯ overo quest' altro .♭. innanzi à qualche nota per aiutare con esso la consonantia, quando ella fosse [I-Rv R 56A, fol. 361r: dissonante] cruda ò poco sonora (come di sotto piu ampiamente si dirà) poi che per il porre delli detti segni, non si muta l'intervallo del semiton minore in quel del diesis, ne quel del tuono in quel del semiton maggiore, ma restino sempre intervalli del genere diatonico, cioè del semitonio minore, ò del Tuono: Anchora che mutino luoco, col preporre o postporre hor l'uno, hor l'altro intervallo, con tal segni, fuor della lor natural positione.
(I-Rv R 56B, fol. 10v)

First, he attempts to simplify things, by only allowing their addition in hard keys, and further that they may only be applied in situations where they will create a minor semitone in his system or a whole tone, in order to rectify melodic and vertical intervals. With this he hopes to allow for all accidentals that singers would normally apply as ficta, while still banning the major semitone (in his reckoning) from compositions. In this way they will also not interfere with the diatonic structure, because depending on where they are placed, a whole tone will be turned into a minor semitone, or vice versa.

4.12 Danckerts' verdict on the dispute

Danckerts' remarks concerning Vicentino's conclusion again show the difference in level of argumentation between the two, merely claiming that because there is no music written at the time using the progressions of the chromatic or enharmonic tetrachords,[29] music cannot be in a mixture of genera; it is all diatonic.

Thereafter where he says in conclusion, Thus by this explanation which you will see in Boethius, the music we sing is mista of all three genera, and it is not diatonic, I say that his conclusion and resolution unfortunately seems manifestly wrong to me for this reason [I-Rv R 56A, fol. 361R, in the margin as a possible correction and then crossed out: May God now do him good, because he

Da poi dove esso concludendo dire, **Siche per questa dechiaratione che vederite in Boetio, la Musica che noi cantiamo si è mista di tutti tre li generei, et non è Diatonica** Dico che questa sua conclusione et risolutione mi pare falsa, pur troppo scopertamente per questa raggione: [I-Rv R 56A, fol. 361r: in the margin as a possible correction and then crossed out:

[29] Danckerts contradicts this statement later in complaining about the chromaticism used by modern composers, which could, of course, make use of chromatic tetrachords.

has finished explaining to me with this conclusion and resolution of his, which seems quite manifestly wrong to me for this reason]: that beyond that which was said above about the cause for why the above-mentioned music can neither be completely nor partly of the chromatic or enharmonic genera; but what if it were, and the said Don Nicòla was wanting it to be mista of all three genera, which are DIATONICO, CHROMATICO et ENHARMONICO, and not finding other genera in the aforementioned music than the three above-mentioned: how could he negate that it is not also diatonic, since this diatonic is one of the three genera and, in addition, the first and the principal of the three; and one does not find in the above-mentioned music any other progression of three contiguous intervals in one tetrachord; nor even other steps or intervals than those of the said diatonic genus. Hence this ultimate conclusion of his is false and very wrong, and makes all of that which has been written about it by him in his communication embarrassing. Because of this one can say it contradicts this proverb: finis (vituperat, et non) coronat opus. [The end (is embarrassing and does not) crown the work.]

Hora idio gli faccia del bene, poi che esso mi ha finito di chiarire con questa sua conclusione o risolutione, la quale mi pare pur falsa troppo scopertamente per questa raggione:] Che oltra che di sopra sia stata detta la causa, perche la sudetta Musica non puo esser in tutto, ne in parte, del genere Chromatico ne del Enharmonico: Ma dato che fosse, et volendo il detto Don Nicola che sia Mista de tutti tre li generi quali sono DIATONICO, CHROMATICO et ENHARMONICO. Et non si trovo altri generi nella Musica predetta, che questi tre sopradetti; Come puo esso negare ch'ella non sia anchora del Diatonico: poi che esso Diatonico è uno delli detti tre generi: et anzi il primo et principale delli tre: et non si truova nella sudetta Musica altro progresso di tre intervalli continui in un tertrachordo: ne ancho altri gradi o intervalli che quelli del detto genere Diatonico. Onde questa sua ultima conclusione è falsa et falsissima, et fa vergogna, a tutto quello che di sopra è stato scritto da lui nella sua informatione. Per il che esso può dire contra quel proverbio, Finis (vituperat, et non) coronat opus.
(I-Rv R 56B, fol. 10v-11r)

With this he declares that Vicentino is wrong, while going still further to maintain that even if he were right and the music that is sung every day is a mixture of the three genera, it would not make any difference, as the diatonic is the first and principal of all three genera, thereby making all works diatonic, even if they include chromatic and enharmonic elements. He draws this whole chapter to a close in the following manner:

Having already completed that which I promised in the introduction concerning the first part, I am forced to say that the aforementioned examination made upon the statement of Don Nicola and [for] the other above-mentioned reasons, one can clearly grasp that the said Don Nicola does not understand the music disputed above, or at least not as much as he believes, since in the said statement he has not said anything from which one cannot draw any other doctrine than [one which] is misguided [*sinistra*] and contrary to the true understanding and knowledge of this music, because he wants it to be *mista* of all three genera and not to be diatonic.

Havendo io gia compito quel che nel prohemio quanto alla prima parte hò promesso, sono astretto a dire che dalla predetta essaminatione fatta sopra la informatione del detto don nicòla et dalle altre ragioni sopradette si puo chiaramente comprendere che il detto Don Nicòla non intende la Musica di sopra disputata, o almeno tanto, quanto esso si persuade: poi che nella detta sua informatione non ha detto cosa alcuna, da quale se ne possa pigliare altra dottrina che sinistra et contraria alla vera ragione et cognitione di essa Musica, poi che vuole che ella sia mista di tutti tre li generi et non sia Diatonica.
(I-Rv R 56B, fol. 11r)

Here Danckerts reiterates his conviction that Vicentino's claims are false and seemingly misguided. In addition, his use of the adjective misguided (*sinistra*) in relation to 'doctrine' should perhaps be seen here in the context of his later claim that the use of chromaticism by modern composers represents a form of heresy.

If we look at this dispute solely on the basis of the communications presented in both Danckerts' and Vicentino's treatises, it is evident that although Vicentino was using almost the same arguments as Lusitano or Danckerts, he reached a different conclusion than either of them, one that was against the conventional theory of the past centuries. It is therefore only when Vicentino's communication is read in the context of his treatise that one begins to understand the revolutionary nature of his viewpoint and its practical consequences. Thus, for many centuries his communication did not provide the information necessary to convince others of the claims he was making. In addition, according to Danckerts, Vicentino had always kept his "science" to himself and when people asked him for more information about his ideas:

he always answered that up until the time he has acquired a comfortable position for himself, such as (for example) the papal chapel, as recompense for the fifteen years he says to have taken before being able to acquire this science, he does not wish to teach it to anybody, or even less to show them any example, so that the fruit and gain of all of his great vigilance, sweat, endeavours and efforts that he for so many years has looked for might not be taken from him by others.

Et gli ha reposto sempre, che infino a tanto, che esso non haverà acquistato un lucho conveniente a sè, come sarebbe (per essempio) la cappella del papa, per ricompensa di quindici anni che dice haver consumati, avanti che habia potuto acquistar questa scientia, non la vuole insegnare a niuno, ne meno mostrarne essempio alcuno, perche non gli sia tolto da altri, il frutto et guadagno, che delle sue tante vigilie, sudori, stenti et fatighe de tanti anni ha aspettato.
(I-Rv R 56B, fol. 5r)

Thus apparently only a select circle knew of his instrument and the music he was creating with it. At the time of the dispute, he was obviously driven by two strong, but conflicting desires: 1) to keep close control over the dispersion of information concerning his practice and the instruments associated with it; 2) and to tell the world about his theory and practice. Perhaps it was the latter that led him to bet upon it, and the former the reason he lost the bet, so that in the end he felt obliged to publish a book about it, in order to vindicate himself in the eyes of the world.

5. Danckerts' approach to the genres and their intervals, how to experience them, complete with examples

In this section, we will be examining two chapters from the second part of Danckerts' treatise devoted to a theoretical explanation of the genera and their intervals. They were written, according to him, for the many colleagues and friends who asked him for information on this subject after the dispute. By focusing on these chapters and his examples, and comparing their content with what Vicentino has written, both theoretically and musically, the differences between their approaches to the material, as well as their experience with it, will become manifest.

5.1 The signs with which Danckerts designated the chromatic and enharmonic steps – Part 2, Chapter 11

We have seen above that Danckerts criticised both Vicentino's use of the word *diesis* in connection with the sharp sign, as well as the way in which the major semitone was designated. In chapter 11 of the second part, he discusses the true manner of notating the accidentals necessary for the chromatic and enharmonic genera, in his opinion, carefully describing the symbols necessary for this task:

The figures or signs of the intervals or steps with which one must progress in the melodies of each of the said genera, that is the *diesis*, the *semitono minore* and *maggiore* (leaving out, however, those of the *ditono*, *semiditono*, and *tono*, as being notated and obvious to every singer when he must sound their intervals) are those that follow:

Sign of the *diesis* X
That note which should be sung with the interval [I-Rv R 56A, fol. 366v: or step] of the *diesis* is indicated with this or a similar sign, made up of two crossed commas like this, X, which sign I will use in the examples below, although one could also indicate it with two commas written thus // or thus \\. To explain: when the note indicated by that *diesis* follows the note before, so that it moves in ascent from a line to a space, or from a space to a line, one sounds the said note indicated by that sign with the interval of an ascending *diesis*. And likewise one sounds that note indicated by it with a descending *diesis*, when it follows a similar note changing from line or space while descending. I also advise you that when several notes are on one line or in one space, they are all

Le figure ò segni delli intervalli o gradi, con quali si ha[v]rà a procedere nelli canti di ciaschun delli detti generi, cioè del Diesis: semitonio minore, et maggiore (lasciando però quelli del Ditono: Semiditono: et Tuono: per esser noto et manifesto ad ogni cantante quando hà da intonare li intervalli loro) sono queste che seguitano,

Segno del Diesis X
Quella nota che vuol esser intonata per intervallo [I-Rv R 56A, fol. 366v: o grado] del diesis, si segnarà con questa ò simil figura, composta da due come incrocciate cosi X la qual figura userò io nelli infrascritti essempi, anchora che la si potesse ancho segnare con due come cosi // overo cosi \\. Dichiarando che quando alla nota segnata con esso diesis, seguirà la prima nota che mutarà di linea in spatio: ò di spatio in linea ascendendo, s'intonarà la detta nota segnata con essa figura, per l'intervallo del diesis ascendendo. Et cosi si intonarà la detta nota segnata con essa, per diesis discendendo, quando li seguitarà la simil nota mutante linea o spacio discendendo. Avisandovi ancho, che quando piu note stanno in una linea, overo in un spatio, saranno intonate

sounded with the same *voce* [syllable] as the first, until one of them follows, which is marked with the symbol of the *diesis*, or of a b *molle*, or of ♮, (and then the sound also is shifted higher or lower, according to the requirements of the symbol) or the first note thereafter, which changes from a line or space, as has been said.

tutte nella medesima voce della prima, infino che ne seguiti una, che sia segnata con la figura del diesis, o di b molle ò del ♮, (et alhora si muterà ancho la intonatione piu acuta o piu grave, secondo l'occorrentia del segno) ò della prima nota seguente, che muta linea o spatio che come è detto.
(I-Rv R 56B, fol. 20v)

These signs seem to go back to Stefano Vanneo's discussion of the division of the tone, in which he describes the use of a stroke, similar to that of a comma, to indicate the size of the eponymous interval. A diesis would then receive two short diagonal strokes, a minor semitone a figure similar to a sharp or diesis sign, and for the major semitone an additional stroke was placed next to the previous sign in order to indicate five commas, as may be seen in Figure 2.

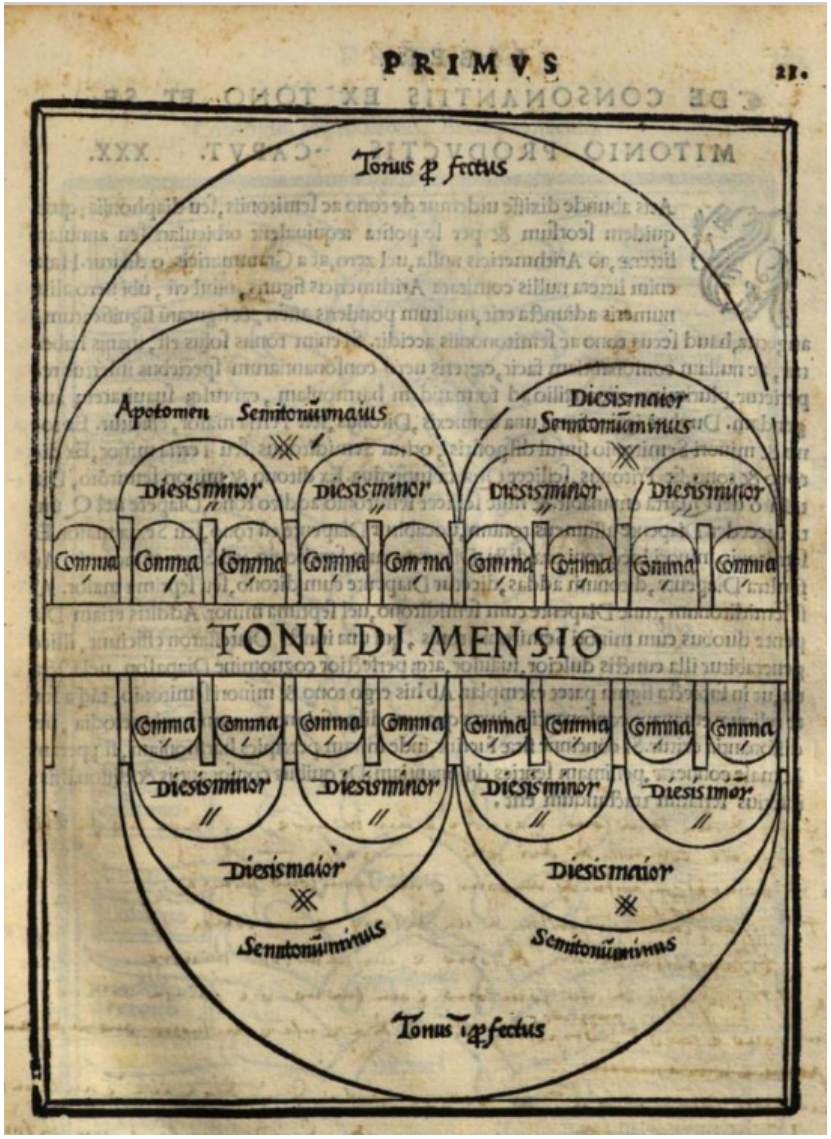

Figure 2: Stefano Vanneo, *Recanetum de musica aurea* [Rome: Dorico 1533], fol. 21r.

Angelo da Picitono apparently adopted these signs in his *Fior angelico di musica* (Venice: Agostino Bindoni 1547), in book 1, chapter 35, p. Iii, and was followed in this by Lusitano.[30]

In the last sentence, Danckerts feels the need to explain how one might solmize the notes on the same line or space, saying that you stay on the same *voce* or syllable until the notes change to another line or space respectively, a rule one finds in basic treatises for accommodating chromatic notes in conventional music of the time. But it was just these chromatic notes (to say nothing of enharmonic ones) that led to the downfall of solmization because they could not be adequately distinguished in the system: a sharp was simply sung with the same syllable as the note without the sharp, a flat was always sung with *fa*. With the increase of the number of chromatic notes in a piece, the syllables lost their navigational function within the tonal system, thereby making themselves obsolete. Danckerts, however, could not envision a system where solmization was not in play, therefore he had to explain this as a rule.

He then goes on to describe the sign for the minor semitone:

Sign of the *semitono minore* ♯
That note which as an accidental [*accidentalmente*] should sound higher than the ordinary one by the interval or step of an ascending *semitono minore* (in places where the *semitono* is not customary), is indicated with this or a similar figure, composed of four commas (or two *dieses*), crossed like this, ♯ , or with this one, ♭ , (in accordance with the custom); and when descending, only with this one, of four commas or two *dieses* like this, ♯ . [I-Rv R 56A, fol. 389v: Or like this ♮ in concurrence with the custom]. No other figure is needed when the *semitono* is customary.

Segno del semitonio minore ♯
Quella nota che accidentalmente vuol esser intonata piu acuta del suo ordinario, per intervallo ò grado d'un semitonio minore ascendendo (nelli luchi ove esso semiton non è ordinario) si segnarà con questa o simil figura, composta di quattro come, ò due diesi, incrocciate cosi ♯ òvero con questa cosi .♭. (per concorrere con la consuetudine). Et discendendo con questa sola, pur di quattro come, o due diesis cosi ♯ [I-Rv R 56A, fol. 389v: Overo cosí ♮ per concorrere con la consuetudine] non bisognando altramente figura alcuna dove esso semitonio è ordinario.
(I-Rv R 56B, fol. 20v)

This declaration that the sharp sign indicates a minor semitone is highly contradictory, as Danckerts attempts to amalgamate diverse aspects of current practice with more conventional theory in a manner that is dysfunctional. Firstly, the fact that one can indicate an ascending minor semitone both with a sharp (as it would be in meantone tuning), or with a flat (as it would be in Pythagorean tuning) is confusing. This would imply, for example that e to e-sharp was the same interval as f to f-flat, which is just what del Lago was saying was not possible, because according to conventional theory, the sharp was an indication of a major semitone, thereby making it larger than the semitone within the gamut. It was just for this reason that the flat was used in ascent in this system instead, as it was the symbol for a minor semitone. In this

[30] Lusitano, *Introduttione facilissima*, fol. Fii v-Fiii r. Johannes Wolf in his *Handbuch der Notationskunde*, Leipzig: Breitkopf und Härtel 1919, Vol. 2, 362-63 mentions the presence of these notational signs in Picitono and Lusitano. I would like to thank David Gallagher for this information.

definition, therefore, we have the same inconsistency that we saw before in Danckerts' discussion of Boethius' definition in relation to Vicentino. To compound the matter, we shall later see that he writes that one may not use a sharp sign in ascent. At the same time, Danckerts permitted the use of a sharp sign for the designation of a descending minor semitone, as there it corresponded to conventional theory, although in the practice it was, as he had already mentioned before, performed as a descending major semitone. This lack of consistency leads to insoluble questions concerning the size of these intervals in performance in his examples.

In his treatise this is then followed by his description for the major semitone:

Sign of the *semitono maggiore* ♯ ♯
That note which should sound higher than its ordinary [note] by the interval [I-Rv R 56A, fol. 366v: or step] of an ascending *semitono maggiore*, is indicated with this or a similar figure, composed of five commas, (or of two *dieses* plus a comma) crossed in this manner ♯ or this ♯ [I-Rv R 56A, fol. 389v, added in as a correction: Or with this one, ♮, in accordance with the custom]; and that which should sound lower than its ordinary [note] by the interval of a descending *semitono maggiore* and is indicated with a similar figure of five crossed commas, like this ♯ or this ♯ or with this [one] ♭ also in concurrence with the said custom, which is adhered to in the practice of things which are not dealt with in theory.

Segno del semitonio Maggiore. ♯ ♯
Quella nota che vuol esser intonata piu acuta del suo ordinario per intervallo [I-Rv R 56A, fol. 366v: o grado] d'semiton maggiore ascendendo. si segnarà con questa o simil figura, composta da cinque come, overo di due diesi con una coma, incrociate cosi ♯ overo cosi ♯ [fol. 389v, added in as a correction: Overo con questa cosi .♮. per concorrere con la consuetudine]. Et quello che vuole esser intonata piu grave del suo ordinario per intervallo d'un semiton maggiore discendendo, si segnarà pur con la simil figura di cinque come incrociate cosi ♯ ò cosi ♯ overo con questa cosi .♭. per concorrere pur con la detta consuetudine, la quale s'attiene alla prattica nelle cose, delle quale non ne tratta la Theorica.
(I-Rv R 56B, fol. 20v-21r)

To make it clear that the ascending major semitone may only be sung in special circumstances, he invents a special sign for it, one with five commas, thus representing its intervallic content. Zacconi called the use of this sign into question, saying that singers could not make this distinction in the same way that instruments could.[31]

This is a further example of the effort Danckerts was making to deal with the cognitive dissonance between the long-standing theory and the actual practice: he literally created a new symbol because the two were no longer in tune with one another. At the same time, this nine-fold division of the tone, made up of one semitone of four commas and a second of five commas follows a longer tradition.

[31] "Because [the voice] is not suited to such a division as an instrument is, which divides a *tono* in many parts and forms from them three distinct *semitoni*, as one can see in the divisions of the instrument of Don Nicola Vicentino"; "perche non è atta ad una tal divisione come serà un'instrumento, che dividerà un Tuono in piu parte, & ne formerà tre Semituoni distinti, come nelle divisioni dell'instrumento di Don Nicola Vicentino si può vedere." Lodovico Zacconi, *Prattica di musica*, Venice: Bartolomeo Carampello 1596, fol. 40.

5.2 The ninefold division of the tone from a historical perspective

According to Jan Herlinger, *Theoricum opus musice discipline* (Naples 1480) by Gaffurius was the first of three "landmark treatises" to speak of the division of the whole tone into nine parts, writing:

> The whole tone, then, consists of two minor semitones and a comma. Philolaus called the minor semitone "diesis," but later writers, as Boethius asserts, called the diesis half the minor semitone […] From this it follows that four dieses and one comma complete the whole tone […] The comma, as some think, is half the diesis.[32]

> Constat igitur tonus duobus semitoniis et uno comate. Semitonium nanque minus Philolaus ipse diesim appellavit. Posteri vero, ut ponit Boethius, diesim dixerunt semitonii minoris dimidium, […] ex quo sequitur tonum ex quatuor diesibus et comate perfici […] Coma enim, ut quibusdam placet, est dimiduium diesis.

Herlinger points out, however, that Gaffurius only mentions this idea without advocating it, and that Nicolaus Burtius nonetheless quoted it almost exactly seven years later. He sees the fact that Burtius mentioned Guido d'Arezzo as an indication that the ninefold division of the tone had been "transported out of the ancient world to a period closer his own time".[33] Further Herlinger remarks that this division creates minor and major thirds that are very close to Pythagorean ones, and that they thus represent more a mathematical simplification than an acoustic innovation.

Slightly later, Aron – while simultaneously giving the size of the intervals in terms of the conventional Pythagorean ratios – went into further detail in his description of this ninefold division in his *Libri tres de institutione harmonica*, writing that "the whole tone is divided into four dieses and a comma; the comma is one-ninth of the whole tone" ("tonus quidem in quattuor diesis et unum comma dividitur. Comma vero nona est pars toni"), and later continuing with "the major semitone consists of two dieses and a comma […] The minor semitone has only two dieses without the comma" ("maius [semitonium] quidem duplici diesi et commate constat: […] minus autem duas tantum pulso commate dieses habet").[34] But shortly thereafter, when speaking about tuning, he put aside this traditional theory, apparently regarding the tempering needed in tuning a keyboard instrument as being "a secret not to be taken lightly, drawn out from the innermost art; the knowing in the art may judge for themselves how much it should be done" ("habes arcanum Flamini minime contemnendum & ex intima quidem arte depromptum; quod quanti faciendum sit, ipsi artis periti iudicent").[35] It was thus,

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[32] Franchinus Gaffurius, *Theoricum opus musice discipline*, Naples: Franceso di Dino 1480, Book 4, Chapter 3. Translation in Jan Herlinger, "Fractional Divisions of the Whole Tone", in: *Music Theory Spectrum* 3 (1981), 74-83: 81. See also the dissertation of Lucy E. Cross, *Chromatic Alteration and Extrahexachordal Intervals in Fourteenth Century Polyphonic Repertoires*, PhD diss. Columbia University 1990, especially pp. 336-38 and 341-45, for further information on earlier theories concerning the smaller divisions of the whole tone (www.proquest.com/docview/303844125, accessed: 17.09.2023).

[33] Herlinger, "Fractional Divisions", 82.

[34] Pietro Aron, *Libri tres de institutione harmonica*, Bologna: Benedict Hector 1516, fol. 12v. Translation by Herlinger, "Fractional Divisions", 81.

[35] Pietro Aron, *Libri tres de institutione harmonica*, III, Chapter 16, fol. 43. Translation Peter Berquist, *The Theoretical Writings of Pietro Aaron*, PhD diss. University of Columbia 1974, 113-14.

on some level, something not to be rationally calculated, but simply to be heard. It seems clear from Aron's descriptions that his tuning was in some irregular form of meantone, for although the interval names are Pythagorean – i.e. A to B♭ is called a "semituono minore", while B♭ to B♮ is a "semituono maggiore" – at the same time D♯ is described as sounding lower than E♭ when tuned as a "terza maggiore" to B♮:

Desiring therefore to form a *terza maggiore* [above B♮] in this location [the black key between D and E, i.e. D♯], it is necessary that this *semitono* or black key of the string or *voce Dsolre* be somewhat lowered.

Volendo adunque in tal luogo detto [the black key between D and E, i.e. D♯ or E♭] formare la terza maggiore [above B♮], e dibisogno che quel tal semituono o tasto negro sopra de la chorda o voce D sol re, sia alquanto sbassato.
(Aron, *Toscanello in Musica*, II, chapter 40, Sig. Hv)

Similarly Giovanni Maria Lanfranco in his *Scintille di musica* (Brescia, 1533) also adhered to Pythagorean ratios in the theoretical discussion of the intervals, although his instructions for tuning are also some form of irregular meantone.

Thus Danckerts was just following the conventions of the time in upholding the nomenclature of the ancient Pythagorean intervals in relation to this simplified system of division of the whole tone into two semitones, one minor of two dieses or four commas, and the other major of two dieses and one comma or five commas. Like Gaffurius, Burtius, Aron, and Lanfranco, who all recognised that the interval between b–c, e–f, and a–b-flat is a major semitone in practice, he preferred not to call the wisdom of Boethius and Guido of Arezzo into question, and therefore continued to call it minor. In order to accentuate the difference with Vicentino, however, Danckerts only allowed major semitones in ascent when indicated by the special symbol for five commas or, in descent, by a flat. Vicentino, on the other hand, specifies that a major semitone is found in the traditional places for the semitone within the natural diatonic system, thereby bringing his theory into congruence with the sounding reality of the practice of the time.

Vicentino was not alone in saying this: Zarlino in 1558, only three years later than Vicentino, also wrote in his *Istitutioni harmoniche* that the three semitones in the Guidonian hand must be major ones, going on to say that it is called such, and "is different from the minor one, which is found ascending in the upper range between b-flat and b-natural, or vice versa" ("Questo è detto Maggiore, a differenza del Minore, che si ritrova in acute ascendendo, tra le chorde ♭ & ♮ : o per il contrario", Giuseppe Zarlino, *Le institutioni harmoniche*, Venice: Pietro da Fino 1558, 164). Further, he emphasises that this step of a minor semitone "is not used in the diatonic genus" ("il quale non si adopera nel genere Diatonico", Zacconi, 164). Orazio Tigrini in his *Compendio della musica* goes one step further – with references to Boethius, Gaffurius, Aron, and Zarlino in the margin – by writing:

The greater part of the authors, both ancient as well as modern, following the opinion of Boethius, have said that the

La maggior parte de gli Scrittori, tanto antichi, quanto moderni, seguendo l'opinione di Boetio, hanno detto, il Semituono

semitono maggiore, or the *apotome* as they call it, is not found naturally in any place in the hand, except in the position of ♭*fa* ♮*mi*; but it is indeed found with accidentals [*accidentalmente*] anywhere there is a *tono* which is marked by one or the other of these two signs, ♭ or ♯. But we, following the most modern ones, particularly those who without any sophistry have done better in finding the truth of the proportions of the musical consonances; we say that the *semitono maggiore* is always found, without any mediation at the beginning of each tetrachord at the bottom between these *corde*, that is ♮ & C, E & F, and between the *corde* A & ♭.

maggiore, overo Apotome, che lo dimandino, non si ritrovare naturalmente in luogo veruno della mano: nè se non dove sia questa position b.fa.♮.mi; ma ritrovarsi bene accidentalmente, ovunque sia il Tuono, figurandolo con l'uno, & l'altro di questa due segni b or ♯. Ma Noi seguendo I più moderni, & quelli particularmente, che senza soffisticheria alcuna hanno meglio ritrovato la verità delle proportioni delle Consonanze musicali; diremo, il Semituono maggiore ritrovarsi sempre, senza mezo alcuno, nel principio di ciascuno Tetrachordo nella parte grave, trà queste chorde, cioè ♮. & C., E. & F. & trà le chorde A. & b.
(Orazio Tigrini, *Il compendio della musica*, Venice: Ricciardo Amadino 1588, 7)

He continues logically in the following manner:

After the *maggiore* follows the *semitono minore*, which – unlike the *maggiore* – they have represented with these two signs, ♮ & ♯, almost all of them commonly saying that it is found between these two pitches, *mi* and *fa*. This, however, is far from the truth as from reason; also the sense [of hearing] of this thing is its judge. But we, following the better and more real opinion, say that in effect, this *semitono minore* is found in ascent upwards between the pitches ♭ and ♮.

Segue dopò il maggiore il Semituono minore, che à differenza del maggiore hanno descritto con questi due segni ♮. & ♯. Dicendo quasi communemente tutti, che si ritrova trà queste due chorde Mi, fa. Il che quanto sia lontano dal vero, oltre la ragione, anco il senso di questa cosa n'è giudice; & però seguendo Noi la megliore, & più reale opinione, diremo; che in effetto questo Semituono minore, si retrova ascendendo nello acuto, trà la chorda b. & ♮.
(Tigrini, *Il compendio*, 7)

This issue was thus highly controversial for more than a century, although Gaffurius, and many others after him, had acknowledged that in practice the *minor semitone* in the Guidonian hand was sung as a *maggiore*. And just this issue was the true source of the vehemence in the writing of both Danckerts and Vicentino, as it raised the question of whether the sanctity of traditional theory can be modified to match the reality of the current practice. At the same time it leaves the question of which tuning system Danckerts used unresolved: on the one hand he clearly defines the size of the intervals in accordance with specific signs, while on the other, he seems to have heard his own music in meantone tuning. We will return later to the question of Danckerts' tuning system in relation to his polyphonic examples of the various genera.

5.3 Danckerts' explanation of how one can understand his examples in the various genres without an instrument suitable for the purpose – Part 2, Chapter 13

In this chapter, Danckerts touches on a point that is just as valid today as in his own times: the difficulty of understanding a musical theory that involves concepts which we can neither hear nor put into practice due to the lack of an instrument. This is indeed one of the reasons that Vicentino, in my opinion, has been one of the most misunderstood musicians of all times. I certainly know that it was not until I had an archicembalo under my fingertips that I began to understand the dimensions of his undertaking. I suspect that this was true also for his contemporaries, and further that it was largely because of this that he lost the argument with Lusitano. Be that as it may, Danckerts begins here with a quite practical suggestion for those who desire to sing the more uncommon dieses and major semitones:

Whoever does not know, (or cannot) sing the above-mentioned intervals with their human voice, that is the *diesis* of the enharmonic genus or the *semitono maggiore* of the chromatic genus, and wishes to be able to experience the examples below, whether the runs of ascending or descending semiminims or the pieces composed in several *voci*, composed in the said two genera, chromatic and enharmonic; if one at least knows how to play the lute or the *viola d'arco*, one can easily play those of the chromatic genus by having the *semitoni maggiori* and *minori* set by the frets on the said instrument. And if one wants to play those of the enharmonic genus, he may divide each fret into two frets, and he will have the *diesis*, and can play the above-mentioned runs and pieces in this enharmonic [genus].

Chi non sapesse, (ò non potesse) intonare con la voce humana, li intervalli sopradetti, cioè deli Diesi nel genere Enharmonico, ò deli semitoni maggiori nel Genere Chromatico. Et volesse fare l'esperientia delli infrascritti essempi, sì delle Tirate delle semiminime, ascendendo o discendendo, come delli ~~Cantilene~~ Concenti a piu voci, composti, nelli detti due Generi Chromatico et Enharmonico; Sappia almeno sonare di liuto, ò di Viola d'archo, et potrà sonare facilmente quelle del genere Chromatico, per haver nel detto Istromento i semitoni maggiori e minori ordinati per tasti. Et volendo sonare quelli del Genere Enharmonico, faccia la divisione di ciascun tasto in due tasti, et haverà li diesi: et potrà sonare le gia dette tirate, et li concenti del questo Enharmonico.
(I-Rv R 56B, fol. 21r)

Suggesting to readers who are interested in being able to experience these intervals directly that they turn to the lute or *viola d'arco* was a clever solution, as such instruments would have been available in musical circles at the courts and residences of the aristocracy. Having the tuning of the intervals determined by string length would create an objective framework for establishing these pitches, albeit not as conveniently as by means of a keyboard instrument.

He then goes on to speak of more specific aspects of the tuning of the *diesis maggiore*:

Although it seems to me that there will be no shortage of those who (in order to malign me) will want to reprimand me for this and say that I have not said everything

Benche mi pare di vedere, che non mancharà, chi (per calomniarmi) in ciò mi vorrà riprendere, et dire ch'io non ho detto in tutto bene, dicendo, che si divida, cosi il

correctly, saying that the fret for the *s*[emi]tono *maggiore* has thus been divided in two equal frets, like those of the *semitonio minore*, as the [I-Rv R 56A, fol. 391R: *semi*]*tono maggiore* is created from five commas and, for that reason, not divisible into two equal [parts], like the *tono sequiottavo*, which cannot be divided into two [I-Rv R 56A, fol. 391R: equal] parts, due to being created from nine commas, and [thus] falling into the superparticular genus of proportions, which proportions, according to Boethius and other authors, cannot be divided equally. But as (according to the said Boethius and other authors) one divides the *tono* into two unequal parts, that is one with two *dieses* and a comma, or five commas, called *semitonio maggiore*, and the other with two *dieses* or four commas, called *semitoni minore*. Thus [I-Rv R 56A, fol. 367r and 554r: in my opinion] one can also divide the *semitonio maggiore* in two unequal parts, i.e. one with three commas and call it *diesis maggiore*, and the other with two commas and call it *diesis minore* ~~or simply *diesis* without a byname~~].

And [I-Rv R 56A, fol. 367r and 554r: even though I have not found this division of the *semitono maggiore* written by any other author,] I wanted to describe this division of the *semitono maggiore* here, only to make it known to whomever wished to reprimand me in this that I was not aware that the division of the fret of the *semitono maggiore* into two equal parts does not result in a *diesis perfetto*, but rather is superabundant by half of a comma, the *diesis perfetto* being the division of the *semitono minore* (according to Boethius and other authors as mentioned above) and is only created from two commas.

But because the quantity of the excess of the above-mentioned *diesis maggiore* coming from the *semitono maggiore* divided into two unequal parts (which excess is the comma) is greater than its half, and easily could make a greater dissonance than the said half when it is heard (being hardly discernable), it seems to me (always barring the better judgment of the others), that it thus would be more tolerable to divide the fret of the *semitono maggiore* into two equal parts than unequal, judging that the excess quantity of the dissonant half comma would be less noticeably audible than a comma, as it is smaller by a half [The

tasto del s[emi]ton maggiore in due tasti eguali, come quello del semitonio minore; essendo il [I-Rv R 56A, fol. 391r: semi]tonio maggiore creato da cinque come, et per questo non sia divisibile in due [I-Rv R 56A, fol. 391r: parti] eguali, a similitudine dal Tuono sesquiottavo, qual non si puo dividere in due parti [I-Rv R 56A, fol. 391r: eguali], per esser creato da nove come, et casca nelle proportione del genere superparticulare, le quali proportioni, secondo Boetio et altri authori, non potest in equa dividi. Ma, si come (secondo il detto Boetio et altri autori) si dividi il tuono in due parti inequali, cioè l'una in due diesi con una coma, òvero di cinque come, chiamato semitonio maggiore: et l'altra due Diesi òvero in quatro come, chiamato semitonio minore; Così [I-Rv R 56A, fol. 367r and 554r: secondo il mio parere,] se potria ancho dividere il semitonio maggiore in due parti ineguali, cioè l'una di tre come e chiamarla Diesis maggiore, e l'altra di due come precisamente et chiamarla Diesis minore; ~~overo simplicemente diesis senza cognome~~.]

Et [I-Rv R 56A, fol 367v and 554r: anchora ch'io non habbia trovato scritto questa division del semiton maggiore da niun authore], questa division del semitonio maggiore, ho voluto descrivere qui solamente, per far costare a colui, che in ciò mi volea riprendere, ch'io me ne sono avvisto, che la division fatta in due parti eguali nel tasto del semitonio maggiore, non renderia diesis perfetto, ma sopr'abbondante in la metà d'una coma, essendo il diesis perfetto, semitonij minoris dividium (secondo Boetio et altri authori come è stato detto) et è creato da due come solamente.

Ma perche la quantita del eccesso, del diesis maggiore predetto riescieria del semitonio maggiore, diviso in due parti ineguali (qual eccesso è la coma) è maggiore che non è la sua metà, et potria facilmente fare maggior dissonantia che la detta metà quando pur la si sentesse (essendo lei quasi insensibile) a me pareria (salvo sempre il miglior giuditio delli altri) che fosse piu tollerabile, a far la division nel tasto del semiton maggiore in due parti eguali che ineguali, giudicando che la quantità eccessiva della mezza comma dissonante, sarà tanto meno sensibile sentita della coma quanto li è in la metà

last clause is present in I-Rv R 56A, fol. 367v and 554v, but not on fol 390v; and crossed out in I-Rv R 56B, fol. 21v] and thus if the imperfection of the fifth is tolerated on the harpsichord and organ, one can thus also tolerate that superabundance of half a comma in these *dieses*.

minore, [I-Rv R 56A, fol. 367v and 554v, but not on fol 390v; and crossed out in I-Rv R 56B, fol. 21V]: e sicome è tollerata l'imperfettione delle quinte nel Gravicimbalo e l'orgnano, cosi se potria ancho tollerare la sopr'abbondantia della meta comma in questi diesi.
(I-Rv R 56B, fol. 21r-v)

In order to prevent anyone – perhaps Vicentino? – from claiming he does not know that the division of a major semitone into two equal parts does not create two perfect dieses, as the major diesis has the length of three commas and a perfect diesis only two, Danckerts now expands on this topic. He writes that one could have an unequal relationship between the major and minor diesis, similar to the one between the major and minor semitone, but prefers not to go down that path, saying that the extra comma would create a greater dissonance, as it would be larger than the half comma resulting from an equal division. He also maintained that the addition of half a comma to a diesis would be almost inaudible. Thus it seems as if he is saying that for simplicity's sake he is willing to sacrifice the purity of major thirds, the basis of meantone tuning, for a differentiation that nobody will notice anyway. To make this idea more palatable, in some versions he compared it to the tuning of fifths on keyboard instruments, saying that "if the imperfection of the fifth is tolerated on the harpsichord and organ, one can thus also tolerate that superabundance of half a comma in these dieses". He did, however, seem to feel that he was going out on a limb in saying this, in that he included this remark in the first two versions, eliminated it in the third, put it in the last one, but then crossed it out. He thus seems to be straddling the fence in this matter. One wonders whether he realised that the tempering of the fifths was far smaller than half a diesis.

In his first three versions of this chapter he also writes that he was the first to think of the unequal division of the major semitone, although in the second version it is crossed out, in the third it is omitted, only to make a final appearance in the last version, only to be crossed out again. As we have already seen above, Aron specifies this unequal division of the semitone in his *Toscanello* (see footnote 28); in addition, Lusitano expressed his agreement on this subject in his treatise, saying that there was no reason to not divide it unequally, "as is seen in the division of the *tono"* ("*come s'è uisto ne la diuisione del tono"*. Lusitano, *Introduttione facilissima*, fol. F3r). It is one of the instances in Danckerts' treatise in which his lack of musico-theoretical knowledge previous to the dispute reveals itself.

Thereafter Danckerts introduces his examples in the following manner, perhaps trying to dampen the expectations of his readers:

And as this description was not made for any other [reason] than to be able to make it as easy as possible to test these works composed in the said two genera, chromatic and enharmonic for anyone (however modestly instructed they may be in the said musical science) and to be able to

E per che questa descrittione non è fatta per altro, che per poter con la maggior facilità possibile, far fare la pruova di questi canti composti nelli detti due Generi Chromatico et Enharmonico, da ogniuno (per poco instrutto che fusse nella detta scientia Musicale) et per far giudicare la

judge the foolish difficulty of the progressions in the pieces which issue from the two aforesaid unused genera (composed most stringently according to the above-mentioned ill reflected law of the aforementioned Don Nicola) in comparison to the beautiful ease of progression of the works issuing solely from the diatonic genus. I will proceed to the examples without entering further into the illustration of which genera and species of [fol. 554v: irrational] proportions, of numbers, and very small intervals they are constituted, partly so as not to extend myself further than I already have, and also because Boethius, Jacobo Fabri [Stapulense[36] and many other authors have written enough about it, so that everybody can satisfy themselves about it in their own manner. It is sufficient for now to have demonstrated that in the said papal chapel, there are people who understand to some degree the music of the above-mentioned dispute (not wanting to make the presumption of saying all of it, as the said Don Nicola is persuaded he himself understands it) and who know in which genus the music which is commonly used is sung and composed today, and who can judge with reason and true science the above-mentioned musical difference, against the opinion of the said Don Nicola Vicentino.

goffa difficulta del procedere de li canti che riescono di questi due Generi inusitati predetti (composti massimamente secondo la sudetta inconsiderate legge del detto Don Nicòla) a rispetto della bella facilità del procedere delli canti che riescono del solo genere Diatonico, procederò alli essempi loro, senza intrare piu oltra alla dimostratione in che Genere e spetie di proportione [R-56A, fol. 554v: irrationali] di numeri, essi intervalli minimi siano constituti, si per non esser piu longo di quell ch'io son stato: si ancho perche Boetio: Jacobo fabri stapulense, et molti altri Authori sopra ciò ne hanno scritto a sufficientia: ove ognuno se ne puo satisfare a suo modo. Bastandomi per adesso haver dimostrato che in la cappella predetta del papa, vi è chi intende in alcuna particella la Musica di sopra disputata (non volendo far presumtione di dire in tutto, come si persuade d'intenderlà il detto don Nicòla) et sà di che Genere sia la Musica che communamente si usa: canta: et compone hoggi di: et che può haver giudicato con ragione et scientia vera, la sudetta Differentia Musicale, fuor della opinione del detto don Nicòla Vicentino.
(I-Rv R 56B, fol. 21v)

On a certain level, this paragraph is at one and the same time an explanation and justification for the limitations of the examples that follow upon it. Danckerts lists their weaknesses, speaking of the great difficulty of writing in the unused chromatic and enharmonic genera, but saying they are in the technical realm of any singer with some training. He attributed their lack of quality to the stringency of the Vicentino's rules for their use, which paled "in comparison to the beautiful ease of progression of the works issuing solely from the diatonic genus", concluding that he was therefore justified in his decision against Don Vicentino concerning his claims about the inability of musicians of his time, especially those in the papal chapel, to identify the genus of the pieces they were singing.

Of note here are the large number of emendations in this chapter, perhaps reflecting his original insecurity with the material, which dissipated to some degree as he gained a greater awareness of the theoretical discussions concerning the material, but certainly also displaying his increased venom towards Vicentino after the publication of *L'antica musica*.

[36] Jacques Lefèvre d'Étaple (Latinized as Jacobus Faber Stapulensis; c. 1455 – c. 1536) was a French Catholic theologian and a leading figure in French humanism.

6. The musical examples – Part 2, Chapter 13

6.1 The monophonic examples

His first examples of the three genera are monophonic scale-like sequences in semiminims, covering the entire extent of the Greater Perfect System of antiquity (see Appendix 2.1). On the far left the individual tetrachords are marked by arcs followed by the Greek names for all the notes in the system; these in turn are followed by the Latin note names of the individual lines and spaces, then the clefs.

6.2. A long digression on why diatonic compositions are better than chromatic or enharmonic

Having given these examples, he goes on a long discourse about why it is unnecessary and counterproductive to explore either the chromatic or enharmonic genus, as they were not held in favour by the ancients, nor by learned musicians of the day, and were unused, difficult, and harsh:

One sees now by the examples above how difficult it is to sound the intervals of the successions of semiminims with the human voice (and also the pieces found below) composed in the two musical genera, that is chromatic and enharmonic, in comparison to those of the diatonic genus; that diatonic does not use other consonances in making the harmony than the other two unused genera use. Even those do not use other consonances than those same ones that the diatonic uses in making the said harmony, harmony being the beginning, middle, end. And finally, all the content of music, music being nothing other than harmony, which (according to the philosopher) is nothing other than *discordia concors* [harmony resulting from the combination of disparate elements].

I cannot understand why the said Don Nicòla wants to proceed with the said harmony, or with its consonances, taking the harsh, uncomfortable, difficult and almost impracticable path of the intervals of these two unused genera, dismissed and forsaken by all of the philosophers and ancient musicians, when we can go on the beautiful, smooth, comfortable, used, easy, delightful and natural path of the intervals of the diatonic genus; chosen and selected by all of the learned and experienced musicians, ancient and modern as being

Hor vedendo per li soprascritti essempi, quanto sono difficili a intonare con la voce humana, li intervalli delle tirate delle semiminime (et ancho delli infrascritti concenti) composti in li due generi musicali, cioè Chromatico et Enharmonico à rispetto di quelli del genere diatonico. Il qual Diatonico non usa a[ltre] consonantie in fare l'harmonia, che usano li altri due generi inusitati: I quali ne ancho essi usano altre consonantie, che quelle medesime che usa il Diatonico in fare la detta harmonia, essendo l'harmonia Principio: Mezzo: Fine: et finalmente tutto il continente della Musica, ne essendo la Musica altro che harmonia, la quale (secondo il philosopho) non è altro che Discordia concors;

Non sò comprende[re] per che il detto don Nicòla voglia andare alla detta harmonia, ò alle sue consonantie, per la via scabrosa: in[com]moda: Difficile et quasi impratticabile, delli intervalli di questi due generi inusati Dismessi et lasciati da tutti i Philosophi et Musici Antichi, Possendoci andare per la via bella: piana: commoda: usata: facile: dilettevole et naturale delli intervalli del genere diatonico; schielta et eletta da tutti I dotti et esperti Musici Antichi et Moderni, per la migliore piu facile et piu naturale; eccetto che esso Don Nicòla

better, easier, more natural. Except that the said Don Nicola wishes (without reason) to follow that common saying that says *IN DIFFICULTATE CONSISTIT VIRTUS* [virtue lies in difficulty], which saying I would also praise in this case, if one could not proceed with the consonances of the aforesaid harmony except by these harsh and difficult aforementioned paths. But convincing us to proceed with the same consonances by the easy, smooth, delightful, comfortable and natural path of the aforementioned diatonic [I-Rv R 56A, fol. 22v: two marginal references to Gaffurius] I would judge such difficulty rather a frivolous and vain vice than a virtue, and pay attention to the aphorism of the philosopher who said *ID MELIUS QUOD FACILIUS FIT et tanto facilius et melius quanto naturalius,* [THE EASIER IS BETTER: and the more easy and better, the more natural it is], so that the diatonic is more natural than the other two, chromatic and enharmonic. I say that of the three genera, the path, or the manner of the diatonic is the more natural and thus better, as also the said Gaffurius says in the said second book of his *Harmonia instrumentarum* in the said twentieth chapter with these words: *hoc genus Diatonicum Boethius noster et Guido naturalius ceteris existimant atque prestantius* [our Boethius and Guido consider this diatonic genus to be more natural and superior than the others]. And it is not without cause that the sacred philosophers and the learned and experienced musicians have dismissed and forsaken the other two unused genera, and have kept only to the diatonic genus.

volesse (senza proposito) seguitare, quel detto vulgato, qual dice IN DIFFICULTATE CONSISTIT VIRTUS qual detto, loderei ancho io in questo caso, quando non si potesse andare alle consonantie della harmonia predetta eccetto per queste vie scabrose et difficili p[redette]. Ma possendoci andare alle medesime consonantie per la via facile: piana dilettevoli: usata: commoda et naturale del diatonico predetto [I-Rv R 56A, fol. 22v: two marginal references to Gaffurius] Io giudicarei tal difficulta piu presto vitio frivola et vana che vertu. Et attenendomi alla sententia del philosopho qual dice MELIUS QUOD FACILIUS FIT: et tanto facilius et melius quanto naturalius, Poi che il Diatonico è piu naturale delli altrì due Chromatico, et Enharmonico. Dico che delli detti tre Generi, la via, ò il modo del diatonico sia il piu naturale et quindi, megiiore si come dice pur ancho il ditto gaffurio nel ditto suo 2° lib° della harmonia instrumentarum al detto vigesimo capto per queste parolle hoc genus Diatonicum Boethius noster et Guido naturalius ceteris existimant atque prestantius. Et non senza causa i sacrij philosophi, et i Dotti et esperti Musici hanno dismessi et lasciati li altri due generi inusitati, et si sono attenuti al detto sole Genere Diatonico.
(I-Rv R 56B, fol. 22r-22v)

We also see here how the use of the chromatic and enharmonic is placed in the category of frivolity, vanity, and lack of virtue. The tedious repetitions of the difficulties associated with them may also be read as a measure of the degree to which the subject irritated Danckerts. Further, he was concerned that those with little experience in music might be led astray by Vicentino, and therefore points out that the tetrachords bear similarity to the modes, in that both have sequences of notes with a different arrangement of the intervals which give music structure:

Nor do I wish that someone with little experience in music might think that the said two unused genera, that is the chromatic and enharmonic, might be some greater thing or of more importance than the diatonic; or were of such importance as the

Ne vorria che il poco esperto in Musica pensasse, che i detti due generi inusitati cioè Chromatico et Enharmonico: fossero qualche piu gran cosa, ò di maggior importanza che il Diatonico; overo fossero di tanta importanza quanto le fà il detto Don

said Don Nicola makes them out to be, of which each of them is nothing other than an ordering, or mode of proceeding in singing through three different intervals or steps in the content of the same four *corde*, *sonore* or sounds, or *voci* called a tetrachord, deduced from the consonance of a *diatessaron* of the *sesquitertia* proportion that contains in effect two *sesquiottava toni* and a *semitono minore* in three intervals, as has been said.

And in a similar manner as in each of the said three genera, the modes (called the authentic and plagal tones by practicing [musicians]) proceed in different species of the *diapente* and *diatessaron* in a *diapason*. The *diapente* and *diatessaron* and diapason, however, always remain of the same size and perfection of content as much in one tone (no matter whether it is authentic or plagal) as in another. Thus one also progresses in the manner of singing the harmony [of] the works of the said three genera by the different intervals of their tetrachords; and the intervals of the tetrachords of the two unused genera are more difficult to tune/sing (for the reasons mentioned above) than those of the diatonic. But the tetrachords always are of the same size, perfect in content, and the consonances with their harmony are of the same perfection in one genus as in another.

Nicòla, de i quali ciascun di essi non è altro che un ordine, overo Modo di procedere nel cantare per diversi tre intervalli o gradi in la continentia di quattro medesime corde: sonore o suoni: o voci chiamati Tetrachordo: dedutte da la consonantia diatessaron in sesquitertia proportione. il quale contien in effetto due Toni sesquiottavi et un semiton minore in tre intervalli come è stato detto.

Et à similitudine, che in ciascun de li detti tre Genere: li Modi (chiamati dalli prattici, Toni autentici e plaghali) procedeno per differentiate spetie delli Diapente et diatessaron in un diapason: restano però sempre lo diapente et diatessaron et diapason in una medesima grandezza et perfettione di continentia, tanto nel un tono (o autentico o plagale che sia) quanto nell'altro; Cosi ancho si procede nel modo di Cantare l'harmonia li concenti delli detti tre Generi per differentiati intervalli delli lor Tetrachordi; e li intervalli delli Tetrachordi delli detti due Generi inusitati, sono piu difficili ad intonare (par la cause sudette) che non sono quelli del Diatonico. Ma li Tetrachordi sono sempre d'una medesima grandezza a perfettione di continentia, et le consonantie con la loro harmonia d'una medesima perfettione, cosi in un genere come nell'altro.
(I-Rv R 56B, fol. 22v)

He then goes on to postulate that Vicentino would like to suggest that the chromatic and enharmonic have miraculous powers, not unlike those described in the fables of the poets. Vicentino, however, only speaks of the greater suavity and expressivity of the smaller intervals, and never speaks of their special powers, but only of their size, where they are found on his instruments, and how they are to be used. The following paragraph thus describes more of what Danckerts fears might happen than anything we know that Vicentino advocated:

Nor does the harmony of the enharmonic and chromatic orders bring about greater miracles than that of the diatonic. Even if the said Don Nicola ~~Vicentino~~ would happily give [I-Rv R 56A, fol. 368v: ~~ignorant commoners~~] uncouth people to understand that rivers may be stopped and wild animals tamed more with his enharmonic and chromatic music than with the diatonic (as the poets fantasise that Orpheo did with the beasts or the wild animals in the woods; [or]

Ne l'harmonia del ordine Enharmonico ò Chromatico fà maggior miracolo di quella del diatonico: Anchora che il detto Don Nicòla Vicentino volentieri, daria ad intendere alla [I-Rv R 56A, fol. 368v: plebe ignorante] gente grossa, che con la sua Musica Enharmonica e Chromatica fa fermare i fiumi, et le fere indomite piu, che con la Diatonica (come fingono li poeti che facea orpheo le Bestie o le fiere nelle sylve: Arion li Delphini nel Mare; et che Amphion

Arion [with] the dolphins in the sea; and that Amphio made the big stones go up and down [together with] other materials for them, building the walls of Thebes; and that others created other effects with the harmony of their sweet sounds), should he should have some foolish [I-Rv R 56A, fol. 368v: ~~and ignorant~~] [person] who believes this from him, and who does not know to what end similar poems are written.

facea saglire e scendere le pietre grosse, et altre materie da per loro, edificando le mura di Tebe, e che altri faceano altri effetti con la harmonia delli loro dolci concenti) se esso havasse qualche goffo [I-Rv R 56A, fol. 368v: ~~et ignorante~~] chi ce lo credesse, et non sapesse a che effetto sono scritte simili poesie.
(I-Rv R 56B, fol. 22v)

In the last of the versions, a long passage was added at this point, only to be struck out by a single diagonal line afterwards. Evidently Danckerts, in order to brace up the bulwarks of the diatonic genus, felt the need to show where he himself had experienced the miraculous power of the diatonic genus, hoping thereby to prove that it was superior to the other two. The descriptions are interesting not so much from the point of view of his line of argumentation, but from what they tell about the role of music and musicians in the culture of the time:

I, however, can bear incontrovertible witness that many times in my lifetime I have seen many people make various changes [*motivi*] by means of music in the diatonic genus. And among them, at the Borromei, Signor Pierluigi Caraffa, a Neapolitan gentleman, entitled the Grand Master Caraffa, who took such delight in that manner of music that he always had salaried musicians in his house until his death, among whom I was one. And it happened many times that when he was ill with fever, he had music made, singing and playing; and singing himself many times works which delighted him greatly, and he enjoyed the music with the intention that he pass the bout and the time of the fever, without having felt hardly any aches or pain from it. And similarly, many times he sang and played when he was tormented by gout (from which he suffered more often than he would have wished) and said that when he was intent on the music, he felt the pains that the gout gave [him] far less. Summing up in conclusion, that for him music often provided relief from fever and also from the pain of gout.

And further, I have seen many times a fully laid table, full of the most sumptuous and most delectable foodstuffs, adorned by young gentlemen and most beautiful damsels, titled and untitled; who having barely begun to eat, and hearing some sounds for dancing and frolicking, they stand up and almost throw the table with all of the foodstuffs

Benche io posso fare indubitata fede che piu volte al tempo mio, ho visto fare varij motivi da molte persone per la Musica del genere Diatonica; et Tra le altre a la bo: me: del S^{or} pierluigi Caraffa gentilhuomo Napolitano, intitolato il Gran mastro caraffa: il quale se dilettava di tal maniera della Musica, che sempre tenea Musici salariati in casa sua, fin alla sua morte: delli quali ne sono stato uno io. Et è accaduto piu volte: che quando esso era amalato di febre, facea fare musica: cantando et sonando: et cantando si molte volte alcune opere che a lui sòmamente dilettavano, gustava con tal intentione la Musica che passava il termine, et il tempo della febre, senza haverne sentito quasi dolore o passione alcuna: et similmente facea molte volte cantare et sonare quando era tormentato dalla podagra (dalla quale era visitato piu al spesso che non havria voluto) et dicea che mentre stava attento alla Musica, sentiva assai meno li dolori che la podagra dà: concludendo in sòma, che in lui; la Musica li alleggeriva molte volte la febre et ancho li dolori della podagra.

Et di piu ho visto piu volte una tavola appareschiata, et piena di somtuosissime et delicatissime vivande adornata di gioveni gentilhomini et gentildonne bellissime. Titolati et non Titolati: et non havendo essi a pena incominciati a mangiare, et sentendo sonare alcuni suoni da Dansare et ballare, levarsi suso in piedi, et grettare quasi la

to the ground on account of the haste and desire that they have to dance, leaving eating for dancing to the ~~diatonic~~ sound, which change [*motivo*] they would not have made, had they not heard the sound of the music, which was completely diatonic.

And further I have seen (when making music in a public street before and then after midnight and much later also) people rising from their bed, and leaving their sleep to go to the window – and sometimes, still in their nightshirt, outside of their house into the street – and not returning to sleep any more that night to hear the music, without which they would not have made that change [*motivo*]. That music was always pure diatonic and no other genus was seen than diatonic.

And further one almost continuously sees soldiers being at a table to eat or gamble, or someplace else for other solaces and amusements, no matter how big, who when hearing the *fifarino* [flute] in diatonic intervals calling [them] to arms, accompanied by the drum, abandoned the eating and gambling, and every other solace and delight in which they found themselves, and ran to the alarm for combat, not shunning any danger of death or injury, the catalyst [*motivo*] for them doing so most of the time being the said music, which is completely diatonic.

And further, I have seen music being made in a gaming house, where there were men and women, young and old, beautiful and ugly, and heard the singing of certain canzonettas. Those canzonettas were so agreeable to the young and beautiful women that they laughed so wildly and with such great desire that it was necessary to support them. Otherwise they would have fallen from the delight with which they were taken upon hearing them. And to the contrary, the same canzonas were so unpleasant and hateful for the old and ugly [women], who grew frantic with rage, blaming their disgrace for having come to such an age and made ugly by being old. And I truly believe that they would have eaten the musicians without salt or other condiment if they had had them between their teeth, out of hate and rancour which they had for them for the singing of the said music, fleeing from the conversations of such company, weeping, groaning, and excoriating their bad fortune. ~~Those canzonas were composed and solely sung entirely in the diatonic.~~ Those [were the] catalysts [*motivi*] for

tavola con tutte le vivandi per terra per la prescia et desiderio che haveano di ballare, lasciando il mangiare per ballare a quel suono ~~diatonico~~, qual motivo non haveano fatto se non havessero sentito il suono della Musica, qual era tutta Diatonica.

Et piu ho visto (facendosi Musica nella publica strada inanzi et da poi mezza notte et piu tardo anchora) levarsi le persone del letto et lasciar' il dormire per venire alla finestra: et ancho tal volta in camisa fuor della lor casa nella strada, et non tornare piu a dormire in quella notte per sentire la Musica, senza la quale non haviano fatto tal motivo: qual Musica era tutta diatonica pura et non vista d'altro genere che del diatonico.

Et piu si vede quasi di continuo li soldate essere a tavola per mangiare o giocare, overo altrove in altri solazzi et piaceri per grandi che siano, et sentendo essi sonare il fifarino per intervalli diatonici all'arme, accompagnato col tamburro, lasciare il mangiare et giocare, et ogni altro solazzo et piacer in che essi si trovasserò, et correre all'arme a combattere, non scifando pericolo alcuno di morte ne di ferite, qual motivo li fa fare, al piu delle volte la ditta musica quel è tutta diatonica.

Et piu ho visto fare musica in un ridotto, ove erano huomini et donne: gioveni et vecchie: belle et brutte; et sentito cantare certe canzonette; le quali canzonette erano tanto piacevole alle donne gioveni et belle, che ridevano tanto sfrenatamente et da si gran voglia che bisognava sostenerle; altramente sariano cadute, del piacere che ne pigliavano àsentirle; et per l'opposito le medesime canzone essere tanto dispiacevole et despittevole alle vecchie et brutte: che se arrabbiavano della stizza, biastemando la disgratia loro di essere venute in tal età, et fattesi brutte per la vecchiezza: Et credo veramente che haviano mangiati li musici senza sale o altro condimento se le havessero havuti fra li denti, per l'odio et rancore che esse lor portavano per il cantare della detta musica fuggendi della conversationi di tal compagnia, piangendo: rangognando é et biasmando la lor mala ventura; ~~qual canzone erano composte et cantate per intieri Diatonici solamente~~; qual motivi ne parti d'essi, non haviano fatte le personi dette se non havessero sentite la detta

their leaving – which the said persons would not have done, had they not heard the said music – which was completely diatonic without any mixture whatsoever.

Musica quale era tutta diatonica senza mistura veruna.
(I-Rv R 56B, fol. 23r)

In conclusion, he maintains that Vicentino could never have experienced such things with chromatic or enharmonic music, for the average listener would not have reacted in this manner:

I do not believe that the aforesaid Don Nicola has seen [this] done yet, [seen] similar changes [*motivi*] in people: not the running to arms by making them hear enharmonic or chromatic music; nor the abandonment of eating and drinking to dance to the sound of his enharmonic or chromatic music; nor the alleviating of the pains of gout, nor making the bouts of fever pass almost without feeling any aches by means of the sweetness of the said chromatic or enharmonic music. I stand therefore to all of the aforesaid things.

Io non credo che'l don Nicòla predetto habbia visto fare anchora, simili motivi alle persone ne correre alle arme per fare loro sentire la musica Enharmonica ò Chromatica; ne lasciare il mangiare et il bere per ballare al suono della sua Musica Enharmonica o chromatica; ne alleggirire i dolori della podagra, ne far passare li termini della febre senza sentirene quasi passioni alcun con la dolcezza della detta Musica Chromatica ò Enharmonica. Stando adunque tutte queste cose predette.
(I-Rv R 56B, fol. 23r-v)

Vicentino himself, however, claimed that his music was appropriate for a smaller, elite circle of experienced and intelligent listeners:

From the effect they understood that (as the ancient writers demonstrated) chromatic and enharmonic music was justly reserved for another use than that of the diatonic, because the latter was sung in public ceremonies in communal locations, for the use of vulgar ears, while the former was employed in the private amusements of lords and princes, for the use of purged ears, in praise of great personages and heroes.

Perché con effetto comprendono che (come li scrittori antichi dimostrano) era meritamente ad altro uso la Cromatica & Enarmonica Musica riserbata che la Diatonica, perché questa in feste publiche in luoghi communi à uso delle uulgari orecchie si cantaua: quelle fra li priuati sollazzi de Signori e Principi, ad uso delle purgate orecchie in lode di gran personaggi et Heroi s'adoperauano.
(Vicentino, I.4, fol. 10v)

Thus it is clear that his music was not intended for the accompaniment of dance or for calling soldiers to arms, as the finer divisions of the whole tone would not have been heard under those circumstances. Danckerts' arguments here were thus designed to win over a certain class of listeners to his side, to set the scene for his examples in four voices. They do not, however, actually engage in the questions which motivated Vicentino in his dispute with Lusitano. Once again, it is evident that the disputants – and their judge – were talking at cross-purposes. The final paragraph before the intended location for the polyphonic examples in I-Rv R 56B – which however were not copied into this version – exhorting the reader to hold to tradition, was found in the earlier versions as well, albeit with slight variants:

I conclude and say that one must follow the judgment of the philosophers and ancient musicians (who, having created the structure and having experience with all three above-mentioned genera, have dismissed and forsaken the two aforesaid unused genera, that is [the] chromatic and enharmonic, and were very attached solely to the diatonic genus, as the better, easier, more practical, clearer, more natural, and more gratifying to the ears) and leave this Don Nicola to prattle and chat in his manner, now that he has so foolhardily boasted [and] without reflection obliged himself to want to prove that no musician composer understands in which genus the music is, which he himself composed, proclaiming and holding for ignorant however many musician composers or musician singers there are in the world (as may be seen above in his communication) and not having known [how to], nor been able to make his said proof; he remained deservedly and justly the loser of his bet: *a laude et honore della vana gloria sua* [in praise and honor of his vainglory].

Concludo et dico che si debbia seguitare il giuditio de i philosophi et Musici Antichi (i quali, havendo fatti la notomia et l'esperientia de tutti tre i generi sopradetti, hanno dismessi e lasciati i due generi inusitati predetti cioè Chromatico et Enharmonico, et sono si attenuti al solo genere diatonico, come al migliore, piu facile, piu praticabilie, piu prestante, piu naturale et piu grato all'orecchie) et lasciare gracchiare e cicalare a questo Don Nicòla a suo modo, poi che cosi temeratamente si vantava inconsideramente s'obligava di voler provare, che niun Musico Compositore intendea di che genere sia la Musica che esso istesso Compositore componea; publicando et tenendo per ignoranti, quanti Musici Compositori o Musici Cantore sono nel mondo (come di sopra nella cedola sua se puo vedere) et non havendo saputo ne possuto fare la detta sua pruova: meritamente et giustamente è restato perditore della sua scommessa: a laude et honore della vana gloria sua.
(I-Rv R 56B, fol. 23v)

7. The polyphonic examples

7.1 In which tuning system should we perform the polyphonic examples?

We have seen above in section 5.2 that at least from the 1480's onward, some organists were tempering their fifths in order to have better major thirds and sixths, rather than retaining their Pythagorean purity. In spite of this, the same authors who support the use of tempering were continuing to maintain theoretically that the semitone in the Guidonian system was minor rather than major, although this was patently untrue, if their fifths were tempered.

Although Danckerts belonged to this category, at the same time he gave explicit instructions as to the size of the intervals in which flats, sharps, and the special five-comma symbols were involved. We then have to ask the question of what he was hearing in his mind when writing these examples, was he hearing the intervals as determined by the theory, i.e. something close to Pythagorean, or was he hearing what he normally associated with the symbols based on contemporary practice?

I know that during the first two years of intense study of Vicentino's treatise together with the members of our research team – without, however, an instrument at hand – I only had an intellectual comprehension of the smallest intervals in his book; I could perhaps envision some melodies, but hearing and understanding the polyphonic progressions was almost impossible. Was Danckerts better off than I? Or did he, too, in particular with the engrained tuning of the hand, find it difficult to imagine what his own pieces would sound like with intervals outside of his personal experience?

In our discussions, it also became clear that we also, for various reasons, cannot say exactly which tuning Vicentino preferred. First of all, like any other tuning system of that time, it was based on how good tuners set their temperaments; most likely each one set the tuning in a slightly different manner from the others, depending on the specific performance context and their own personal preferences. And secondly, Vicentino himself explicitly gives two different tunings in the meantone family for the archicembalo in Book 5, chapters 5 and 6; and in chapter 17 and elsewhere there are traces of a third tuning in which fifths and thirds were perfect in certain areas of the keyboard (but nevertheless still functioned for the pieces within the treatise). Further, there is evidence that certain keys may have been retuned according to the performance needs.[37]

This variety is understandable within the context of the time, not only because of the lack of modern technology, but also because it was the keyboard instruments that were being forced to adapt themselves to the voices in sung polyphony, not the other way around. Many things that function within a group of individual melodic voices cannot be replicated on a keyboard instrument, as voices can make small melodic inflections to improve the tuning of specific vertical concordances, while still retaining a certain stability of pitch. Indeed, Vicentino in the advertising brochure for his arciorgano in 1561, pointed out how the many *gradi* or steps on the instrument could be

[37] See the forthcoming dissertation of Johannes Keller for more information.

accommodated to various kinds of pronunciation, similar to human pronunciation; so that whatever *voce* a singer might attempt to intone, the organist will always have the means of responding to him with the same *tono* on one of the keys of said perfect organ. And more than this, he will be able to begin playing in all *toni* – a thing of the greatest admiration in the profession of music. The same will happen in churches, that any choirmaster can intone or have intoned any *voce* in the choir that is comfortable for his singers, and the organist, with said instrument, will always respond in *tono*. And if by chance, while the singers are singing, they go up or down, the organist can always be in tune with the singers at their final note, [and] in a fine manner, he can return to the first pitch, so that no one will be aware of it.[38]

accommodati, a varie sorti di pronuntie, simili alla pronuntia humana, di modo che proui pure un cantore de intonar qual si voglia vocce [voce], l'organista havrà sempre modo di rispondergli nel medesmo tuono sopra uno de tasti del detto perfetto organo, e sopra di quello potrà dar principio a sonar de tutti i tuoni, cosa di ammiratione grandissima nella professione della Musica, il simile auerrà nelle chiese, che ogni Maestro di cappella potrà intonare, o fare intonare, qual si voglia voce in choro che tornerà commoda a suoi cantori, & l'organista col detto instrumento sempre risponderà in tuono, e se per sorte, cantando i cantori, cresceranno ouer caleranno, l'organista potrà sempre accordar co' cantori nel fin de la lor voce, con bel modo potrà ritornare nella prima intonatione, che alcuno non se n'accorgerà.

And further that

One also has this advantage with this instrument that in the playing together of various kinds of instruments, it is not necessary to tune them with the said arciorgano; for any player whatsoever, whether of the lute, viol or of any other instrument, can tune his lute or his viol according to his method, [and] it will always be in tune with said arciorgano because it is of such richness and perfection, that it can tune itself at once with all instruments and with all voices.[39]

Si ha ancor in questo instrumento questo guadagno che nel concertare varie sorti d'instrumenti non occorre accordarli con detto Arciorgano, ma sia qual sonatore si voglia di liuto di viola o d'altro, potrà accordare in disparte a suo modo il suo liuto, o la sua viola sempre accorderà con detto Arciorgano, perchè è di tal ricchezza, e perfettione che ha il modo di accordarsi subito, con tutti gli istrumenti e con tutte le voci.

However, as a consequence of the fact that the keyboard instruments were being adapted to the voices, it also makes sense that the singers were incognizant of the temperament in which they were singing. Why should they know it, if they were just singing in accordance with their normal practice? Certainly there was a general shift from Pythagorean to meantone from the 15th to the 16th century, but that shift most certainly included both the ninefold system as well as all of Vicentino's meantone variants within its spectrum.

On a certain level, it does not matter in which system Danckerts would have been thinking. It is important to realise, however, that there was a difference not only in his writing on theory and what was the normal practice, but also in the writing of many

[38] I-Bc C.32; see the edition in Martin Kirnbauer, "Das Werbeblatt für das Arciorgano: Edition, Übersetzung und Kommentar", in id. (ed.), *Zwischen Vieltönigkeit und Mikrotonalität. Materialien und Beiträge aus dem Forschungsprojekt "Studio 31",* Basel: Schwabe Verlag 2024, 115-27: 116-19; The English translation is lightly edited version of that of Henry William Kaufmann, "Vicentino's Arciorgano: An Annotated Translation", in: *Journal of Music Theory* 5/1 (1961), 32–53.: 36-37.

[39] I-Bc C.32; see the edition in Martin Kirnbauer, "Das Werbeblatt", 115-123: 117; English translation after Henry Kaufmann, "Vincentino's Arciorgano", 36-37.

others. On a certain level, this would lead me to say that Danckerts would have expected the examples to be played in a meantone tuning, although he clearly defined the symbols differently. It is this discrepancy between theory and practice that served as a catalyst first for Vicentino's research and also for the dispute.

7.2 Example of the Harmony in four voices, using intervals solely from diatonic tetrachords

This piece is a four-voice canon (see Appendix 2.2), using diatonic stepwise movement to outline various tetrachords, opening with the one from e' to a' at the beginning of the soprano. At times Danckerts extends the fourths to a sixth, at others he rounds out the tetrachord with the semitone above, perhaps in each case thinking he was linking two tetrachords. There is a gradual increase of rhythmic activity throughout the piece, thereby allowing him to have the lowest voice always support the upper ones with slower movement. It is a simple piece, perhaps even simplistic, designed to show the limitations of the diatonic genus when one is not allowed to use thirds or sixths as leaps.

7.3 Example of the Harmony in four voices, using intervals solely from the chromatic tetrachord

In this example (see Appendix 2.3), the melodic material only employs the sequences found in the chromatic tetrachord while at the same time adhering to basic contrapuntal rules. The melodies, however, are rather stodgy, lacking in rhythmic flexibility and creative interaction with the other voices. In addition, there are places with a sense of stasis, for example in mm. 6-9, where there are many long notes and little happening between the voices. In this example, too, there is a gradual increase in rhythmic activity; the relationship between the active and the inactive voices, however, often seems out of kilter, particularly at the end.

Although one could claim that Danckerts was forced into this stiltedness by deciding to reduce his melodic language to that of the chromatic tetrachord, Claude le Jeune's *Qu'est devenu ce bel œil* clearly refutes this thesis. It, too, remains entirely within the chromatic genus, in a similar fashion to Danckerts, but retains a great deal of musical charm and cohesion, sufficiently so that Salvatore Sciarrino chose to base his opera *Luci mie traditrici* upon its melody.

One of the difficulties resulting from Danckerts' system of notation in which the sharp symbol indicates a minor semitone in descent, is that in a descending chromatic line in which the minor semitone comes first, you also need to indicate that the following interval is a major semitone by means of a flat sign, as can be seen in the first measure of the soprano. One could perhaps interpret this as a *fa*, at least on f and c, as in m. 1 in the soprano, m. 3 in the tenor and m. 5 in the alto; but it seems harder to justify in mm. 10-11, where the movement is to g. Similar difficulties arise in a chromatic movement from a flatted note through a semitone to a whole tone higher, such

as from e-flat to f in m. 12 in the tenor. Traditionally, the chromatic note in the middle would be notated with a sign for b-mi (♮); in this example, the special 5-comma sharp sign on a note where it was forbidden, followed by an f, would have been as confusing back then as it is today. It would suggest that the e it is associated with is being moved, when in the practical reality of meantone tuning it was in a different place anyway.

7.4 Example of the harmony in four voices, using intervals solely from the enharmonic tetrachord

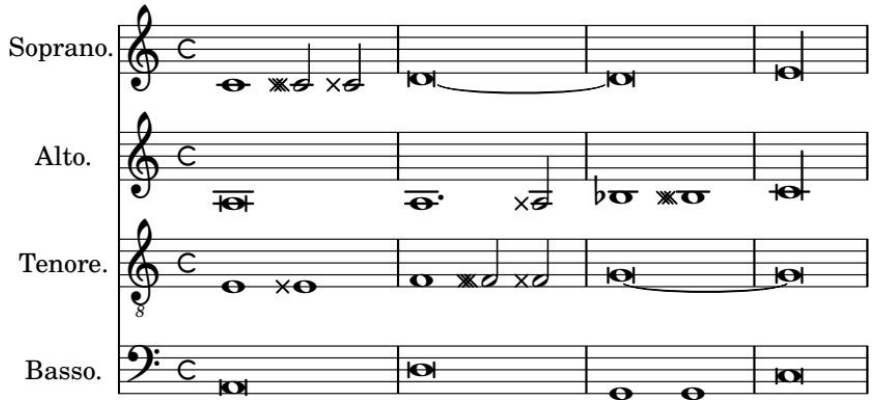
This example is slightly different than the previous ones, in that the enharmonic notes only serve as passing notes against a standing note (see Appendix 3.4). When the passing note is relatively long, however, as in m. 3 in the bass or m. 4 in the soprano, and the interval it forms with another voice is just a diesis (in Danckerts' terminology) larger or smaller than a fifth or an octave, it simply sounds as if that interval is out of tune, as it is so close to the perfect interval that it is just approaching or has just left. Although intended as passing dissonances, it seems likely that Danckerts, without an instrument, could not really envision how they would sound, and therefore had not realised that as they are so small, they would not be heard in his style as a recognisable melodic line, as in the case of the diatonic and chromatic genera. Indeed, it is within a similar context in Vincenzo Lusitano's examples that Vicentino, after praising his opponent for coming out and supporting his own arguments in regard to the noncomposite nature of the genera, bemoans his lack of knowledge of how to harmonise them:

One sees that he has printed the complete opposite of his statement of reasons written previously, upon which his reasoning was based, and upon which the judges gave the verdict. So I am ashamed for his sake, and it grieves me greatly that this work by Don Vincentio has come out, because it is so great a testimony to the world, making [it] known to everybody that this Don Vincentio speaks against the judges and against himself; and also for many reasons which show at the end of the work that this author neither understands nor knows how to tune the consonances above the *diesis enarmonici*; and so much the worse, that he gives an example of that with false quinte and false *terze*. And further, that when he speaks of the *semitono minore* he gives the example of two notes *mi*, *fa* and *fa*, *mi*, and is of the opinion that the *semitono* which one sings and which one plays on an instrument is *minore*; and it is *maggiore*, that is *fa*, *mi* and *mi*, *fa*, the explanation and proof of which I have shown in the chapter on the *semitono*

Si uede che ha stampato tutto al contrario della sua polliza, già scritta per sua ragione, sopra la quale erano le sue ragioni fondate: & sopra quella li Giudici derno la sententia, che mi uergogno per parte sua, & me ne duole assai che quest'opera de Don Vincentio uadi fuore, perche è troppo gran testimonio al mondo, di far cognoscer à tutti, che esso Don Vincentio dice contra alli Giudici, & contra à sè stesso; & anchora per molte ragioni, lequali dimostrano che nel fine dell'opera che esso Authore non intende, ne sà accordare le consonanze sopra i Diesis Enarmonici; & tanto peggio che ne da essempio, con le quinte false, & terze false: e piu oltre, che quando parla di semitono minore, da l'essempio delle due note mi. fa. & fa. mi. & ha opinione ch'il semitono che si canta, & che nel stromento si sona, sia minore, et è maggiore, cioè fa. mi. & mi. fa. che la dichiaratione d'essi, & la proua l'ho mostro nel Capitolo del semitono maggiori, in quanti modi, & con quali segni si scriueno.

minore [recte: *semitono maggiore*], [showing] in how many ways and with what signs it is written. To assure the reader [of this], I now show the example of the false *quinte* and poor *terze* which he printed at the end of his work. [See example 1.]

Hora per certificare il Lettore, dimostrerò l'essempio delle quinte false, & terze non buone, che lui hà stampato nel fine della sua opera.
(Vicentino, IV.43, fol. 98r)



Example 1: Vincentio Lusitano, *Introdutione facilissima*, Rome: Antonio Bladio 1553, sig. Fiiv-Fiiir. (Digital image by Johannes Keller)

We see here that Vicentino is complaining about the movement from the a to a-diesis above the d in the m. 1, and the f-sharp to f-diesis under the d' in the second. This corresponds to the passages I was criticizing in Danckerts' third example. Thus, just as I am questioning Danckerts' practical understanding of the significance of the difference between a minor and major semitone, or that of the application of the sign for an enharmonic note, Vicentino here is questioning Lusitano's understanding of the difference between the semitones, and his ability to tune enharmonic notes. In this regard it must be noted that Vicentino almost always 'accompanies' his enharmonic notes with some sort of harmonious concord. Like me, Danckerts and Lusitano were unable to conceive what this would sound like without having an instrument at their disposal. For me, this means we cannot take Danckerts' theoretical statements at face value, but have to see them in the context of his time where there was a cognitive dissonance between the theoretical concept and its practical execution.

7.5. Examples which exhibit a mixture of the three genera

Danckerts fourth polyphonic example, entitled "Example of the harmony in three voices: a mixture of all three genera in three different voices" (*Essempio della Harmonia a tre Voci: Mista de tutti tre Generi in tre diversi Voci,* I-Rv R 56BA, fol. 370R, see Appendix 3.5) once again illustrates some of the problems we saw in the above examples. The "Suprano" is composed entirely in the enharmonic genus, the "Medio" in the chromatic, and the "Tenore", as a cantus firmus based on the *Pater noster,* in the diatonic. To accomplish this feat, he has the movement of the enharmonic dieses and chromatic semitones for the most part take place when the other voice is repeating or

holding out notes, as not to create conflicts. The tenor serves as a foundation for the other voices.

It is to be noted here, too, that there are several examples of another variant of the confusion stemming from the notation: here one has an ascending chromatic whole tone which has the minor semitone first, forcing the third note to receive the 5-comma sharp sign, as in mm. 6, 7, and 14-15, either d to e, or c to d respectively.

Danckerts' last example, entitled "Example of the harmony in four voices, mixed from all three of the genera according to their tetrachords and intervals, distributed through all four voices" (*Essempio della Harmonia a 4 Voci, Mista de tutti tre i Generj per li Tetrachordi et intervalli loro, sparsi per tutti quattro quatro le voci,* I-Rv R 56A, fol. 370V, see Appendix 2.6) exhibits a different sort of integration of the genera, in that he establishes the beginning of each new contrapuntal point by means of one of the generic tetrachords, beginning with diatonic, moving to the chromatic in m. 7, and further to the enharmonic in descent in m. 14, and in ascent at m. 17. Except for the opening motif of each point, however, the piece is in the diatonic genus. This enables him, as in the previous example, to avoid simultaneous chromatic or enharmonic movement throughout the entire piece. In addition, the notes specifically indicated by accidentals are all passing in nature. This creates a particularly grating moment in m. 12, in which the tenor, departing from an octave-twelfth concordance on d, moves to e via the special 5-comma sharped d, creating an augmented octave-twelfth discordance, before moving to octave a's divided by a fifth. Could he really envision how it sounded? Or was it part of a strategy to frighten off musicians who might have wanted to use these intervals. Is it perhaps worthy of note that this took place in a chromatic tetrachord and not an enharmonic one?

8. Of the errors of modern composers

Having discussed some of the issues and ambiguities associated with Danckerts' understanding of the division of the whole tone, it also seems important to critically examine two chapters in the third part of his treatise in which he writes about the use of chromaticism in the modern compositional style. This will reveal how the entire treatise is primarily concerned with what he considers to be the inappropriate and dangerous use of accidentals, particularly sharps, as they – in his view – had the potential to destroy the music of the Christian church. Placed in this context, together with the vociferous nature of his treatise, the dispute between Lusitano and Vicentino will gain new significance.

8.1 Opinions on the errors which many new composers encounter in the new style – Part 3, Chapter 2

Danckerts begins this chapter by expanding upon his comments concerning the musical differences instigated by Vicentino. Here he focusses on his discontent with the gradual increase of chromaticism in the new modern music more generally, leading him to criticise the seemingly wilful addition of chromaticism by these composers, which leads them to break with the order of the modes. He suggests that these composers might be those that Vicentino speaks of when he castigates those who do not know in which genus they are singing or composing:

As on account of the above-mentioned musical difference I was offered the occasion of writing a few things, I will not forgo stating my opinion regarding the abuse which in our times has arisen for some years in the composition of musical works or *concenti figurati* by certain new composers. These scorn all of the good laws, orders, and ancient rules (persuading themselves that with their new laws or rules [I-Rv R 56A, fol. 568r: for teaching Minerva and correcting the *Pater noster*)] they will deprive the other composers of fame), demonstrating that they do not know the orders of the authentic and plagal modes, which must necessarily be observed in diatonic music, in order to not fall into disorder (which make all things fall into ruin). Or if they know them, they show they do not want to observe them, pursuing their profession solely by raising and lowering the notes outside of their normal intonation, by restoration, restoring not only the interval of the *semitono minore* to the entire ascending *tono sesquiottava* like this, [b to c ♯], or descending like this [c to b♭]; but also the

Poi che per caggione causa della sudetta Differentia Musicale, mi si è offerta l'occasione di scrivere qualche cosetta; Non lasciarò di dire l'opinione mia sopra l'abusione ch'alli tempi nostri da qualche anni in qua è nata nel comporre le musiche ò li concenti figurati, da certi Compositori novelli; I quali disprezzando tutte le buone leggi: ordini et Regole antiche (persuadendosi con le loro nuove leggi ò Regole, [I-Rv R 56A, fol. 563v: docere Minervam, et correggere 'l Pater noster)] di togliere la fama alli altri compositori) dimostrano non sapere gli ordini delli Toni autentici e plagali, che sono necessarij di osservarsi nelli canti Diatonici, per non entrare nelli disordini (per li quali fann'andare ogni cosa va in rovina) ò se gli sanno, mostrano non volerli osservare, facendo professione solamente, di alzare et abbassare le note, fuora della lor ordinaria intonatione, per ridurre riducendo non solamente l'intervallo del semiton minore, al tuono sesquiottavo intiero ascendendo cosi [b to c ♯] overo discendendo cosi [c to b♭] ma ancho l'intervallo del tuono al semiton minore cosi [a to b♭] o cosi [d to c ♯] overo

interval of the *tono* to the *semitono minore* like this, [a to b♭], or this, [d to c ♯]; or (what is worse) to a *semiditono* like this: [f to g♯, and in I-Rv R 56A, fol. 374v continuing further to a]. And this without knowing [how to] give any reason whatsoever, except that they compose with these kinds [of intervals] in the new style, and it pleases them to make them that way, seeing now that others also do it, and thus one blind person leading another, all fall into the same pit of disorders; those composers seem to be among those of whom the aforesaid Don Nicola perhaps wants to speak, who do not know in which genus of music the pieces are that they themselves have composed, but it is not for that [reason] that no composer-musician knows in which genus his composition lies.

(quelche é peggio) a semiditono cosi [f to g ♯, and in I-Rv R 56A, fol. 374v continuing further to a] et ciò senza sapere assegnare ragion alcuna, se non che compongono di questa sorte alla nuova maniera, et piace cosi a loro di farli cosi, vedendo poi che ancho altri lo fanno; et cosi Un cieco guidando l'altro, cascano tutti nel fosso del disordini. quali compositori paiono ben esser di quelli, de quali Don Nicola Vicentino predetto volse forse dire, che non sapevano di che genere era la Musica, che essi istessi componevano. ma che non per questo, niun musico compositore sagesse di che genere fusse la sua compositione.
(I-Rv R 56B, fol. 27v-28r)

The line in the first version "for teaching Minerva and correcting the Pater noster" which was altered in the second to read "they will deprive the other composers of fame" is perhaps an indication of the degree of anxiety some musicians of the time felt concerning the increasing use of chromaticism, that they feared that ancient traditions would be rejected, even the oldest chant melodies. The second version seems, in general, to take out some of the most blatant imprecations, modifying them to something more acceptable in a scholarly treatise.

At this point, Danckerts made major alterations in this chapter between the first and second versions, perhaps the most substantial ones of the entire treatise; in comparison the third varies only slightly from the second. As the alterations between the first and second add no significant information to the focus of this investigation, they will not be discussed further. Only the beginning and the conclusion of the later versions use material from the first version: the entire discussion concerning the defacement of modal structure through the addition of accidentals, in particular sharps, is only found in the later version. It begins as follows:

Those [composers] too rashly almost always want to use these raisings and lowerings of the notes outside of their proper and natural intonations in their compositions (as I have said), binding themselves with certain vain obligations and laws of their own of not wanting to go to a perfect consonance, except via the nearest imperfect one, which can be tolerated when it is used but rarely and with accidentals [*accidentalmente*]; and this would not happen happen without changing the species of the *diatessaron* and *diapente* of a mode to that of another and ruining the good orders given for them. But observing this law normally for

Costoro troppo inconsideratamente vogliono quasi sempre usare questi alzamenti et abbassamenti delle note, fuora delle loro proprie e naturali intonationi nelle compositioni loro (come ho detto) legandosi con certe vane obligationi e leggi loro, di non volere andare alla consonantia perfetta, se non escetto che con la imperfetta piu propinqua, il che si potrebbe supportare quando l'usassero di rado et accidentalmente; et non venisserò questo, à mutare le spetie delli diatessaron et diapente del un tono con quello del altro et guastare li ordini buoni sopra ciò dati; Ma osservando questa legge ordinariamente per tutto, et in ogni

everything, and in every location always as the said new composers do, would be of very great detriment to the aforesaid authentic and plagal tones: those composers by doing the rest, finish by ruining the good orders completely; these composers not only raise and lower the notes of the imperfect consonances by a *semitono maggiore* or *minore* from their proper and natural location, by moving with them (as the closest) to the perfect consonance; but in whatever location they find a minor third or sixth or their *composte* or *decomposte* (calling *composte* those consonances which are composed from their simple interval plus an octave, as for example, the tenth is composed from the third; the thirteenth from the sixth, and likewise for the others; I call *decomposte* those which are created from their simple intervals and a fifteenth, as for example the seventeenth is the *decomposta* of the third [and] tenth and the twentieth is the decomposta of the sixth [and] thirteenth, and likewise with the others) they immediately mark it with the ♮ *duro* or with the ♭ *molle* making them be intoned a *semitono maggiore* higher or lower than their proper and natural location to make them become a major imperfect consonance, even when they are not immediately followed by a perfect consonance, saying that the imperfect major consonances are sweeter than the minor ones, and more pleasing to them. And attending and acceding more to their sense of taste than to reason, they empty the altar of the said authentic and plagal modes in order to cover [it with] that of their taste, against the laws and ancient good and approved rules of the expert ancient and modern musicians up until the present time; almost always banishing, on account of this taste of theirs, the minor thirds and sixths together with their *composte* and *decomposte* from their compositions just they are accustomed to banish the tritones and false fifths from diatonic works without considering that they come from the orders of the aforesaid authentic and plagal modes, and enter into disorder.

luoco sempre, come fanno li detti compositori novelli, verrebbe in troppo pregiuditio delli tuoni autentici et plagali predetti: i quali compositori et per far del resto et finir di guastare li ordini buoni in tutto questi tali compositori non solamente alzano o abbassano le note delle consonantie imperfette per un semiton maggior o minore ch'l sia fuora del lor proprio e natural luoco per andar con essa (come piu propinqua) alla consonantia perfetta: ma in qual si voglia luoco, ove essi truovano una terza o sesta minore ò le composte o decomposte da esse (chiamando composte quelle consonantie che sono composte da le lori semplici et una ottava, come per essempio la decima è composta dalla terza, e la terzadecima dalla sesta et cosi delle altre; Decomposte chiamo quelle consonantie che sono composte da le loro semplici et una quintadecima composte et unaltra ottava, come per essempio la decimasettima é decomposta della terza della decima: e la vigesima della sesta terzadecima, et cosi delle altre) subbito la segnano col ♮ duro, ò, col ♭ molle facendole intonare per un semiton maggiore, piu alto, ò piu basso del suo proprio e natural luoco, per farla diventare consonantia imperfetta maggiore, anchora che non gli seguiti la consonantia perfetta. Dicendo, che le consonantie imperfette maggiori sono piu dolci che le minori et piaceno piu a essi. Et attendendo et consentendo piu al senso del lor gusto, che alla raggione, scoprono l'altare delli detti toni autentici et plagali, per coprire quello del lor gusto, Contra le leggi e Regole antiche, buone et approbate dalli dotti et esperti Musici antichi et moderni sia al presente tempo. Sbandendo per questo lor gusto, da le loro compositioni quasi sempre, le terze e seste minori, con le lor composte e decomposte, come si sogliono sbandire dalli canti diatonici, li tritoni: e quinte false, senza considerare che escono delli ordini de li tuoni autentici et plagali predetti, et entrano nelli disordini.
(I-Rv R 56B, fol. 28r)

With these words, Danckerts claims that the new composers desire to raise all minor thirds and sixths, when followed by a perfect interval, from their proper place to major thirds and sixths, i.e. from the nearest imperfect interval to a perfect one. According to him, however, this should only be done rarely and *accidentalmente* (i.e. with

accidentals), with which I suspect he means with musica ficta at cadences. He protests, however, that the new composers do it wherever they find a minor third or sixth or their octaves, regardless of whether they are immediately followed by a perfect consonance or not, as they believe major consonances to be sweeter than the minor ones, just as in diatonic works they are accustomed to avoid tritones and false fifths without considering that they may be destroying the modal order.

Two aspects of the use of the terms *composte* and *decomposte* are of interest here. First of all, there was quite a startling change in definition of the word *composte* from meaning the joining together of a simple interval and a seventh of the first version – albeit crossed out there – to its being a simple interval and an octave in the second and third. In the first version, namely, Danckerts writes:

Calling *composte* those consonances which are created from their simple [intervals] plus a seventh, as one says, for example, that the tenth is the *composta* of its simple [interval] and the third by means of the addition of the seventh, because adding a seventh to the third creates the tenth, and likewise for the others. And I call *decomposte* those consonances which are created from their simple form with their *composte* and a seventh, as for example, the twentieth is the *decomposte* of the sixth, and *composta* of the thirteenth and joining a seventh to the *composta*, the twentieth is created.

Chiamando composte quelle consonantie che sono create dalle lor semplici et una settima, come si dicia per essempio che la decima è la composta della sua semplice qual è la terza mediante l'aggiontinone della settima, perche aggiungendo una settima alla terza, crea la decima, et cosi delle altre. Et decomposte chiamo quelle consonantie che sono create dalle lor semplici con lor composte et una settima, come saria per essempio che la vigesima e la decomposte della sexta, et composta della tertia deciam, et aggiungendo alla composta una settima si crea la vigesima. (I-Rv R 56A, fol. 568r-v)

The first version describes the compound as being the product of two disjunct intervals, the later ones as being that of two conjunct intervals. The first is not a way that any musician I know would conceive of a tenth, as it seems so obvious that the congruency between the third and the tenth lies in the octave equivalence inherent to the system. But perhaps this point of view is the result of living in a world where octave equivalence prevails, as opposed to one in which the hexachord dominated, particularly if one takes into account that a vocal jump of a tenth was almost inconceivable at that time. Be that as it may, sometime after writing the first version, Danckerts must have realised that these were not the conventional definitions for these words. Secondly, it should be noted that these terms are being used in a different sense than those of the intervallic structure of the genera discussed above. Boethius writes, for example, that "consonant pitches are those that give a composite, intermingled, but nevertheless pleasant, sound – for example, the diapente and the diatessaron" ("Consonae autem sunt, quae compositum permixtumque, suavem tamen, efficiunt sonum, ut diapente ac diatessaron." Boethius, Book 5, chapter 11, 361; Bower, *Boethius*, 171), using these words just as Danckerts did, as well as demonstrating that *composte* already had more than one meaning at that time.

For Danckerts, this increased use of major consonances called the modes into question:

With this raising and lowering of notes from their natural and normal intonations, they come to ruin natural beauty with their ugly artifice. And it is not without their own great blame, that in stripping themselves of their own liberty (esteemed by the whole world more than gold and gems) with this rule of theirs, they clothe themselves with the obligation of slavery, so hated by all. Also these new composers, with their persuasions scorning and censuring all the learned works, composed by the most excellent and expert [I-Rv R 56A, fol. 568v: perfect] musicians (by [whom] they have been illumined, and without whose examples, they would not have known how to form a consonance) such as Josquin Desprez, Jean Mouton, Antonio Divitis, Mathurin Forestier, [Antoine] Brumel, [Jean] Richafort, [Mathieu] Gascogne, Ant[onio] Fevin, [Elzéar] Carpentras, Constanzo Festa, Consilium, Andrea de Silva, Cristóbal Morales, Adrian Willaert, Jaquet [of Mantua], and many other most excellent, learned and expert musician-composers, both alive and dead (whose names I leave out here for brevity, and not to diminish their fame) who have not wished to use the raisings and lowerings of the aforesaid intonations, nor to observe their ill-considered law or rule in their compositions, maintaining [crossed out in I-Rv R 56A, fol. 568v: the errors, and the many inconveniences which result from them, with their never wanting to work with the minor thirds and sixths and their *composte* and *decomposte*, or so rarely that it seems accidental and unusual should they be placed in their proper locations. In a manner such] that all of the pieces composed in this manner were of the first, second, third or fourth mode (leaving their proper way of proceeding, and their natural seat and defined final) indicating they wanted to be of the fifth, sixth, seventh or eighth modes. These fifth, sixth, seventh or eighth modes also have enough orders, so that they agree with one another. In fact they [the orders] also are corrupted and so ruined with the unwonted signs of ♮ duro and ♭ molle mixed into their progression, without any order whatsoever, one with the other (these signs having such contrary and discordant properties from one another that they seem to be friends, as wolves among

Col il qual alzare ò abbazzare le note, delle lor naturali et ordinarie intonationi vengono a guastare il bello Naturale, con il brutto lor artifitiale, et non senza gran biasimo loro. che spogliandosi della lor propria libertà (stimata, da tutt[o il] mondo piu che'l oro e le gemme) con questa lor regola si vestino c[on la] obligatione della servitu, da ogniuno tanto odiata. Desprezzando e biasimando ancho essi compositori novelli, con queste loro persuasioni, tutte [le] dotte opere, composte da li Eccellentissimi et Expertissimi [I-Rv R 56A, fol. 568v: perfettissimi] Musici (da [i quali] essi hanno havuta luce: et senza gli cui essempii, essi non havrebbono saputo formare una consonantia) come sono Josquin desprez: Giovan mouton: Antonio Divitis: Mathurin forestier: Brumel: Richafort: Guascogne: Ant: Fevin: Carpentras: Constantio festa: Consilium: Andrea de silva: Christofero Morales: Adrian Willart: Jaquet: et molti altri eccellentissimi Dottissimi et Espertissimi Musici Compositori, tanto vivi, quanto morti (i cui nomi si lasciano qui per brevità, et non per sminuire la lor fama) i quali non hanno voluto usare li alzamenti et abbassamenti delli intonationi predette; ne meno osservare la loro malconsiderata legge ò regola, nelle lor compositioni, considerando [crossed out in I-Rv R 56A fol. 568v: gli errori, et i molti inconvenimenti, che di cio ne risultano col lor non voler mai operare la terza ò sesta minori con loro composte et decomposte, o tanto raro che pare che accidentalmente et non ordinariamente, siano poste ne suo luoghi proprij. De modo] che tutti i canti composti di questa maniera che sarebbon del Primo: ò secondo: ò Terzo: ò quarto Tuono (lasciando il lor proprio procedere, et la lor natural sede e determinata fine) accennano di voler esser del quinto: ò sesto: ò settimo: ò ottavo tuoni. i quali quinto: ò sesto: ò settimo: ò ottavo tuoni, ne ancho essi hanno à bastanza, gli ordini, che a ciascun di essi si convengono; Anzi sono ancho essi imbastarditi e guasti di tal sorte, con li segni del ♮ duro e ♭ molle estraordinarij nel loro procedere tramischiati, senza ordine alcuno l'uno con l'altro (essendo essi segni tra loro, de si contraria e discordante proprietà, che paiono amici, come i lupi con le pecore, et

sheep, and where one is, the other may not appear immediately) [marginal note I-Rv R 56A, fol. 375v: because they do not have a species or form which makes them resemble one another.]

Whence this inconvenient and intolerable error stems, for no piece composed in this manner can be found which can be judged to be in the mode [I-Rv R 56Afol. 568v: or form] or order of any authentic or plagal tone, and this is because of the said unwonted raisings and lowerings, with which the ordinary minor third or sixth, as well as their *composte* and *decomposte*, come to be scorned and banished (almost always) from their works (as I have said) which make [one able] to recognise the difference of one tone from another, and by means of which the music reveals itself as joyful and gracious in the learned and varied inventions of the imitations and beautiful passage work and the differentiated orders of the authentic and plagal tones, proceeding through their proper species of the *diatessaron* and *diapente* and *diapason* in their tones, and other artful devices.

ove è l'uno non può comparere immediate l'altro) [marginal note I-Rv R 56A, fol. 375v: che non h'ano spetie o forma ch'a lor stessi assomiglia.]

Onde ne nasce questo inconveniente et insupportabil errore, che non si trova piu canto alcuno, di questa maniera composto: che si possa giudicare: che esser in modo [I-Rv R 56A, fol. 568v: ò forma,] overo ordine di tuono autentico ò plagili alcuno, et questo e per causa de i detti alzamenti et abbassamenti extraordinarij: con che vengono ad esserne scacciate, et sbandite, da essi canti (quasi sempre) la terza e sesta minori ordinarie, con le loro composte et decomposte (come hò detto) le quali fanno conoscere la differentia del un tono al altro, et per le quali si rendi vagha et gioconda la Musica, nelle dotte e variate inventioni delle fugghe, et nelle belle Tirate di gorgha: et nelli differentiati ordini delli Toni Autentici e plagali, procendendo per le proprie spetie delli diatessaron et diapente et diapason d'essi toni et altre artificiose imprese.
(I-Rv R 56B, fol. 27r-v)

This is more or less just a long diatribe against the use of these arguably unwarranted sharps and flats which, in Danckerts' opinion, seemed to (and at times of course did) alter the modal structure, thereby ignoring the traditional orders or intervallic structure of the modes, so that their identity was no longer entirely clear. Once again, he stressed how this was done in opposition to all the works by earlier masters at whose knees the new composers themselves had learned. He particularly emphasised how with this, minor thirds and sixths had almost been banned – once again in his perception – from their works, which in itself was seen as a difficulty, as it lessened the variety and differentiation allowed by the distinctions between the various authentic and plagal modes.

This was in part linked to the close connection between solmization and the modes, as the modes were defined as starting on specific syllables. Given that in solmization all flatted notes were sung with *fa*, and all sharps with the same syllables they would have been sung with without the accidental,[40] the traditional associations between solmization syllables and specific modes no longer pertained, thus blurring modal structures and making the music more difficult to sing, as the accidental notes had no place in the Guidonian hand. Danckerts laments this ambiguity in the following section:

In compositions with similar rules one also does not find the first, nor the second, nor the third, nor the fourth mode because

Non si trova ancho in simili obligate compositioni, Ne primo: ne secondo: ne terzo: ne quarto tono, per cause che tutti le

[40] See Anne Smith, *The Performance of 16th-Century Music: Learning from the Theorists*, New York: Oxford University Press 2011, Chapter 3, especially pp. 35-39, for more information on solmization.

all the *re* syllables – which are the natural location and defined final of the first and second mode – have been transformed into the syllable *ut*, which is the natural location and defined final of the above-mentioned seventh and eighth mode; and thus similarly with the *mi* syllables, which are the natural location and defined final of the third and fourth modes into the syllable of *fa*, which is the natural location and defined final of the fifth and sixth mode, or the syllable *ut*, ~~as was said above~~ on account of the major thirds and sixths with their *composte* and *decomposte*, as has been said above.

Nor are they legitimate in the fifth with the sixth, or in the seventh with the eighth, even when they finish in their concluding finals, for they have been too bastardised by the species of the *diapente* and *diatessaron* of the other modes in this manner of composition as has been said; with the result that every order is transformed into disorder with these excessive unwonted raisings and lowerings. And there is no form whatsoever in good order, everything is heading to ruin and perdition.

sillabe Re: quali sono natural sede, et determinata fine del primo e secondo tono, sono trasformati in la sillaba Ut: la quale è natural sede e determinata fine del settimo et ottavo toni sudetti. Et cosi similimente le sillabe Mi: quali sono natural sede et determinata fine del terzo et quarto toni in sillaba fa qual è natural sede e determinata fine del quinto e sesto toni: overo in la sillaba Ut, ~~come di sopra è stato detto~~ per forza delle terze e seste maggiori con lor composte e decomposte, come di sopra é stato detto.

Ne ancho il quinto col sesto: ne il settimo con l'ottavo sono legittimi, anchora che finiscono in li loro termini finali: per esser essi troppo imbastarditi da le spetie delli diapenti et diatessaron delli altri tuoni in questa maniera de compositioni come è detto. Di sorte, che ogni ordine si trasmuta in disordine con questi troppo alzamenti et abbassamenti extraordinarij. Et non ci essendo forma alcuna di ordine buono: ogni cosa va in Rovina et in perditione.
(I-Rv R 56B, fol. 27v)

For Danckerts then, chromaticism was dangerous because it upended the structure of music; perhaps he even perceived it as having the potential for destroying the ritual music of the Catholic church as he knew it. It must be acknowledged here, however, that chromaticism did over time make hexachordal solmization obsolete as a sight-reading tool, thereby undermining the Guidonian hand, but it took more than a century to do so.

Due to the fact that Adrian Willaert's use of chromaticism was an important influence on these new composers, Danckerts then felt it necessary to make a distinction between this master – of whom Vicentino claimed to be his sole student[41] – and the ones he was condemning, writing:

The beauty is what these new musician-composers say, without any reflection whatsoever, who compose in this way so as to imitate the manner of M. Adrian Willaert, called new by them (although it is very old, and is repudiated by the learned and expert composers because of the disorders and errors discussed above). Wishing to hide their crass ignorance and persuasion under the shield of the profound and ~~highly expert~~

Il bello è che questi musici compositori novelli, dicono, senza consideratione alcuna: che compongono di questa sorte: per imitare la maniera di m. Adriano Willart, da loro chiamata nuova (benche vecchissima, et dalli Dotti et esperti Compositori, per causa delli sudetti considerati disordini et errori repudiata sia) Volendo essi cuoprire la crassa ignorantia et persuasion loro, sotto il scudo della profonda et ~~espertissima~~

[41] On the title page his first book of madrigals, Vicentino wrote that it was by "the sole student of Adriano Willaert": *Del unico Adrian Willaerth discipulo don Nicola Vicentino*. *Madrigali a cinque voci per theorica et pratica da lui composti al nuovo modo dal celeberrimo suo maestro ritrovato*, Libro Primo, Venice: [Scotto] 1546.

knowledge of the said M. Adrian [Willaert], whose works in *canto figurato* [include] among others, the *Messa dimente tota*, the *Pater noster*, *Enixa est puerpera*, *O salutaris hosta*, *Beata viscera*, *Petite camusette*, *Faulte dargent*, *Sonnez mi don*, and innumerable other musical works in a similar style composed by him in different idioms, with a marvellous observation of the orders of the above-mentioned modes (which we will leave out here for brevity's sake) which are worthy of highest praise, as they have also been approved, praised and held for good and excellent by many excellent, learned and praised musicians, because of the highest beauty of their air, and elegance of their harmonious variation, full of learned and excellent inventions in canons, and various imitations and other most artful, joyful, suave, highly melodious devices, and with masterful gravity most delightful to the ears of the listeners.

scientia del detto M: Adriano, le cui opere di canto figurato, et fra le altre, la Messa di Mente tota: Il pater noster: Enixaest puerpera: o salutaris hostia: Beata viscera: Petite camusette: faulte d'argent: Sonnez mi don: Et infinite altre opere Musicali della simil maniera da lui in diversi idiomi, con mirabil osservatione delli ordini de i tuoni sopradetti composte (le quali se lasciano qui per brevità) sono degne di somma lode, si come ancho da molti eccellenti, Dotti, Esperti, et lodati Musici sono state approbate: lodate, et tenute, per buone et eccellenti: per la somma bellezza d'aria, et vaghezza di harmoniosa variatione, piene di dotte et eccellenti inventioni di canoni et variate fugghe et altre artificiosissime imprese, allegrissime: soavissime: melodiosissime, et con maestrevole gravità delettevolissime a le orecchie delli Audienti. (I-Rv R 56B, fol. 27v-28r)

He thereby reclaimed the music of this master for the Catholic church, continuing on to describe the depravities of modern compositions using those of Willaert as a point of departure:

And they [Willaert's works] are not like the pieces in the said new style composed by these new composers ~~of ours~~, sad, lugubrious, desperate and without any air whatsoever. These seem in every passage – whether in the beginning, the middle, or the end, or before or after the middle, or for the entire piece – always to be the same thing, with the same progression of consonances, without any variation, and without assigning the designated final appropriate to its modes, authentic or plagal, as is proper for a good composition of music. Whereby they seem to be particularly similar to the noise, or the humming made by bees when driven from their hives, and having abandoned their own proper and natural nest, they go erring about in a multitude without order into perdition, not knowing where they are going.

And in addition to these disorders and errors, the said new composers also progress idiotically with intervals of the most uncomfortable leaps when singing the *voci* of their pieces, without passagework, ~~or any beautiful runs *di gorgha*~~ or any beautiful runs in semiminims and cromes; always plowing on in one manner, in the style of

Et non sono come le concenti delle detta nova maniera composti da questi compositori ~~nostri~~ novelli, Meste: lugubri: sconsolate: e senza aria alcuna: le quali paiono in ogni passo, tanto nel principi, nel mezzo, et nella fine: quanto innanzi et doppo il mezzo, e per tutto'l canto, sempre una medesima cosa, et un medesimo procedere di consonantie, senza variatione alcuna: et senza assegnare la determinata fine, conveniente a suoi tuoni autentici ò plagali, come s'appartiene a una bona compositione; Onde paiono propriamente simili al rumore, overo al bombilare che fanno le api: quando scacciare da i lor cupponi, et havendo smarrite lor proprio e natural nido, vanno errando in frotta senza ordine in perditione non sapendo dove vadano.

Et oltra questi disordini et errori: i detti compositori novelli procedeno ancho goffissimamente per intervalli de salti incommodissimi, nel cantare delle voci de i lor canti, senza passaggio, ~~o tirata di gorgha bella alcuna~~ d'alcuna tirata bella di semiminime o crome. Zappando sempre d'una maniera, a guisa di nota contra nota,

note against note, as songs of lamentation or of death are wont to be [I-Rv R 56A, fol 376r: not making any distinction between the music of madrigals from the music of motets or masses or vespers or hymns or other similar [genres]].

This manner [of composition] is little esteemed and accepted by the Roman school of music, and is very much less appreciated and praised (but rather greatly censured) by all of the excellent and expert musician-composers and singers, both in the said papal chapel, as well as in other chapels, which are not only in Italy, but in France, Spain, Germany, Flanders, Hungary, Bohemia, and throughout all the rest of Christianity. These recognise the aforesaid inconvenient and unreflected disorders and errors incurred by these new composers, ruining with their vain ~~rules and~~ persuasions that which is most beautiful in music, which is the variation, in the above-mentioned authentic and plagal modes, as well as in the learned and varied inventions of the other devices mentioned above, variation being that which makes created things seem beautiful, according to that common and consummate ancient proverb which says, BECAUSE OF THIS VARIATION, NATURE IS BEAUTIFUL.

come sogliono essere i canti delle lamentationi: o de Morti: [I-Rv R 56A, fol 376r: non facendo differentia alcuna delle Cantilene de i madrigali, alle Cantilene delli motetti o misse ò vespri o, himni, ò di altre simili:]

La qual maniera è poco grata et accetta alla Schola Musicale Romana: et molto meno apprezzata, e lodata (anzi grandemente biasimata) da tutti li eccellenti et esperti Musici Compositori e cantori: tanto della detta Capella del papa, quanto delle altre capelle che sono non solo per la Italia, ma ancho per la Franza: Hispagna: Fiandra: Germania: Hungaria: Boemia: et per tutto 'l resti della Christianità: quali conoscono i sudetti inconvenienti, et inconsiderati disordini et errori, nelli quali incorreno questi compositori novelli: guastando con queste lor vane~~ obligationi, et~~ persuasioni: il piu bello della Musica, che è la variatione, cosi nelli toni autentici et Plagali predetti: come nelle dotte e variate inventioni delle altre imprese sopradette: essendo la variatione quella che fà parer belle le cose create, secondo quel trito et anticho consumato proverbio qual dice PER TAL VARIAR NATURA E BELLA. [Publius Ovidius Naso, *Le Metamorfosi d'Ovidio* […] Di G. A. dell'Anguillara, Venice: Giorgio Griffio 1561, sig. Hh].
(I-Rv R 56B, fol. 28r-28v)

With this inflamed discourse against modern music, condemning chromaticism for not only robbing music of its order and variety, but also making it difficult to sing, as well as for its predominantly homophonic settings, lacking the beauty of imitation, Danckerts brought this chapter to a close.

Significant here is the role that chromaticism takes in his condemnation of the new style, as it makes the intensity of Danckerts' reaction to Vicentino comprehensible. It is not so much the question of the genera themselves which brought him to the boiling point, but his conviction that Vicentino must be hindered from establishing a connection to Boethius which would allow chromaticism to be accepted in the music current at the time. And for that reason he also warded off this style of music in the name of the Catholic Church, saying that the chapel musicians of all Christianity condemned it.

8.2 Of the errors those make who entitle their songs as being chromatic – Part 3, Chapter 3

In the earliest version of the treatise, this chapter was obviously worked on twice, first as a separate chapter in I-Rv R 56A, fol. 566v-567r, and thereafter as a continuation of the previous chapter on fol. 569v-570v. In the last version, it once again regained its chapter status. After the first paragraph, its major focus is on how the sanctity of Catholic liturgical music is being called into question by chromaticism. Danckerts begins by discussing the collections of chromatic madrigals which began being published in the 1540s, referring to the black notation, that is a notation which used smaller note values than had previously been employed. This style was perhaps a consequence of the desire to incorporate passage-work in the secular genres which became popular at this time.[42] He opened the chapter by declaring their designation as chromatic to be spurious, as this music could in no way be considered to be representative of chromaticism:

Apart from this, among these new composers are some who add error upon error, wanting to appear more learned and excellent to those ignorant of this science, as well as more prolific than the others. They devote themselves to nothing other than publishing a great ~~quantity~~ number of musical works, full of the above-mentioned disorder and ignorance, designated as chromatic, as is seen with the first book of chromatic madrigals for four voices, printed in Venice by Hieronimo Scotto in 1543 and ~~also~~ the first book of chromatic madrigals for five voices, likewise printed in Venice, but by Antonio Gardane in 1544 [perhaps RISM 1544[28]: Cipriano de Rore, *Il primo libro de madregali cromatici a cinque voci*, Venice: Antonio Gardane: 1544]. And likewise for *Il primo libro di duo cromatici* [*di Agostino Licino cremonese*]*, da cantare et sonare, composti una parte sopra laltra con la sua risolutione da parte stampate*, Venice: 1545, Antonio Gardane [RISM A/1: L 2342], and for the *Il secondo libro di duo cromatici* by the same author [*di Agostino Licino cremonese, da cantare et sonare*]*, composti una parte sopra laltra*, in Venice: Hieronimo Scotto, 1549 [RISM A/1: L2344 refers to an extant earlier edition printed by Gardane in 1546]; and others, left out here for brevity's sake. I have seen these books and studied them ~~all~~ diligently, part by part. And not only did I not find an entire progression of the

Oltra ciò, tra questi Compositori novelli sono alcuni, i quali aggiungendo errore sopra errore, et volendo parere appresso si ignoranti di questa scientia piu dotti et eccellenti et ancho piu copiosi de gli altri: non studiano in altro che in dar' alla stampa gran ~~quantita~~ numero di opere Musicali, piene delli disordini et ignorantie predette; Intitolandole per Chromatice, come pare per il libro primo de i Madrigali Chromatici a quattro voci: stampato in Venetia da Hieronimo Scotto nel 1543. Et ~~ancho~~ per il libro primo de Madrigali Chromatici a cinque voci, stampato similmente in Venetia: ma dà Antonio Gardane nel 1544. et cosi per il primo Libro di duo cromatici, da cantar et sonare, composti una parte sopra laltera con la sua risolutione da parte stampate, venetiis apud Antonio gardane 1545 composti una parte et per il 2° libro di duo cromatici dal medesimo autor, composti una parte sopra laltera stampato Venetiis apud Hieron: Scotto 1549. et altre, lasciati qui, per abbreviarla. I quali libri ho veduti e considerati diligentemente ~~tutti~~, parte per parte; Et non solamente, non truovo in loco alcuno de i loro canti un progresso intiero di tre intervalli appropriati al Tetrachordo Chromatico: ma non vi truovo ne ancho un solo intervallo [I-Rv R 56B, fol. 376r: o grado] che sia del detto genere Chromatico, senza poter anchora ~~essere (si come è)~~ intervenire per intervallo,

[42] For more information on this genre, see James Haar, "The Note Nere Madrigal", in: *Journal of the American Musicological Society* 17 (1965), 22–41.

three intervals appropriate for the chromatic tetrachord anywhere in their pieces, but I also did not find a single interval [I-Rv R 56A, fol. 376r: or step] there that is from the chromatic genus without it also being able to ~~be (likewise)~~ occur as an interval ~~or step~~ in works of the diatonic genus as was said above in ~~the fourth, fifth, and sixth chapter~~ chapter nine [I-Rv R 56B, fol. 376v: the first, second, and third chapter] of the second part ~~of this small opus~~.

And if perhaps someone were to say that they were designated as chromatic because some note shapes called cromes were found in these [pieces], one would reply ~~to them~~ that this reason is so weak that it is not worth anything, for in these madrigal compositions one sees the other figures (such as ~~of the~~ semibreves, minims, semiminims and also semicromes) than cromes in greater number.

And because I have never seen pieces designated with any of the abovementioned figures, for that reason, they should also not take the designation more from the crome than from the semicrome or semiminim, which semiminims are found in greater number in these madrigals than the cromes; and so also this reason is of no ~~is insufficient~~ help to them in any way.

In a manner such that – if all these excellent and copious new composers are among those who do not know in which genus the music is which they themselves compose [and] know even less in which genus that of the other composers is – they then persuade themselves that theirs is chromatic (entitling it chromatic), and it is found to be of the diatonic genus, although it may be ruined and maimed in its authentic and plagal modes, ~~with those raisings and lowerings of intonations which they use for the *semitoni maggiori* and *minori* outside of their proper locations,~~ ["and minori" is in neither the I-Rv R 56A, fol. 566r nor fol. 570r version] those tones or authentic and plagal modes which had been ordered and observed ["and observed" is neither in the I-Rv R 56A, fol. 566r nor fol. 570r version] by our greatest antique predecessors ["predecessors" neither in the I-Rv R 56A, fol. 566r nor the fol. 570r version] with the greatest of skill and with marvellous order.

~~ò grado~~, nelli canti del genere Diatonico come è stato detto di sopra nel ~~quarto: quinto: et sesto capitolo~~ capitulo nono [I-Rv R 56B, fol 376v: primo: secondo: et terzo capitolo] della seconda parte ~~di questa operetta.~~

Et se forse alcuno dirà, che per ciò, li sudetti canti sono intitolati per chromatici: perche in essi intervengono alcune figure di note chiamate chrome, ~~A che~~ se li responde, che questa raggione è tanto magra, che non vale à cosa alcuna; poi che in essi canti di madrigali si veggono in maggior numero, le altre figure (come sono ~~delle~~ semibrevi: minime: semiminime: et ancho semicrome) che chrome.

Et perche mai non hò visto Canti intiolati da niuna dello sopradette figure, per questo ne ancho dovrian pigliare il titolo piu dalla chroma, che da la semicroma, ò, semiminima, delle qual semiminime in essi madrigali se ne truovano [in] maggior numero che delle chrome: et cosi ne ancho questa ragione non ~~lor suffraga~~ li giova a cosa alcuna.

Di maniera se questi tali eccellenti et copiosi compositori novelli sono de quelli, che non sanno di che genere sia la Musica che essi istessi compongono: meno sapranno di che genere sia quella de gli altri compositori, poi che si persuadeno, che la loro sia del genere Chromatica, (intitolandola per Chromatica) et la si truova essere del genere diatonico, anchora che guasta et stroppiata sia nelli suoi tuoni autentici et plagali ~~con questi alzamenti et abbassamenti delle intonationi che usano per li semitonij maggiori, et minori fuora delli lor debiti luoghi~~, ["et minori" is in neither the I-Rv R 56A, fol. 566r nor fol. 570r version] i quali toni ò modi autentici et plagali sono stati da i nostri maggiori et antecessori ["antecessori" neither in the I-Rv R 56A, fol. 566r nor the fol. 570r version] con grandissima arte, et ~~con~~ maraviglioso ordine ordinati et osservati ["et osservati" is neither in the I-Rv R 56A, fol. 566r nor fol. 570r version].
(I-Rv R 56B, fol. 28v-29r)

It is interesting here to see on how many levels he condemns the use of this terminology, ranging from the purely notational aspect to the fact that it does not show any use of the chromatic genus, at least as Danckerts defined it. In doing so, he is attempting to turn Vicentino's own arguments against him, suggesting that it is the new composers who make use of chromaticism that do not know in which genus they compose, claiming they are composing in the chromatic whereas they are merely ruining the diatonic with their use of accidentals, adding that they would do better to imitate the art of their great predecessors.

Noteworthy also are two of the changes made by Danckerts between the various versions of this section:

- The degree of reworking of this treatise is revealed by the changes in his cross-references to other chapters in the second part. In the earliest versions it was to chapters one, two and three; when first writing the last version he referred to chapters four, five and six, which were then corrected to chapter 9. This expansion is also perhaps why he decided to delete 'in this small opus'.

- It is curious that he omitted the minor semitones among the notes placed in inappropriate places in the earliest versions. It makes one wonder, given his claim that the major semitones were eliminating the minor, whether he was not even considering the possibility of the latter being placed in an incorrect location.

It is in the following passage, however, that he gives vent to the full extent of his anger and rage towards those who make use of chromaticism, in whatever fashion. Although he began speaking of how the use of chromaticism was censured by church musicians on I-Rv R 56B, fol. 28v, he now condemns it as the equivalent of heresy:

Whence this age of ours can greatly bewail these ~~new~~ composers, and call them heretics and destroyers of this divine science of music (in the manner of the heretics and destroyers of the holy Christian faith who, to appear as great and learned men to common ignorant and stupid people, go about taking up the articles again, condemned and damned by many holy scholars and sacrosanct councils) because they also, with their ignorance and vain persuasions of knowing much, go searching to take up and reawaken the two genera, chromatic and enharmonic, condemned, dismissed [I-Rv R 56A, fol. 570r: damned] and banished by all learned [I-Rv R 56A, fol. 376v: authors] and experienced musicians. Even though they neither come to understand

Onde questa nostra età, si puo ben grandimente dolere de questi tali compositori ~~novelli,~~ et chiamare loro heretici e guastatori di questa divina scientia della Musica (a guisa delli heretici e guastatori della santa fede Christiana, i quali per parere grandi e dotti huomini apresso il vulgo ignorante et idiota, vanno ripigliando li Articoli: da tanti Santi Dottori e sacrosanti consilij reprobati e dannati) poi che anchor, essi con le loro ignorantie et vane persuasioni di sapere molto vanno cercando di ripigliare e risvegliare quei due generi Chromatico et Enharmonico da tutti gli [I-Rv R 56A, fol. 376v: Authori] dotti et esperimentati Musici reprobati desmessi [I-Rv R 56A, fol. 570r: dannati] e lasciati; Anchora che non arrivino al intenderli, non che al

them, nor to adopt them, as has been said above, but thinking to mix the diatonic pieces with the chromatic and enharmonic, they do nothing other than shift the *semitoni* from their proper locations to improper locations, but always within the diatonic context with which they then become destroyers and maimers of the said authentic and plagal modes of the diatonic genus and become transgressors of the good laws and orders of music.

adopterarli: come di sopra è detto; Ma pensando essi di mescolare i canti diatonici con li chromatici o enharmonici, non fanno altro che trasporre i semitoni da i luochi proprij, a luochi improprij, ma sempre nel campo diatonico; con che vengono ad esser guastatori, e stroppiatori delli detti Toni autentici e plagali del genere Diatonico et esser trangressori delle buone leggi et ordini Musicali.
(I-Rv R 56B, fol. 29r)

Thus Danckerts compares the modern composers to heretics, who pretend to possess great knowledge and instead merely sow dissent and destruction among the ranks of the faithful [musicians]. By claiming to mix the chromatic and enharmonic with the diatonic, they – although Vicentino was certainly his main target – in reality shift the semitones away from their proper places in the modes, thereby transgressing against the laws of music, and breaking with ancient theory and the Christian faith. This is the central hypothesis of Danckerts' treatise and explains the ferocity of his argumentation. As long as he, along with Gaffurius and Burtius and many others before him, could ignore the fact that one now sang the Guidonian semitone as a major semitone, rather than a minor one, the purity of the tonal system as conceived by Boethius and Guido could still be maintained. This enabled the Christian singer to continue to maintain that certain notes were unsingable, simply because they did not belong to the system. Thus for Danckerts, chromatic notes, whether in a genus, or simply added for expression, were an anathema because he perceived them as an insult and challenge to the Christian liturgy. Notes of the enharmonic genus were unimportant to him, as they were so infrequently used that he did not feel the need to combat them seriously.

After having just warned composers of the moral dangers associated with chromaticism, Danckerts then goes on to call upon composers to remain true to the Catholic tradition, to use the modes as they have been passed down over the centuries:

For that reason I exhort ~~and admonish~~ every composer to observe the orders of the above-mentioned tones with their ordered modes in their composition, banishing these raisings and lowerings of unwonted intonations mentioned above, in order not to mutate the species of the *diapenti*, *diatessaron* and *diapason* arranged in those authentic and plagal modes ~~with which they come to ruin the above-mentioned modes~~; and to follow the good laws and orders, used, preserved and approved by the excellent scholars and experienced musician-composers, both ancient and modern up to our own times. And having been made, they were used by them, both the imperfect minor consonances, as well as the major ones, in the

Per la qual cosa io essorto ~~et ammonisco~~ ciascun compositore, che osservi li ordini delli toni sopradetti con i loro ordinati modi nel suo comporre. Lasciando questi alzamenti et abbassamenti delle intonationi estraordinarij predetti, per non mutare le spetie delle diapenti e diatessaron e diapason ordinati à ciascun di essi tuoni Autentici et plagali ~~con che vengono a guastare i tuoni predetti~~, et seguiti le leggi et ordini buoni, usati, continuati: et approbati da tutti li eccellenti dotti et esperti Musici compositori tanto antichi, quanto moderni: infino a i tempi nostri. Et ciò facendo, saranno usate da loro, cosi le consonantie imperfette minori, come le maggiori, nelli luochi et tempi debiti et opportuni, dove et

appropriate and opportune places and times where and when there was need. Those imperfect minor consonances [I-Rv R 56A, fol. 570r: ~~in order to give grace and smoothness to their compositions together with the other above-mentioned good conditions~~] are not to be so completely shunned, banished and repudiated as these new composers shun them, although to them the imperfect major consonances appear sweeter than the minor ones; further, also dissonances are allowed and tolerated for use in concordances (just as much by them as by the other ancient and modern authors on music), to give a good air to their music, as well as for other effects which are not discussed here to keep the matter short; and in addition, one would not recognise sweetness if there were not also bitterness, nor the good without the bad, nor concord without discord, etc., so everyone should attend to and observe the ancient laws and rules, ordered with so much thought and consideration, used, preserved, continued and approved by all the learned and excellent and expert musician-composers, ancient and modern, as was said above.

quando sarà di bisogno; Le quali consonantie imperfette minori, [I-Rv R 56A, fol. 570r: ~~per dar gratia et soavità con le altre buone conditioni sopradette alle sue compositioni~~] non sono in tutto da esser cosi schifate, sbandite, et ripudiate, come le schifano questi compositori novelli, anchora che a lor paresserò piu dolci le consonantie imperfette maggiori, che le minori, poi che ancho le dissonantie sono state permesse et tollerate di usare nelli concenti (cosi da loro come da li altri authori Musici Antichi e moderni) per dare buon' aria alli canti, et per altri effetti i quali non se esprimeno qui, per abbreviare la materia, et ancho non si conoscerebbe il dolce se non ce fosse l'amaro, ne il buono senza il cativo, ne la concordia senza la discordia etc. si che ciascun attenda ad osservare le leggi et regole antiche, con tante ragioni et considerationi ordinate, usate, continuate et approbate da tutti li dotti et excellenti et esperti Musici compositori, Antichi et moderni come di sopra è stato detto.
(I-Rv R 56B, fol. 29r)

Danckerts, after warning about the dangers of chromaticism, then turned here to adjuring composers to adhere to the old rules and safeguard the minor consonances, making sure that they would not go lost, so that they would continue to contribute to the upholding of the modes. He further conceded that dissonant notes, whose limits were also being tested at that time, were allowed, as both ancient and modern composers needed them, but that they should only be used in accordance with the taste and expertise of excellent musicians, such as those of the papal chapel.

As a skilled debater, he then goes on to admit that on some rare occasions flats or sharps are needed to soften hard or improper intervals, but that they should be employed in such a way that it does not disrupt the modal order of the composition:

And if some composer wishes sometimes to raise or lower some note by a *semitono maggiore* or *minore* more than its usual [size] with the signs of ♮ *duro*, or of ♭ *molle* in order to sweeten some hard or less than proper [*giusta*] consonance, or to avoid some step or interval of a tritone or not proper [*giusta*] *diapente* [I-Rv R 56A, fol. 376v: imperfect or augmented] (which steps or intervals are usually ~~eschewed~~ smothered and abhorred in the diatonic genus), at least do it so rarely and in such a way, that it seems accidental [*accidentalmente*, i.e. most likely with (ficta) accidentals] and that

E se pur qualche compositore volesse tal volta, alzare ò abbassare qualche nota, per un semiton maggiore o minore, piu del suo ordinario con li detti segni del ♮ duro, ò del ♭ molle, per indolcire qualche consonantia dura, o meno che giusta, overo per evitare qualche grado o intervallo del Tritono o della Diapente non giusta [I-Rv R 56A, fol. 376v: imperfetto o sopra abondante] (quali gradi o intervalli nel genere diatonico sono soliti d'esser ~~fuggiti~~ soffati et abhorriti) faccialò al meno tanto di rado, et di tal modo, che para accidentalmente et che sia stato

it was necessary to do it in order to create the said effect, and not in the ordinary fashion through following his own opinion and ruining the orders of the said authentic or plagal modes; and to do every thing with their aforementioned good orders, so that it does not fall into the aforesaid inconveniences and errors. And for his efforts he will not receive insult instead of praise as has happened to these new composers because of their new style, full of unconsidered disorders and errors.

Those composers, holding too much of themselves and persuading themselves that they wish to correct and improve with their new laws and rules that which they do not understand, ~~denigrate~~ darken the good reputation of their science with their perfidious and erroneous persuasion.

necessitato a farlo, per fare il detto effetto, et non ordinariamente per voler seguitare l'oppinione sua, et guastare i ordini delli detti Toni autentici et plagali: et faria ogni cosa con li ordini ~~suoi~~ buoni predetti: acciò non caschi nelli sopradetti inconvenienti et errori; et delle sue fatighe non riceva biasimo in vece di lode, come è avenuto a questi compositori novelli, per la loro nova maniera, piena di inconsiderati disordini et errori.

Quali compositori, presumendosi troppo di lor medesimi: et persuadendosi di voler corregere et migliorare con le loro nuove leggi e Regole, quello che non intendono: ~~denigrano~~ oscurano la buona fama della lor scientia, con la loro perfidiosa et erronea persuasione.
(I-Rv R 56B, fol 29r-v)

Danckerts thus concludes this chapter by claiming that composers who stay within the modal structures of the Church will receive praise instead of censure, and will help to uphold the true musical science, as taught by Boethius and Guido.

The extent of Danckerts' disdain for the increased use of chromaticism is illustrated with these two chapters, demonstrating that he sees it as a danger that could undermine the sanctity of the church, as it called the very structures of its music into question. His questioning of Vicentino's work thus goes far beyond the musical plane and into the world of morality.

9. Conclusions

Although the extremes that he went to in his discussion of Vicentino's work may be difficult to digest today, Danckerts is actually just following in the footsteps of his predecessors. As mentioned above, this discourse began in the 15th century with Ramos' division of the whole tone into a minor and major semitone, while Hothby still retained the distinctions of the natural, soft, and hard semitones associated with their respective hexachords. Gilbert Reaney writes:

> For this he earns the scorn of Ramos, who, in a famous passage, calls him a follower of Marchettus, whose division of the tone into five parts was not generally accepted by other theorists. Ramos goes so far as to anticipate Kruschev by 500 years, saying he wishes to bury Hothby's head so that his body, which is made up of nothing but errors, becomes a corpse and can live no longer.[43]

Reaney points out that two factions were formed, with Ramos and Spataro on the side endeavouring to align the musical theory with the musical practice in connection with the interval sizes and tuning systems for instruments; and Hothby, Bonadies, Burtius and Gaffurius on that of trying to maintain the status quo of the musical theory so that it matched with the practices of choir singers in regard to solmization and liturgical music. In this connection we can see that Burtius, whom Danckerts quoted as an esteemed theorist, certainly did not hold back in his criticism of Ramos:

> First, dearest friends, let us learn thoroughly what must be studied in musical discipline based on the diatonic genus, not what belongs to antiquity or is learned from ignorant and unskilled singers, but only what is approved by the church […] the folly and insolence of this Spaniard moves and provokes me to indignation. He has tried to cast a shadow on the very clear teaching of this most distinguished man among all talented men. Let him be silent and mute for he is deserving of hellebore.[44]

> Primo si quidem amantissimi ad musices disciplinam condiscendam: que genere dyatonico fundata: non quicquid antiquitatis est: aut fatui rudesque inuenere magistri adiscendum est: sed tantum ecclesia probatum […] ad billem prouocat illius hispani fatuitas: et insolentia: qui totis ingenii viribus: clarissimam huius preclarissimi viri doctrinam conatus est adumbrare. ad billem prouocat illius hispani fatuitas: et insolentia: qui totis ingenii viribus: clarissimam huius preclarissimi viri doctrinam conatus est adumbrare. Sileat igitur et obmutescat. Nam helleboro dignus.
> (Burtius, *Musices opusculum*, fol. cijv. Translation Miller, 50)

and later going on to say:

---

[43] Gilbert Reaney, "The Musical Theory of John Hothby", in: *Revue belge de musicologie* 42 (1988), 124-25. "Ego enim caput conterere volo, ut corpus istud in erroribus constitutum cadaver iam fiat nec amplius vivere possit." Bartolomeo Ramos de Pareja, *Musica pratica*, Bologna: Baltasar de Hiriberia 1482, 32.

[44] Frieder Rempp, "Musica theorica und musica pratica", in: *Italienische Musiktheorie im 16. und 17. Jahrhundert: Antikenrezeption und Satzlehre*, ed. by F. Alberto Gallo, Renate Growth et a., Darmstadt: Wissenschaftliche Buchgesellschaft 1989, 44-52: 44.

Venerable fathers and brothers, I am deeply pained by the ostentation and truly absurd arrogance of this very silly little man, who as ordure from Spain, wishes to be placed above these very holy fathers by his teaching, judgment, foresight, and also piety. What madness, what unbearable shame!

Condoleo patres ac fratres venerandi de huius homuntionis insulsissimi ostentatione: et arrogantia omnino deridenda: qui veluti stercus in hispanie finibus: velit his sanctissimis patribus: doctrina: consilio prouidentiaque: nec non et sanctitate preponi. O insaniam: o verecundiam non ferendam.
(Burtius, *Musices opusculum*, fol. cijv. Translation Miller, 50)

Frieder Rempp discusses similar phenomena from a general point of view in his article concerning the change of perspective in regard to music theory at the end of the 15th century, claiming that the contemporary reader of Gaffurius' *Theorica musice* (1487) or Pietro Pontio's *Ragionamento di musica* (1588) would have had less difficulty with this stance than we do today. He described *musica speculativa* as having "limited itself since antiquity to the contemplation of what every kind of music naturally had in common, to the contemplation of that which never changed in music", saying also that it was "ethically motivated".[45]

In this connection, he points out an interesting differentiation of the *musico specolativo* from the *musico pratico* in the eyes of Pontio as follows:

The speculative [musician] is he who only concerns himself with the recognition of the proportions and proportionality and from which proportions the consonances arise, endeavouring to find the truth with various proportions, and to gain insight into *musica humana* and *mondana*.

The practical [musician] is he who endeavours to accommodate the consonances and dissonances together, so that they are judged to be good by persons of judgment, and are sweet to the listeners.

Lo Specolativo è quello, che solamente attende alla cognitione delle proportioni, & proportionalità, & da che proportioni vengano le consonantie, affaticandosi con diverse proportioni per trovare la verità, & haver intelligena della Musica Humana, & Mondana.

Il Pratico è quello, che s'affatica di accomodare le consonantie & dissonantie insieme, sì, che dalle persone di giuditio siano giudicate buone, & à gli ascoltanti rendano dolcezza.
(Pietro Pontio, *Ragionamento di musica*, Parma: Viotto 1588, I, 10)

Thus it seems that in Danckerts' case we have someone who is relying on the long-term ethical values of the universality of Boethius' and Guido's work. As these authorities were perceived as describing music in terms of overarching natural rules, their work could not be questioned, as that would be questioning nature itself, the creation of God. For him, the faith in the sanctity of tradition was more important than whether those rules actually corresponded to the physical reality of the tones being produced. Vicentino, on the other hand, was specifically interested in having the rules match the physical reality, believing that thereby one could better "accommodate the consonances and dissonances together". By doing so, it was possible to achieve

[45] Nicolaus Burtius, *Musices opusculum*, Bologna: Ugo Ruggeri 1487, fol. f.bviijr. Translation: *Nicolaus Burtius, Musices opusculum*, ed. Clement A. Miller, (Studies and Documents 37), American Institute of Musicology: Hänssler-Verlag 1983, 46.

music's goal, which was to "satisfy the ears" ("adunque il fine della мuſica è di ſatisfare à gl'orecchi", Vicentino, *L'antica musica*, IV.40, fol. 93v). Thus, Vicentino's work represents a new way of looking at music – and at the world – a way that came increasingly to be adopted as part of the new scientific approach to nature. That this new approach was regarded with great suspicion has long been documented in the fields of medicine and astronomy, exemplified by the difficulties the Church had in acknowledging the increase of knowledge in human anatomy and the movement of the planets and sun.

Although both Vicentino and Danckerts were involved practically in music, for the latter the theory of the music he sang was inextricably intertwined with his religious faith. The fact that it did not correspond with what his ears heard was not of significance, as it was of little or no consequence in his own daily life: he did not need to apply it in order to produce what he wanted to hear. Vicentino, on the other hand, was an instrumentalist who was confronted with the fact that his practice did not correspond to the theory he had learned – and which was taught throughout the Christian world – every time he tuned a keyboard instrument. He therefore desired to renew the theory in such a way that it could accommodate the current practice. This desire was perceived as heresy on Danckerts' part, just as the theories of Copernicus and Galileo were in the field of astronomy.

What is perhaps fascinating is that both Danckerts and Vicentino were involved with music practically, but had a totally different relationship to the theory and the purpose it served, so that the situation cannot merely be reduced to the difference between theorists and performing musicians. Instead, it must be seen as a question of the role of theory in relation to practice, which indubitably is different in every social context. I know for my part, as a practical performing musician who likes to ask theoretical questions, that the investigation of this debate has led me to open up my ears and my eyes: my ears, because of my increasing understanding of tiny intervals and how they can be used; my eyes, because of learning how theoretical constructs of music can either encourage or impede creative activity. At the same time as my musical world was literally expanded through my awareness of an inordinate number of new intervals, my understanding for the more standard 16th-century repertory has grown. It is as if learning about that which was not considered to be possible, i.e. what was unsingable, has taught me more about the characteristics of what it was possible to sing. This seems to happen frequently with people who investigate Vicentino.

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Appendix 1: Comparison of the contents of the various manuscripts containing Danckerts' *Sopra una differentia musicale sententiata*.

Rome, Biblioteca Casanatense, Ms. 2880, fol. 1r-139r (transcription Giuseppe Baini)		Rome, Biblioteca Vallicelliana, Ms. R 56B, fol. 1r-33v		Rome, Biblioteca Vallicelliana, Ms. R 56A, no. 15, fol. 381r-393r		Rome, Biblioteca Vallicelliana, Ms. R56A, no. 15, fol. 348r-379r		Rome, Biblioteca Vallicelliana, Ms. R 56A, no. 33, fol. 534r-571v	
Folio	Chapter	Folio	Chapter	Folio	Chapter	Folio	Chapter	Folio	Chapter
Prima Parte									
2v	L'autore alli Lettori	2r	L'autore alli Lettori						
4v	Prohemio	4r	PROHEMIO			352v	Prohemio	534r 538r	Prohemio 1. Narrativa Prohemiale
6v	1. Narrativa della Congregatione fatta per guidicare la infrascritta differentia Musicale	5v	1. Narrativa della Congregatione fatta per guidicare la infrascritta Differentia Musicale			354v	1.Della Congregatione per giudicare	538r 543r	5. Della Congregatione Delle Congregatione
7v	2. Copia della cedola originale, fatta sopra la differentia	6r	2. Copia della cedola originale, fatta sopra la differentia			355r	2. Copia de Cedola originale della differentia	541r	2. Copia de Cedola della differentia
8r	3. Copia della Cedola et Originale informatione, manda don Nicola Vicentino […] à M. Ghisilino	7r	3. Copia della Cedola et originale Informatione, manda don Nicòla Vicentino […] à M. Ghisilino			356v	3. Copia della Original informatione manda Don Nicola a M. Ghisilino	542r	3. Copia della Cedola della informatione mandata da Don Nicola Vicentino a me Ghisilino
8v	4. Copia della Cedola et original informatione, manda Don Vincentio Lusitano […] a M. Ghisilino	7v	4. Copia della Cedola et original informatione, manda Don Vincentio Lusitano […] a M. Ghisilino			357v	4.Copia della Original informatione manda Don Lusitano a M. Ghisilino	542v	4. Copia della Cedola della informatione mandata da Don Vincentio Lusitano a me Ghisilino
9r	5. SENTENTIA	7v	5. SENTENTIA			358v	5. SENTENTIA	343v	SENTENTIA
9v	6. Dicchiaration del sudetto processo	8r	6. Dicchiaration del sudetto processo			359r	6. Dichiaratione del Progresso	544r	6. Dichiaratione del Progresso
						359r	7. Verificatione di quello ch'è detto del sopra	545r	7. Verificatione di quello ch'è detto del sopra
10r	7. Essamine fatto sopra la Informatione del detto don Nicola	9r	7. Essamine fatto sopra la informatione del dttlo don Nicòla			359v	8. Una essaminatione sopra l'informatione del detto Don Nicola	545r	8. Una essaminatione sopra l'Informatione di Don Nicola
Seconda Parte									
14r	1. Sopra la dicchiaratione delli tre generi della Musica Istromentale	12r	1. Sopra la dicchiaratione Delli tre generi della Musica Istromentale	381r	1. Sopra la dicchiaratione sopra delli tre Generi de la Musica Istromentale	362r	1. Dichiaratione sopra li sudetti tre generi musicale	548r	Dichiaratione sopra li sudetti tre generi Musicali
17r	2. Del Quinto Tetrachordo aggionto	13r	2. Del Quinto Tetrachordo aggionto	382r	2. Del Quinto Tetrachordo aggionto				
18r	3. Del Introduttorio Musicale di Guido Aretino	13v	3. Del Introduttorio Musicale di Guido Aretino	382v	3. Del Introduttorio Musicale di Guido Aretino	363v	3. Continentia del Tuono, Semitonio e Diesis con la Composition loro	550v	Continentia del Tuono, Semitonio e Diesis con la Composition loro
20v	4. Sopra le tre proprietà delli setti Exacordi	15v	4. Sopra le tre proprieta delli setti Exacordi	384v	4. Delle tre proprietà delli sette Exacordi				
21r	5. Della Differentia delli tre Generi sopradetti	15v	5. Della differentia delli tre Generi sopradetti	384v	5. Della differentia delli tre Generi sopradetti				
21v	6. Declaration della soprascritta figura	16r	6. Declaration della soprascritta figura	385r	6. Dichiaratione della sopraposta figura				
23r	7. Delle Creationi delli sopradetti Intervalli Secondo Boetio	17r	7. Delle creationi delli sopradetti Intervalli secondo Boetio	386r	7. Delle creationi delli sopradetti Intervalli secondo Boetio	363r	2. Delle Compositioni delli sudetti Intervalli secondo Boetio	549v	[Delle Compositioni delli sudetti Intervalli secondo Boetio]
24v	8. Corroboration d'Authori sopra ch'è stato detto	18r	8. Corroboration d'Authori sopra ch'è stato detto	386v	8. Corroboration d'Authori sopra ch'è stato detto				
27r	9. Risolutione di che Genere sia la sudetta Musica	19r	9. [8 crossed out] Risolutione di che Genere sia la sudetta Musica			364v	5. Risolutione di che genere sia la Musica di sopra disputata	551v	Risolutione di che genere sia la Musica di sopra disputata

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Appendix 1 (continued)

27v	9. Confirmation essemplare del sopra detto	19v	9. [corrected to 10] Confirmation essemplare del sopra detto	388r	9. Confermation essemplare di quello che è detto di sopra	365r	6. Confirmation essemplare del sopradetto	552r	Confirmation essemplare del sopradetto
30r	11. De le figure delli Intervalli appropriati a li due Generi inusitati Enharmonico et Chromatico	20v	De le figure delli Intervalli appropriati a li due Generi inusitati cioè Enharmonico et Chromatico	389r	10. De le figure delli Intervalli appropriati a li due Generi inusitati cioè Enharmonico et Chromatico	366r	7. Delle figure de gli intervalli appropriati alli due genere inusati predetti	553r	Delle figure de gli intervalli appropriati alli due genere inusati predetti
30v	12. Come li Intervalli sono di tre sorti et cosi: ancho li loro consonantie	21r	12. Come li Intervalli sono di tre sorti et cosi: ancho li loro consonantie	389v	11. Come li Intervalli sono di tre sorti [entire chapter crossed out]	366v	8. Come li Intervalli sono di tre sorti	553v	Come li Intervalli sono di tre sorti
				390r	12. Delle Consonantie				
31v	13. Modo di fare l'esperentia delli infrascritti essempi	21r	13. Modo di fare l'esperentia delli infrascritti essempi	391r	13. Modo di fare l'esperentia delli infrascritti Essempi	367r	9. Modo di fare l'esperientia de li infrascritti essempi	554r	Modo di fare l'esperientia de li infrascritti essempi
38r	? [No number] Opinione sopra il colorare le cantilene Chromatice et Enharmonice	24r	? [No number, line through chapter] Opinione sopra il colorare le cantilene Chromatice et Enharmonice			371r	10. Opinione sopra il Chiamare le Cantilene Chromatice o Enharmonice	557v	Opinione sopra il Chiamare le Cantilene Chromatice o Enharmonice
Terza Parte									
	1. Opinione che non si doverebbe mescolare l'un genere con l'altro	27r	1. Opinione che non si doverebbe mescolare l'un genere con l'altro			372r	1. Opinione che non si doverebbe mescolare l'un genere con l'altro	560r	Opinione che non si doveria misticare l'un genere con l'altro
						372v	2. Differentia è scommessa fatta sopra il porre del b molle in Ωmi	560v	Differentia: quando el Canto e del secondo Tuono et finische in Dsolre, se si deve porre nel principiò delle linee di miΩ el segno del. b. molle ordinariamente
44r	2. Opinione sopra li Errori, nelli quali incorrono molti compositori novelli della nuova maniera	27v	2. Opinione sopra li Errori, nelli quali incorrono molti compositori novelli della nuova maniera			374r	3. De gli Errori, nelli quali incorrono molti Compositori novelli della nuova maniera	563v 568v	De gli Errori, nelli quali incorrono molti Compositori novelli De gli [Errori,]nelli quali incorrono molti Compositori novelli
52r	3. Opinione sopra li errori comettino quelli che intitolano i loro canti per Chromatici	28v	3. Opinione sopra li errori comettino quelli che intitolano i loro canti per Chromatici			371r	10. Opinione sopra il Chiamare le Cantilene Chromatice o Enharmonice	557v 565v	Opinione sopra il Chiamare le Cantilene Chromatice o Enharmonice Dell Error di coloro, di coloro, che fuor d'ogni ragione […] intitolano le loro compositioni, Canti chromatici
56v	4. Opinione sopra l'errori commettino quelli, che fuora d'ogni ragione: intiolano le loro compositioni alla misura di Breve	29v	4. Opinione sopra l'errori commettino quelli, che fuora d'ogni ragione: intiolano le loro compositioni alla misura di Breve			377r	4. Dell'Error di coloro che fuora d'ogni Raggione Intitolano le lore Compositioni alla Misure di Breve	566v 570v	Dell'Error di coloro che fuora d'ogni Raggione Intitolano le lore Compositioni alla Misure di Breve Dell'Error di coloro che fuora d'ogni Raggione Intitolano le lore Compositioni alla Misure di Breve
57v	5. Opinione sopra l'Errori commettono quelli, che segono le proportioni della Tripla et Sesquialtera con un medesimo segno	30r	5. Opinione sopra l'Errori commettono quelli, che segono le proportioni della Tripla et Sesquialtera con un medesimo segno			377r	5. Dell'Errore che commettono quelli che segnano le proportionii della tripla e sesquialtera con un medesimo segno		

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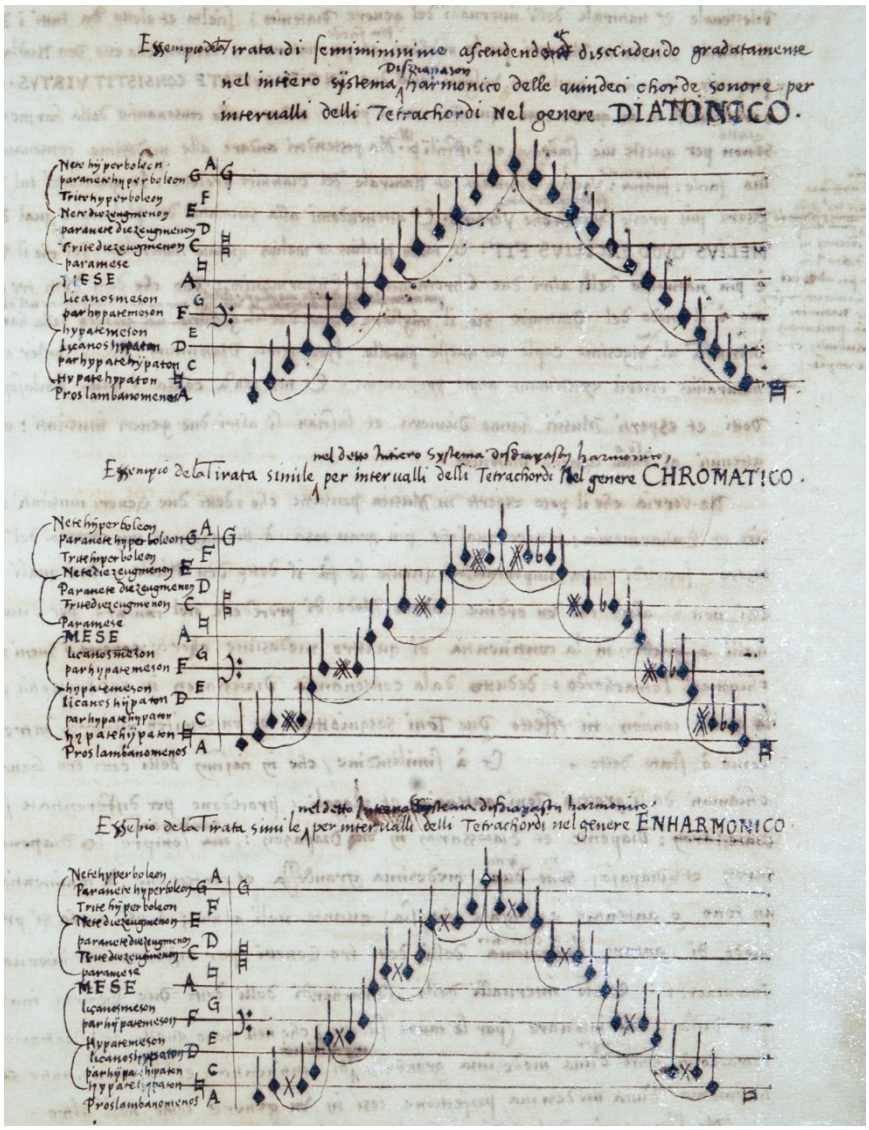
Appendix 2.1 Monophonic Examples



I-Rv R 56B, fol. 22r, published by permission of the Ministry of Culture, Italy.

[1)] Example of a succession of semiminims, ascending and descending by step through the entire disdiapason harmonic system of the fifteen sounding *corde* by means of the intervals of the tetrachords in the DIATONIC genus.

[2)] Example of a similar succession through the said entire disdiapason harmonic system, by intervals of the tetrachords of the CHROMATIC genus.

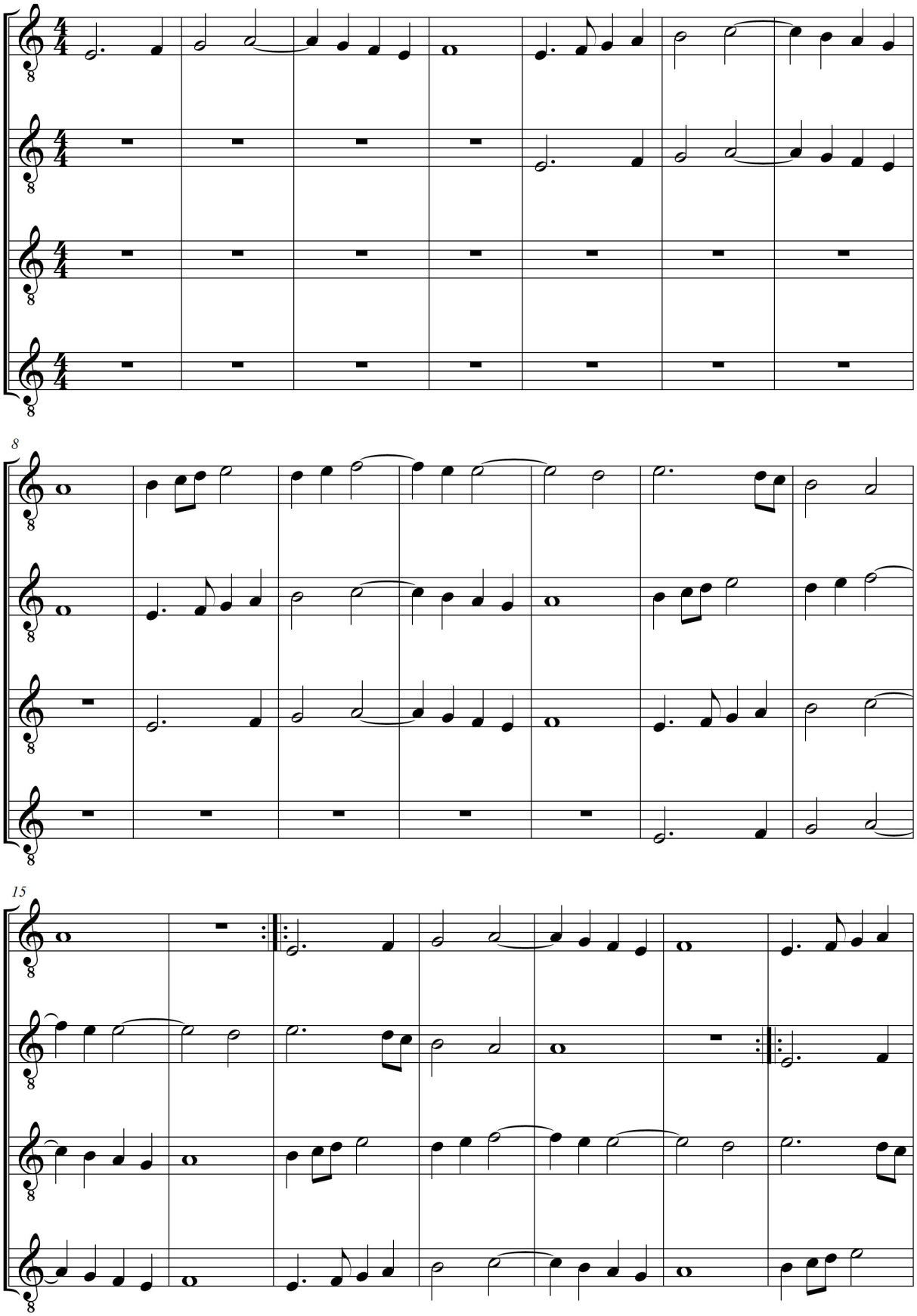
[3)] Example of a similar succession through the said entire disdiapason harmonic system, by means of the intervals of the tetrachords of the ENHARMONIC genus.

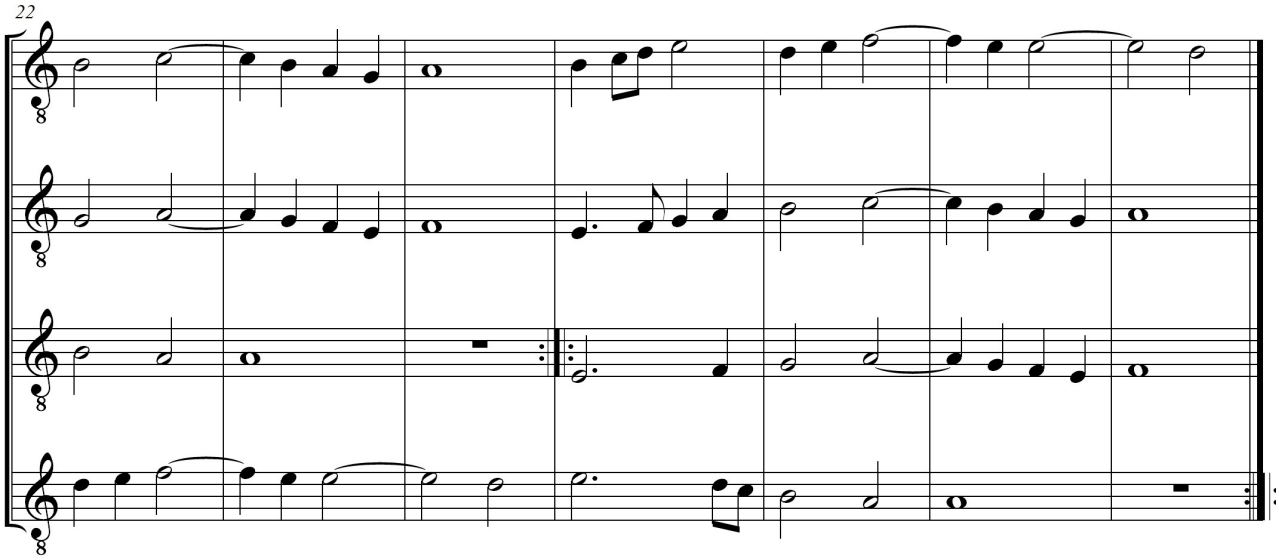
[1)] Essempio de la Tirata di semiminime ascendendo et discendendo gradatamente nel intiero sÿstema Disdiapason harmonico delle quindici chorde sonore per intervalli delli Tetrachordi Nel genere DIATONICO:

[2)] Essempio de la Tirata simile nel detto Intiero systema disdiapason harmonico, per intervalli delli Tetrachordi Nel genere CHROMATICO.

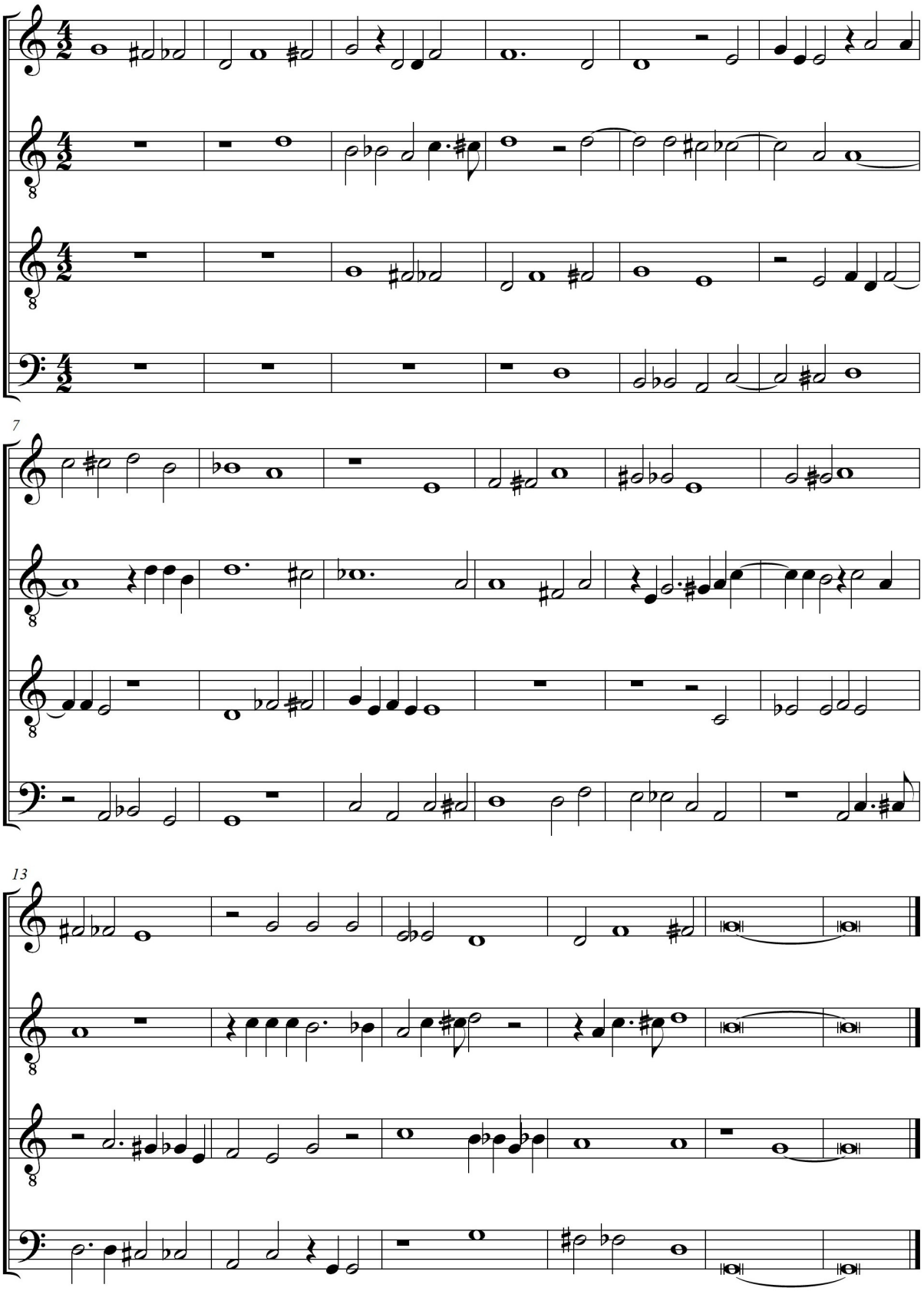
[3)] Essempio de la Tirata simile nel detto Intiero Sÿstema disdiapason harmonico, per intervalli delli Tetrachordi nel genere ENHARMONICO.
(I-Rv R 56B, fol. 22r)

Appendix 2.2 *Essempio della Harmonia da 4 voci pari per intervalli de i tetrachordi del solo genere DIATONICO*

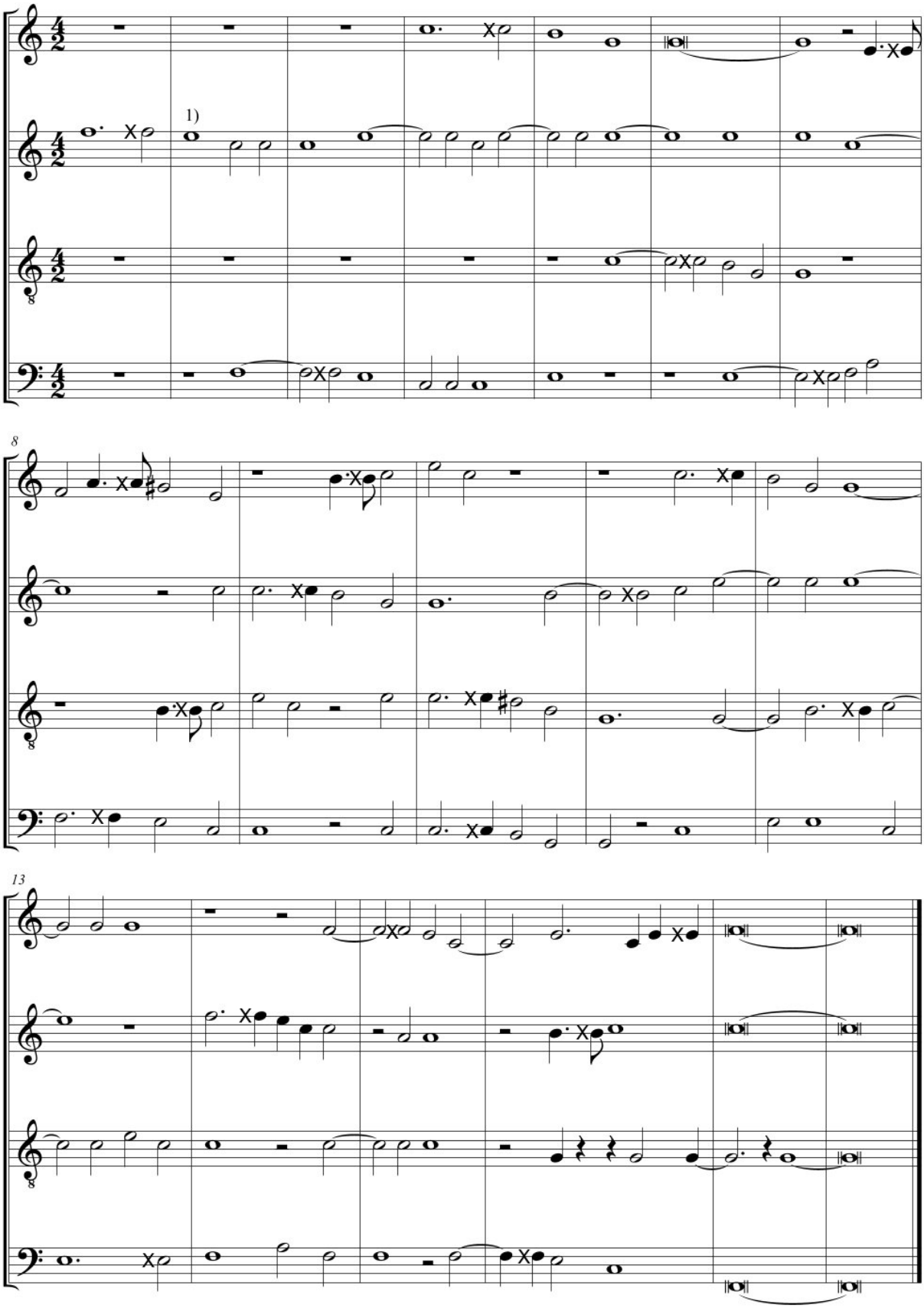



22

Appendix 2.3 *ESSEMPIO della Harmonia a 4 voci, per intervalli de i Tetrachordi Del sol Genere CHROMATICO*

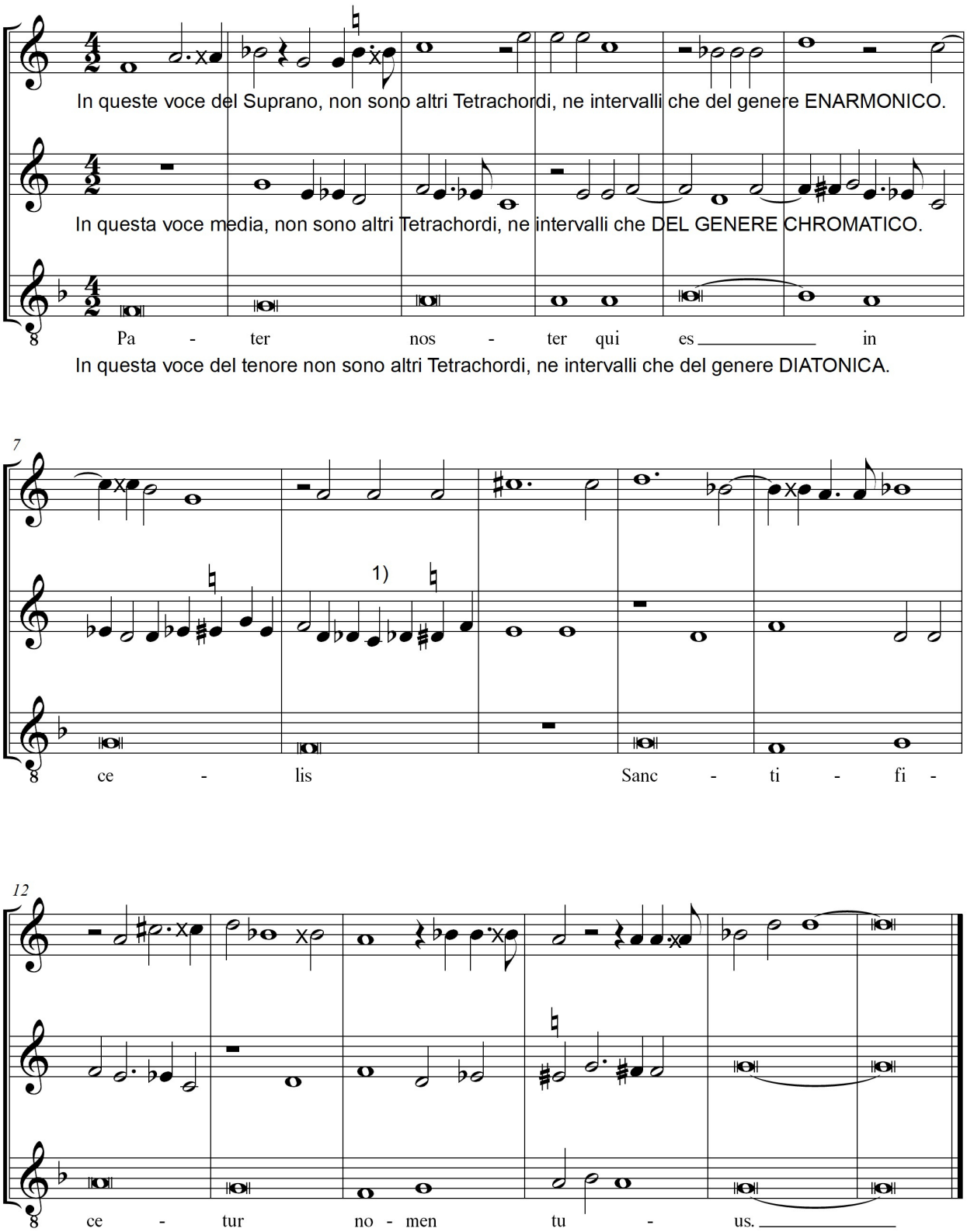


Appendix 2.4 *ESSEMPIO della Harmonia a 4 Voci per intervalli de i Tetrachordi del solo Genere ENARMONICO*



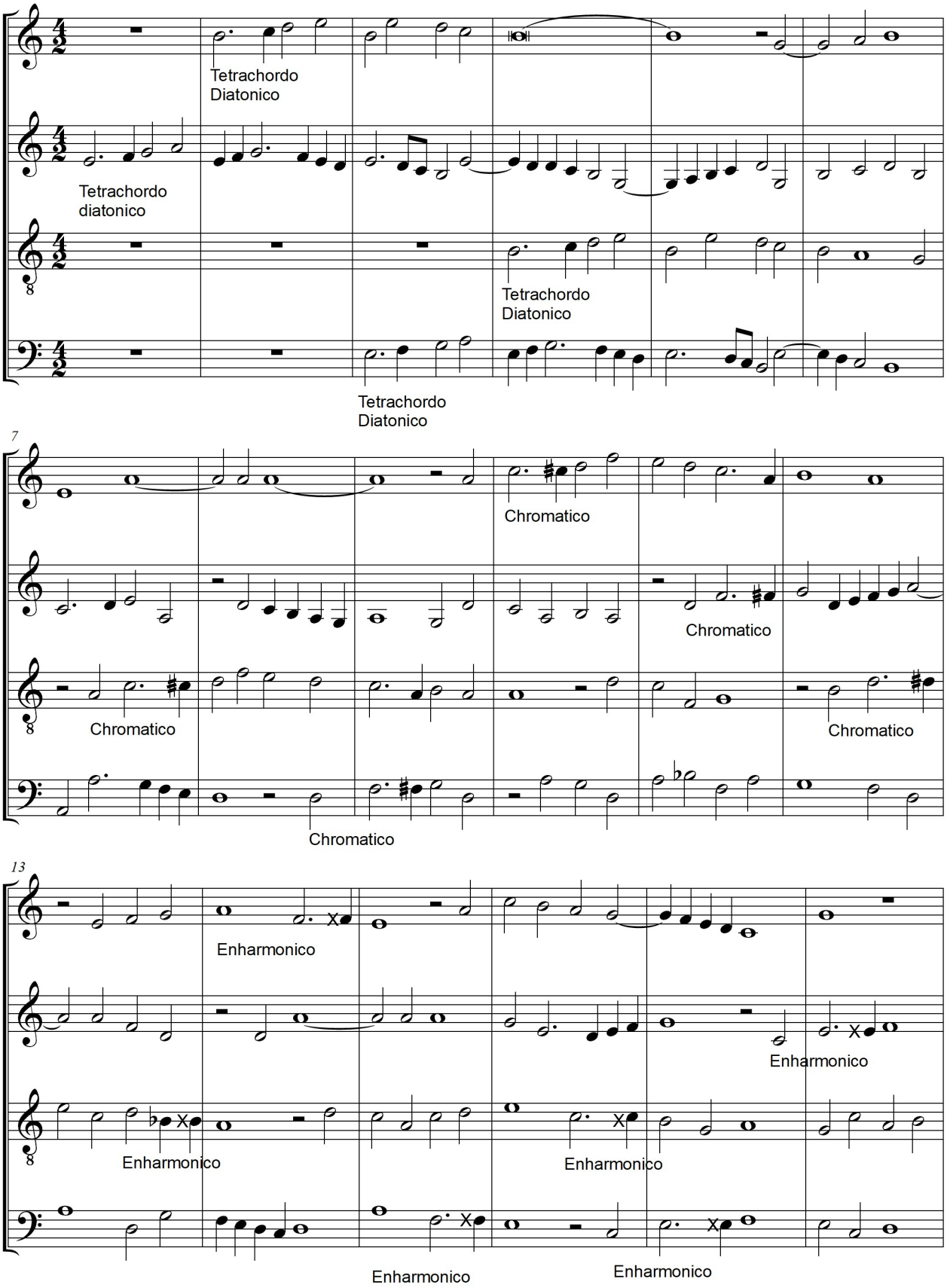
1) Minim in the MS; the part is written in tenor clef, but the beginning is smudged creating an extra curved line.

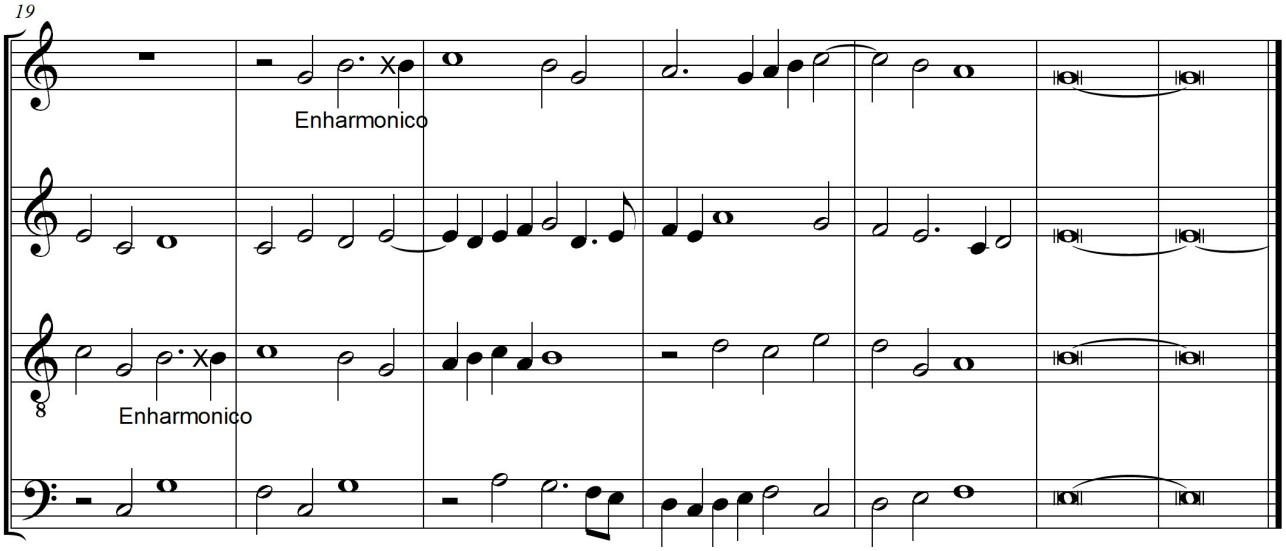
Appendix 2.5 *ESSEMPIO della Harmonia a tre voci: Mista de tutti tre i Generi in tre diversi Voci*



1) Minim in the manuscript.

Appendix 2.6 *ESSEMPIO della Harmonia a 4 voci, Mista detutti tre i Generi per li Tetrachordi et intervalli loro, sparsi per tutte quattro le voci*




19
Enharmonico
Enharmonico

Appendix 3: Preface to Ghiselin Danckerts' *Sopra una differentia musicale sententiata*

The author to the readers:

Having myself written the present treatise on *The Musical Difference and its Verdict* written down here in the year of our Lord 1551, on account of the reasons that will be come to be known in the introduction below, with the intention of having it printed in the Latin language so that, by that means, not only in Italy, but also universally in all of Christianity, the difference was understood by every musician and the improbable and never proved hypothesis of the Reverend Don Nicòla Vicentino (who, by reason of having had the verdict against him, never has ceased to insult the judges, of whom I was one, saying that they had unjustly, without any reason or understanding whatsoever of music, condemned him to pay the bet to his adversary), together with many other musical things in this treatise.

And showing it at the said time to many musicians to get it printed (as I said), I was dissuaded from this undertaking by some of them, in particular, by two prelates, very dear friends of mine, so as not to show esteem for the words of someone who does not heed his promises, confirmed by his own hand, which he later came to break himself. For that reason, yielding to their opinions, I abstained from having it printed, and only showed it to those who told me on the day that he complained about us judges on account of the said verdict; I let the said Don Nicòla say it in his way. But then having seen that he not only did not content himself to complain falsely in [words] to insult us judges, [but] that he also wanted to complain in print, by means of his volume on music entitled *L'ANTICA MUSICA ridotta alla moderna pratica*, printed in [Rome in] 1555, where in the last chapter of the fourth book on musical practice (without expressing the truth [of the case]) he narrates the story of the said sentence in his way, and not as we judges published it in our patent, signed by us with our own hands and delivered to his adversary

L'Autore alli Lettori:

Essendo scritto da me il presente Trattato sopra l'infrascritta Differentia Musicale e sua Sentenza nell'anno di nostro Sig[nore] 1551, per le cause che di sotto nel Prohemio s'intenderanno, con intentione di farlo stampare in lingua latina, acciò che per mezzo di esso, non solamente per la Italia, ma universalmente anchora per tutta la christianità fusse da ogni Musico intesa tal differenza, et la improbabile et, non mai provenda Offerta, del R. Don Nicòla Vicentino: (Il quale, per haver havuto la Sentenza contra, mai non hà cessato di calumniare i Giudici, de quali io ne fui uno, Dicendo che iniquamente, senza ragione et scientia alcuna di Musica l'hanno condannato a pagare la scommessa al suo Avversario) con molte altre cose Musicali in esso Trattato comprese.

Et mostrandolo nel detto tempo a molti Musici per farlo stampare (come ho detto) fui dissuaso da tale impre[sa] da alcuni d'essi, et particolarmente, da due Prelati miei amicissimi, per non mostrare di fare stima de la parole d'uno che non osserva le sue promesse, confermate di sua man propria, con che è venuto poi à manchare à se medesimo. Per la qual cosa, conformandomi con i pareri loro, mi astenni di metterlo in stampa, et mostrandolo solamente a quelli, che mi dicevano alla giornata che esso si lamentava di noi Giudici per causa della detta Sentenza, lasciai dire il detto Don Nicòla a suo modo. Ma havendo veduto poi, che esso non solamente si è contentato di lamentarsene a torto in [parole] che per calumniare noi Giudici, ha voluto anchora lamentarsene in stampa, per mezzo di un [suo volume] Musicale, intitolato *L'ANTICA MUSICA* ridotta alla moderna pratica, Stampato in [Roma ne]l 1555. ove, nell'ultimo capitolo del quarto libro de la pratica Musicale, (senza esprimere la verità [del fatto]) narra il progresso de la detta Sentenza à suo modo, et non come noi Giudici l'havevamo

as sign of his victory, I thought of printing it in the Italian language for the reasons which will be discussed below, in order to show everyone who wishes to see, how he in narrating and publishing the said proceeding, has broken with the pure truth in many ways, of which I will speak of some.

And first, our said patent contains five chapters, that is: the narrative of the congregation as the first; the statement of the difference with the bet and the deputation of the judges as the second; the statement or report of the information sent to me by that Don Nicòla as his proof as the third; the statement of the information of his adversary as the fourth; and the verdict as the fourth [recte: fifth]. He falls short by not having published in his chapter the first two chapters, that is the narrative of the congregation and the statement of the difference. He has forgone printing these chapters maliciously, because both of them express the difference about which the bet was made, knowing very well that without the said two chapters, one would not see the difference and thus the verdict would seem inept and impertinent, appearing that the difference was about one thing, and the sentence was about another. One cannot judge whether that verdict was made justifiably or not, if one has not first understood the proposition of the difference upon which the bet was made, with the proof each of the litigants had to make to gain the victory and the verdict in his favour. This is seen by everyone in the original of the first said statement of the difference, signed by his own hand and that of his adversary, and also in the very beginning of the said patent, in the beginning of which mention was made of it in place of those two chapters; in his chapter he tells a story, completely full of boasting and bragging, expounding upon how, for various reasons, in the dispute made in front of the Reverend Holy Cardinal of Ferrara and in the chapel of the Pope, he had proved to his adversary that the music that is ordinarily sung today is not simple diatonic, etc. One never spoke of that simple diatonic music, or padded diatonic or double, in the dispute, neither did the said Don Nicòla nor his adversary make any mention of that simple diatonic in their documents which they sent me as

publicato, per una nostra Patente sottoscritta da noi di propria mano et consegnata al suo Avversario per segno della sua Vettoria, mi è parso farlo stampare in lingua italiana per le cagioni che si diranno di sotto, per mostrare ad ogniuno che lo voglia vedere, come che esso nel narrare et pubblicare il detto progresso, ha manchato alla pura verità in molti modi, de li quali ne dirò alcuni.

Et prima contenendo la detta nostra Patente cinque capi, cioè, la Narrativa della congregatione per il primo: la Cedola della Differentia con la scommessa, et deputatione de Giudici per il secondo: la cedola o polizza dell'informatione di esso Don Nicòla mandatami per sua prova per il terzo: la cedola dell'informatione del suo Avversario per il quarto: et la Sententia per il quarto [recte: quinto]: esso ha manchato per non havere fatto stampare nel detto suo Capitolo, i due primi Capi, cioè la Narrativa de la Congregatione et la cedola de la Differentia. I quali capi ha lasciato di stampare maliciosamente, perciò che ambi due, esprimevano la Differenza, sopra la quale era fatta la scòmmessa, sapendo lui benissimo, che senza li detti due capi, non si vedrebbe la differentia, et cosi la Sentenza si mostrerebbe inetta et imper-tinente: parendo che la Differentia fusse stata sopra una cosa, et la sentenza fosse data sopra un'altra. La qual Sentenza non si puo giudicare ò se la sia data giustamente, o nò, se prima non s'intende la proposta de la differentia, sopra la quale à fatta la scommessa con la prova dovea fare ciascun de i litiganti, per riportarne la Vettoria, et la Sentenza in suo favore. Il che tutto si vede nell'originale de la detta prima cedola de la differentia, sottoscritt[a] di sua mano propria et del suo Avversario, et ancho nel primo capo de la detta Patente, in qual capo ne fu fatta mentione in cambio de quali due capi, esso fa nel suo capitolo una Narrativa, tutta piena di Giattantia et vantamento, discorrendo, per varij ragionamenti, come nella disputa fatta dinanzi al Reverendiss. S. Cardinal di Ferrara, et nella C[appella] del Papa, esso havea provato al suo Avversario, che la Musica che si cantava com[unemente] non era Diatonica semplice etc. de la qual Musica Diatonica semplice, o, Diatonica foderata, o, doppia, mai non si ragionò nela detta disputa, ne meno esso Don Nicòla [né il] suo Avversario, han fatto mentione alcuna di tal Diatonica semplice,

their proofs, as one sees in the copies of them, printed in this treatise of mine. But having printed them in his chapter in his way, he has added this word to them, that is 'simple', in his and his adversary's documents, as well as in his tale, thereby preparing in it in this manner, the material [for his] statement, in order to make the poor musicians, his followers (in this fraud and ignorant [deception)] believe that he had been falsely condemned to pay the bet to his adversary.

Secondly, in addition to having forgone printing the said two chapters and having begun the proceeding[s] [of the dispute] from the statement of his information, forgoing that of the difference, he has broken with the truth, by having altered (not desiring to say falsified) the copy [of the said] statement of his in print, by having added many words to it which [are not] in his original [one], and leaving out some of those which were, and [apparently he left out] this sign ♯ which he called a *diesis*. And similarly, he also altered [the information of his] adversary, wherewith he comes to have similarly altered and changed [the meaning of the said information] from that which it was previously, and extracted the material for his [statement].

Thereafter he broke with the truth by having printed in [his said chapter the] observations of four musician-composers, according to what Don Nicòla says, that the said statements printed there with the proceedings of the verdict correspond word for word and period for period, without any subtraction or addition whatsoever, with his original [documents]: as one reads in his said chapter in two places, that is in the end of his narrative with these words: *Now our reasons* [in Vicentino: *which were sent in writing by me and by the aforesaid Don Vincentio Lusitanio and the verdict*]*, are now faithfully copied here below, without falsification, without subtracting or adding any word, not even by a dot more or less, copied from the authentic copy made by the above-mentioned judges and sent to the most illustrious and most reverend* [*Cardinal*] *of Ferrara, as anyone can read here with the testimonies written below, etc.* [Vicentino, V.43, fol. 95v]

in le loro infor[mationi] che mi mandarono, per loro prove, come si vedrà nelle copie di esse, stampate in ques[to] mio Trattato: Ma havendole esso fatto stampare nel suo capitolo a suo modo, vi h[a] aggiunto questa parola cioè semplice; cosi nella informatione sua et del suo Aver[sario] come ancho nella sua Narrativa, preparando in essa, di questa maniera, la materia [a suo] proposito, per far credere ai poveri Musicotti suoi segnaci (di tal fraude et in[ganno ignoranti)] che a torto sia stato condannato a pagare la scommessa al suo Avversario.

Secondariamente, oltra all' havere lasciato di stampare i detti due capi, et aver incominciato il progresso da la cedola della sua informatione, lasciando addietro quelia della differen[tia], ha manchato alla verità, per haver alterato (non volendo dir falsificato) la copia [della detta] sua cedola, nelo stampare, con haverci aggiunto in essa, molte parole che non [stanno nel] suo originale, et lasciatone alcune di quelle che ci stanno et [parimente ci ha lasciato] questo segno ♯ da lui chiamato diesis. Et cosi ancho ha alterato [la informatione del suo] Avversario, con che viene ad havere similmente alterato et mutato [il senso delle dette informa]tioni da quello che erano prima, et ha tirato la materia al suo [proposito].

Appresso di questo ha manchato al vero, per haver fatto stampare nel [detto suo capitolo le oserva]tioni di quattro Musici Compositori, per le quali esso don Nicòla dice, che le dette cedole ivi stampate, con il progresso della Sententia, accordano di parola in parola, et di ponto in ponto, senza diminutione et aumento alcuno, con li suoi originali: come si legge nel detto suo capitolo in due luoghi, cioè nel fine della sua narrativa per queste parole: *Hora le ragioni nostre, sono qui sotto copiate fidatamente, senza fraude, ne di diminuire ne di Augumentare alcuna parola ne pur di un punto di piu ne di meno, copiate dalla Copia autentica, fatta dalli sopradetti giudici e mandata allo Illustriss. et Reverendiss. di ferrara, come qui ognuno potra leggere, con li sottoscritti testimoni etc.*

And another time later, also in the said chapter just before the sentence with these words: *It now remains to exhibit the copy of the verdict made against me, faithfully and correctly copied from the original, with the signatures in the two judges' own hands, and undersigned by the witnesses who compared our statements and the verdict, so that no one may think that I transcribed it and had it printed it in my [own] way. And whoever wants to see and compare whether the statements and verdict are printed correctly, letter for letter, I offer to give [them] the said verdict and to show it to anyone who wants to see and understand it,* etc. [Vicentino, *L'antica musica,* V.43.3, fol. 98r]

Of those words, the greatest part does not correspond with the truth, as many words were subtracted and added, (not that of dots) as anyone may see who reads his book and compares it with my treatise, which corresponds well, without lying, with the true originals and is not like his book, and especially the said chapter which contains within it this lack of agreement with them.

And thinking to justify himself with the aforementioned words of not having transcribed the proceedings of the judgment in his manner, he was in great error, as he had transcribed and printed it in his manner, and not like the original statement of his explanations and that of his adversary, adding and subtracting as it seemed [good] to him, for the reasons I have mentioned above. And saying that, as you have understood, his witnesses compared the documents of their statements, with the copies published by him, and so he shows them to everyone who wants to see them. I do not know how this could be, as the originals of their statements are with me and not with him, and for that reason his witnesses could not have compared them with the copies published by him, and he only said that which pleased them [him?]. Because I, having shown the same four musicians (named by him in his published chapter as witnesses) the true originals of the three said statements, written and signed in their own hand by this Don Nicola and his adversary together with the verdict (from those originals the said patent was then copied and delivered to his adversary as a sign of his victory and not sent by us judges

et un'altra volta poi, pur in detto capitolo, poco innanzi ala Sentenza con queste parole: *Hora resta di mostrare la Copia della Sententia fatta contra di me: fidelmente et giustamente copiata dalla autentica, con la sottoscrittione de le mani proprie delli due giudici, et con li sottoscritti testimonij. li quali hanno rinc*[*on*]*tro le nostre polize con la Sententia, acciò alcuno non pensi,* [*che io l'*] *abbia trascritta et fatta stampare a mio modo, et chi vorrà* [*vedere*] *et rincontrare se le polize et la Sententia saranno stampate* [*littera p*]*er littera giustamente, io m'offerisco dar detta Sententia, et di mostrarla, à chi la vorrà vedere et intendere etc.*

De le quali parole la maggior parte discorda con la verità per esservi diminutione et aumento di molte parole, (non che di ponti) come chi potrà vedere, chi leggera il suo libro et lo confrontarà con questo mio trattato, il quale accorda ben, senza menzogna, con i veri originali, et non è come il suo libro, et massime il detto capitolo, che in esso si contiene, il qual discorda con essi.

Et pensando lui di scusarsi con le parole predette, di non aver trascritto il progresso della Sentenza a suo modo, esso è in grande errore, poi che l'ha trascritto et fatto stampare a suo modo, et non come l'original poliza della sua informatione, et di quella del suo Avversario: aumentando et diminuendo come gli è paruto, per le cagioni di sopra ho detto. Et dicendo esso, come avete inteso, che li testimoni suoi hanno riscontrato le polize delle informationi loro, con le copie da lui pubblicate, et cosi che lui le mostrarà ad ognun che le vogli vedere, io non sò come questo possa stare, poi che li originali delle polize loro, sono appresso di me, et non di lui, et per tal causa li testimonij suoi non han possuto riscontrarle con le copie da lui poi stampate, et dica pur ciò che li piace. Perche havendo mostrato io, ai medesimi quattro Musici (da lui nel suo Capitolo stampato, per testimonij nominati) i veri originali delle

tre dette polize, scritte et sottoscritte da le proprie man di questo Don Nicola, et del suo Avversario con la sentenza (da quali originali è stata poi copiata la detta patente, consegnata al suo avversario, in segno della sua Vettoria, et non mandata da noi

to the most Reverend Cardinal of Ferrara, as he said) and they found that they disagreed greatly with that which he had printed, because he left out the second chapter of the patent, which contains the statement concerning the true difference upon which the entire substance of the controversy depended; and other than that for having altered both his own statement, as well as that of his adversary (as I already have said and can be seen below) they remained the most amazed men in the world, and most of all for having seen that he had printed their names as witnesses in his chapter, each of them assuring me with an oath that they had never placed similar signatures in their own hand anywhere; and wanting to show that this is the case, M. Jacopo Martelli, M. Stefano Fornarino and M. Antonio Barré, as named and signed witnesses in his said chapter, have recognised the letter of the original statement of the information [of the said Don] Nicola sent to me by him as his proof. And as proof that the statement was written completely by his own hand, as was also the signature of the certificate of the difference, he had signed both with his own hand, the one as well as the other statement.

And I also asked M. Vincenzo Ferro, as the fourth named and signed witness in the said chapter, whether he also recognised the said letter of Don Nicòla and had signed it as the others had done; he excused himself by saying that he did not know it well, also wondering like the others, that a priest, such as they all held him to be, would have had printed such a manifest lie, with their signatures, something which they had never done. But in contrast, M. Giovan[o] B[attis]ta Precaccese (called the bitter), a musician very experienced in his profession, had recognised the letter, and had signed it in his own hand, according to the statement of the information of Don Nicòla, as well as the certificate or statement of the difference. Having seen all of this in the said chapter, and what is more, that in the fortieth [chapter] of the same book, in regard to certain rules he prided himself in wanting to teach to other musicians on how to find canons, not knowing how to find them himself, as he clearly demonstrated in the said chapter of his, in which he demands of composers of music

Giudici al Reverendiss. Cardinal di Ferrara, come esso dice) et trovatili che discordano grandemente con quel che esso ha stampato, per aver lasciato il secondo Capo della Patente, qual contiene la cedola della vera differenza da la quale dipendeva tutta la sustantia della lite, et oltra à ciò per haver alterato, cosi la sua informatione, come anchora quella del suo Avversario (come già ho detto, et di sotto si potra vedere) sono restati, i piu stupiti huomini del mondo, et massimamente per haver veduto, che esso abbia stampato nel detto suo Capitolo i nomi loro per testimonianza, certificando mi ciascun di loro con giuramento che mai non han fatto simili sottoscrittioni di man propria in luogo alcuno, et per voler essi mostrare che cosi sia M. Jacopo Martelli, M. Stefano fornarino et M. Antonio Barre, nel detto suo Capitolo per testimonij nominati et sottoscritti, hanno riconosciuto la lettera dela cedola originale de la informatione [del detto D.] Nicòla mandatami da lui per sua prova. Et per fede che tal cedola sia scritta tutta di sua man propria, come è anchora la So[tto]scrittione della poliza della differentia, loro si sono sottoscritti di man propria nell'una et nell'altra cedola.

Et richiedendo io ancora M. Vincenzo Ferro per quarto testimonio in detto capitolo nominato et sottoscritto, che ancho esso riconoscesse la detta lettera, di don Nicòla et si sottocrivesse, come havevan fatto li altri, si scusò meco, con dire che non la conosceva [be]ne, maravigliandosi anco esso con gli'altri, che un sacerdote tale ognun di [lor]o il tenevano, con si manifesta bugia havesse fatto stampare, per loro [soscri]ttioni quello, che essi mai non havevano fatto; Ma in cambio suo M. Giovan B[attis]ta precaccese (detto l'aspra) Musico nela sua professione assai sufficiente, ha riconosciuto tal lettera, et si è sottoscritto di sua propria mano, cosi nella cedola della information di Don Nicòla come ancho nella poliza o cedola della differentia. Tutto questo havendo veduto io nel detto capitolo: et di piu, che nel quarantesimo del medesimo libro, per via di certe regole, si vanta di voler insegnare a gl'altri Musici, di trovare i canoni, non sapendo trovarli per se medesimo, come chiaramente ha dimostrato nel detto suo capitolo: nel quale commanda alli compositori di Musica, che non debbon fare

that they should not write canons upon a tower, or mountain, upon a river, upon a chess board, or upon other [things] and, spitting out many of his foolish and vain opinions, only in order to criticise the invention of a work in four *voci pari* on *Ave maris stella*, composed in the form of a chess board, which may be sung in more than twenty different ways. Because he not only did not know how to understand the invention, nor the piece, but he perhaps did not even know how to find, by means of its rules, one of the twenty ways to be able to sing it. And not having been able to hear it sung (because of his little knowledge) he remained ill-disposed to it. And as a master or doctor who convinces himself he is a musician, he seemed to criticise it, not only with his tongue, but also with the pen, confirming in regard to this kind [of person] the philosophical adage which says SCIENTIA NON HABET INIMICUM PRETER IGNORANTEM (SCIENCE HAS NO ENEMY BUT THE IGNORANT).

The reason why, having seen all these things, and many others full of boasting, beliefs and without much reason, which (although I leave them out here, to keep the matter short) can be seen in the said chapters, and particularly in the comment he made about the work of M. Vincenzo Lusitano, his competitor and victor, entitled: *Introduttione facilissima di canto fermo et figurato* etc., where he perhaps vaingloriously boasts in regard to his victor, when he says that all of that which the said M. Vincenzo has written about the three musical genera in his statement, sent to me by him, he [Lusitano] copied from his [Vicentino's] document which he sent to me for his proof, as if the learned M. Vincenzo could not have learned it just as well from Boethius (and from other authors who have written of it), as did Don Nicòla; disregarding that he [Lusitano] says clearly that he learned it from Boethius, citing him passage by passage in his document.

Having thus seen the said things, I thought it good to change my plan and also have this treatise of mine printed, but in the Italian language in the best way I know, without obliging myself to observe the elegance of the Tuscan language, having been born in the Province of Zeeland in a country called Tholen, and my principal purpose is only to be understood, in order

Canoni sopra una torre, sopra un Monte, sopra un fiume, sopra lo scacchiero, o, sopra altre e, sputando fuora molti suoi pareri goffi et vani, solamente per biasimare l'inventione del concento a quattro voci pari dell' Ave maris stella, composto à modo di scacchiero, cantabile in piu di vinti differentiate maniere. Percio che non solamente esso non ha saputo intenderne l'inventione, ne meno il canto, Ma ne anco ha saputo forse trovare per via delle sue Regole, una delle venti maniere, da poterlo far cantare; et non havendo potuto sentir cantare (per il suo poco sapere) li è restato nemico: et come Maestro et Dottore che si persuade esser della Musica, li è parso di biasimarlo, non solamente con la lingua, ma ancora con la penna, Verificando di queste sorte la sententia del filosofo, la qual dice SCIENTIA NON HABET INIMICUM PRETER IGNORANTEM.

Il perche havendo io veduto tutte queste cose, et molte altre piene di Iattantia, persuasione et poco ragionevoli: le quali (benche le lasso qui per abbreviar la materia) se possono vedere nelli detti capitoli, et massime nel comento che fà nell'opera di M. Vincenzo lusitano, suo competitore et vincitore: Intitolato, Introduttione facilissima di canto fermo et figurato etc. dove lui pur troppo Vanagloriosamente si vanta, del suo Vincitore quando dice, che tutto quello che il detto M. Vincenzo ha scritto sopra li tre Generi della Musica, nella sua informatione, mandatami da lui, l'ha copiato della sua Poliza che mi mandò per sua prova, come se il dotto M. Vincenzo, non l'havesse potuto imparar, cosi ben da Boetio (et da altri autori che n'hanno scritto) come esso Don Nicòla; non avvertendo che lo dice chiaro, che l'ha imparato da Boetio, Allegandolo passo per passo nella sua informatione.

Havendo adonque visto le dette cose, ho pensato esser bene di mutar proposito, et far stampare anch'io questo mio trattato, ma in lingua Italiana in quel miglior modo ch'io saprò, senza obligarmi di osservar' l'elegantia della lingua Toscana, essendo io nato nella Provincia di Zaelanda in una Terra chiamata Tholen, et il mio principal disegno è solo d'esser inteso, per levar' ad

to deprive any evil slanderer the opportunity to say, under the pretext of writing the complete treatise in Latin, I had also translated the said statements of information of the litigants, and changed their meaning, as he did [now], varying and altering the words of his document and of that of his adversary.

In order to remove, however, any cause of doubt, and in order to proceed with the pure and bare truth, I wanted to have this treatise printed (as I have said) in the Italian language, in order to compare and verify, word for word, the copies of the said statements with the true originals, written and signed by the hand of Don Nicòla, which copies which were signed by the public notary, registered in the Roman Archive, as proof that they agree with true originals which, written and signed by their own hands and recognised by the said musicians, I offer myself to show [them] to anyone who wishes to see them, because until now I have kept them under my control. And so that one may more easily discern the truth from the lie, I will insert and reprint here, after the third part of this treatise, the said chapter printed for the first time in the volume of the said Nicòla, for those who wish to clarify the fact[s], without otherwise being obliged to buy the said volume; where one will see how much he has altered the said original statements, noting the added words, with letters larger than the others.

And I will also publish again, after all of the pieces, the said piece composed by me in the form of a chess board, even though I had it printed once before many years ago, so that the ingenious musicians, who delight in the various inventions of canons, may dissect them, and see if they can sing it in more than twenty different ways, and having done that they may judge then, with what reason the said Don Nicola criticised it; although his criticism is praise for it, him having been ignorant and having the habit of criticising everyone, as he demonstrated by means of his proposition of which we have made mention, thinking to praise himself in this way. I will also add for you the invention of the piece in four *voci*, made in the form of a cross, in [two] parts, with the fifth and sixth *voce* added to each of the said two parts, and likewise I will similarly add for you the piece in six

ogni maligno Calumniatore l'occasione di dire, che con pretesto, di scriver tutto il trattato in lingua latina, havessi ancora translatato le dette cedole delle Informationi de litiganti, et mutato il senso loro, come ha fatto lui, variando et alterando le parole della sua informatione et di quella del suo Avversario.

Per tor via adunque ogni causa di sospetto, et per procedere con la pura et nuda verità, ho voluto far stampare questo trattato (come ho detto) in lingua italiana, per confrontar et collationare di parola in parola, le copie delle dette informationi con i veri originali scritte et sottoscritte di mano proprio di esso don Nicola, le quali copie saranno sottocritte da Notaro publico, matricolato nell' Archivo Romano, in fede che [accordino] con i veri originali, i quali, scritti et sottoscritti da le lor mani proprie, et riconosciuti da detti Musici, mi offerisco di mostrare a qualunche li vorra vedere, perche li tengo in poter mio fino al presente. Et accio che si possa discerner piu facilmente la verità, da la bugià, farò inserir et ristampare, qui dopo la terza parte di questo trattato, il detto capitolo stampato la prima volta nel volume del detto nicòla, senza altrimenti bisognare, a quei che si vorranno chiarir del fatto, di comprar il detto Volume. Dove si vedrà quanto esso habbia alterato le dette cedole originali, notando le parole aggionte, con lettere piu grandi delle altre.

Et anco farò di nuovo stampare, doppo tutti li concenti, il detto concento composto da me in modo di scacchiero, ancor ch'io lo facessi stampare un'altra volta molti anni addietro, accio che li Musici ingegnosi, che si dilettano delle varie inventioni de Canoni, ne facciano la Notomia. et veggano se lo possono far cantare in piu di vinti differentiate maniere, et ciò facendo giudichino poi, con quanta ragione, il detto Don Nicola l'ha biasimato, Benche il suo biasimo gli sia lode per esserne stato ignorante et per havere per usanza di biasimare ognuno, Come ha dimostrato per la sua offerta, della quale avemo fatta mentione, Pensando di lodare in quel modo sé medesimo. Aggiungerovvi ancora, la inventione del Concento a quattro voci fatto a modo d'una croce, a [due] parti, con la quinta et sesta voce, aggiunta a ciascuna delle dette due parti, et così vi aggiungero

voci with the invention of the tenor, accommodated above the six lilies of the arms of Pope Paul the third. I left out some others in order not to make the volume of this treatise too big, of which I am willing to take on the job of having it printed, because of how much the said Don Nicòla, with his spiteful text, has given me the occasion to do so.

similmente il concento a sei voci, con l'inventione del Tenore, accomodata sopra li sei gigli dell'Arme di Papa Paolo terzo. Lasciandone alcune altre per non far troppo grande il Volume di questo Trattato: del quale tanto piu volentieri ne piglio l'impresa di farlo stampare, quanto ch' il detto Don Nicòla, col suo maligno scrivere me ne ha dato occasione.