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[<i>-] Treatise of the Modal Tones

[<iii>-] Treatise of the Modal Tones,

both Ecclesiastical and Choral

by Padre Francescantonio Vallotti Minore Conventuale

Master of the Chapel of Saint Anthony

at Padoua

1733

[<iv>-] Historical-Theoretical [Historical-dogmatic ante corr.] Treatise of the Modal Tones of the Greek, Latin and Modern Music.

[<v>-] [The Editor to the Reader

The present Manuscript, which is published with the title of fourth Book, was found among those of the Master Padre Vallotti. It deals with one of the most interesting parts of Music, which is the one concerning Tones and Modes. Everyone will be able to gather easily with what great Study and with what great precision and erudition he applied himself to weave this Treatise. I confess in truth that this is one of the most precious among the writings that he left us. It begins with the Ecclesiastical Tones of the first centuries and demonstrates how they were derived from the Tones of the Greeks. This subject of the Tones is so entangled and it is treated with such obscurity by our Writers who devoted themselves to deal with music, that it forced the very clear Padre Vallotti to use all his diligence and Study in order to disentangle it from so many Systems and Opinions which were introduced from the first centuries of the Church up to the present day. In the end, our Author chooses and adopts the System that seems more grounded and reasonable. This book is full of erudition, and it is easy to understand from this Book alone how great his knowledge of Music and his erudition was.

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[-1-] Preface

This Treatise of mine comes into the light of the World not [Cato preferred to be a good man, rather than to appear to be one, so, the less he looked for glory, the more he achieved it. Sallust, *Bellum Catilinarium* in marg.] of at the request of friends or because of an order by Masters and Superiors, since I am not one of those falsely modest people who go around producing [May the Sky allow that this book which I present to you may reach the most remote Provinces ..... so that it may preserve the memory of your illustrious name, and serve as a ever-lasting evidence of the profound respect with which et cetera, *Relation de l'Inquisition de Goa* in marg.] reasons to justify the publication of their Works. I give this work and effort of mine, whatever it is, to the public, not because I was asked or forced by anybody, but because I was strongly moved [In Aelianus' *Varia Historia* is found the account of how Pindar entered a poetry competition at Thebes and, since he encountered a uneducated audience, he was beaten five times by Corinna Buleng, *De Teatro*, Book 2, Chapter 2] to do this perhaps by the great importance of this

subject for whoever professes the art of music, and because these matters are scarcely known. [Basil, Doctor of the Church, in fourth book of the Examina, laments that the modes of the music were broken, corrupted and indecent at that time. Everybody can see that in this passage he is talking about composition, and not, et cetera in marg.] In fact, what greater need do we have than of the just and perfect knowledge of the modal Tones? It is certain that many elements intervene and are necessary to take any composition to its perfection. Nevertheless, it is also very certain that, if someone wants to approach this Work, it is necessary that he should think firstly about the Tone, and should establish within oneself the Tone on which he wants to found and lead his composition. On this matter I do not want to adduce any other [-2-] evidence than the practice in any era since the time when Music was reduced under precise rules and laws; and this happened in every nation, whether it was practised according to our custom or otherwise. As to the scarce knowledge that I said above that there is in our time, I found great evidence of it in the great and hard effort which I had to submit myself in order to achieve perfect knowledge of this matters, as I hope to have achieved it. In fact, I have found the opinion on this matter to be as numerous as the number of people I have had the chance to discuss this matter with and as the number of books which I have been able to read (1), [1 Apuleius, Florida, first book / Aristides Quintilianus, Musica, book one [[2 Ptolemy, Harmonics, book 2, chapter 10; 3 Boethius, in his Music]] in marg.]. Some say the modes are six (2) [[[4]] [2 add. supra lin.] Plato, de Republica, third book, Iulius Pollux, second book, chapter 22; Fux, in his Musica, ubi de Tonis in marg.]; some that they are seven (3) [3 Ptolemy, Harmonics, third book, chapter 10 in marg.]; some eight (4) [4 Boethius [[libro 2]] in his Music, Franchino Gaffurio and many others in marg.]; some four (5) [Lucianus, in Harmonide, and the first composers of the Ecclesiastic chant in marg.]; some three (6) [6 Plutarch in his Musica in marg.]; some twelve (7) [7 Glareanus Dodecachordon / Costanzo Porta, Iosephus Zarlinus / Lodovico Balbi, Oratio Tigrini, Lodovico Zacconi in marg.]; some thirteen (8) [8 [[Martianus Capella, ninth book, chapter de Sinfoniis, Cassiodorus in his Music compendium]] Euclid in his Isagoge, Censorinus in the de die natali in marg.] some fifteen (9) [9 Martianus Capella ninth book, chapter de Symphoniis [Sinfoniis ante corr.] Cassiodorus in his Music compendium in marg.]; and some two (10) [10 Our contemporaries in marg.]. Then, some define them in a way, some in another one, so that some appreciate them and consider them necessary, and other consider them just a story and call them old junk and melancholic thoughts as Giambattista Doni relates (11) [11 Compendio de Generi e modi in marg.]. Others avoid the subject by saying that they do not know other Tones [Tuoni, Thunder] except those that follow the lightening, as Pietro Tosi tells (12) [12 Observations on the figured Song il Canto, page 76 in marg.] Meanwhile, if there are some among our studious young people, as many there are, who know the necessity of this because of their sound judgment, and they are [-3-] eager to acquire perfect knowledge of them, they do not which opinion to adhere to, because, in this very important subject, we do not have, as far as I know, an Author to which we can refer assuredly to acquire complete and right understanding of the Modal Tones, since they all deal with them very confusedly as to their name, their situation, the extension of their notes, their effect, their number, as we said above, and many other of their features. It seems to me that nobody deals sufficiently with what pertains to their application, because, although they assign cadential notes to each of them, apart from the fact that the majority of them disagree as to what they are, I observe moreover that nobody clarifies how these cadential notes have to be used, because they have to be used differently according to the different Categories of Modal Tones, as I will show when I have to discuss this subject. [signum] [[signum] Apart from this, no author, not even nowadays, has dealt with the two Musical Tones major and minor ex professo

and expressly, while the major Tone is just the one with the Octave based on a major third, and the minor Tone is the one with the Octave based on the minor third. But who cannot see that thus every Modal Tone must be necessarily major or minor because every Modal Tone, whichever it is, is always based in one of the seven Octaves which are all composed indispensably of a major or minor Third. in marg.] Therefore, I resolved to write and publish the present Treatise with the aim to shed as much light as possible on everything which pertains to the Modal Tones in the easiest and most concise way possible. Therefore, it is appropriate to start by eradicating the misunderstandings from which part of this confusion originates.

[-4-] Therefore, the first misunderstanding derives from the name of Tone itself, because this name is used very often to signify the distance between two perfect notes, for instance C and D, D and E et cetera. In this case the word Tone is equivalent to saying Note, in the same way as semitone is interchangeable with half a note. [However, I do hope that this work will obtain considerable credit among respectable and learned men, especially of future generations. In fact, future generations will judge according to that verse Envy thrives among the living it dies down after death. Did not even the Meonide contemporaries deride him? Marc Palling, Epistula ad Herculem Ferronem in marg.] On other occasions this very term means the set of rules that is used as a basis to create and structure a composition appropriately. This set of rules was named by our ancestors Mode, Tone, [signum] [[signum], Trope, and harmony in marg.] albeit nowadays it is called simply Tone. Therefore, in order to distinguish one from the other, we will leave untouched the generic term of Tone when we use one or the other, but we will add to them just an adjective to differentiate them, so the Tone which means distance will be called Gradual Tone, while the one which means rule of composition will be called modal Tone. Modal Tones are divided then into simple Choral Modes, Choral Modes made harmonial and into harmonial by their own nature. Since we have hinted to the fact that our Ancestors used to call the Modal Tones simply Modes, therefore, if anyone asked me for what reason we should not call them in the same way, I reply immediately that this is done only to eradicate the misunderstanding that one would encounter with the Modes which, together with Prolations and Tempa are used to distinguish the larger or smaller value of the musical figures, especially in the composition of the ancient musical-practical writers such as Giosquin dal prato, Giouanni Motone, Giacomo Obrecht et cetera.

## Chapter 2.

Since I hinted earlier to the division of the Modal Tones into ancient Greek, simple Choral, Choral made harmonial and Harmonial ones by their own nature, it is appropriate, before I deal with other matters, to let my Reader know that it is not my intention to talk about all of the Modal Tones, since I believe it is redundant and useless to deal with the ancient Greek ones, since what I could say about them has been said already by Aristoxenus, Gaudentius, Aristides [signum] [[signum] Ptolemy, Lucian, and others. in marg.] [[in Meibom's writings, and also Zarlino, Boethius, Gaffurius et cetera]], but what is more important and induces me to save my effort is the fact that such work would not have any application whatsoever. They could not be put into practice, because they are not suited to our contemporary music, whatever may say some who know less about the music of ancient Greece, nor they could be used to help us understand Greek musical compositions of which we have barely a few fragments of a Hymn to the sun by Pindar which has come down to us [-6-] in very corrupted form together with Gaudentius'

Introduction to Music [(2) add. supra lin.] and another one fragment [ Beautiful couplets to the choir masters “I am Phonascus, here I am, the singing master, the leader who gives the note to the choir and the cockerel of the Singers. Varro in the Satire [The Donkey in marg.], so, if I dealt with these, I believe that I would miss the aim which I set myself and I would doubt whether I am abandoning the proposed topic of this Treatise immediately, with which I promise to treat only of the Choral and Harmonial Tones. I have restricted myself to these on purpose, because young Student only need these, namely the Harmonial Tones to compose and the Choral Tones, simple or made harmonial, in order to understand the the musico-practical works by our Ancestors, namely, Pier Luigi Palestina, Adriano Willaert, Cristoforo Morales, Mateo Asola, Costanzo Porta et cetera, and also to imitate their style, should they wish to do so.

Since I have to deal only with the Ecclesiastical Tones, also called Choral, and of the Musical ones, or Harmonial, one has to know that, just as the Choral Tones originate from the Cantus firmus, as one will demonstrate elsewhere, and this type of singing is adorned with mere sonority and does not produce any harmony because of its nature, since it does not allow more parts, one singing against the other, for this reason they are called Choral and Ecclesiastical Tones rather than Harmonial. Instead, the tones which are called Musical must be called also Harmonial with very good reason, because they originate almost from Music itself, and precisely from the use of keyboard Instruments, which require several parts one against the other [-7-] from which harmony is derived, hence [Histoire de l'Accademie Royale des inscriptions et belles lettres, Volume 5, 1729, contains literary reports from the year 1716 to the year 1725. One can find therein several dissertations on Music, and mainly on the marvellous effect of the music of the Ancient Greeks, on the rhythm and on its Composition and moreover an addition in marg.] only these are Harmonial by their own nature.

When I talked about the Harmonial Tones, I have said deliberately that they are not harmonial by virtue of their own nature, since this is a specific and particular prerogative of the Musical Tones. However, this does not prevent the Choral Tones from being Harmonial, because this has been practised through the use of the seven consonant accompaniments by all the Latin musico-practical Composers, since Composers began to write in harmony using simple and florid Counterpoint until the time when they started using our more recent Musical Harmonial Tones. This was bound to happen because Harmonic Music (instead of the Sonorous one) which was in its infancy was completely lacking of its own specific Modal Tones. Therefore, practical musicians used the Choral Tones by making them Harmonial through the use of seven consonant Accompaniments, as it was said above. However, they do not cease to be Choral Tones even in this condition for this reason, since anything, despite being wrapped up in an artistic feature, preserves certain particular properties precisely, thanks to which it can be recognised always with ease. This is very noticeable in the mentione Choral Tones made harmonial, because, omitting many other properties which they maintain, the one of the harmonic [-8-] and arithmetic division, on the basis of which the Authentic Tones are distinguished from the plagal ones, and the plagal ones from the Authentic, whether simple Choral or artificially made harmonial. This harmonic or arithmetic division it is always observed in the natural part, which is the part of the Tenor, as I will discuss more widely [[in the second half]] [at the appropriate place. corr. supra lin.].

It appears that the subject which I have to treat requires the Treatise to be divided into two parts, as I planned to do already from the beginning. I was only somewhat

uncertain as to whether I should deal with the Choral Tones or the Musical Tones in the first part. I had almost already decided to deal first with the Choral Tones, reflecting that these were put into practice by the musico-practical Professors of this art, since the Musical Tones came into use only at the beginning of this century or at the end of the previous one at the mos. However, their application in music is so much more attractive and easy, because they are used currently, than the one of the Choral Tones, which are completely forgotten in our day, to the extent that only the name of the Choral Tones survives nowadays and in practice only the major and minor Tone are used. Apart from a few of the more learned [-9-] and erudite Professors, the others, if they apply themselves to write in the Choral Tones, they are so muddled in creating their composition and in their application of those that one cannot distinguish well in any way in which type of Tone they wrote their composition. This must not be ascribed to an excess of bluntness on my part, because, as to the right application of the Choral Tones we have, thank God, the works of the famous Harmonico-Practical Professors who lived in the sixteenth century. I refer to these Works with reason (since They understood perfectly the nature and the intrinsic being of those Tones) and from the comparison with them one will be able to see easily if it is true what I am about to say on the matter with great personal regret.

Therefore, since nowadays only the two Harmonial Modal Tones are in use, and since it is necessary, as Philosophers say, to begin with what is known and then move on to the unknown to achieve perfect knowledge of anything, for this reason I will deal with the Musical Harmonial Tones in the first part. I will provide all the information which is necessary about them, deferring the explanation of the Choral Tones to the second part. However, I state that, when I talk of these, I will not discuss them considering them simple Choral Tones, but as Choral made harmonial Tones [[in the manner mentioned above]] [-10-] through the harmonic proportions in the seven consonant Accompaniments of different defined by different reading and species.

However, before I approach the first part, it seems convenient, or rather necessary, to premise that I maintain that the Musical harmonial Tones are two and the Ecclesiastic Choral Tones twelve, but it should not be assumed for this reason that I admit fourteen Modal Tones, because this could cause much confusion because of the mixture of what is different and distinct by its nature. One must observe instead that I create two Categories of Modal Tones, or two different classes. One is the one of the Choral Tones and the other of the Harmonial ones. In the first class, I place twelve Tones as do Glareanus, Zarlino, Tigrini, Zacconi, Costanzo Porta, Lodouico Balbi, and others of the most illustrious masters of the sixteenth century. In the second class, I place just two according to the common opinion of our Contemporaries who define no more than two, as one can understand easily.

Moreover, I cannot help adding (as one will be able to notice when it will be necessary to deal with the rising and lowering of the Tone) that, since every consonant accompaniment is composed of four integral parts, consequently it can be handled equally united to its bases as well as accidentally [-11-] divided into its two middle parts. These different ways of handling it, albeit cannot be done if not when the lower part ascends, they cause different continuo figuring. One can observe that this is the truth from the fact that the consonant accompaniment united to its Basis brings with itself the figuring of the fourth and the sixth. This happens, as it was said just now, because of the rise of the lower note first to the middle part and then to the higher second part, so that what was figured 8 becomes 6 and then 4, and so on talking about the harmonic numbers,

as the following illustration, where one can see the doublings of the third and of the fifth (marked 10 and 12) on the basis of the first harmony, so that there is the full octave in the second inner part.

[Vallotti, Trattato de Tuoni Modali, 11; text: Accompagnamento consonante semplice, 1, 3, 4, 5, 6, 8, Base di prima Armonia, Prima parte, mezzo, Seconda, (3)]

[-12-] However, if the above numeric illustration were not sufficient to make the reader understand well through that division also what comes as a consequence, observe the following Example in practice, which is nothing but a mere and sole consonant Accompaniment, which first can be seen united in essence to its first harmonic Base, then divided accidentally in the first middle part, then in the second one, and ascending to the extreme high part of the accompaniment, where it creates the same figuring as the Base, then it descends again to the second middle part, then to the first one, and finally it returns to its Base of the first Harmony. One must understand that the 6 into which the 8 transforms itself when it passes from the Base to the first middle part is not a true 6, but rather the 8 of the same accompaniment. The same must be understood with regard to the 4, which can be seen when the consonant accompaniment is divided in the second middle part, which is not but a real 4, but the same above mentioned 8, which changes now into a Sixth and now into a Fourth for the above-mentioned reason. In other words, it is reasonable, or rather, indispensable that for Music as well to preserve its immutable principles in any artificial handling, so that its natural state might be recognised.

[-13-] To the Readers

Since I attempted to write about music, I have always been very passionate about understanding the very important subject of the Modal tones, hence I have never spared myself any effort to reach this aim. I have look for and I have read as many Books as I could, but, since everybody who deals with this difficult and very entangled topic approaches it with great fear, perhaps because they do not possess its perfect knowledge themselves, for this reason I have derived from them little or no benefit, and what I have derived was always enveloped in as much confusion because of the great variety opinions among those who wrote about it. [signum] [[signum] And also because they confuse them with the Greek Tones with the Tones of our Music, which are completely and utterly different the ones from the others in marg.]

I have consulted many living masters, and, among these I have consulted with much greater attention those whom I believed to be more learned in Music Theory. However, since one explained to me the matter in one way, and another in another much different fashion, hence I did not know whom to trust, being convinced that, since truth is only one, consequently they must be mistaken for the most part. Eventually, I did find someone who, in my opinion and from what I could gather from his practice with my weak knowledge, seemed to me to be much better informed and learned in this subject than anybody else whom I have ever met, but this person, being conscious that this knowledge made him stand up from the others, has always [-14-] avoided to provide me with that full knowledge which he had acquired with much effort on his part. Therefore, the harder this matter appeared to be to me, the stronger my desire to understand fully the subject of the Modal Tones grew. Therefore, through deep and long thinking and a

diligent examination of the Musico-practical Works of the sixteenth-century writers mentioned by me several times, I believe to have reached my desired aim at last, namely to have discovered the real nature of the Musical harmonial tones through deep thinking, and to have understood the essence of the Ecclesiastical and Choral Tones through the above mentioned examination.

Now then, since i am aware how much effort this knowledge has cost me and how much detriment has caused me, because I would have been able to make progress in so many other fields and acquire other knowledge while I devoted myself to this matters, for this reason, eager to offer others the benefit which I have desired for myself for such a long time, I come to introduce myself and I offer you the whole Treatise, in which I have endeavoured to dispose everything with the best possible order, enhancing my reasoning with the most lively and strong reasons, with the authority of many and with the example of others, in such a way that nothing remains to be desired in the topic which I propose. Since I believe very strongly [-15-] that Historical knowledge of the Modal Tones will be always of great advantage and benefit to studious young persons, for this reason I wanted to extend myself to deal with the proposed topic ex professo. [Galileo Galilei, talking of certain erroneous opinions in Mathematics in the continuation of the Nuncio Sidereo in the letter to Gallanzone Gallanzoni, Volume 2, page 84 says ..... ma dubito che la sua maggior efficacia consista solamente nell'esser inueterato nelle menti degli uomini, ma non già et cetera e nelle carte 85 dice che fra le altre cose delle proporzioni che cascano fra le quantità alcune ci paiono più perfette alcune meno, come quelle che cascano tra numeri più lontani e tra se primi, come di 11 a 7 17 a 13 57 a 39 et cetera ..... but God has ordered the without any consideration for our whole simmetries et cetera in marg.]

I must add that I warned my Reader in advance in the Preface that, to avoid departing from my premise, I will not deal with the Modal tones of Greek Music for the reasons there adduced, but it seems indispensable to me to deal with them as well as the other ones in the historical summary. The reason is that otherwise this history would be too lacking and maimed. Moreover, this will also be useful inform those who have no consideration of the Modal Tones how useful and important they are, because there is no Music, nor there never was that did not have its own Modal Tones, as one will be able to see clearly. At the same time, everyone will learn how Giambattista Doni deceives himself [[signum] Compendio de Generi e Modi in marg.] when he approves the opinion of those who maintain that the Modal Tones are a trifle, and for this reason they do not care about them [signum] [[signum]. I am very surprised that a man of his stature approves of this opinion, because Platone says (second book of the Laws, near the end): 'Those who seek the best sort of singing and the best Muse [music add. supra lin.] must not look or the one which is appealing, but for the one that is right' in marg.]. Although he attributes this to the most thoughtful and learned Music writers of his time, nevertheless I dare say that, if they understood it in this sense, this happened because they did not understand with the required clarity [-16-] neither the ancient Greek Modes which have varied in number according to the various opinion of the Authors, nor the eight Ecclesiastical ones, which were four at first, as everybody knows, nor, consequently, the twelve of Glareanus. If they lived in our time they would despise our Musical harmonial Tones as well, hence it is appropriate to say that, since such a modus operandi does not suite the Professors who want to operate in such a way that they can account for everyone of their actions, it is appropriate to say that those of those times acted purely at random. Anyone can understand how unworthy this is of a Professor (even if he acted correctly) if one considers that who practises well without being bound by the Tones, he is mostly

doomed to make mistakes and cannot account for his actions, while, who keeps to the Tones and understands their nature, cannot go wrong, and will always be able to account to anybody for any of his actions, which is something to which we are obliged whenever we are required.

[-17-] Historical Summary of the Modal Tones of Greek Music, of the Ecclesiastical Chant, of figured Music and of Modern Music.

1

That Music is, among all the Sciences [Timagenes stated that music was the most ancient of all the literary disciplines, Fabius, book 1, chapter 17 in marg.] one of the most ancient, the divine Scripture proves it, from which we have certain and infallible evidence that Iubal son of Lamech invented and practised it since the first years from the creation of the Earth. These are the words: “He himself was the father of those who played on the cithara and the organ (1) [1 Genesis chapter 4. in marg.]. Pietro Comestore in his Storia Scolastica adds that Iubal discovered it from the observation of the sound of the different hammers of his Brother di Iubalcaïn, about whom the above-quoted sacred text says: “Iubalcaïn was a malleator and a blacksmith in all types of works of bronze and iron. One can gather this clearly also from Flavius Joseph (2) [2 antiquitates 1, chapter 4] and from the Chaldean Berousous (3) [3. antiquitates libro 1]

After Iubal discovered Music and was declared to be the father of those who played on the cithara and the organ for this reason, since he was aware nevertheless of the future end of the World already predicted by Abraham in the two deluges, one of water and the other one of fire, and since he did not know which one of them were to come first, that the idea to describe [the new discovery of Music add. supra lin.] on two separate Columns one made of stone and the other one of terracotta to protect it from both, so that it would not be lost and perish, as the Author of the Margarita philosophica says (4) “... With a column of bricks so that it would not be destroyed by fire, and one of stone so that it would not be destroyed by water.

[-18-] In fact, the deluge of the water came and Music was very soon absorbed and submerged as well as men, but, according to Franchino Gaffurio [1] [Theorica, book 1, chapter 8. in marg.] after the deluge their descendents themselves found them and put music them into practice. It was passed on to the Egyptian thanks to Cam and Mesraïm, and from the Egyptians to the Greeks. Nothing more is known about the first and most ancient Music.

Moving on to the subject of the History of the Modal Tones which I have embarked on dealing with here, one should be absolutely certain, firstly, that the Greeks have much enlarged and enriched Music, more than any other nation that practised before them, since it was accorded to it what happens usually to other Sciences, as Aristotle says. [2] [[signum] add. supra lin.] one finds that all the arts were discovered little by little and progressively and that nobody discovered a particular form of art and brought it to its perfection. Rodolphus Agricola de inventione dialectica book 2, chapter 5, page 328. All that is contained in the Arts nowadays had been dispersed and lost at one time, such as the notes, the rhythms and the voices in music. Equally see the commentary on the same

chapter at page 334. One must see also Quintilian book 5, chapter 10 and Cicero, first book de Oratore. Read also Agricola, as above, but at page 326 in marg.] [2 Elenchi 2, chapter 1; Metaphysica, 2, chapter 1 in marg.] In other words, first inventors never have perfect knowledge of it, but the arts become more perfect little by little thanks to the observations of the future generations, which remove the errors and substitute them with the new truths which they discover gradually until the time when a science which is perfect in all of its parts is created from any imperfect discipline. On this basis, nobody should be surprised if before the Greeks we did not hear of anybody mentioning the Tones in Music before the Greeks, since they were the first to use them. Moreover, we must rest assured that not even the Tones of the first Greeks were really Tones in comparison with those of their Descendants, [-19-] because the Greek Tones [Since the ancient modes were melodies, such the one that we have del Tasso, it is certain that the Modes are as ancient as Music is. Let us hear Padre Milliet: "Therefore, I believe that, if we talk about natural Music, it was so instilled by nature to such an extent that there is no barbaric population which does not have some sort of musical Modes .... in marg.] which were used at the time of Mercury, Corebus, Aianges and Terpander were very different from those in vogue at the time of Pythagoras, Aristoxenus, Euclid, Cleonidas, Alypius, Gaudentius and others. In fact, we know that the first Greek Tones were only three in the beginning, as Plutarch states, [In his Music in marg.] namely, the Dorian, the Phrygian and the Lydian. In truth, these were nothing but certain varied Melodies, or Arie, as we want to call them, which originated from those Provinces, namely the Doris, Phrygia and Lydia, and were used in singing their Songs, Hymns, or other. These were then called Tones because the fundamental note of each of them was separated by a gradual tone. Marc Meibom confirms all of this [In his Notes on Euclid, page 47 in marg.]: The word Tone in the meaning of mode was used firstly by the ancients because initially they had only three harmonies or modes, namely, the Dorian, Phrygian and Lydian, of which the two next to each other were separated by a tone, which is the interval of superoctavo. Hence the Lydian was a tone higher than the Phrygian, and the Phrygian a tone higher than the Dorian ..... Moreover, I will add here the reason why they were called Tones by the ancients, which were also then called Modes, from the second book of Ptolemy's Harmonics, chapter 10, so that nobody may be unsure on this matter; he transcribes then Ptolemy's authority as it stands in the Greek text and then [-20-] he explains it in Latin in the following way: In fact, if someone wanted to say that those three most ancient ones which are called Dorian, Phrygian and Lydian derived their name from the populations that used them, or if he wanted to put forward any other reason, they set them at a distance and for that reason perhaps they called the Tones. The Dorian was invented by Thamira of Thrace according to the opinion of Clement of Alexandria and of Pliny [naturalis historia book 7, chapter 56 in marg.]. The Phrygian, according to Clement himself was discovered by Marsyas [signum] [son of Iagne in marg.] who hailed from Phrygia, and the Lydian, according to the same Clement, [signum] [Stromata, book eight [seventh ante corr.] in marg.] was invented by Olympus from Misia, but it seems to me that Pliny's opinion is much more plausible, [2] who maintains that this one was invented by Amphion, son of Zeus and Antipa. What induces me to discard Clement's opinion is the fact that the Lydian Tone was one of the first ones to be used, but we know that Olympus of Misia was not one of the first ancient Musicians, since he lived a long time after Timotheus of Mileto, who was a musician in the service of Alexander the Great, who lived around the year 3600 since the creation of the World, while Amphion, who lived at the time of Periander from Corinth in the year 3240, therefore more than 360 years earlier, is a more probable candidate to be the inventor of the above-mentioned Lydian Tone. However, Zarlino [-21-] [1] [Istituzioni armoniche [[<...>]] book 4, Chapter

3 in marg.] observes that Plutarch (perhaps because he lived such a long time after Aristoxenus and other musical writers who numbered the Modal Tones up to thirteen and also fifteen) said that they were only three, since he considered them as the main ones, and observed that the species of the Fourth, from which the variety of the Modal Tones derives, are only four. A fourth one was added to the three mentioned above, namely the Mixolydian, so they became four from three that they were. Lucian held this opinion, [2] [2 in Harmonide in marg.] [[signum] add. supra lin.] [[signum] and also Plato in his Laches, where he talks not only about the Dorian, Phrygian, Lydian and Ionian praising among them all only the Dorian which he calls the Greek Tone. It is worth noting that he calls the Tones harmonies in marg.] although he lived such a long time after those first institutors of the first Modal Tones, since he lived around the year 300 anno Domini. Therefore, the Mixolydian was added and invented by Saffo, the ancient poet from Lesbos, who, being a woman and not being able to accommodate her voice to the Lydian tone, transposed it a semitone higher and gave it the name of Mixolydian, although she could have called it Mixophrygian or Mixodorian or give it a name which had no relation to the other modal Tones, because it turned out to be completely different from each of them. Moreover, there are some who ascribe the invention [-22-] of the Mixolydian to anybody else but Saffo, since Clement of Alexandria [1] [In alexide in marg.] gives its author as Marsyas, Plutarch, following the authority of a certain Lysias, [2] [[Stromata, book one]] In his Music in marg.] maintains that this person was Lamprocles of Athens. Others ascribe it to Tersander, [Olimpus from Phrygia, inventor of the Enharmonic genus imported the practice of singing to the consonant accompaniment of the flute from Thracia into Greece, Galileo, page 103. I interpret this as meaning that the melodies were doubled at the unison or at the Octave, or accompanied by a drone. What is named Harmonic i Vitruvius, you must interpret it as Enharmonic. In fact, either definition the Harmonic or Enharmonic genus are equivalent, or (which I believe is closer to the truth) the word Enharmonic has to be interpreted as Harmonic. See Buleng, book 2, chapter 4. Singing is called specifically Harmonic music is called specifically, as Isidorus maintains. Pappus and Cleonides call harmonic a genus which is a mixture of the enharmonic and of the chromatic. Thus the Hebrew Philo in marg.] and others, finally, to Pythoclidides, a trumpet player, and perhaps the last mentioned are correct. In truth, he seems to me to be the most probable author of that Tone, having been able to discover it from the accurate observation of his Instrument. In fact, if the Mixolydian tone (if it is true what was said above about Saffo) was founded on the note and octave of F fa ut in its natural reading (to speak with our terminology), which is the only one of the seven that the Trumpet produces naturally, it seems to me to be necessarily correct that Pythoclidides invented it, rather than anyone else. Unless we have good reasons to believe that both he and Saffo invented it separately one from the other and shared the same idea, as we know that it has happened between many learned Persons and in the case of many inventions. However, Lucian does not mention the Mixolydian among his four Modal Tones, but he adds the Ionian as a fourth to the three first ones accepted and mentioned by everybody, [-23-] which perhaps will be the same as the Mixolydian, which will be a single Tone with two separate names, as there are many others of this type, as we shall see later. In fact, the Mixolydian itself is called Locrensis by Iulius Pollux.[signum] [[signum] Lucian lived around the year 300 anno Domini in marg.] Plato has shown sometimes [1] [1 in his Laches in marg.] that shares this opinion, since he mentions the Ionian as the fourth one instead of the Mixolydian, although elsewhere [2] [2 On the Republic, 3] then he maintains that the modal tones are six and he calls them Harmonies. Apuleius, who lived around the year 412 anno Domini mentions five Tones, [3] [3 Florida, book 1 in marg.] namely, the three main ones (Dorian, Lydian and Phrygian), to which then he adds the

Iastian and the Aeolian. Here one must note that some call the Apuleius' Iastian with the name of Ionian, but Ptolemy himself calls it Iastian. However this does not matter, or very little, since the words Ionian and Iastian have the same meaning in Greek, to such an extent that their difference is reduced to a pure dispute about the name, which leaves behind much confusion in the end without any advantage.

Aristides Quintilianus [-24-] and Iulius Pollux [signum] [[signum] Book 2, chapter 22 in marg.] both follow Plato's opinion [signum] [[signum] on the Republic, 3 in marg.] and allow six modal Tones, with this difference however, that, while Plato and Iulius [Zarlino says that the species of harmony used by the ancients were six. They are the Dorian, the Phrygian, the Lydian, the Mixolydian or Locrensis, the Aeolian and the Iastian or Ionian, Part 2, chapter 14, page 31 in marg.] call them harmonies, Aristides calls them Tones. Apart from this one observes that albeit their number matches, their names do not do so. In fact, Plato admits the Dorian, Phrygian, Lydian, Mixolydian, Ionian and high Lydian, while Iulius disposes the Dorian, the Ionian and the Aeolian calling them first harmonies, and then he adds the Phrygian, the Lydian and the Continuous to them as the Tones which were used for playing the Flutes. Then Aristides [signum] [On Musica, first book in marg.] accepts the Lydian, the Dorian, the Phrygian, the Iastian, the Mixolydian and the Syntonolydian which could also be called the high Lydian. Plato lived around the years of the World 3570 and Aristides around the year 130 anno Domini, hence one can discern clearly that Aristides followed Plato completely, because there is no other difference between them, apart from the fact that Aristides calls Iastian the Tone that Plato calls Ionian, which does not impair this belief, since the two names have the same meaning, as we have seen above. Ptolemy maintains that the modal Tones are seven [Harmonics, book 2, chapter 10 in marg.], saying that he reduced them to that number on the basis of the consideration that the Octaves of different species and reading are no more and no less than seven, [-25-] and that for this reason each one of them contains one of its Tones. He calls Hypodorian the one which is contained between low G. sol re ut and high G, and proceeding orderly he calls Hypophrygian the one that he places between A and A and Hypolydian the one between B and B. He continues by placing the Dorian between C and C, the Phrygian between D and D, the Lydian between E and E and, finally, the Mixolydian between F and F. Others maintain that he wanted only seven Tones because perhaps he had the idea to pair each sphere of the celestial planets one of the seven Tones named by him. Many others before him had planned to do this, as Pliny mentions in his Natural History [signum]; [[signum] Book 2, chapter 21 in marg.]. That Ptolemy then had the same idea can be inferred from his own words [signum] [[signum] Harmonics, book 3, chapter 9. in marg.], and he himself confirms this as well [signum] [[signum] Harmonics, book 1. chapter 16 and book 2, chapter 15 in marg.] when, mentioning the Ionic Tone, the Aeolic Iastian and the Hypermixolydian (which Euclid calls Hyperphrygian), he demonstrates that he knew other different modal Tones besides the seven mentioned above. Ptolemy lived around the year 150 anno Domini. It is said that Ptolemy invented the Hypodorian Mode, that the Pythagorean Damon invented the Hypophrygian and Polimnester invented the Hypolydian. [-26-] Severinus Boethius adds another Tone to the seven Modal Tones of Ptolemy [[signum]] [[[On Music, book 4. chapter 14 and 15 in marg.]]] and calls it Hypermixolydian. I must state here that those who say that Boethius himself invented this Tone are very much mistaken, because it had been mentioned a long time earlier by Aristoxenus, Martianus Capella, Censorinus, Cassiodorus and others. As far as one can see, Boethius wanted to follow Ptolemy's opinion on the subject of the Modal Tones, as he says himself [signum] [[signum] On Music, book 4, chapter 14 [12 ante corr.]] when he gives a list of them and

names them saying “..... these are their names: Hypodorian, Hypophrygian, Hypolydian, Dorian, Phrygian, Lydian and Mixolydian. However, later on, [signum] [[signum] Ibidem, chapter 16 in marg.] he believes that he has to add another one, considering that the notes of the Largest System are fifteen, of which, since they create eight whole and complete Octaves, the last one would remain empty and useless (were the Modal Tones only seven) according to what he himself states [signum] [[signum] Ibidem chapter

157 in marg.] when he produces the example of the double Octave (Bisdiapason) contained within the fifteen notes mentioned above and named according to the first fifteen letters of the Alphabet, where he finally concludes with this words: “Therefore, H P are left over [-27-], an octave which has been added to complete the entire System, and this is the eighth mode.” There were others as well who have reduced the number of the modal tones to eight, but they were moved to do so by other different reasons, namely, on the consideration that the tones, the notes or the voices, [Music was most in use in the early Christian era, in fact the first Christians introduced the modes of the Greek Church into the Services to move the spirit and Saint Ambrose, moved by their sweetness, wanted them to be established in his Church in Milan from which they spread to all the remaining Churches of the Roman Empire. Saint Gregori in pref. in marg.] as we want to call them. In a certain way they aligned themselves in this with Aristoxenus, who reduced the Tones to the number of thirteen on the basis that the Octave, divided into semitones, contains thirteen sounds and notes, as we will discuss more widely in the appropriate place. Nevertheless, it is worth pointing out that there is [the Pythagoric school was founded under Pythagoras’ lead in the fifty-third Olympiad in marg.] this difference between Aristoxenus and the others mentioned above who maintain that the modal tones are eight. Namely, these based their own tones in the diatonic notes of the octave, while Aristoxenus did not follow this restriction. Boethius lived and thrived under the Emperor Theodoricus in the fifth century.

Some maintained that the modal tones are nine. This is the philosopher Gaudentius, who himself, in his Introduction, mentions the Hypodorian, the Hypophrygian, the Hypolydian, the Dorian, the Phrygian, the Lydian and the Mixolydian, and in his examples he adds also the Aeolian and the Hypoaeolian. One must note, however, that he calls the Hypodorian sometimes Common, and sometimes Locrian or Locrian, but it is one [Euclid the Author of books on Geometry is the author of the Music treatise. He lived after the philosopher from Megara under Ptolomy the first, who started his reign in Egypt after the death of Alexander the Great in the Olympiad 115 and around the year 319 before the birth of Christ. Thus writes Clavin in his Praise of Euclid in marg.] and the same Tone with three different names. Gaudentius lived and thrived around the end of the fourth century, namely around the year 390 anno Domini.

Then, Aristoxenus, who was a pupil of Aristotle’s, lived around the year of the world 3670. Because of his great skill and knowledge in the field of Music was honoured by the entire Greece, which was rich more than ever in learned men, with the name of Prince of Musicians. He maintained [In his Music; Aristides Quintiliano, Briennius and Euclid also relate this in marg.] that the modal Tones are thirteen. He increased their number to that level (as some say) on the consideration that thirteen notes constituted the entire Octave divided into Semitones. They add that he was induced to make this observation having noticed that there was only the distance of a Semitone between the Lydian Tone and the Mixolydian (which had been invented by the poet Saffo, as it was said above). Aristoxenus opinion was embraced by many others, and, mainly, by some of the most famous musicians, among whom one is Cleonides, [signum], [[signum] to

whom Giorgio Valla attributed that Treatise on Music falsely, since its true author was Euclid, as Marc Meibom states in marg.] who, talking about the modal Tones, [signum] names thirteen of them [In his Harmonic Introduction, in the chapter On the Tones in marg.] starting from the highest and descending to the low ones. He mentions the Hypermixolydian, two Mixolydians, two Lydians, two Phrygians, one Dorian, two Hypolydian, two Hypophrygians and the Hypodorian. Then, to some of these he ascribes two different names, but, since this can produce much confusion rather than anything else, therefore we say nothing more about it. Angelo Poliziano was of the same opinion [signum] [In the Panepisaemon in marg.], because he says that the Modal Tones are thirteen according to Aristoxenus and he gives to them the same names that Cleonides ascribes to them. He differs from Aristoxenus' system only because he counts them ascending from the low ones to the high ones, while Aristoxenus descends from the high ones to the low ones. Euclid [signum] [in his Isagoge in marg.] and Censorinus [signum] [[signum] De die natali nel Q. Cerelium in marg.] were also followers of Aristoxenus, hence they both maintain that the modal tones are thirteen. The first one lived around the years of the World 3690 and this one around the 3730.

Finally, the largest number of the modal Tones within Greek Music is the one reported by Martianus Capella [signum] [In his Music, book 9, chapter de Synphonijis in marg.] maintains that they are fifteen and he calls the Tropes instead of Tones, which is the same in essence. Nevertheless, he says that only five are the principal ones out of those fifteen, [signum] [[signum], while the other ones are divided into Plagal and Authentic ones. The latter are the five highest ones, to which the prefix Hyper is added. The former are the five lowest ones, to which the prefix Hypo is added. The principal ones are located in between the Plagal and the Authentic ones. This is what Vincenzo Galilei states, page 56 in marg.] while he names the other ten collateral. The principal ones are the Lydian, the Iastian, the Aeolian, the Phrygian and the Dorian. He adds two of the collateral ones to each of these five with the addition [-30-] [[<...>]] of these two Greek particles [Hyper], which means above, and [Hypo], which means below. Hence he creates two other Tones either side of each of the ones mentioned above, namely the Hyperlydian and the Hypolydian, the Hyperiastian and the Hypoiastian, the Hyperaeolian and the Hypoaeolian, the Hyperphrygian and the Hypophrygian, and the Hyperdorian and the Hypodorian, which then, added together, reach the number of fifteen. Cassiodorus was of the same opinion, [signum] [[signum] In his Music compendium in marg.] and, although he mentions only five elsewhere, [signum] [[signum] Letter to Boethius, book 2. Alypious as well mentions fifteen Tones together with Cassiodorus and Martianus Capella in marg.] nevertheless, I add that every tone has its High and Low ones, meaning to infer that everyone of the mentioned Tones has the two collateral ones, as Martianus Capella maintains in marg.] Cassiodorus lived around the year 530 anno Domini [signum] [[signum] The Greeks used certain characters to represent and mark the notes and, according to Boethius, also to mark the time long or short, so that the Sign of the Proslambanomenos was different from the one of the hypate hypaton and from the other ones; similarly, the character of the Dorian Mode was different from the same one in the Phrygian Mode and likewise the other ones. Zarlino, fourth part, Chapter 8 in marg.]

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Having finished to tell what is enough to provide a sufficient knowledge of the modal Tones [As to the use of Music in Church, we have the reports of Saint Paul to the Colossians 3, and to the Ephesians, 5. Some used the modes of the Greek Church, some

those of the Western Church, Milliet in marg.] of the ancient Greece, it is time now to move on to deal with the Modal Tones of the Ecclesiastical Chant, which we have called above Simple Choral Tones to distinguish them from the Choral nones made harmonial, which, God willing, we will discuss immediately after these.

The antiquity of the chant of the Church of God is very well known by who is even a little learned about Ecclesiastic [-31-] History, as Theodoretus states (1) [(1) Book 2, chapter 24 in marg.] that two monks from Antiochia who lived at the time of the emperor Costanzo, Flavianus and Diodorus, [signum] [[signum] he lived at the beginning for the fourth century and was emperor from the day 9 September of the year 337 to the day 3 November of the year 362, and Constantinus was Christian Emperor from the Kalendae of May 305, and he died on the 25 July 306 in marg.] invented the alterate singing when the Choir sang the psalms. Theodorus of Mopsuestia, before Theodoretus, left us the same account, and Cardinal Bona agrees with them. (2) [(2) Book on the divine psalmody chapter 16. in marg.] Moreover, Socrates relates (3) [(3) Ecclesiastic History, book 9, chapter 10 in marg.] that the martyr Saint Ignatius, who died martyr at the beginning of the second century, was the first one to use the antiphons in the Oriental Church, and, since some set out to rubbish Socrates' account of this fact, our Padre Pagi defends him with these words (4) [(4) around the year 400 anno Domini, number 4. in marg.]: "Ignatius the martyr was the first to adopt the use of antiphons in the Oriental Church. Christians, in fact, used to transfer to the worship of the true God the profane traditions of the Gentiles. Socrates was able to learn what he writes from writers whose works have not come down to us." He shows, on the authority of Homer, that the gentiles used to sing in alternate fashion by quoting Homer's authority and adding: "The practice of alternate singing was popular even among the heathens, since Homer (5) [(5) Iliad, 1, verse 604 in marg.] describes the Muses singing in turn." Tertullian as well (6) [(6) in his Apologeticon in marg.] confirms Socrates' opinion, since he relates that, when Pliny the younger was sent by the Emperor Trajan to examine and report on the situation [-32-] of those early Christians, Pliny replied on these lines: "I found nothing unusual except their refusal to make sacrifices and the meetings before sunrise to sing to a certain Christ as if he were a God."

Therefore the Ecclesiastical Chant did not acquire a certain vigour before they were established and organised its Tones as well. [[signum] add. supra lin.] [[signum] Since the Ecclesiastical Tones in the beginning were only four, the final notes must have been also only four, namely D, E, F, G; and since the rule was that the "The Tone ended regularly where the diapente started, and the melodies of all the Tones ascribed the beginning of each of their diapente equally to their conclusions in order." This is what Gaffurio says in his Practica Musicae libro 1. chapter 8. The Ecclesiastical Tones had also certain notes called confinales, which were described thus by the above-mentioned Gaffurio: "There are some modulations of the tones which are called irregular. These occur when they end in the note or theirs which we call confinalis. In fact, there are four notes which are called confinalis, namely, according to the combination of the eight tones. In fact, in every manner the note called confinalis is that note in which the formula of the diapente ends towards the high register; the note called confinalis of any tone is removed from the final note of the tone by the whole interval of a diapente. In fact, the first tone and the second one terminate regularly in D sol re, and irregularly in A la mi re. [signum], page 62. in marg.]. However, what we have noticed happen among the Greeks with regard to the Tones of their Music, this has also happened later on among the Ecclesiastical Christian Tones, namely, that in the beginning they were few, and then, as

we shall see, have been increased reasonably to the number of twelve. In fact, the Ecclesiastical Tones were only four in the beginning, namely at the time of the first Fathers of the Church [signum] [[signum] at the time of Saint Ambrose, Bishop of Milan, who, according to Padre Antonio Pagi, was born in the year 340 and died in the year 397. Franchino Gaffurio discusses these four ancient Ecclesiastical Tones in the first book, chapter 7 of his *practica musica utriusque cantus*, and before him a certain Abbott Odo, who lived in the year 953 and wrote a Dialogue, talked about them. In between these two the famous Padre Guido of arezzo, around the year 1020 in marg.] who instituted only those four which they called Protos, Deuteros, Tritos, Tetrardos with Greek names, namely, First, second Third and Fourth. They wanted them to be only four because they wanted to create as many as the species of the Fifth are. All who have dealt with this topic are unanimous in reporting this, and, among them, the most learned Giovanni Battista Doni (1) [(1) in marg. *Compendium of the Genera and of the Modes*, chapter 1, in marg.] We know, moreover, that said four Tone had been based on the [-33-] four following Gregorian letters, namely, D, E, F, G, and I am drawn to believe with reason, that in those first times when said Four Tones were created, their chants did not extend beyond the Fifth of each of them. One of the reasons that persuades me of this is that, when they were created, only the different species of fifth were taken into consideration. [[signum] add. supra lin.] [[signum] They did not take into consideration the different species of octave, which are of greater importance nevertheless, because they contain the different species of fifth within themselves, since these are part of the octaves in marg.]. Moreover, we know that the Songs of the first Christians were very modest and humble, and it was practised with such small flexibility of voice, that it could be barely distinguished as a song at the time. In fact, this is how Saint Augustin describes it (1) [(1) *Confessions*, book 10, chapter 33 in marg.]: “It seems safer to me what I remember was repeated to me often about the Bishop Athanasius, who made the reader of the psalm resound with such small inflection of the voice that he was closer to someone who read the text rather than to some one who sang it.” [signum] [[signum] One should not note against this that the Oriental Chant was used in the Church of Alexandria, while we deal with the chant of the Western Church instead, because in marg.] However, as in everything else, also in their singing the Ecclesiastics have deviated from the simplicity of the first Christians, and they did so to such an extent in the course of five centuries that the very singing which was established by the Apostles and by very first Fathers of the Church to move the hearts of the listeners more easily, and capture the attention and the devotion of those who assisted to the divine services, became the only cause of every distraction [-34-] and immodesty. Moreover, while in the beginning an almost imperceptible inflection of the voice was used in the ecclesiastical chant, thus, after five centuries their melodies were extended up to the Dis-diapason, or double octave, with unbearable indecency. [signum] [[signum] Thus, what Horace lamented in his *Ars Poetica* about the Music of his times *Postquam caepit [[.....]] Uinoque diurno Placari pensius festis impune diebus Accessit numerisque, modisque licentia maior.* in marg.] Augustin, the Saint who felt the effects of that first church music when he lived at Milan, after he had just been converted by Saint Ambrose, expresses himself with these very sweet words, which cause great confusion for us (1) [(1) *Confessiones*, book 9, Chapter 6 in marg.] “How much did I weep during your hymns and psalms, profoundly acriter moved by the voices of your Church resounding! Those voices flowed inside my ears and your truth filtered into my heart, and from it burned a feeling of love and my tears flowed, and they were good for me.” However, when the chant was reduced by the arrogance of men to such a state that the ears and the heart of the listeners were intent only on the ability of the singer, then was the time when the zealous Bishops began to reproach the abuses.

When the singing produced unholy and unruly results because of the excessive ascending and descending of the ecclesiastical melodies, then the attention [-35-] and concern of the Popes was needed to restrict the span of the melodies within certain set and determined terms. It is worth noting [signum] [It is worth noting that Franchino Gaffurio from Lodi in his Practice of music of one and of the other singing printed in Brescia by Bernardino Misinta de Papia in the year 1505, on the fifteen of August, says in the first book, chapter 7: “However, the ecclesiastical authorities distinguished those eight modes themselves, which are also called modes, in four ways. They called they first way Protus, the second one Deuterus, the third one Tritus and the fourth one Tetrardus, ascribing to each one of those (please note) a diapason and a diatessaron, so that the first was restricted to the terms and limits of the Dorian and Hypodorian; and what follows. in marg.]

It is not hard to understand that, because of the excessive ascending and descending of the ecclesiastical melodies, many inappropriate results were produced, because, although the span of fifteen notes is common to the voice of almost every Man, nevertheless it is certain that the voice of some is higher in pitch than the voice of others, hence, given such an extension in their chants, if they were suitable in the low register, they were unsuitable in the high register, and if they were appropriate in the high register, they were inappropriate in the low register. Therefore, to avoid these inappropriate effects and in order to render easier, pleasant and practical for everybody the Ecclesiastical way of singing, it was thought to restrict the ascending and descending of each Tone to a single octave, but not so strictly that they could not reach the extension of nine notes, and sometime ten. [A Tone is called Mixed, if it is authentic, when it touches either the lower tetrachord of its plagal, or at least two of its notes. An imperfect tone, whether authentic or plagal, is the one which does not complete the extension of its diapason, being lacking either on the side of its diapente or on the side of its diatessaron, or on both sides. They call this one diminished, with an appropriate term. They class as more-than-perfect of superfluous the tone which, if it is authentic, exceeds by one or two notes towards the high register, but, if it is plagal, it exceeds towards the low register. Gaffurius says this in his practice of music, book 1, chapter 8 in marg.]. There is a difference, however. If the melody does not reach the eight prescribed notes, the Tone has to be considered imperfect, while, if it covers the entire octave instead, it should be considered as perfect, and if, finally, the melody exceeds the octave touching the ninth and also the tenth, then the Tone should be considered more-than-perfect. However, in such different cases [-36-] I would consider and call [The ancient writers of plainchant used the straight line which embraces the five lines (with which we musicians distinguish a bar from the other) to indicate a breath while singing. Gaffurio discusses this in his Practice, book 1, Chapter 8. “One must consider a distinction in the progress of the tones ..... This one is represented by Neumata. A Neuma is a group of notes or voices which have to be pronounced appropriately in a single breath. Neuma is a Greek word which is usually translated into Latin with the word ‘Nutus’ (Sign). Those who write the music in the Antiphons and in the responsoria of the Night and in the gradualia express it with a certain line which embraces all the spaces of the lines in a way which is similar to a rest which concludes a composition. It subdivides the melody into sections and writers indicate with it the places in the melody where the singer can breathe, et cetera.” Zarlino talk about this Neuma in the Instituzioni, part 2, chapter 53, where he adds that sometimes they are employed in simple form and sometimes in doubled form, page 269 in marg.] the imperfect, perfect or more-than-perfect the melodies, rather than the Tone, since, whether the melodies do not reach or reach or exceed the set span, the Tone remains intact and is not altered in itself.

Therefore, having established the practice to restrict the melodies to a single octave and to increase the modal Tones at the same time, since they observed that every Octave is composed of a Fifth and of a Fourth as if they were two parts, they had the idea to create two tones from each one of the afore-mentioned four, placing the fourth either under or above the said Fifth. Similarly, they created two Tones; maintaining the Fifth common to both of them still, they added the Fourth above the Fifth in one Tone, and they added the same Fourth under the Fifth in the other one. Nevertheless, one must be aware that, although the same Fourth and Fifth are used in the both of the above mentioned tones, they do not share the same Octave, since one is based on an Octave which is divided harmonically, and the other one on another Octave which is divided arithmetically. In fact, they left the second species of fifth, which is found between D and A, untouched and they created the first Tone by adding above [-37-] said Fifth the second species [Giovanni Maria Artusi in his Art of the counterpoint, page 73, says that the regular cadences are those which are made in the extreme notes of their own Diapason, in the note which divides said Octave, as well as in the note which divides the Fifth into two Thirds. Hence, according to Zarlino's practice, the regular cadences of the First and second Tone will be one in [ $\langle \dots \rangle$ ] C sol fa ut, which is also the final one, another one in G sol re ut, which is its second regular note, and another one in E la mi, which is its third regular note, and so on, with regard to the others. He added then that the irregular cadences are all the other ones and they can be located where one prefers. Zarlino says the same, part 4, chaoter 118, page 412 and 413, where he says that the final and co-final notes of the Psalmodies have to be taken from the corda di mediazione and from the final of the same in marg.] of Fourth whcih is between A and B. Therefore, the first tone was based in the note and Octave of D la sol re divided harmonically. (A) In order to create the second Tone they transposed the aforesaid Fourth under the same Fifth, which is supposed to have to be common to both these Tones, hence it was it was based on the note and octave of A la mi re divided harmonically. (B) In this way two different Tones are created. They have a common fifth and a Fourth which is placed now just above, now just under the same Fifth. However, one observes that said two Tones, on the basis of the different position of the Fourth, are funded on two different Octaves. The first one is based on the second species of Octave, and the second one on the sixth species. This means that the first one on the note and octave of D la sol re and the second one on the note and Octave of A la mi re. The first Octave is found to be divided harmonically, while the second is divided arithmetically. In this way, following the same method they followed on in the creation of the other six Tones. Now, since the Harmonic and Arithmetic divisions of the Octave have been mentioned more than once, we should not delay their explanation any further, at last in as much as their practical use is concerned.

Mathematicians consider three main divisions, namely, the Arithmetic, the Geometric and the Harmonic one. These were explained [-38-] very successfully by Plutarch in few words (1) [(1) In his Music in marg.] where he said: "Three are the divisions, according to which every division is measured, the Arithmetic, the Harmonic and the Geometric. In the first one the number, by which the terms exceed and are exceeded reciprocally, is the same. In the third one that number is in the same proportion and in the second one the terms do not follow each other in proportion at the same distance." Having stated this first, I do not want to talk about it at length, but I will only say, as far as mere practice is concerned, and restricting myself to talk only about the above-mentioned Octave, that one says that it is divided harmonically, when the Octave is divided in such a qay that the Fourth is placed above the Fifth. Conversely, if the Fourth is placed under the Fifth, then said Octave is considered to be divided arithmetically.

Since the harmonic division is the most perfect of the two, hence the modal Tones which are found in the Octaves divided harmonically were named Principal, [Even add. supra lin.], Primary [Gaffurio calls the authentic Odd, autentici and leading and the Plagal ones gli Even, collateral et following. Practice, book 1, chapter 7 in marg.] and Authentic, while those which are based on the Octaves harmonically divided are called Oblique, [Odd add. supra lin.] Plagal and Collateral.

Now, returning to our task, since I said that from the first Tone, called Protus, two were formed in the way and form that I explained, consequently, that Tone called Deuterus, since it was the second of the four, became the Third one. Hence, if we take the Octave of E la mi and we consider it as harmonically divided, the Third Tone was created from it. [-39-] (A) The Fourth Tone was created from the third one in the Octave of B Fa [sqb] mi divided arithmetically by applying the same system adopted in the creation of the Second Tone from the First one. (B) Then, they moved on with the same order to create the Fifth and Sixth Tone, since the former was based on the Octave of F fa ut divided harmonically, and the Sixth one on the Octave of C sol fa ut divided arithmetically. Therefore, the tone which was third in the sequence and was called Tritus became the Fifth one, just as the one which was the Fourth in the sequence and was called Tetrartus became the Seventh. In fact, from the Octave of F sol re ut divided harmonically they created the Seventh Tone, and the Eighth Tone was based on the Octave of D la sol re arithmetically divided. This was the system through which the four Modal Tones of the most ancient Ecclesiastical chant were increased up to the number of eight.

The perfect four Tones were used in the Roman Church for the whole of two hundred and thirty years, because they were invented by those first Fathers under the direction of Saint Ambrose around the year 370 anno Domini and they lasted until when Saint Gregory the great was elected Pope, which happened in the year 590. His pontificate lasted for thirteen years, six months and ten days, and, during this time, the four modal Tones of the [-40-] so-called Ecclesiastic Latin-Ambrosian chant were increased up to the number of eight, as it was said above. Padre Francesco Pagi attests this (1) [(1) in his Brief Historico Critica-Cronologica up to the year 590, in the life of Saint Gregory the Great, number 58. in marg.], where he says: “Saint Gregory the Great reformed the Ecclesiastical Chant, which we call Gregorian from him and procedes through the strict boundaries and confines of the tones, which Musicians call modes and define in the number of eight, according to the natural disposition of the Diatonic genus.” One must also know that in that process of increasing the number of the Tones the names of those first four have fallen out of use. This happened with very good reason because, since we have noticed that the second of these became the Third one, the Third one became the Fifth and the fourth the Seventh, the names of Deuterus, Tritus and Tetrartus, which mean Second, Third and fourth, cannot be preserved. Therefore, they abandoned these Greek names and called them Third, Fifth and Seventh according to the new order.

Now, since I said so much about the Greek modal Ecclesiastical Tones, it seems necessary to me to demonstrate to the difference which is found between the ones and the others to my Reader. As to the Greeks, first of all, every Author who dealt with them demonstrates and teaches us that They were nothing but certain particular types of melody contained within a determined and proportionate sequence, number and meter [-41-] of sonority accommodated to the topic contained within the Words. Therefore, to be brief, their different Tones were nothing but certain melodies which we would call Arie, which set the Poems which were suited to each of them; and, since the different Nations

with their particular inclinations have a different singing style, and this constitutes a difference which we observe even ourselves in our time between the Italians, the French, the German, the Spanish and others, for this reason they named their Tones Dorian, Phrygian, Lydian, Iastian, Aeolian et cetera from those different nations.

Then, according to Zarlino , the Ecclesiastical Tones (1) [(1) Istituzioni, parte 4, chapter 1 in marg.] consist in a certain type or quality of Harmony, which is found within the seven species of the Diapason, which, divided harmonically, produce six authentic and principal modes from which then their Collateral are created via the Arithmetic division, and these are called Plagal or Placal Tones.

We should now move one to discuss the modal Ecclesiastical Choral Tones made harmonial, but I cannot differ to talk about an remark which is made commonly and is responsible for great and grave errors.

Once the number of the eight Tones was established by Saint Gregory the Great, as we said, and once its particular rules were prescribed to each of them, [-42-] soon certain Arie and certain manners of singing suited to the nature of each Tone were created, [signum] [[signum] Zarlino calls them Psalmodies in the fourth Book, chapter 15; in the same fourth book, page 287, he says that Leo II composed the melodies of the Psalms, namely, he invented their Psalmodies, which are the ways in which they are sung. in marg.] which could also be applied to any Psalm, so that, sung in turn by the two parts of the Choir, the psalms could be performed. Now, these eight Arie are called Tones commonly, but improperly, as if they were the modal Tones themselves, while they are nothing but different melodies created with the sole purpose to sing the psalms with the Choir with the least inconvenience and minimum effort, while, in truth, the tones are certain precise and exact rules according to which certain melodies have to be composed. If one follows these observations, one will never confuse the modal Ecclesiastical Tones with the Choral melodies of the Psalms or with portions of the simple Choral tones [One can believe that there was music which was different from plainchant before the year 1000, since Gaffurio says in the third book of his Practice at chapter 15: “Those who sing unwisely are disliked by most of those who they think will appreciate them. This, in fact, is the very powerful reason, why Guido, abandoned the florid and measured singing style, devoted himself to the Ecclesiastical chant. in marg.] or with the Choral Tones made harmonial. Therefore, after this premise, having talked sufficiently about them, as far as pure Historical knowledge requires, we will start to talk about these presently.

3

There is nobody, who possesses an average knowledge of Music history, who does not know that the music of the Greeks was adorned with pure sonority, since they did not allow several parts to be sung [-43-] one against the other. Albeit many [Zarlino proves that the music of the ancients did not create harmony. He confirms it at chapter 14 of the second part, at chapter 70 of the third part and at chapter 8 of the fourth part in marg.] sang together, certainly they sang the same melody in unison or at the octave. When the Singing was accompanied by some instrument, either this played alternatively with the voices in the manner of a Ritornello, to speak according to our practice, or, if it accompanied the Singer [When the ancient Music Theorists define the Consonance, although they define it correctly, it does not follow because of this that florid Counterpoint was practised by the ancients in marg.] while the Singer sang, the same

melody was played in unison or at the octave, and nothing else. This is the common belief of those who have ever examined this topic, among whom the main ones are Zarlino (1) [Institutions, Parte 1, chapter 4. in marg.], Vincenzo Gallilei (2) [(2) On ancient and modern Music, page 36 and 104. in marg.] Perrault (3) [(3) De la Musique des Anciennes in marg.] Brossard (4) [(4) Dictionaire de la Musique in marg.] Plato (5) [(5) Third Book Libro on the Laws in marg.], His Excellency Signor Benedetto Marcello (6) [(6) Preface of his Psalms, Volume 1 and further on in marg.]. When I stayed at Castelfranco at the home of Signor Count Iacopo Riccati, a famous and very learned Mathematician, I heard him demonstrate this very thesis with great and extraordinary erudition [Vincenzo Galilei, page 101 and 104 in marg.]. He said, among other things, that when certain Authors appear to be saying that the music of the Greeks was full of Harmony, this must be understood not with reference to the sort of Harmony which derives from the encounter of several parts or sound laid out in harmony with each other, but to the harmony which derives from the sound of the Voices or instruments. This sort of Harmony can be noticed more clearly in the Harpsichord than in any other Instrument, when the jacks are deprived of the usual interwoven cloth [signum] [[signum] or, at the most they talk about that harmony which is created by the Bourdon, when a low single note is sound while in the high register one searches for any note and plays any melody. It is possible that the Greeks knew and practised this manner and form of harmony, since it is very simple. in marg.]

As to the Ecclesiastical Chant, whether [-44-] Ambrosian or Gregorian, there is nobody who doubts that it was always the same as it is found to be nowadays, being adorned and clothed with pure sonority and not allowing the simultaneous sounding of different parts. However, this is true and certain, namely, that figured Music, or Music endowed with Harmony which we practise nowadays, owes its origin uniquely to the plainchant, as whoever will observe that the Plainchant is completely independent of harmonic Music, unlike harmonic Music is from him, since harmony is founded on melodies, but these are not founded on harmony, since the harmonic number depends always on the sonorous number, but the sonorous number is independent form the harmonic.

It is commonly thought that singing in harmony began at the time of Guido of Arezzo, [signum]. [[signum] certainly not before his time, but rather much later, namely around the year 1353, when Giovanni de Muris invented the note values. So it was called figured Music from the different types of figures used in singing. Guido himself was the first inventor of solmisation, and Galileo states, at page 99, that the early Greeks ululassero instead, because the names of the notes, like proslambanomenos and trite diezeugmenon, were too long and uncomfortable for solmisation. in marg.] namely, at the beginning of the eleventh century. I believe there to be reason to confirm this to you from a conjecture deduced from the term itself Counterpoint.

It was Saint Gregory the Great who, around the year 590 [signum] [[signum] The writers of the Greek Ecclesiastical melodies did not use the characters described by Alypius and others, but other new characters invented by Saint John Damasceno, which he accommodated to the Greek Ecclesiastical melodies so that they do not represent the notes, as the mentioned characters or signs, but they show the interval that has to be sung ascending or descending. Zarlino, part 4, chapter 8. Seneca, letter 84, says: "From the stage every genre and type of flute sounded together, so from dissonant sounds consonance is created." From these last words it is shown that there were not only

consonances in Music in those times, but that the use of dissonances had been already introduced, albeit the use of them was very rudimentary in the beginning, as one can deduce from certain Ambrosian Ecclesiastical chants reported by Gaffurio in his Book, *The Practice of Music* in marg.], in order to make the Ecclesiastical Chant easier, had the idea to adopt the first seven letters of the Latin Alphabet and the same number of lines, on which said Letters were laid out in order to represent the different [-45-] degrees of low and high sound, since [The ancients understood as harmony nothing else but the order of several sounds which follow one another, rather than the mixture of several sounds, as we understand it, Perrault *Musique des anciens*. 296. See also Aristides, book 1, from which this idea is derived in marg.] he established the interval of a gradual Tone between one and the other of those letters, except between B C and E F, where placed the interval of a Semitone. This kind of invention lasted roughly up to the year 1030, since around that time Guido of Arezzo published his *Micrologus* and he invented not only the method of solmisation which is in use even nowadays, but he had the idea to choose just three from the sequence of the Gregorian letters of which one placed at the beginning of the lines signified the position and the position of the others. For this reason those three letters, which are F, C and G, were called musical Clefs [signum] [[signum] The said Gregorian letters have been chosen to serve as indicator or key to identify the remaining ones, because they are the initial ones of the three different systems, namely, by nature, by B flat and by [sqb] square, and are at the beginning every Tetrachord. See Ozanan, *Dictionaire* in marg.] In order to create a piece of music, after placing one of the said three letters at the beginning of the lines, one wrote dots instead of letters, in the way that can be seen here (A) [see Table I at the end add. supra lin.]. Whether these dotes were placed just on the lines or on the lines and also in the spaces, as we place our Notes, this has little importance. [signum] [[signum] The value of the notes and of the musical signs of the Greeks was signified by nothing else but by the variety of the feet, long and short, within the verse, on which they were placed. Galileo, page 99. However, Boethius in the fourth book, chapter 3 of his *Music*, says that they placed these signs doubled one on top of the other. The first set of signs represented the ascending or descending of the melody, while the second set of signs indicated the percussions, namely, the long or short duration. Zarlino, *Parte 4*, chapter 8 says that one can understand how the large number of Greek singers could be co-ordinated with each other without a Chorus master or someone who beat the time from the rowers on the ships, from the blacksmiths, from those who beat the spices in the mortars at Rialto and, even more, from the Plutarch's words at the end of the *Life of Demetrius* where he talks about the flutist Xenophantos. See Galilei, page 102. Guido continued to teach the Plainchant with just four lines, so that one did not ascend or descend more than eight or nine notes, while modern composers added the fifth line for practical reasons relating to the measured composition. This is what Berardi says in his *Miscellanea*, Part 2, chapter 1, page 56 in marg.]. It has to be known that this method of writing Music lasted roughly until the year 1353, when it was abandoned, after the famous Frenchman Iohannes de Muris, who was a famous Mathematician, invented the values of the notes which we still use nowadays, since it was embraced then by the most famous musicians such as Tinctoris, Franco, Filippo from Caserta, Anselmo from [-46-] Parma, Fisifo, and Prosdocimo di Beldemando from Padua. [One must note that the use of note values must be much more ancient than it is considered commonly, because I see that Saint Bede, the Venerable, in the second book of his *Music*, which he entitled *De Musica quadrata seu mensurata*, shows square notes with and without a tail and oblique ones of different value, and he ascribes to each of them its particular value of Longa, Breve, Semibreve, et cetera. Said notes are placed on the lines or in the spaces found between the lines, hence, as to their invention, they have been attributed to Guido of

Arezzo, to Iohannes de Muirs and to others, but, in truth, the method of writing with dots has to be attributed to other more ancient Authors. “Rhythmic music is the one which observes different durations and almost lengthening of the sound in whichever sound, or it is music which sings according to the measure and the numbers. Milliet, de progressu metheseos et cetera. in marg.]

On this premise, I say with absolute certainty that when the musical dots started to be used, musicians started to write in Harmony. The art to write in music was named Counterpoint from the simultaneous sound of the consonances achieved through the use of the dots. When Musicians stopped using the Dots and started to use the musical note values discovered by De Muris, then every melody which, sung or played at the same time as another one, produced a regulated Harmony was called Figured Composition, although nowadays any composition for several Voices, or for Voices and Instrument is called Music, while the chant which is purely unison is called Cantus firmus or Plainchant. Having established the time when singing in harmony started, it is appropriate now that we discuss the Choral Tones made harmonial, according to what we promised. In fact, albeit the simple Choral Tones as and the Choral made harmonial are both the same Modal Tones, nevertheless the former are considered in a very different way from the latter. In fact, in the Cantus firmus the Tones are considered simply with regard to the particular [-47-] Reading of the Octave in which each is founded, [One must observe carefully that the use of the word Harmony is frequent, but that it did not have the same meaning which we ascribe to it, namely, of the simultaneous occurrence of more intervals, whether consonant or dissonant. In fact Monsieur Perrault says: “According to the idea of Music which we have, we do not call it Music when a single voice sings, and when several voices sing the same melody, we do not call that harmony either. In fact, the Ancients understood as harmony nothing but the sequence of several sounds which followed one another (Aristides, book 1), and not the mixture of several sounds, as we understand it, as it will be explained further on.” Perrault, de la Musique des Anciens, page 296. The ancient Greeks had six genres of Music, as Perrault himself relates at the same page, where he talks according to Proclus’ account “on Ptolomy’s harmony. There was a man named Stratonicus who invented the tablature (namely, singing in harmony). Music was not learned in any other way than by habit and by listening to the Teacher sing, a little bit in the same way as children are taught it nowadays in Turkey.” Calmet, Dissertation sul Lamnazeach et hella. The meaning of the word tablature refers to the musical characters instead. in marg.] and according to the span of the notes towards the high or towards the low register, while in figured Music they require many other considerations above and beyond those mentioned, as we will see now and more amply in the second part of this Treatise.

In fact, since it is certain that figured Music originated more than four centuries after the restoration and clarification made by Saint Gregory the Great within the Ecclesiastical Chant and at the time when the Modal Tones of the Plainchant amounted no more to four but to eight, it is absolutely certain the Modal Tones of figured Music had been eight from the beginning, namely, the very same ones which were established by Saint Gregory the Great for the Cantus firmus. One should not wonder why figured music then borrowed the Modal Tones from the Cantus firmus, when one considers that figured Music derives entirely from the Cantus firmus. Therefore, if the former has received from the latter everything it has and is, apart from the simultaneous sounding of several parts which is not given in the Cantus firmus, it could also adopt its Modal tones. Moreover, if the matter in itself is carefully considered, this is what should have happened and not

anything else, not only because, since figured Music had no modes of its own at the time, [-48-] it was obliged to use those of the Cantus firmus, but also because [From the last triplet of the ninth Canto of Dante's Purgatorio it appears that singing to the Organ, namely mixing the voice of the singers with the sound of the organ, was practised even in his time. Nevertheless, Landino in his Commentary talks about alternate singing between the choir and the playing organ, so a verse is heard and not another one. This explanation conforms to the practice of those times. in marg.] there was no difference in those early times between the Cantus firmus and figured Music, except in the harmony that the latter produced by sounding several parts against each other, while the former one, since it is devoid of such simultaneous sounds by its nature, was able to produce only individual sonorities.

Therefore, figured Music adopted the eight Modal Tones of the Cantus firmus with all the laws that respectively they bring with themselves, or with all the laws that are connected with them respectively. But, since one of the main laws of the Ecclesiastical tones is that they must not exceed the limits and boundaries prescribed to each of them within their Octave in the high or low register by more than one or two steps, for this reason it was impossible to realise such a law in the different voices which are laid out in Harmony in figured Music, since the Contralto, as everyone can see, has five notes less than the Soprano in the high register, and have five extra notes in the low register. The same happens to the Bass compared with the Tenor. Therefore, the Harmonico-practical composers of that first period [signum] [[signum] to preserve the same law also in the Counterpoints binding in marg.] only the melody of the Tenor [-49-]to the rigorous prescribed boundaries of each Modal Tone, and justified this rule by the consideration that, since the Tenor part is the only natural Voice among all the others, for this reason only the Tenor has to be contained within the assigned boundaries. Therefore, the consequence of this is that who wants to discover the Tone to which a particular Choral-Harmonial composition belongs, he must examine only the Tenor part, which is the one that guides and governs the Tone in every composition, hence the learned and witty Mantuan Poet Don Teofilo Folengo, nick-named Merlin Coccai (1) [(1) Macaronea, XX, verse 169 in marg.] The Tenor governs the voices est and leads the sounds. However, this is not such a fatal and precise law that sometimes things go otherwise. In fact, if it is necessary that a Counterpoint is grounded on some Ecclesiastic chant, in that case, who wants to ascertain of which Tone that Composition is, he must deduce this from the Voice or Part to which that Chant belongs. If the Chant rests in the Tenor, one must derive the rule from the Tenor. If they are entrusted to the voice of the Bass, one must look at the Bass to find out that information. The reason behind this is that in that case the sole leader of the Tone is the Cantus firmus on which the Counterpoint is worked out. We have examples of both these methods in Costanzo Porta, Cristoforo [-50-] Morales, Mateo Asola, Adriano Willaert, Palestina and others from whose Works one can examine the truth of what was being said just now in practice. I remember to have said a little earlier that the Contralto has five notes less in the high register and five note more in the low register than the Soprano, et cetera. This, in my opinion, requires no proof, because everyone sees that since the Key of C sol fa ut is placed in the Contralto a fifth higher than it is in the Soprano, the Contralto must have five notes in the low register which the Soprano cannot have, and, conversely, the Soprano must have five notes in the high register that the Contralto cannot have. This is all the more true in practice because it had been a common law among the Harmonico-practical composers who wrote using the Choral Tones which we do not observe because it does not concern us at all, since our compositions have different Tones and other rules to compose. Therefore, the law that

they had consists in the fact that they had to restrict their Compositions within the boundaries of the usual five lines, and in no case and on no account it was allowed to them to add extra lines above and below the customary five ones. The reason why said law was made in the first place is clear, namely, because, although only the Tenor was bound to observe the limits of the chosen Octave harmonically or arithmetically divided in its melodies, nevertheless they wanted that the other parts as well should have their established and delimited boundaries, firstly, so that each Part or Voice would be contained within the limited number of notes which were more natural to it, and also, so that each part would have some relation, either very close or immediate to the Modal tone, also as pertains to the boundaries of the Melody. In order that this may be better understood, it is appropriate that we should remember that We have said a little earlier that, since the Ecclesiastical Tones were only four originally, they were increased up to the number of eight through the harmonic division of the Octave, so two were created from each one of the first four, of which one is called Authentic [or Principal add. supra lin.] and the other one Plagal [or collateral add. supra lin.]. Given this premise, there is no doubt at all that there is an intrinsic relation between the Authentic and the Plagal, and, so to speak, a strict familial link, which is found between two things which have the same origin. Going back to our aim, one must observe that each Part or Voice is related to the Modal Tone, mediately or immediately, also as far as the boundaries of the Melodies are concerned, because, if the Tone is Authentic, the Soprano moves across the same notes as the Tenor, and sound the Authentic tone, while the Contralto and the Bass modulate its Plagal. However, if, on the contrary, [-52-] the Tone is Plagal, the Contralto and the bass modulate the Authentic, while the Soprano and the Tenor sound the Plagal. It is very true, nevertheless, that the other Parts are not bound by the strictness of the rule as much as the Tenor is, since these can exceed the above mentioned boundaries without mistake, provided that other lines are not added. The Tenor, instead, being the Principal part, must keep rigorously to the letter of the law, except (as we said) in case the restriction of the Cantus firmus is destined to another part, because in that case the part which carries the Cantus firmus is the real principal part instead of the Tenor. We have example of all these matters in the works of Palestina (1), Cristoforo Morales (2) and others. What has been said so-far should be more than sufficient so that one may ascertain the Tone of any Composition, but, since some take into main consideration the final note, I must inform you and add that the Tenor ends not always on the final note, because sometimes it concludes on the third note and often on the note of the final accompaniment. Nor this has to be disapproved of as a mistake, since this is required by the different consonances contained in the consonant accompaniment, so that the consonant accompaniment may have all of its integral parts. [-53-] Those who begin to examine the Tone from the final note, must look for it in the Bass more than in the tenor or in any other part, and they will know quickly that the Tone is the First one, or the Second, the Third or the Fourth one, the Fifth or the Sixth one, et cetera. The reason of this is that every plagal Tone has the final note in common with its authentic. If one wants to achieve full knowledge of it, he will have to examine the Tenor in its ascending and descending, and from this one will know in all certainty if the Tone is Authentic or plagal. However, should there be more than one Tenor in the same Composition, as it often happens in works set for more than four Voices, one must notice in such cases that there will always be a principal Tenor, to which we must adhere solely, although, in order to exclude any misunderstanding and to distinguish which is the main Tenor, it is common practice to give to the other Tenors the name of Quinto or of Sesto, et cetera (these terms mean Fifth part [voice add. supra lin.] or Sixth part [voice add. supra lin.]) reserving the its true name to the main Tenor. This is as much as can be said and can be observed so that any natural Tone can be clearly

distinguished even among a large number of Voices. However, I do not know if this will be enough to distinguish and discern the transposed tones, because, albeit one must make the same observations in these, as in the Natural ones, nevertheless [-54-] every small difficulty encountered by young inexperienced Students [Transposition originated at the time of Guido of Arezzo and not before, because, since the Cantus firmus before him was based entirely on the diatonic genus, there was no use of B flat or Diesis. However, since he wanted to constitute his seven hexachords (which turn out to be three in essence, namely, the first one, which starts on G sol re ut, the second one, which starts on C sol fa ut, and the third one, which starts in F fa ut) he had the idea to divide the Tone which is between A la mi re and B mi [sqb] and to thicken the diatonic genus in this way. Perhaps Guido wanted to base his hexachords in said three letters more than in others because they have been chosen also as clefs, namely to be put at the beginning of the compositions to indicate the other letters to the Singer. However, I would be more inclined to say that these three letters had been chosen as clefs because and hexachord can start in each of them, and not in others. However, this happens only in the case of that first music, because nowadays for this reason any of the seven letters has the potential to be set as a key for the others because the hexacords can be erected on any letter through the use of more B flats, while only one was used in the beginning. Moreover, we can obtain the same result through the Diesis which were completely unknown in that first music at the time of Guido. I observe with surprise in Gaffurio's Practica, book 3, chapter 13, and example of musica ficta with two B flats placed in the key signature in marg.] is sufficient to disrupt their mind and to confuse them to such point that they do not know any more where they should start from. It is certain that one has never seen in the Cantus firmus melodies which had been transported in the past, but some can be seen nowadays which are certainly among those that have been composed after the invention of singing simultaneously in consonance. In fact, the need for transposition has originated in figured Music from the need to maintain the Part of the Tenor within its right boundaries both ascending and descending in each of the Eight Tones prescribed. In fact, given as a basis the rule that other lines must not be added above or below the five commonly used, it becomes clear that the Tenor cannot sing notes which are lower than the Second and Fourth Tone, and also the high notes of the Seventh, considered within their respective natural position. Therefore, Contrapuntists have adopted two different expedients: one consists in changing the Clefs, often ascribing to the Tenor the key of C sol fa ut on the third line, which, in truth, belongs to the Contralto, and sometimes the one of F fa ut also placed on the third line, which is also typical of the Baritone. Similarly, they also changed the Clefs of the other voices, as one can see in the written works [-55-] of all the Harmonico-practical Composers right up until the eighteenth century. The other expedient consisted in transposing the same entire Compositions, which were transposed an Octave higher sometimes by changing the Clef, as we find that Pier Luigi Palestina did [The Ancients Music practical musicians called sign # Diesis and used it to notate the coloured notes, following perhaps Philolaus' opinion, who, according to Boethius (On Music, book 3, chapter 8) used to say that the interval by which the sesquiterza exceeds two Tones was called Diesis. It is believed that the shape of this sign # was introduced by some who had dreamt up the idea that the Tone was composed of nine Commas. Zarlino, Part 2, chapter 46, page 169 in marg.] in his famous Mass Papae Marcelli for six Voices. This kind of transposition certainly adduce no difficulty to recognise the Tone, hence they are not universally considered as transposed Tones, since they are based nevertheless in their same Octave and in their natural notes, nor do I mean to discuss these when I resume to deal with the transposed Tones.

When our ancestors wanted to transpose their Tones, ordinarily they transposed them up a fourth or down a fifth, placing a B flat  $b$  in the key signature, so that the same reading and species of Octave may be preserved. Therefore, they transposed the first Tone, which is based on the Note and Octave of D la sol re to the note and Octave of g sol re ut with the B flat in the position of B. fa [sqb] mi. With the same method one finds that the octave of G sol re ut and the one based on D la sol re have the same reading. (A)

Some who lived nearer our time sometimes wanted to transpose the Tones a fifth up or a fourth down (which is the same) without adding any signs to the Key signature, [-56-] not noticing that they committed a grave mistake in such a procedure, [Pietro Aron hints at transposition with the sign # in his *Lucidario* in the resolution of the fifth opposition in marg.] since the Reading and the Octave were modified, against the rule that, when one wants to transpose a Tone, the species and reading of its Octave must be preserved to it. Consequently, albeit they wanted to use that kind of transposition, they had to place a Diesis # in the key signature in the position of F fa ut. But, since the property of the Diesis # is not found in the Plainchant such as one find the one of the B flat, hence it follows that they incurred a similar error, of which the Professors of this art have not been aware, or, at least, have not been convinced, until about forty years ago. In fact, one finds that Zarlino talked about adding sharps to the ley signature (1) [(1) *Istituzioni* part 4, chapter 27 in marg.] even from around the middle of the sixteenth century, namely, from the year 1555. However, I observe that Maurizio Cazzati and the most learned musicians of his time did not dare adopt this notational feature even when they should have used more than one. (2) [(2) Cazzati's *Salmi a 8* and the *Masses* by Padre Baldradi printed in the year 1694, especially the *Missa Sancti Iuliani*. in marg.] Therefore, since the ancients did not practice transposition but with the sign of B flat  $b$ , we will discuss the transpositions with the sign of the Diesis # at its place, since we have to talk only about the former for now.

When one sees the accident of B flat  $b$  or Diesis # placed in the key signature, this is a sure sign [-57-] that the Tone is transposed, [signum] [[signum] Padre Zacconi too provides the beginners with the same observation in the first part of his *Practice*, Book 4, chapter 18 in marg.] hence I want to believe that any Schoolboy may be able to discern and distinguish the transposed tones from the natural ones easily applying this very easy observation. Then, in order to ascertain if it is the First, Second or Third, et cetera, one will need to observe [[signum] The Ecclesiastical writers establish no more than eight Tones because eight Tones are sufficient to embrace fifteen notes, namely from low A re to A la mi re above the high one, which is the extension that ordinarily the human voice can cover easily. It is beyond doubt that to force the voice beyond these limits produces horrible ill effects. Therefore, they reduced the Ecclesiastical Tones, which were four in the beginning to the number of eight, so that they covered only eight or nine notes instead of the eleven or twelve that they spanned before in marg.] what species of reading the final note is as well, as well as the ascending and descending of the melodies in the part of the Tenor. In order to ascertain the truth even more easily in this matter, one will be able to reduce the transposed Tone to its natural state by using the reading clef, but since sometimes in the transposed Tones the clefs are left untouched and at other times they are changed and the Tone is transposed at the same time, the reading clefs will also have to be different. Limiting myself to talk about the Tenor on which it is based the right assessment of the Tone, if the clef of the transposition is the usual clef of C sol fa ut placed in this like, the reading clef will be the one of the mezzo-soprano [(A) add. supra lin.]; then, if the clef of the transposition is the one of C sol fa ut on the third line (which

is typical of the Contralto) in that case the reading clef will be that of the Soprano (B). One must notice, however, that such a rule implies the use of only the first transposition with the sign of the B flat b. [-58-] As to the other transpositions using the same sign, and for those with the sign of the Diesis#, the reading clefs change accordingly, as we will see in the second part of the Treatise. The reading clef is nothing but a clef place or considered in transposed Compositions, so that one might extract from it the reading which belongs to each natural Tone, as one can see here. (A)

Sometimes, even since the time of Giosquino, the sign B flat b has been added to the clef even in the handling of natural Tones. This practice was adopted, as Pietro Aron confirms (1) [(1) Trattato de Tuoni in marg.] only to save their frequent use within the Compositions, when it is used very frequently to avoid the abhorred intonation or relation of the tritone. This is practised especially in the Sixth Tone and in writing Psalms and Compositions bound by the Choral Psalmodies, as one can see in several of Palestrina's and Morales' Magnificat. However, with all respect to them, they should not have placed such accidental figure arbitrarily in the key signature in any natural Tone, whichever it may be, because, in that case, once the natural Reading which is due to the Note and Octave of F fa ut, one is not dealing with the Sixth Tone, but with another one, [-59-] namely, the one which Glareanus called twelfth transported up a fourth.

The Musico-practical Writers persevered in using the eight Choral Tones which we have described from the invention of singing in harmony up to the time of Enrico Glareano, who lived around the half of the sixteenth Century. (1) [(1) He was born in Switzerland in the year 1487 according to Vossius, but according to Moreti in the year 1488. He died in Freiburg in the year 1562 at the age of 75. in marg.] he was one of the most learned and expert men of his age in the good letters and he was also very learned in Music. He took on the task to improve the Modal tones and increased their number up to twelve and published a book of his entitled Dodecachordon in 1547. The aim of the book was to restore the use of the ancient modal Tones of Aristoxenus, but he was very mistaken in this, because the difference between his Tones and those of Aristoxenus is extremely clear. Firstly, their numbers do not match, since the ones of Glareano are twelve, while those of Aristoxenus are thirteen. Moreover, those of Aristoxenus are laid out and are ordered in semitones, while those by Glareano are disposed and ordered in Fourths and Fifths, namely, the first one is based on D, the Second on A, the Third one on E, the Fourth one on B, et cetera. Those by Aristoxenus do not differ one from the other except for the fact that one was higher or lower than the other by a Semitone, a Tone, a Semitone, a Ditone, et cetera. In fact, each Tone was the same raised or lowered, as Vincenzo Galilei [-60-] demonstrates very clearly with the example (1) [(1) Dialogo of the ancient and modern Music, page 52 in marg.]. Those by Glareano are based on the seven Octaves of different species and reading. Once then these are harmonically or arithmetically divided, the Tones turn out to be completely different one from the other, as the compositions based on them, [Ordinarily, they transpose the Eleventh tone to the Octave lower. Zarlino perhaps had the idea to start his Tones from the low C sol fa ut from and to end them on A la mi re from this. However, I am talking about the final note in marg.] so that a composition based on the first Tone can never become one of the Second or the Third, although it can be raised or lowered by transposition. Why Glareano was induced to add another four Tones to the first eight Ecclesiastical ones, he says it himself. (2) [(2) in marg. Vallotti manu] [Glareani Dodecachordon [Dodecachordon ante corr.] Book II, Chapter VI: "Why it is necessary to lay out twelve Modes, et cetera in marg. Martini manu] In fact, this derived from the observation and comparison that he

made between the First and the Eighth Tone, which are different and distinct one from the other, albeit they are both based on the same note and octave of D la sol re, with this sole difference, namely, that in the First tone said Octave is considered harmonically divided, while in the Eighth Tone the same Octave is considered arithmetically divided. On the basis of this consideration, the final note of the First Tone is different from the final note of the Eighth one, since it is established by law that the final Note of each Modal tone is the note which is lower by a Fifth. Given this premise, since the Second Tone is based on the note and Octave of [-61-] A la mi re arithmetically divided, he had the idea to divide the same Octave [[signum] “The third and Fourth Terminated regularly in low E la mi and irregularly in high [sqb] mi; the Fifth and Sixth, regularly in low F fa ut and irregularly in high C sol fa ut; the Seventh and the Eighth, regularly in low G sol re ut and irregularly in high D la sol re, although they allowed the conclusion on the confinalis note in the Antiphons, Graduals and the other Plainchant melodies. In fact, they say that they always terminated regularly.” However, Composers used confinales notes often. In fact, normally they conclude the Christe Eleison in the masses on the confinalis note of the Tone. They do so also when they divide the Gloria in excelsis, the Credo and the Benedictus (which they place between the Sanctus and the last Osanna) into several sections. They used to do the same in the Motets when they divided them into several parts, so that in such instances they ended the first part in the confinalis note and the second, which concludes the composition, in its true final note. This was the practice of Palestina, Costanzo Porta, Orlando Lasso and others. Therefore, in order to assess the Tone correctly from the last note, it is appropriate to look at the very final conclusion of the composition. The end, according to Augustin, is that to which everything refers and the reason why everything occurs, while, according to the Philosopher, the end is the perfection of each thing. in marg.] harmonically and to create the Ninth Tone. Equally, since the Third Tone is based on the Note and Octave of e la mi harmonically divided, He created the Tenth Tone from it by dividing the same Octave arithmetically. Since the Note and Octave of C sol fa ut arithmetically divided was occupied by the Sixth tone, he created the Eleventh tone by dividing it harmonically, and, finally, since the Note and Octave of G sol re ut harmonically divided was assigned to the Seventh Tone, he divided it arithmetically to create the Twelfth Tone. This, therefore, is the way and the method on whose basis Enrico Glareano added his four Tones to the first eight Ecclesiastical ones. As to the fact that, albeit the Octaves of different reading and species are seven, He did not create fourteen modal Tones instead of twelve, the reason lays in the fact that the Octaves of B fa [sqb] mi and F fa ut cannot master one and the other divisions. The Octave of F fa ut cannot do it because in the diatonic genus it does not possess the true and perfect Fifth, while the Octave of B fa ut cannot do it because it cannot be divided arithmetically, since in the given diatonic Genus it does not have the true end perfect Fourth. [-62-] As to which one is the true and perfect Fifth, everybody knows is, since it is that proportion which derives from the sesquialtera between the numbers 2 and 3 and is composed of three gradual Tones and a larger Semitone. The true and perfect fourth is the proportion which is derived from the Sesquiterza between the numbers 3 and 4 and is composed of two gradual Tones and a larger Semitone. Therefore, on this basis it is clear that the modal ecclesiastical Tones cannot be more or less than twelve, and for this reason Franchino Gaffurio is reprehended by Glareano because, although he was familiar with the harmonic and arithmetic division, and he had considered with regard to the eight Ecclesiastical Tones, it did not occur to him what occurred to Glareano himself, namely, to add the other four missing tones to the other eight. Nor is it any use that Vincenzo Galilei says, (1) [(1) carte 73. Dialogo of the ancient and modern music in marg.] namely, that this must be ascribed to him as a sign of his wisdom and great knowledge,

because he hits himself with the shovel, as one is used to saying, or contradicts himself, since he says firstly that all the seven species of the Octave are filled with the seven Tones, while he adds a little further on that the First and Second Tone differ “not because of the different division of the different species of the Diapason, but because the Second is found to be lower than the first one by a Diatessaron, [-63-] and thus it creates a more languid and subdued harmony, which is different in character from the one of the First.” Therefore, from these last words one can deduce that he means that not only the First Tone, but also the Second one are based on the same Octave of D la sol re, just as, consequently, all the others are. Therefore, only four of the Seven Octaves are occupied by the Eight tones, whereas a little earlier (1) [(1) page 73 in marg.] he had said that the first seven Tones occupy all the seven species of the Octave. And if somebody, taking up Galilei’s defence, said that he did not mean to ascribe to the First and Second tone the same Octave D la sol re with the words quoted latterly, I reply immediately and say: How will the Second Tone be able to use the D la sol re as its final note, being based on the Octave of A la mi re, if not because said Octave is considered arithmetically divided, and on the basis of the quoted law of the final Cadence , (2) which must always occur in the note which is a Fifth lower? Therefore, Glareano was right in being surprised at Gaffurio’s crass and inadvertent mistake, and he was all the more surprised by this, because he also observed that there are twelve Tones in the Cantus firmus, having examined Graduals, Offertories, Post-communions, Responsoria and [-64-] other such Chants; and, albeit the most common and ordinary Psalmodies are only eight, [Psalmodies were invented in the year 682, as Berardi reports at chapter 4 of the Miscellanea, page 20. He says, a few lines above, that the Pope Saint Damaso composed and invented the intonations of the Psalms and of many Hymns in the year 366. Cerrone supports his opinion about Saint Leo in marg.] nevertheless, if one considers the Ferial ones as well and that which is used singing the *In exitu*, one will find the full number of Twelve Tones, as Glareano himself notes. (1) [(1) Dodecachordon Martini manu in marg.] as well as *Agostino* Zacconi. (2) [(2) Padre Lodouico Zacconi, Agostinian Martini manu in marg.] I must confess that I have grave doubts on this, and I will express them freely at the right time, because I am only friendly with the truth.

Therefore, after Enrico Glareano published his Treatise on the Modes with the title of *Dodecachordon* in the year 1547, in which he demonstrates that the modal Ecclesiastical Tones must be twelve, no more, no less, his views were followed very soon and embraced by all the most Learned and Erudite Masters of Music of his time, as Giambattista Doni reports (3) [(3) Compendium of the Treatise of the Genera and of the Modes, page in marg.] and Padre Costanzo Porta amply confirms (4) [(4) In the preface of his Masses in marg.] with these words: “Now, this part will contain six Masses confined and written for only four voices following the six adjacent Modes of singing .... The Remaining six Masses have been composed and worked out according to the other six Modes, so that the Twelve Modes recognised [-65-] by the most expert Authors of this discipline and faculty may be fulfilled on another more suitable and comfortable occasion, when they may be published openly when they are perfected with more mature judgment and care in a more polished fashion, which will be soon, I hope, God willing.” The Author that wrote about Music Theory after the publication of the *Dodecachordon*, all, or at least the greater part of them, have subscribed to Glareano’s opinion. Gioseffo Zarlino did so in the year 1555, Oratio Tigrini in 1602, Giammaria Artusi in 1598, [[signum] add. supra lin.] [[signum] at page 76, where he adds that the Tones must be necessarily twelve and that they have to start from C fa ut and end on A la mi re, following in this also Zarlino’s opinion. At page 77, he divides the Modes in perfect,

imperfect, common and mixed. He says that the Perfect are those which do not exceed their final note both in the low and in the high register, when they are authentic, while, when they are plagal, they must not exceed the Octave of which they are composed. Of the imperfect, some are superfluous, namely those that exceed the Octave of which they are formed either in the low or in the high register. The diminished ones are the ones which do not use all the notes of their Octave and leave some untouched in the low or in the high register. The common modes are the ones which exceed the notes of their Octave in such a way that they reach the notes of their collateral as well. Finally, the mixed mode is the one which often repeats a specie of diapente or diatessaron of another mode which is not his collateral. in marg.] Lodouico Zacconi in 1596, Giammaria Bononcini in 1673, Angelo Berardi in 1689, Domenico Scorpioni nel 1701 and many more whom I do not remember and whose writings I have never seen. However, it is true that the aforementioned Zarlino modified them a few years later, because, whereas Glareano begins his twelve Tones from the Note and Octave of D la sol re, Zarlino maintains that they should start from the Note and Octave of C sol fa ut. The reason that moved him to do so is that, if they begin from C sol fa ut, all of the twelve Tones, bot Authentic and Plagal, succeed one another without any interruption, as one can see from this Example (A); while, if they are made to start from the D la sol re the Ninth turns out to be separated from the Eleventh among the Authentic, because [-66-] this one is based on C sol fa ut and that one in A la mi re, while among the Plagal ones the Tenth is separated from the Twelfth, since this is based on G sol re ut and that one on E la mi. Such alteration made by Zarlino to Glareano's System was recognised by everyone as correct and reasonable. [[signum] add. supra lin.] [[signum] In fact, Artusi endorses it at page 76 of his Art of Counterpoint. [[Agostino]] [Lodouico corr. supra lin. Martini manu] Zacconi supports it as well in his book on Theory in marg.] However, it was embraced by few, given the great confusion which it produces with regard to the Tones of the Plainchant, whose Practitioners have never departed from their own System of the Tones, neither with regards to the their number, when Glareano added his four to the Eight Tones, nor as to their arrangement, when Zarlino named the First Tone Third, the Third one Fifth, the Fifth one Seventh, [[signum] add. supra lin.] [[signum] the Seventh Ninth, in marg.] and, among the Plagal ones, he named the Second Tone Fourth, the Fourth Sixth, the Sixth Eighth and the Eighth Tenth. Now, since one must recognise that the arrangement made by Zarlino of the Twelve tones of Glareano is perfect and the very good, nevertheless one cannot deny that, given the close connection of some Musical Compositions with the Cantus Firmus, this creates much confusion, for instance, in the case of Counterpoints that are linked to the Cantus firmus, as in the ones by so many famous Composers. To provide you with an universal example [-67-] and one which is know to the entire World, I will quote the instance of Palestina's Mass Ecce Sacerdos magnus, which in truth is really based on the Seventh Tone, but if one follows Zarlino's order it will not be of the Seventh, but of the Ninth Tone. However, it is completely certain that it as to be ascribed to one of the other Tone, and nobody would ever tell me that there is no contradiction to it being of the Ninth tone, since the Antiphon on which the Composition is based is of the Seventh Tone, because it is really an overly universal rule and a self-evident principle that "the same thing cannot be and not be at the same time."

The Harmonico-practical Professors of this art adopted Glareano's twelve Tones for more than one hundred years, when, having despised with detestable example the theoretical Study of music, which is so useful and necessary, as well as the good rules of this Art, to attend to a simple and ignorant practice, in the end they fell back to the use of only Eight Modal Tones, which, if one considers them well, are reduced to the number of

five, because those eight are based on only five Octave of different reading and species, without any application of the Harmonic [-68-] or arithmetic division to those Octaves. I derive complete proof that there is no consideration in these monstrous Tones for the harmonic or arithmetic division from the silence of the very Authors who talk about them, such as Bononcini, Penna, and Zeno. Among our contemporaries who hold the same opinion it is enough to mention only Padre Farnescantonio Calegari, who is very learned in everything else, but in this matter very mistaken. It is clearer than the sun at midday that all the eight tones are based on only five Octave of different reading and species, because the First and Second Tone are based on the fourth species of Octave, the Fifth and the Sixth are based on the Third species, the Fourth is based on the fifth and the eighth on the Seventh. [[signum] add. supra lin.] [[signum] hence the second and sixth species are excluded in marg.] Therefore, the second is a simple transposition of the First one, while the Sixth one is a simple transposition of the Fifth one, both of which, namely the Second and the Sixth one, transposed a fourth higher through the benefit of a b flat on the note of B fa [sqb] mi, but with difference, namely that the First and Second Tone remain based in their own species of Octave, whereas the Fifth and the Sixth one remain based on the Octave which belongs to the Eleventh and Twelfth Tone. Thus, [-69-] the Seventh Tone is also a mere transposition of the Third a fourth lower with the benefit of a Diesis placed on the note of F fa ut. It has to be noted, however, that neither of them possesses its own species of Octave, since this Third tone is based on A la mire and occupies the Octave which belongs to the Ninth Tone. Conversely, if it is considered as being based on the Octave of E la mi arithmetically divided, then it would occupy the place of the Fourth Tone and the Seventh would become the Ninth, but transposed, as it was said a Fourth lower. The Fourth, used in this manner, is really the Third, since it is based on the Octave of E la mi harmonically divided. The Eighth has been left untouched and unaffected, so one can say truthfully that only two Tones have maintained their natural state, namely the First and the Eighth, in this transformation of the eight Tones.

I am convinced that such abuse occurred because of the Eight Ecclesiastical Tones which we called above with the name of Psalmodies. Eight are the more usual among these, and for this reason it was established that the Musical Tones should be also eight. And since such Psalmodies in certain Octaves are based mostly on notes which are different from the main ones of the Octaves and of the Tones themselves to which these psalmodies belong, [-70-] for this reason the error occurred that, whereas the Third Tone, for instance, is really based on the note and Octave of E la mi, Practical musicians used it on A la mi re, on which note and Octave its Psalmody is based. The same happened to the Seventh Tone, which, although is based on the note and Octave of G sol re ut, nevertheless they practise it on D la so re with the B flat in the key signature, or in E la mi with the diesis # on the F fa ut, which two notes and Octave notated in this way turn out to be a simple transposition of the Octave of A la mi re, on which the Psalmody of said Seventh Tone is based and terminates orderly. They did this, in my opinion, in order that the Third and the Seventh Tone would be not exactly the same, so much so that the Harmonic and arithmetic division, which has the power to distinguish the Ecclesiastical tones which are based on the same Octave, could not distinguish the Third from the Seventh even if such divisions were observed, as they are not observed. That they would not have this power, even if they were applied, it is clear, because, since the said Tones are both Authentic, only the Harmonic division suits them, therefore they would be one and the same. Nevertheless they are not the same, because there is no difference between one and the other, if not [-71-] that the Third one is practised in its own natural notes, and the Seventh is practised in the first transposition, now with the sign of the Bflat and now

with the sign of the Diesis, while the same species of the Octave remains always the unchanged. They transposed the Second Tone a Fourth higher, so that it would appear to contain some difference from the First one, and they were drawn to do so all the more because, since when the that Psalmody is sung by the Choir in alternation with the Organ, it is customary to sing it in the note and Octave of G sol re ut with the b flat in the key signature, because it is too low for the most part of the Choiristers in its own natural notes. The Fifth and the Sixth tone, among the Ecclesiastical one, are based, as it was shown earlier, on the note and octave of F fa ut divided harmonically in the case of the former, and arithmetically in the latter case. The Harmonico-Practical Professors of the seventeenth century have transposed the Fifth one to the note and Octave of c sol fa ut with its natural reading, namely without any accidental at all in the key signature. I do not say this because, if a Diesis # were to be placed on the note of F fa ut, in that case the it would be a real Fifth Tone, if not in its own natural notes, at least handled in its first transposition with the sign of a Diesis, but, laid out in that fashion, it cannot be but an Eleventh or Twelfth Tone, instead of a Fifth or a Sixth. [-72-] They have removed completely the note and Octave of F fa ut from its natural reading, because, having reserved the aforesaid note and Octave for the creation of the Sixth Tone, they have placed the b flat in the key signature to the note of B fa [sqb] mi, so it turns out to be no longer a natural Tone, but a simple transposition of the one that they call Fifth. The Fourth Tone is assigned its own note and Octave of E la mi, but in the progress of the composition, except for the final cadence, the Tone which is adopted is the Ninth transposed a fourth lower, in truth, which is the same as the above mentioned Seventh. [[signum] add. supra lin.] [[signum] Examine the third book of Colonna's Laudate pueri from his thir book of Psalms, which he himself states to be based on the Fourth Tone, apart from the fact that this is revealed from the Ecclesiastic intonation which precedes it in marg.] Now, since the discourse has fallen naturally on to the application of the Tones, one must observe that, just as in this sort of Tone the harmonic and arithmetic division in relation to the melodies has never been adhered to, equally the individual progress which suits each Ecclesiastical tone has never been observed, as one can understand by comparing their compositions with those by Palestina, Morales, Asola and others. Therefore, all together are reduced then in the end to just two Tones, because, from their application, one notices that only two octaves are handled, one featuring a major third, as it is the one of C sol fa ut, which comprehends the Fifth, the Sixth and the Eighth tone, and another one composed of a minor Third, which is the one of A la mi re, which covers the First, Second, Fourth and Seventh Tone. Among those which are subject to the Octave of C sol fa ut because of their organisation, the Eighth Tone appears to be monstrous because they use in it that note of D la sol re with the major third, which belongs to it only when it has the minor third. Sometimes they use in it also the note of B fa [sqb] mi, which remains excluded from the Octave of G sol re ut, given that it has the note F fa ut in Seventh place among its natural notes, while, if one handles the note of B fa [sqb] one should always have at hand the Diesis for the F fa ut, which has to be used always as natural minor interval, while the Diesis # is allowed to it only in the case of a final cadence. Among those which are come under the Octave of a la mi re because of their application, the First and the Second turn out to be monstrous mainly when the fourth note is used with the minor third and the sixth one diminished with the b flat, because the nature of said two Tones is: Re, mi, fa, sol, re, mi, fa, sol, since the First one is based on the natural notes of the Octave of D la sol re and the second one on G sol re ut with the b flat on the note of B fa [sqb] mi in the key signature. This is nothing but a simple transposition of the above-mentioned Octave of D la sol re. The Fourth one is disguised completely and has nothing that is true except its name. In fact, although the larger

accidental sign, or Diesis, is totally inappropriate to his nature, nevertheless it is used freely in the note of G sol re ut and in that of E la mi as well, as one can see from the Psalm Laudate by Colonna, quoted above. (1) [(1) Psalms for 8 voices, book 3. in marg.] Now, if a Man who was undoubtedly excellent in this profession of composing fell into such blunders, what can one conclude, except that the abuses were so engendered in such matter that it has not allowed anybody except the first masters of Counterpoint to realise this inganno.

Before I continue on this topic, it is necessary that I warn my Readers that, even at the time when the Musico-practical composers had already adopted Glareano's twelve Modal Tones mentioned above, at that very time the same Masters also had a series of Eight Tones separate from the one of the twelve ones mentioned above. However, these were not the Eight Ecclesiastical ones described above nor those mentioned a little earlier of the modern harmonico-practical musicians of the seventeenth century, but they were eight Tones which depended on the eight main Psalmodies, so, according to the end of the Psalmody of the Seventh Tone, they ordered their compositions, and for this reason one finds that the Magnificat of the Seventh tone in the works of Palestina and Morales end on A la mire, although they knew very well that the Seventh Tone is based on the note and Octave of G sol re ut divided harmonically, [-75-] just as they knew that the Third Tone is based on the note of e la mi and the Fifth one on the one of F fa ut, but they ordered the Third and the Fifth one just as well as the Seventh mentioned above on the note and Octave of A la ami re harmonically divided. I add this so that one may see that the very composers who adhered Glareano's Tone in every composition of theirs, when they wrote a Psalm, they directed their consideration only to its specific Psalmody, disregarding completely the harmonic and the arithmetic division. I observe this in the composition of the melodies of the Tenor in the Fourth Tone, which are contained from an E la mi to the other, and in the Eighth Tone, which span from a G sol re ut to the other one, but, albeit, being both plagal, the Fourth should be span from one B fa [sqb] mi to the other with a final cadence on E la mi, and the Eighth should span from a D la sol re to the other with a final cadence on G sol re ut, they kept to this rule religiously in every other Counterpoint of theirs, thus they completely disregarded when they took to set Psalms to music, because one must consider only the Psalmodies in that case, as I have already said, and this particularly in the case of Psalms which, being sung in alternate fashion, depend from their respective Psalmodies. [-76-] Since this is the most ancient way to sing Psalms set for several voices, for this reason they have observed the same rule when writing entire Psalms, which they always preceded with the Ecclesiastic intonation, as Mateo Asola used to do, who was also perhaps the first author to apply this practice. Iacopo Gastoldi and others did this as well.

Now we go back to resume the interrupted thread of our discourse and to talk about the Musical Harmonial Tones.

Therefore, since the Musico-practical Writers observed that their Eight Tones were so little different one from the other that the only difference was between those that were based on an Octave composed of a major Third and those that were based on an Octave composed of a minor third, since their Fifth, Sixth and Eighth Tone progressed in the same way, although the Octave of G sol re ut is so different from the one of C sol fa ut, while their First, Second, Third, Fourth and Seventh Tono equally progressed as they were one and the same Tone, for this reason they were moved to say that the Musical Tones are no more than two. They distinguished one from the other just on the basis that

one is based on an Octave composed of a major third, and, therefore, [-77-] they called it Major Tone, and the other one is based on an Octave composed of a minor third, and so they called it Minor Tone. We have no knowledge of these, except from the oral account of the harmonico-practical composers of our day and from their Compositions, since nobody has dealt with them yet ex professo, or, if anybody has written about it, I have not heard about it, since I have found these words in the Musico Testore by Father Zaccaria Zeno (1) [(1) part 4, book 3, page 269 in marg.]: “Some of the latest composers maintain that the Tones are only two, and that their foundation rests on the consideration of the major and minor thirds which they contain. They do not distinguish them except of the basis of these, so that they maintain that the minor third creates a Tone and the major third another one. They state that the Octaves, the Fifths and the Fourths are always the same.” I note that some deride this opinion as completely wrong, so I read that someone wrote ironically (2) [(2) In the Teatre alla Moda, page 15 in marg.] “The Modern Composer will not know how many Tones there are and which ones they are, he will not know how they can be divided, and he will not know their particular. On the contrary, on this matter he will say that only two Tones, Major and Minor, are given, namely, Major, the one which contains the major Third, and Minor, the one that contains the Minor one.

Finally, I find them mentioned by Pierfrancesco Tosi (3) with these words pronounced by an ignorant contemporary Contrapuntist: “The modern school of music, if you did not know, recognises no other Tones (Tone/Thunder), [-78-] than those that follow the lightening,” and with good reason he derides both those who imagine that they are two as those who maintain that they are Eight (or more if needed) divided into Authentic and Plagal, wisely leaving free will to everyone to write as they please. This is everything that I find to have been written on the two Harmonial tones, albeit nowadays no other Tones are used, not only in the Theatre and in Chamber music, but also in Church, therefore, as it has been done with the others, it will be necessary to write here what concerns to their History.

The Music Masters who lived towards the end of the last century observed there was little difference between the Modal Tones, since some were indistinguishable one from the other, if not as to the fact that one was the transposed version of the other, as we have already said above. In fact, the Second is a simple transposition of the First one, the Sixth is a transposition of the Fifth, while the Seventh (whether it is written on D la sol re with the B flat b in the key signature as does Bononcini, or on E la mi with the Diesis to the key signature [with Penna and Father Angeli from Rivotorto add. supra lin.]) is a simple transposition of the Third one. Moreover, one must add, that the First, the Second, the Third, the Seventh and also the Fourth Tone progress equally (with the exception, though, of the final cadence in this last one) as if they were only one Tone, although, in truth, if they were not [-79-] only one Tone, they would be reduced to two and no more than two, as we said now. In the same way they employed the Fifth, the Sixth and the Eighth, so it was noticed that, since the Practitioners observed that, when the Eighth Tone was handled (albeit in the way that they did handle it), it was almost always necessary to mark the Diesis # on the note of F fa ut, some of them thought of placing it in the key signature, while many of the more strict abstained from this, as if it were something completely improper. Therefore, since they disagreed with each other, all the dispute was reduced to nothing, since both agreed in the manner of composing. In any case, those who place the Diesis # in the key signature commit only one mistake, which consists in the

fact that, while they deal with the major Tone transposed, they think that they are writing the Eighth Coral Tone, but those who do not want the Diesis in the key signature, besides committing the same mistake which was mentioned, they commit also another one which consists in the completely repugnant fault of modulating to the natural octave of G sol re ut. On this matter, I want to tell you about a dispute which I have witnessed. Once, when two well regarded Music Professors were discussing the nature of the Eighth Tone, they agreed on the fact that it is founded on the Octave of G sol re ut, but then they argued bitterly, because one expected that the Diesis # should be [-80-] placed in the key signature in the position or on the note of F fa ut, while the other one maintained that no accidental sign should be placed in the key signature. A very bitter row originated from this, since they accused each other of being ignorant while the spectators of this dispute were almost petrified, unable to tell who was right. In fact, since they understood the subject of the Tones no better than the two who argued with each other, they were entirely in the dark as far as truth is concerned, and I, who was also present, was surprised nevertheless because I found myself enveloped in the same confusion. However, now that I have arrived (as I believe, at least) to know the pure truth, now I understand that they were like blind man hitting each other with sticks. The one who did not want that an accidental sign should be placed in the key signature when the Eighth Tone was handled, was right in part, because, since it was based in the Octave of G sol re ut as in his natural notes, it must never accept an accidental sign in the key signature, since, if the Diesis in the note of F fa ut is admitted, the species of the Octave which is specific and natural in the Eighth tone is immediately changed into the one which had been assigned to the Fifth a little earlier. In fact, if one examines the reading of the Octave of G sol re ut with the Diesis in the key signature, one will see that it is clearly the same reading [-81-] which belongs to the Octave of C sol fa ut, namely, Do, re, mi, fa, sol, re, mi, fa. (A.)

The one who maintained that the Diesis # should be placed in the key signature was right in part, because, since the note of D la sol re with a major third was handled in it (as they practised, rather than one should practise it) in its entirety, as one says, (and also the note of E la mi and by some also the one of B fa [sqb] mi) one must always have the Diesis # ready to mark the note of F fa ut, so that, once it is placed in the key signature, the confusion, which the large number of them disseminated across the composition can adduce, will be avoided. But what matters the most is that, if the Diesis is placed in the key signature, immediately it acquires the cadences in D la sol re with the major third, the one of E la mi and the one of B fa [sqb] mi, and this latter person commits no other mistake except that he presumes to be handling the Eighth Tone, and is totally and utterly wrong, because he handles the major Tone in its first transposition with the sign of a Diesis #, whereas the other Musician, preserving to the Eighth Tone its natural notes contained in the Octave of G sol re ut, composes in the worst way, because it uses all the notes of the other one, of which we have spoken up to now. While they say nothing of the application of the Eighth Tone, which is what is most important, they have fallen back on to the usual dispute in order to [-82-] decide if the Eighth tone requires the Diesis placed in the key signature on the note of F fa ut. This must be said as a sign of relief, more than for anything else.

The Harmonico-practical Professors little by little had confined themselves to recognise none but only two modal tones, because they composed in the three Octaves composed of a major third in the same way, (these are the ones of C sol fa ut, F fa ut and G sol re ut) while they composed in a different way in the four Octaves composed of a minor third. Because they had considered this matter only superficially, they limited

themselves to distinguish them in such a way by defining the major Tone as the one based on an Octave with a major third and the Minor Tone is the one based on an Octave with a minor third. Established this principle, they began to increase the number of the accidental signs in the key signature, and, where in the creation of the Eight Modal Tones related by Penna one would see a B molle b in the key signature of the Second and Sixth tone and a Diesis in the one of the Seventh, they displayed two, three and four Diesis and two, three and four B flats, so that the Octaves which are based naturally on a minor third, they found a way to turn them into Octaves with a major third through the use of accidents, and, conversely, the [-83-] Octaves which are composed naturally of a major third, they found the way to turn them into octaves accidentally composed of a minor third. This is what has been done on the matter of the Modal Tones of the Romans which was the origin of the Ecclesiastical Chant until the beginning of the current century.

Padre Francescantonio Calegari, a man of very subtle mind and abundant talent, held the post of Master of the chapel of this famous Sanctuary until the year 1703, and, being very eager to know and understand anything that might be required of a Man who had been chosen for such an illustrious post and was exposed and rendered famous to the World. Therefore, he began to examine himself and believed to be very lacking (albeit he knew everything that was taught in this Profession in his time) and so, devoting himself and to hard and most extended analysis of the admirable practice of the famous Giovanni Pierluigi da Palestrina and working hard on it, not only he discovered many errors in the common practice of music theory regarding the correct understanding of the harmonic numbers, formulating new rules and clarifying everything which pertains to harmony, but he also realised that the Tones adopted by the aforementioned Palestrina are very different, or rather completely different from the ones of Modern composers. Therefore, some of these took to saying that the Tones are two, excluding the Eighth of Penna, the twelve of Glareano, et cetera, while some of the older ones [-84-] wanted the eight described by Penna, and other still the twelve by Glareano, excluding the two of Modern composers in turn. Father Calegari declared himself in favour to Penna's eight tones and excluded the twelve by Glareano, but he accepted the two of Modern composers, so he formulated two Categories of Modal Tones, the first one containing the Ecclesiastical Tones and the second one the Musical ones. In the category of the Ecclesiastic Modes he recognises only Eight Modes which are precisely the same as those related by Penna, while in the category of the Musical Tones he recognises only two, but in such a way that is different from the one of commonly understood by current music Practitioners. He calls the Eight Tones Ecclesiastical because they derive from Plainchant, albeit he is very mistaken in this, since the Eight Ecclesiastical ones are the ones which we related above according to Gaffurius and Pietro Aaron. He calls the other two Musical Tones, because they originate from keyboard instruments and from singing in harmony. He adds then that the Eight Ecclesiastical ones, albeit they are not harmonial in character, they can become so through the help of the seven consonant accompaniments, as one can see in the harmonico-practical Works by all the Music Masters who lived up to the end of the seventeenth century.

. From what was said above it is clear that the authors of the two modern Tones had not ascribed any natural position to the Major [-85-] nor to the Minor. This is the most inconvenient idea that anyone might think of. It was set as a rule among the Ecclesiastical Tones that their First Modal Tone was founded on the Octave of D la so re and the Eighth on the octave of G sol re ut, and to each one of them was assigned their particular Octave, together with the features which distinguish each Modal Tone from any

other, whether it is of the same Series and Category or of a different one. Therefore, why should these modern Tones not have their particular Octave as well, so that the particular reading of each octave may be fixed and, consequently their subordinate notes with everything else that is more particular to them. Therefore, Padre Calegari assigns the natural Octave of C sol fa ut with its relevant reading which is precisely Do, re, mi, fa, sol, re, mi, fa to the major Tone. This reading must be preserved to it in any artificial transposition, whether with the sign of the Diesis # or of B molle b. Moreover, he ascribes to it sixth cadential notes, so that its application is very much enriched. Said notes are divided into two groups, namely, three major ones and three minor ones. The first ones are those of C sol fa ut, or the principal, the fourth and the fifth note, and these are the true foundations of the Tone. The others one, or minor ones are A la mi re, D la sol re [-86-] and E la mi, second, third and sixth note, which are accessory and accidental, because they are specific and constitutive of the minor Tone, and they are admitted in the major Tone in order to achieve a richer harmony, and for no other reason. Nor this has to be understood in any way as an improper use of them, since the subordinate notes in each Ecclesiastical Tone are the very principal ones of the other Tones.

Then, he ascribed the Note and Octave of D la sol re to the Minor Tone as its basis, with its natural reading which is, precisely, Re, mi, fa, sol, re, mi, fa, sol. He maintained (as it has been said for the major Tone) that said reading has to be preserved to it in any artificial transport, both with the sign of the Diesis and with the one of the B flat b. Hence, the transpositions of the minor Tone turn out to be totally the same as those of the First Choral Tone, because they are both based on the same Octave of D la sol re. Moreover, he ascribes to them their cadential notes in the number of only five, divided into two groups, namely three minor and two major. The minor ones are D la sol re and G sol re ut, which have the minor third through the B flat b on the note of B fa [sqb] mi and A la mi re, which are the principal, the fourth and the fifth note. The major ones are C sol fa ut and F fa ut, which are the third and seventh note, which are accessory and auxiliary, because, in truth, they belong to [-87-] the major Tone, as it was said a little earlier.

But, although I did subscribe myself signed below to this system and had used it for several years, nevertheless, four years ago, namely in 1731, I realised that Padre Calegari committed a great mistake, not as far as the major Tone is concerned, since it is placed very accurately in the note and Octave of C sol fa ut, and it has all the due notes of the cadences and everything that pertains to it, but, when he discussed the Minor Tone, there is no doubt that it cannot be well established on the note and Octave of D la sol re. Therefore, after pondering the matter well, I modified all the System, I increased the number of the notes of the cadences and I ordered the transposition in a different way, eliminating one of the eight which he had with the signs of the Diesis # and adding another one to the eight which he had established with the sign of B flat b.

So, I assigned to the minor Tone as its basis and natural place the note and Octave of A la mire, because, since the three principal notes of the Musical Tones must be all equally natural (hence the Octave of C sol fa ut has been chosen as basis and natural place of the major Tone, instead of the Octave of F fa ut or G sol re ut) among the Octaves comprising a minor third there is none other than the one of A la mi re to which such most important condition pertains. It is so important, that this is the only reason why the Octave of C sol fa ut was chosen as the natural location of the major Tone. In fact, it is an universal and indispensable law of the Modal Tones that they can have their cadences only in the notes which are contained within their principal Octave and these have to be

used exactly as they happen to be.: if they have the major third, they have to be used with the major third; if they have the minor third, equally they have to use it in its minor form. Since this is such an universal law which it is applied equally to all the Ecclesiastical Tones, to the eight tones of Penna, and also to the Harmonial Major Tone itself, I would not deem that he should be concerned in such a way at least that he should expect the only the Minor Tone to be exempt from it. Therefore, on this basis, if the minor Tone is founded on D la sol re, it will not be able to avail itself reasonably of the three notes which constitute it, namely the principal, the fourth and the fifth naturally uniform, because the third of C sol re ut is naturally major. [-89-] To someone who pointed out that whenever it is rendered minor with the B flat b, and it is used as a minor, this is enough and there is no need for anything else, I rely that, if this were true, one could establish equally the major Tone on the note of G sol re ut as in its natural place, but, since this one cannot be the Foundation of the major natural Tone because the fifth is lacking, since it has the minor third by nature, thus the Octave of D la sol re is also unable to be the Foundation of the natural minor Tone, because the fourth note, which has the major third by nature, is lacking. Therefore, it is clear that the true Foundation and natural location for the harmonial minor Tone is the note and Octave of A la mire with its natural reading, which is exactly: Re, mi, fa, re, mi, fa, sol, la. This must be maintained unvaried in any transposition, either with the sign of the Diesis # or B flat b. Consequently, it has no more five cadential notes but six, hence the harmony is no less rich in the Minor Tone than in the Major. The main three are the ones of A la mi re, D la sol re and E la mi, namely, the principal, the fourth and the fifth note, which constitute the Tone truly and completely. [-90-] The remaining three are those of C sol fa ut, F fa ut and G sol re ut, namely, the third, the sixth and the seventh note, which are accessory and auxiliary, because they are really at the basis of the major Tone and are admitted to the minor Tone to enrich its harmony, and for no other reason. The two harmonial Tones imitate the Ecclesiastical Tones in so doing, whose subordinate cadential notes are none other than the very principal ones of each Tone.

The same used to happen also in the ancient Music of the Greeks, because they moved freely from a tone to the other. They called this passage Metabole in their language, and the first one to use this mixture was Sacada from Argos, as Plutarch states. (1) [(1) de Musica add. Martini manu] Although in a Song, a Hymn or an Ode all three of their Modes were used, namely Dorian, Phrygian and Lydian, nevertheless, it used to be called 'in the Dorian Mode' if the Poem was mostly relying on this mode. I do not doubt at all that if the setting of some Poem was started in the Dorian mode, albeit it moved freely across the notes of the Phrygian and Lydian (in the most ancient times) and also across the notes of the Mixolydian, Hypodorian, Hypophrygian, et cetera (in more recent times) nevertheless in the end it concluded in the Dorian Mode in which it had started. As to the Contrapuntists who wrote before Glareano, [-91-] everyone knows that the final note of a Tone was the confinalis of another one, and it regulated one as it regulated another one, as it is clear in the Treatise of the eight Tones described by Pietro Aaron. This truth is even more manifest in the Glareano's Twelve Tones, in which the note of A la mi re, for instance, is the final of the Ninth and Tenth Tone, confinalis of the First and Second, Regular of the Fifth and Sixth and Irregular of the Third and Fourth, Seventh and Eighth, Eleventh and Twelfth. Therefore, there will be no difficulty in the fact that the two Musical Modes major and Minor, impress one in the other their own constitutive notes. However, the consequence is that exactly the same notes belong to both Tones, with only one difference in their order, namely, that the ones that are principal in the Major tone, become subordinate in the minor, while the ones that are principal in the

minor become subordinate in the major. Therefore, the Minor Tone must be founded necessarily on the note and Octave of A la mi re, and not in the one of D la sol re, for so many and such important reasons, which, since they belong to the Treatise, rather than to the History, whose task is the mere telling of facts, therefore we will talk about this amply and with all the reasons which convince us of it [-92-] in the first book of the Treatise, as we have promised that we would do in the Preface. This is what occurred in the matter of the Modal Tones up to our times since Music was introduced (but only as far as we can gather from the writers who wrote about it). Nevertheless, it is very certain and without mistake that we are completely in the dark of many and very important matters even on this subject. We must be convinced that this is true, if not by anything else, by the total ignorance in which we find ourselves as to the Music before the deluge, as to its Tones, I want to believe that they must have existed even in those uncivilised times, since Horace's saying (1) [Sermones Libro 1. Satyra 1. in marg.] [signum] [[signum] Ovid said this: "Although the strengths abandon me, willpower is laudable in itself;" and another poet: "It is enough to have had great aspirations." in marg.] suits any age:

There is a measure in everything. There are certain boundaries, after all, outside which what is right cannot subsist

Padua

On the day 21 September 1734