

[-<308>-] Consequences of the addition of the Eighth Mode, chapter

Mei is surprised with good reason that Franchino, who, despite rating highly the Greek writers, having read something of them and saying that he commissioned somebody to translate them, nevertheless, he trusted these simple words of Boethius', did not compare them with Ptolemy's, attributed the discovery of this eighth mode to Ptolemy himself, accepted it as legitimate and approved and introduced with that difference of the Harmonic and Arithmetic division which I shall explain further on. Now, one must know that ancient Ecclesiastical writers, as Guidone and Abbot Oddo, who lived a little before Guidone, state, did not know but four modes, which they used to call Protos, which means first, Deuterios, which means second, Tritos, which means third and Tetartos, in the previous centuries. The first was considered to be the Dorian, the second the Phrygian, the third the Lydian and the fourth the Mixolydian, although the first one occupied the species of the Phrygian, since it is based on D, the second the one of the Dorian, being based on E, the third one of the Hypolydian, which is based on F, and the fourth of the Hypophrygian, being based on G. With really mature judgment the ancient Primates and Saintly Pontiffs Gelasius and Gregory the Great (although Franchino ascribes to the latter the addition of four other tones) appear to have satisfied with only four modes, firstly, because none of the four species of the Diapente, to which it was more convenient to attain more than to those of the Diapason, because the Psalms, which were the main reason why they were introduced [-<309>-] (since only Hymns used to be sung in the early Church, and the the Gospels, the Homilies, the Prefaces and similar, as Glareano and Maillard observed) rarely exceed the span of the fifth, as Maillard says, part 2, chapter 1. Secondly, because he judged wisely that matters connected with the Church required a certain unaffected simplicity and a style of singing which was more pious and devout, rather than secular. Had Ecclesiastical music continued within this boundaries, as perhaps it would have been better, it would not have required eight or twelve modes, which then would be subdivided into several types, namely, Authentic, Plagal or Collateral, Harmonically or Arithmetically divided, Whole, Superfluous, Diminished, Regular, Irregular, Simple, Mixed, Commixed, perfect, Imperfect and More than perfect, and others that can be called in different ways which confuse the mind of practical musicians, waste theorists' time fruitlessly and move many to despise this observance of the modes. So that nobody may believe that they are figments of my imagination, I invite everyone to see that Glareano's Dodecachordon, the Fiore angelico by , the Tesoro by Illuminato and other books of this kind which bear so great and flashy names on their title pages are full of them. However, to go back to the Ecclesiastical Tones, since Odone mentions only four, one must believe that the other four were added by Guidone of his own invention, who took them always from the badly interpreted text of Boethius, unless he took them from the Greeks of his time, who used four authentic modes and four plagal ones, as they do still in the present day. It is enough what he states in the Micrologo, namely, <aliqua desunt>

[-<310>-] Now, so that one may note how a mistake begets another one, consider that from the fact that Boethius forgot Ptolemy's doctrine regarding the eighth mode, there follow the fact that he appears to be writing about it in such a way as he ascribed it to him. Then, from the fact that Boethius had been interpreted wrongly, there followed that the uncivilised men who lived in the early modern times created eight tones, although there are some authors of that time who say that this had been done in imitation of the eight parts of the speeches, which are as similar to the tone as the

moon resembles grains of sand. Franchino, explaining the sort of music that came before his time, so rusty and rendered totally uncivilised, was prompted by this to maintain the same number of modes and to differentiate the eighth from the first one by adopting two sorts of division. This prompted Glareano to do the same in other four, thus raising their number up to twelve. After him, Zarlino, who maintained the same number, but changed their order, improved little or nothing their understanding but authenticated them in the eyes of the composers perpetuating a great lie, [[but this will be shown now in more detail, if briefly.]] Finally, Maillard, in his ambition to prove that Tones and Modes are two different things, confirmed the old malpractice instead of erasing it. However, this will be shown here now in more detail, but briefly.

[<311>-] Meaning of the Harmonic and Arithmetic division of the octave, Chapter

In order to understand this proposed matter correctly it is necessarily firstly to know what Proportionality is. Therefore, Proportionality is what the Greeks call [analogia] and it is called more appropriately in Latin Proportio [Progression of similar Ratios add. supra lin.] than proportionalitas. It is a continuation of two or more similar proportion which are called [logoi] and Rationes in Latin. The main species of them are three, as Boethius, Giordano and other writers show. The first and simpler one is called Arithmetic and is contained between the second and the third, and so on, in sequence, in the others, as in this case 1, 2, 3, 4, 5, 6 or 2, 4, 6, et cetera. Its property is to have equal differences but unequal proportions, as one can see

[, Treatise on the Genera and on the Modes, second book, 311, 1; text: 2 differenza, I., IV., VI., progressione Aritmetica, 2/3 Proportione add. in marg.] questi tre 2. [2 add. supra lin.] 4. [2 add. supra lin.] a 6. [[et]],

since the difference is two in one and in the other interval, and the subdupla proportion occurs between the first and the second and the subsesquialtera between the second and the third.

Geometric Proportionality is called the one in which the numbers are ordered in such a way that the first with the second, the second with the third, and similarly the others shall have unequal differences, as one can see here

[[I. [1 add. supra lin.] 2. [2 add. supra lin.] 4.]]

[Doni, Treatise on the Genera and on the Modes, second book, 311, 2; text: 2, differenza, I., II., IV., Progressione Geometrica, 1/2 Proportione add. in marg.]

However, the one that is called Harmonic Proportionality or Progression is the one where the proportion between the first and the third one occurs also between the difference between and the second and the difference [<312>-] between the second and the third. In this one, not only the differences but also the proportions are different, as in this case:

[Doni, Treatise on the Genera and on the Modes, second book, 312, 1; text: 2, 1, VI. IV. III, 3/2, 4/3, differenza, Proportionalità Harmonica Proportionali].

One can see there that just as the first number, which is six is in dupla proportion with the third one, which is three, thus two, which is the difference between six and four has the same proportion with one, which is the difference between four and three. This proportion occurs in the opposite way to the arithmetic proportion, where the larger proportion occurs between the larger numbers and the smaller between the smaller ones. Although this proportion is different from the other two, nevertheless it is composed by them coming closer now to one now to the other. This proportionality is called harmonic because the median number which is called the divisor divides the proportion which lays between the first one and the third one into two proportions next to each other and orderly laid out which produce the first and most perfect consonances within the number six, and outside of that number produce other dissonant Harmonic intervals but all the more perfect, all being the same, caeteris paribus, the closest they are to the number six, as one can see here:

[Doni, Treatise on the Genera and on the Modes, second book, 312, 2; text: terza minore, maggiore, VI. V. IV. III, II, I, sesquiquinta, sesquiquarta sesquiterza Diatessaron, Sesquialtera Diapente, Dupla Diapason, Sesquialtera 6/4],

[-<313>-] where one can see that, just as the Dupla and the Diapason are divided harmonically into the sesquialtera, which represents the Diapente, and into the Sesquitercia, which represents the Diatessaron, thus the Diapente, which is the principal consonance after the Diapason is divided harmonically into the Sesquiquarta, which represents the Ditone, and the Sesquiquinta, which represents the Semiditone.

Also, since larger numbers are assigned to lower sounds and smaller numbers to higher sounds, because they are compensated virtually by those, as Aristotle teaches us in the Musical Problems and experience confirms in the division of the Monochord, and because the Arithmetic proportion is achieved by adding parts to part or number to number, while the Harmonic is produced by dividing a proportion with smaller proportion, which consists in dividing the parts into smaller particles, for this reason one keeps growing the more one moves away from the number one, while in the Harmonic proportion one decreases the further one approaches the number one. Therefore, I would say that Harmonic proportionality is the symbol of divine unity and of the human soul approaching God, who is Supreme and first Number One, while the Arithmetic symbolises Division and worldly and physical Imperfection. Therefore, it follows from here that in the Harmonic, as opposed to the Harmonic, one places the largest numbers first, which occur in the double combinations of sounds, namely, when two consonants are placed one above the other so that the most perfect, which is represented usually by a larger proportion, is placed underneath or in the lower register, which represents the larger number and the first number of the proportionality, while the less perfect is placed above and towards the high register, thus producing a much sweeter than in the opposite way. In fact, the fifth under the fourth [-<314>-] and the Ditone under the semiditone produce such beautiful an effect, which is greatly superior to the one achieved when the fourth is placed under the fifth and the Semiditone under the Ditone. We note that this precise order is observed also in Painting and in Architecture, which I would define as the Harmony of the visible quantities of the bodies, in the same way as music is the harmony of the audible quantities or sounds. In fact, nobody would praise an Architect who would place the longest and largest columns above and the shorter and slender ones

underneath in a portico composed of several orders, nor the painter who placed the smaller figures at the bottom of a canvass and the largest above.

Where the enlargement of the number of the twelve modern Modes originated.

From what was said everyone can gather what a Diapason Harmonically divided or partitioned is and what is a Diapason Harmonically divided, since the first one is understood to take place when the Diapente is placed in the bottom register and the Diatessaron in the high register, and the second one when they are placed in inverted sequence. One must also know that these modern theorists, following the custom of the Greeks as it was [-<315>-] fashionable at the time, added to each of those four Ecclesiastical modes, First, second, third and fourth, which we shall name thus instead with their Greek names, added another one at the distance of a fourth in the low register in imitation of the ancients who had added the Hypodorian, the Hypophrygian and the Hypolydian under the three main ones, Dorian, Phrygian and Lydian at the same distance but with a different artifice. Following the Greek style, as it was very popular in several professions, they called the first four Authentic, which in not-so-ancient Greek translates as main ones or principal ones, while they called the other four plagal, as to mean oblique and subordinate. They called the first of those Plagius Proti, the second Plagius Deuteri, the third one Plagius Terti and the fourth one Plagius Tetarti. Later theorists called them differently, calling the first Authentic simply First, the first plagal Second, the second Authentic simply Third and the second Plagal Fourth, the third authentic equally just Fifth, the third plagal Sixth, the fourth authentic Seventh and the fifth plagal Eighth. Thus the authentic and higher in pitch ones turn out to be the odd one and the plagal and lower in pitch the odd ones. Also, because they are all considered as belonging to the same System, it follows that every Plagal shares the Diapente with its Authentic as one can see here, and who introduced these other four Modes left the first four in their original form without bothering to add one to [Gamma], the note added by Guidone to avoid altering the ones that were universally accepted in the Ecclesiastical chant, as the majority of modern theorists did later on.:

[-<316>-] [Doni, Treatise on the Genera and on the Modes, second book, 316, 1; text: I, III, [[[[III]] V, 2, 4, 6, [signum]]]

as one can see here [signum], but for the figured chant.

[Doni, Treatise on the Genera and on the Modes, second book, 316, 2; text: Otto Tuoni de gl'Ecclesiastici, Autentici, plagali, I, III, V, VII, 1, 2, 3, 4, 6, 8].

One can see here that the white notes are the extreme and final ones of the Authentic Modes, the middle ones are the extreme and final notes of the Plagal Tones. The compositions for several voices usually end on them. However, the black ones are the the extreme of the plagal Modes and Modern composers do not usually build their final cadences on these.

The numbers placed in the positions of the fifths and of the fourths indicate the species of each according to the order of Boethius' followers, who have claimed to have been the theorists who introduced these eighth modes.

[-<317>-] Therefore, Franchino observed this eighth tone, which he believed with

certainty to be the Hypermixolydian attributed, as he believes by Boethius to Ptolemy. However, not only he was mistaken in this, as it has been said, but also in believing that it was the same as the ancient Hypermixolydian. Glareano, Zarlino and Mei proved against him that this was not true, because one can see clearly that this eighth Ecclesiastical Mode has the same species of the pre-ordered Dorian D d, while the ancient one had it in common with the Hypodorian. Therefore, Glareano was happier to call it Hypomyxolydian, although he varies in this, that Hypermixolydian, because it is the plagal of the plagal of the pre-ordered Myxolidian G g, since that ancient one, had the Hypodorian had this distinction, namely, to be described as different only because it has the fourth below and the fourth on top, which it did not have otherwise, he would have been divided differently, namely with the fourth above and the fifth beneath, and it would have been authentic rather than plagal, as Mei learnedly discusses. Therefore, Glareano realised that the eighth Tone does not differ from the first one except in the transposition of the fourth and the fifth, since the first one the fifth lays beneath the fourth, and that the fact that a species was divided Harmonically or Harmonically consisted in this (which was a definition introduced by Franchino, because mathematics was evolved enough before him). Glareano regarded it as a good invention, and, since it served its purpose very well which was to restore the thirteen Modes of Aristoxenus or at least twelve, because he was not able to restore all thirteen starting from these elements, he embraced it enthusiastically and he was very pleased with it. Therefore, [-<318>-] he observed that only five of the seven species of the Diapason allow both the division, namely, Harmonic and Arithmetic, because the other two can be divided only in one way into a fifth and a fourth, since they are divided by the other median note into a tritone or Distrihemitone, also called Semidiapente, he realised that five species produced ten Modes, which with the other two produced from the other two Species reached the number of twelve. So he had to be contented with twelve, because a thirteenth tone did not fit, and he added four, Ionic, Aeolic, Hypoionic and Hypoaeolic to the other eight which were thought to be the Hypodorian, Hypophrygian, Hypolydian, Dorian, Phrygian, Lydian, Myxolydian and Hypermyxolydian of the ancients, and he mentioned not only these twelve in the first-page of his book, but also the two Hyperphrygian and Hyperaeolian, although he rejects them afterwards as illegitimate. These are the ones which lay between the notes [sqb] and F, when their octaves are divided with the false fifth above and the tritone beneath or with the tritone above and the false fifth beneath, almost meaning that, since he had not been able to find the middle one between the number twelve and fourteen to re-discover all the ones of Aristoxenus, he awaited some celestial spirit to enlighten him so that he may find the thirteenth which had lost itself along the way. However, these modes of Glareano have as much to do with those of Aristoxenus as the Moon has with crabs.

[-<319>-] On Glareano's Twelve Modes and on the Twelve of more recent Musicians and on many mistakes contained in his Dodecacordo

Nevertheless, Glareano's authority was so great, since he matched uncommon knowledge with some understanding of musical practice, that, as I was saying, his twelve Tones were accepted and there was even somebody who compendio' his very prolix Dodecacordo, so that it may be read more easily. Zarlino came after him, who thought it best to start the lowest mode from [Gamma] ut, so that the first note of the modern system may not be let wanting. Therefore he established the first species on C fa ut and placed there the first authentic Mode, considering also that it was good, for

the same reason, that the species should start from Ut rather from Re, because the deductions called by [sqb] square, by nature and by b flat start from there. He called the Modes, rather than Tones, to distinguish them from the eight Ecclesiastical Tones, of which the eight and the first are equivalent. Hence Zarlino, followed afterwards by all the composers of counterpoint, simply organised the number of the species, or, to be more precise, the number of the twelve Tones which he found already introduced.

[<320>-] [Doni, Treatise on the Genera and the Modes, second book, 320; text: Tuoni del Glareano [[le altre maniere egli segna così con tre chiaui per comprenderli tutti in cinque linee e ne loro spatij, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, Aritmetica, Harmonica, [signum], Hypodorio, Aeolio, Hypophrygio, Hyperaeolio, Hypolydio, Ionico, Hypermissolydio, Hyperionico, Dorio, Hypoaeolio, Phrygio, Lydio, Hypoionico, Missolidio]

One must note that the ones that are marked with a star are the four added to the eight Ecclesiastical ones, while the two with the darkened notes are the two that would originate beside the twelve if the division of the Diapason [sqb] [sqb] into Semidiapente and Tritone and of the diapason F f into tritone and semidiapente were to be accepted. However, in order not to leave behind any of those of Aristoxenus, named one of these Hyperaeolian and the other one Hyperphrygian, despite calling them bastardised, and he did not hesitate to call the first one Harmonically divided and the second one Arithmetically divided. Now, one would struggle to believe how little success he had in this and into how many vile pitfalls he fell. I will be content with mentioning a few of them, so that, those who consider him a great Salomon in the subject of the Modes may know what an expert he is. The first one, namely, his claim of wanting to restore Aristoxenus' modes, to apply their names at his own whim and to put their order and their distance between each other into disarray, this cannot be justified in any way. I leave aside his placing the Hypodorian and the Aeolian [<321>-] at the same degree of tension, because, since he had some reason to mention them as completely equal, one can forgive him this. However, one cannot forgive him the fact that he placed the Ionic or Iastian under the Dorian and the Hypoaeolian above it, confusing, as one says, sky with the earth, and the prefix hypo with the prefix hyper. Equally, one cannot approve his placing the Hypoionian above the Lydian or his calling the same Mode now Hypomixolydian and now Hypermixolydian, as he does not do with the Hyperastian, without considering that it is not a fourth above that from which they derive, as must be the ones with the prefix Hyper. Moreover, I cannot see on which basis he banishes the poor Hypophrygian, if not the fact that it is the last one of those of Aristoxenus might have counted against it, while, as to the Hyperaeolian, which was added by the followers of Aristoxenus at a later stage, this can be forgiven to him, if it has occurred in that way from his not accepting the Hypolydian, but he cannot be forgiven for criticising Poliziano and Franchino (the former of whom was much more learned than he was and the other a greater expert in the field of music theory) and for having counted the Hyperlydian among the others. In fact, since he [<322>-] refused the Hyperaeolian because he could not find a place or a form for it, why should he have attempted that enterprise rather than say freely that to restore them was hopeless, as he said about the two genera, Chromatic and Enharmonic? Other indeed too serious errors, which appear, however, on the first-page of his book, are to say that the Hypoaeolian is the same as the Hyperdorian of Martianus, that the Lydian is the same as the Hyperphrygian and

that the Myxolydian is the same as the Hyperlydian. I do not know if I have to call him simple or mad where he states that the System arrived up to fifteen notes or strings, “Nevertheless, the ancient division of the notes into tetrachords prevailed, since future generation appreciated so profoundly the simplicity of the System of the ancients.” What shall we say about the fact that he called the distinctive note [likhanos] adducing the authority of Suida, who derives it from [leikho], which means to lick, which is the ethymology of [likhanos] which means finger, from which the meaning of lichanos, the third note of those tetrachords, was derived at a later stage. What shall we say about the fact that he interpreted the word Phonascus as Melopoeus or inventor of a melody or a subject, rather as the person who exercised the voice, and Symphonetes as a composer, rather as one who sings consonances with others? Because of this, many have incurred this mistake after him. I also do not know where he found that the tone was accepted as a consonance, the unison was classed as consonance and the fourth among the consonances. Although this has little importance in practice according to our contemporary practice, it did not befit someone who professed to be a man of polished and exquisite letters, but he should have abandoned this manner of speaking. I am much more surprised that, despite setting himself to restore the ancient modes, he had such a poor understanding of the true meaning of Tone, Trope and mode, so that he was drawn to say that [-<323>-] the word Tone originated at the time of Boethius and it was not used by the Greeks. [book 1, chapter ii in marg.] Similarly he was mistaken, together with the others who followed him, when he believed that Arsis means the rising motion of a melody towards the high register, while Thesis is its descent towards the low one, while he also interpreted Prolepsis and Eclipsis in the same way. He rebuked Franchino without reason for comparing the four modes to the four complexions, thinking that he should not have the other three behind. However, had he known that four modes are more general than all the seven ones, he would not have stated that. He is mistaken where he says that Martianus Capella leaves out two of the modes of Aristoxenus, the Myxolydian and the Hypermyxolydian, because <aliqua desunt>

He is wrong when he states that Martianus did not understand Aristoxenus (in fact, how correct is Franchino in this!) and when he says that the Cassiodorus’ Constitution is opposed to Boethius’ one. He is wrong where he reprehends Franchino to have placed only four final keys, as it was common knowledge, saying that only the [sqb] mi has to be banned, because we shall show that this one has to be accepted as well as the others. He was wrong in criticising those who believed that the mode is not changed because the position of a Semitone is moved, as it happens in the case of b flat [book 2, chapter 6 in marg.], and he is also wrong in rebuking those composers who changed the form of the moved in certain compositions of theirs by adding this key. Nor the fact that some believe that he changed the mode by adding the b fa in the eight ancients should have been a good reason for him to believe this. On the contrary, instead of following them, he should have persuaded them to regret this mistake.

[-<325>-] On the twelve Zarlino’s and other modern theorists’ twelve Modes

The matter of the twelve tones was set in the terms which we have seen from Glareano’s time to Zarlino, which is less than twenty years. But Zarlino, as someone of perceptive mind and great expertise in music, noting many details in the sequence of the Tones of Glareano which did not satisfy the mind and helped memory, as the fact that the Scale starts from Gamma ut and the sequence of the Tones from A re, that

the Hexachords and deductions begin from Ut and the species from Re, that the order of the Species of the Diapente and of the diatessaron does not progress continuously, he thought it much better to consider the species of the Diapente and of the Diatessaron in a different way, as we noted above. He placed the first from C fa ut, as well as the first Mode (but he called them Modes rather than Tones, to distinguish them from the eight Ecclesiastical Tones). He placed the second one on [Gamma] ut as te plagal of the preceding one, according to the order found before him, and thus the third one on E la mi, the fourth one on A re, the fifth one on E la mi, the sixth one on [sqb] mi, the seventh on F fa ut, the eighth one on C fa ut arithmetically divided (while the first, fourth and also the third, fifth, seventh and all the authentic or odd ones are divided Harmonically) the ninth on C c sol re Harmonically divided [-<326>-] (as the second one which has the same species is divided Arithmetically) the tenth on D la sol re Arithmetically divided, the eleventh on a la mi re Harmonically divided, and finally the twelfth on E la mi divided Arithmetically. He was prompted to place the first species on C sol fa ut from this fact, namely that the intervals that derive from the Harmonic Division of the Diapason into its parts follow the order of those of this species, and, since he believes that this was also the Dorian mode, the D la sol re the Phrygian, the E la mi the Lydian and the others in sequence, it worked very well, because he found between all of them the distance that he ancient modes had. However, since not even he understood that the ancient modes had each a particular System, he was not able to place them in their true species.

[Doni, Treatise on the Genera and on the Modes, second book, 326; text: li XII Modi del Zarlino, Dorio, Phrygio, Lydio, Mixolidio, Hypodorio, Hypophrygio, Hypolydio, Hypomyxolydio, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]

Hence one can see that the Modes of modern theorists are contained correctly within the terms of sixteen notes, namely the fifteen of the ancient System [-<327>-] and the one added by Guidone.

It is also worth knowing that each mode can be transported a fourth higher or a fifth lower by changing the [sqb] mi to the b a, namely, by moving through the conjunct tetrachord instead of the disjunct. Therefore, since the species is changed with the addition of the b flat and the sequence of the fourths and of the fifths, their species is necessarily changed.

[Doni, Treatise on the Genera and the Modes, second book, 327; text: Li XII Modi per b molle, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]

[-<328>-] On the cadential notes of the Modes

The cadences which occur in the compositions, called by the Greeks [katalexeis] and [katalogai] are certain conclusions of the compositions or of sections of them which give a certain sense of conclusion corresponding to their beginning, according to the species of melody which was adopted. The cadence is like the full-stop in writing or that accent or that accentuation or turn of voice which occurs at the end of the phrase and in the others where the sense is complete. Moreover, just as the sections of the phrase are recognised not only by the completeness of the meaning and by the metre or Rhythm of the oratory, which it is often slower, measured and interrupted by some

rests in that place, thus in the compositions, if the melodies are perfect and have the meaningful rests which the Greeks call [lexeis], they are recognised from the closes which complete the meaning.

[-<329>-] The Seuouae or Euouae, as others write it, is interpreted as the end of the verse, which ascends normally as the Intonation ascends. This word is made up of the vowels of these two words, Seculorum amen, which are the conclusion of the last verse, namely, the Gloria patri, as one can see better from this example.

[Doni, Treatise on the Genera and on the Modes, second book, 329, 1; text: Intonatione, Mediatione, Dixit Domnus Domino meo sede a dextris meis]

However, there are two sorts of intonations. One is the simple one and the other is the solemn one. The simple is the one which sings almost all of the syllables on the same tone of voice and renders the chant very simple because it starts in the middle and from the dominant note and it moves not very far from. This sort of chant is used in the less solemn days to shorten the service and distinguish it from the one of the more solemn days. Here is an example:

[Doni, Treatise on the Genera and the Modes, second book, 329, 2]

The solemn intonation is the one used in the Psalms on solemn and feast days as well as in the Cantica, such as the Magnificat, the Benedictus and so on. Both species of chants are performed with the antiphon, so that from the last note of the antiphon one leaps to the Dominant (which in the above example is the la of a la mi re) which usually is a leap of a fourth or of a fifth.

Theorists have devised the following rule on this, which we shall quote here without verse:

[-<330>-] [Doni, Treatise on the Genera and the Modes, second book, 330; text: Prima Regola, 2. Re fa, 3 Mi, 4, 5, 6, la, ut sol, 8]

This means that the first syllable is the same as the last note of the antiphon which precedes the Psalm, while the second one is the dominant note of the Psalm (I believe that this function is performed also by the notes which the Greeks call [aianes], [neanes] and so on) and the dominant note is the first of the EVOVAE because it concludes the intonation and begins the conclusion. However, because, as Maillard states, the last note of the antiphon is not always an essential note of the tone, it follows that one cannot gather from it alone to which tone or species of the seven the Psalm belongs. I am also sure that one will be able to gather to which of the four most principal and ancient Tones it belongs from the species which is found within that leap of a fourth or of a fifth. One must note also with Maillard that Glareano, Giorgio Raw and other German writers wanted to change some of those notes so that they may distinguish the tones, and that new device proved not only fruitless and useless but also destructive of the Psalmodies. One must also know that a note is often added in many Antiphons (when one sings the same syllable with two notes if the syllables are not enough) in order to facilitate pitching the note and render the leap easier, such as the one of the fourth, as in the case of the note ut of the example quoted here below, [-

<331>-] in the antiphon of the first tone which is used to introduce the Psalm Dixit Dominus:

[Doni, Treatise on the Genera and the Modes, second book, 331, 1; text: Vidi turbam magnam].

However the solemn Intonations of the Psalms are noted in this way:
Ma le [la ante corr.] Intonationi [Intonationee ante corr.] solenni de Salmi sono notate in questo modo:

[Doni, Treatise on the Genera and the Modes, second book, 331, 2; text: primo et sexto fa, sol, la, secondo, terzo, ottavo, ut, re, fa, quarto, quinto, settimo, Mi].

These indicate the intonation of the first three syllables of each verse, as in the first Dixit Do where one sings fa, sol, la or ut, re, mi, which is the same. One can recognise the Modes in the Introits, Responsorias, Hymns and similar chants by following the same rule.

Maillard himself states that the last note of the SEVOVAE should be always the first of the antiphon because it shows the connection between one and the other one. However, since some tones have different EVOVAE which do not conclude all in the same form and these have been altered a lot, for this reason it is customary to add some added note beneath them which may distinguish the specific note of the tone. Therefore, said notes were called by the ancients Neumata with a Greek word, which corresponds to the Latin nutus, from the verb [neuo] which means to point at, because of their function in highlighting the note of the tone and the connection between the Antiphon and the Psalm. Also, because [-<332>-] these notes often lack their own syllable, they are sung under the last one of the verse and they are marked with two notes linked together, and because one has a long stroke which comes between them, they are called tails. Therefore some think that the Neums and these notes are the same [Glareano as well incurred this error at chapter 25 of the second book in marg.], but they are mistaken because Neums are only the ones invented for the aforesaid reason, while tails are the ones which are sung in the middle and outside of the Psalms, some of which are very long, as when the Dean releases the congregation with these words "Go, the Mass is finished" (Ite Missa est) elongating the syllable with a very large number of notes. [[If anyone requires further information,]] Saint Isidore describes what the Neuma is <aliqua desunt>

[-<333>-] On the use of the Ecclesiastical tones

In the music of plainchant which is the real Ecclesiastical chant, since figured music has been used in churches only in the last two hundred years, more or less, as Glareano and Galilei point out) there is no mention of the twelve Modes, but only of the eight which are used mostly to intone the Psalms, which were sung by Christians since the most ancient times and were dressed with the most beautiful melodies, which were both sweet and modest, by those great men, Saint Gelasius, Saint Gregory the Great, Saint Ambrose and similar ones who were endowed with as much sanctity as judgment and knowledge.

Hence those Psalmodies of theirs are sung all the time after so many centuries and

still last, and one can see from experience that the ones that were composed in later times do not arrive to the majesty and excellence of those, or because of the lack of refinement of that age, because of the mixing of the blood and traditions of Italians and Barbarians, who wanted to compose all music as figured music. Also, despite the fact that the disregard for the rules typical of modern musicians and the corruption of the ancient pronunciation and language, which is the foundation of music, were a very important force, nevertheless the whole melody of the Psalms, Hymns and particularly Introits, which are small section of some Psalms which are sung in certain Masses with different intonations and more elaborate than those of the Psalms because they were sung exclusively by priests and singers, while the melodies of the Psalms were written for the people who used to sing them in antiquity, was preserved very well. Moreover, one reads that many kings and Emperors [-<334>-] did not disdain to sing them in church, as Theodosius the younger, Charlemagne, Louis the Pious, and Hugo Capetus used to do. However, since this pertains more to a treatise on Ecclesiastical Music which I have sketched out than to the present subject, I shall say only a few things about the more general use of the eight tones, as far as it is necessary for one to know them for someone who wanted to have some knowledge of music. Therefore, I state that one can learn the Air and melody of the Psalm either from the Psalms themselves or from the Antiphons which are sung between a Psalm and another, and are extracted from the Psalm itself by ordination. However, leaving aside to research why they are called in this way, how they used to be sung and how they are used nowadays according to the Gregorian, Ambrosian, Isidorian and Greek tradition, it seems to me that they were invented principally to help in the intonation of the Psalms and to distinguish their tones. In fact, since they required very few notes ordinarily, one would easily realise their species or tone. Therefore, we see that the Antiphons span at least a fourth, a fifth or a sixth and sometimes they are wider and that from its last note one can learn to which tone it belongs itself and the Psalm to which it is associated. Therefore, one must know that the psalm and each of its verses contain three parts which are called Intonation, Mediation and Seuouae, which correspond to the beginning, the middle and the end. In fact the notes and syllables which precede the dominant note are called Intonation, while the dominant note is the one on which several syllables are sung one after the other in the middle of the verse, hence that part is called Mediation.

[-<337>-] Some of the most beautiful Ecclesiastical melodies

Now, so that one may see clearly that the most ancient melodies of the plain and Ecclesiastical chant are the most attractive, I shall mention some which, in my opinion, will be judged very beautiful by anyone of good taste. One of these is the one of the Hymn Te Deum, which is of the Tone or Mode and has a certain emotional majesty, as it is the one of the Ave Maris stella, which has something of the lively and very cheerful and reminds me anamente [[l'Aria di]] those orphic melodies and of those Paeans of the ancient Greeks and that is of the Tone.

A very beautiful melody is also the Veni creator Spiritus, which is full of energy and, as I wrote oltre to a learned man, it appears to prompt the Holy Spirit to descend onto earth.

Equally attractive is the melody of the psalm In exitu Israel de Aegypto which has something of the extraordinary and beyond human.

Similarly beautiful is the melody o gloriosa Domina, which is full of a certain angelic jubilation.

[<338>-] The melodies of the lamentations of Jeremiah, which are sung during the Holy Week, are also very heartfelt.

Bottrigari considers probable that the majority of these sacred melodies were taken by the ancient Fathers from those of the Greek populations, however, I believe that he is very mistaken in this. In fact, apart from the fact that those early Christians were wary of imitating the rites of the pagans, despite not being superstitious, and especially in the matter of chant, which it would have been necessary to extract in its entirety from those secular and pagan melodies full of the praises of those false gods, those compositions of theirs were full of artifice, mostly in the Enharmonic mode, as I mentioned earlier with regard to the Nomoi of Olympus, and always accompanied by instruments, while the Christian melodies were always Diatonic and not only not accompanied by any instrument, but instruments were prohibited expressly to be used until the times of Pope Vitaliano, who allowed the use of the organ, as history tells us. Moreover, I do not know how easy it would have been to translate into the Latin language chants originally written in Greek, which is a such a different language with regard to accents and turns of phrases, especially because they were not broken into small strophes or repeated sections, the way ours are, but woven with many variations and devised to a specific Rhythm, as I observed elsewhere. Therefore, they must consider certain that the Psalmodies and other ancient Ecclesiastical melodies have not been derived otherwise from the names and the Melodies of the ancient Greeks, but composed by the effort and industry of those most saintly Priests who excelled [<339>-] in every field. Also, although they appear so beautiful that one does not believe that our contemporary musicians would have the ability to compose other ones similar to these, this must be ascribed mainly to the knowledge and to the judgment of the individual composer and secondly to the age in which they lived, because, although the Latin language had declined already very considerably, as all the noble arts had, it did not have yet another sound and another quality, which it acquired later on. Nobody must believe that this is said without foundation, because not only the sweetness of the languages is an extremely important basis of the excellence of music, but even more so the variety and gracefulness of the accents which says that they are a *Musices seminarium* [musical nursery] and one of the most important reason of the delicate nature of that ancient music of the Greeks. In fact, Latin writers themselves admitted that they remained much inferior to them. See Quintilian, book . The French nowadays resemble the Greeks very much, and for this reason we see how plentiful they are in finding new, beautiful and very varied melodies all the time. These would be even more abundant if they had their accents not only in the last and in the penultimate syllable, but also in the third from the last one.

<Where the words have an important meaning, one realises it> [<341>-] from the lengthening of the last notes which are followed mostly by some rests, and particularly from the melody itself of the composition which is known by a certain action by which it shows that it wants to conclude it its particular and special notes, while where there words are not important, as when someone sings some simple melody to the accompaniment of the flute, it is known from the same features, except from the meaning of the words. These are the cadences of the melodic compositions, namely, those for a single voice, while the cadences of the compositions for several voices, which modern theorists could not distinguish from the others, with the

resulting confusion as to the good method) are all the ones which occur between two or more voices singing in consonances, which once can identify on the basis of the features of the cadences occurring in compositions for a single melodic line, as in the Ecclesiastical chant and also from the consonances, as the most perfect are used usually in those cadences, because every conclusion must contain perfection, so those consonance allow the ear to remain content and not expecting any other conclusion. However, since our topic is not Melopoeia or [Symphonourgia], I shall not proceed to describe the species of one and of the other sort of cadences and what belongs to each of them, but I will confine myself to discussing what one observes about them with regard to the Modes. One must know, therefore, that modern theorist recognise the modes usually [-<342>-] from their last note, and that, in polyphonic pieces, of whatever number of parts, if all end on the same note (as it happens in compositions of two parts) although the System exceeds the octave, that composition will be called of a single Mode. However, if one or several end on a note and another one or several end on another note which is at the distance of a fourth towards the low register or a fifth towards the high register, then they say that the composition is of two Modes, one of which will be the authentic and the other one the plagal. Also, if there are other parts which conclude on the same notes (according to the faculty called [dynamis] by the Greeks) but in a different place, namely an octave higher or lower than those, then such compositions shall be called of four modes or more, even if the parts conclude on a larger number of notes which are typical and principal of the modes, which are the ones indicated in the previous examples and complete the fourth and the fifth of each mode. However, it is true that one looks principally at the cadence of the Bass, since, being the foundation of all the composition, so to speak, the note on which it ends is considered the principal of all and it is called, appropriately, the final note, which usually completes the fourth below and the fifth above, while they call confinalis the one of an internal part which concludes the fifth above or the fourth below.

Therefore, if a part of a compositions ends on C fa ut and the other one an octave higher on G sol re ut, the Mode of all the piece will be judged from that one and it will be called [-<343>-] of the first Mode (although those who are most expert do not want that it should be judged from the last note alone but also from the cadences which occur most often in a particular piece) and of the second, or just of the first one, because the final note of both of them is the same C sol fa ut, according to the rule which states that the authentic and plagal mode have the final note in common, which is the one that concludes the fifth below. However, since in the pieces for several voices some parts will end on the octave above, others on the note that divides said fifth into two parts and other on higher or lower notes, it follows that a composition will embrace several modes, such as the first and the second, and also the fifth, ninth and tenth. Moreover, since some parts do not span the octave, and others exceed it, from this that confuse mass of modes (mixed, compound, mixed, perfect, imperfect et cetera) derives, which are of little use in practice that to occupy the memory of poor composers unduly, rather than to help them to use the modes more appropriately. Cadences are also mostly divided into Regular and Irregular. Regular are the ones which conclude on the specific notes of each mode, namely, one the first and last one of the Diapason and in the one that divides it into its Diapente and Diatessaron, while Irregular are the ones that end on other notes. Also, since when theorists talk about cadences they always refer to polyphonic compositions, these other notes must be interpreted as the ones which divide the fifth into two thirds, which are also called

Half-way cadences, while the Regular ones could be all so called cadences which occur in the extreme notes.

[-<344>-] On the Syllables which mark the eight Tones and the twelve modes

Now, since not only the modes, but also the eight tones are identified from the last note of the compositions, which occurs in one of the first of the eight notes of the octave when it is sung ascending with one of the six syllable of Guidone, certain rules were formulated to help beginners to know these Tone, and it was said that they would help memory. These are similar to those that one learns in logical formulae. However, since these are not necessary and elegant, I will not bother filling these pages with them nor to match these syllables to the twelve Tones of Glareano, [-<345>-] which have almost completely vanished, but only to the eight Ecclesiastical tones and to the twelve Modes of the Contrapuntists.

I state first that the syllable Re is used in the first and second Tone, the Mi in the third and fourth, the fa in the fifth and sixth and the sol in the seventh and eight. Moreover, to match the six syllables to the twelve Modes, we can say that the Ut is used in the second, the Re in the third and fourth, the Mi in the fifth and sixth, the fa in the seventh and eighth, the sol in the ninth and tenth and the La in the eleventh and twelfth, taking the la in the high register, because no deduction starts from la in the low register. However, so that one may see the Division of the Diapason of every Tone and mode in its progress, it will be better to observe the middle syllable, which is the note that divides the diapason into a fourth and a fifth, thus:

[Doni, Treatise on the Genera and the Modes, second book, 345; text: Primo, secondo, terzo, quarto, quinto sesto settimo ottauo Tuono, Re, Mi, fa, sol, la, D, E, [sqb], F, C, G, d, e, f, a].

[-<346>-] However, as to the fifth and sixth, one can also use the syllable ut instead of the syllable fa, and ascribe the syllable sol to the first instead of Re, or even to the seventh and eight, to distinguish one couple from the other.

The twelve Modes may be marked in this way:

[Doni, Treatise on the Genera and the Modes, second book, 346; text: Primo, secondo, terzo, quarto, quinto, 6, 7, 8, 9, 10, 11, 12, Modo, [Gamma], Ut, Re, Mi, fa, sol, la, D, E, [sqb], F, C, G, d, e, f, a]

[-<347>-] On the 13 Tones of Aristoxenus

Up to now we have told as best as we could the story of the change and corruption of the seven ancient modes of Ptolemy (which are called thus not because he is their inventor, but because he described them better than anyone else and stated that their number was not larger than it was) until our day. We have also demonstrated how seven became eight and how they were then reduced to four, how they reached the number of eight and finally they were increased up to the number of twelve, and how, because of the long passage of time, like a brook what changes the taste of its waters because it covers long spaces of ground of different quality, and finally it looses itself in the depth of the sand, thus the Modes changed their form completely and lost

almost their entire substance. Now we must move to another side and pick up a new thread of discourse, since the school of Aristoxenus, which flourished for a long time across many centuries in the past, has disappeared entirely, so that almost every record of it was lost, while, the Ptolemy's school, because of his three very learned books which have come down to us and to those of Boethius, at least some shadow of memory has lasted, although we can believe that in some of the most uncivilised centuries [-<348>-] (of which we lost all record, and, in particular, of their music and musicians) they were hardly read. Be this as it may, one must presume that, when one deals with the Tones of Aristoxenus, we must not take him as the author, as many of the good authors are convinced because of their ignorance. In fact, we know well that the most part of the thirteen and principal Tones were used before him and we do not know for sure whether he invented any. However, since he must have written about them in a better and more authoritative way than the others, just as he describes all the parts of music in minute detail, for this reason he is the only one named by Ptolemy and by the others, and modern theorists ascribe to him the thirteen Tones, although he does mention only some in his three books of the Harmonic Elements, not because those books are lacking in any respect, as they are, but because, according to the order of his doctrine, which proceeds very methodically in a similar way to Geometry, it was convenient for him to deal first with the parts of the Harmonics, such as the notes, the intervals, of the Systems and of the genera, of which he discusses in the three aforesaid books, but, as one can gather from the last words of the third book where he begins to discuss the species, one can see that in the following books he should have dealt with them specifically. Although, the damage of time deprived us of them, nevertheless this loss is restored partially by those who wrote about it, namely Aristides [-<349>-] Quintilianus, ancient and inquisitive writer, the very judicious Plutarch and others who have left us some compendium of music. However, before we move forward, one must notice already that those who think that Aristoxenus Tones did not differ one from the other except for their pitch are very much mistaken. In fact, as Zarlino says, that difference between a Tone and another one would be reduced to the difference between two ho sing the same melody, one higher or lower than the other one. However, Zarlino should not have criticised Gallilei [Supplementi, book six, chapter in marg.] for locating these tones of Aristoxenus one higher than the other, but with the same intervals between the notes, because the ancients described them in this way as well, although they started from the principal and particular notes of each one when they sung them, as I mentioned above. [For this reason Athenaeus derides those who were able to distinguish in the Tone only the difference in pitch [E per ciò Ateneo si arride di quelli che sapeuano discernere ne Tuoni altra differenza che di graue et acuto imaginandosi un'Armonia [[Hyp]] (cioè uono) Hypophrygio e qualche altra uole: [[quat con]] anzi che nemmeno l'Ipofrigio (dice egli) uegga hauer propria harmonica, cioè diferente maniera et modo add. in marg.]

Now, the thirteen Tones of Aristoxenus are at a distance of a semitone one from the other, hence, since they contain twelve intervals of a semitone, consequently they complete the octave exactly, since the lowest from the highest is at the distance of an octave. The most principal of those and almost models for the others are the middle ones which take their names from the nations who introduced them and used them. These, apart from the three Dorian, Phrygian and Lydian, are the Iastian and the Aeolian, the first one of which is contained between the Dorian and the Phrygian and the second one between the Phrygian and the Lydian. After these, the Mixolydian and the Hypolydian remained in their places assigned above, because one was at the

distance of a semitone from the Lydian and the other one from the Dorian, and for this reason they could [-<350>-] not be divided by any others, while the others were inserted in between with the addition of the prefix Hypo, if they occurred beneath, and two were added above the Myxolydian with the addition of the prefix Hyper, which means above, and retaining the relation of fourth with their principal Tone, as it happens in the seven tones. Moreover, since the interposed tones were closer to one than the other, as I shall demonstrate further on, or had more in common with the species of one than of another one, for this reason Aristoxenus ascribes to them the name of their collateral besides their specific name with the addition of the term lower. This is the way in which Aristides describes them.

Their order and lay-out is this one, with the addition in the high of the two added by the followers of Aristoxenus, with the effect that the Aeolian and the Iastian had their correspondent above, as the other ones do, so that they would exceed the octave by a Tone, since that is the distance between the Hypolydian from the Hypodorian. Thus the number of fifteen was achieved, of which five are principal, five correspond to those in the low register with the prefix Hypo and as many in the high register with the prefix Hyper. It follows from this that, just as the Dorian is the middle one in the seven modes of Ptolemy, and the Iastian in the thirteen of Aristoxenus, thus in the fifteen modes of the followers of Aristoxenus the middle one of all is the Phrygian.

[-<351>-] [Doni, Treatise on the Genera and the Modes, second book,, 351; text: Hyperlydio, Hyperaelio, Hyperphrygio, Hyperiasio, Hyperdorio, lydio, Aeolio, Phrygio, Iastio Dorio, hypolydio, Hypoaelio, Hypuphrygio, Hypoiastio, Hypodorio, ò, piu graue, Hypermixolydio, due Myxolydij]

One must heed the fact that Aristoxenus names Hyperdorian the tone a fourth above the Dorian as well as the more ancient name of Mixolydian, and he is very right in doing this, which prevents the Dorian, which was more highly regarded by the Greeks, from lacking its corresponding tone in the high register, as the Phrygian and the others have. As to Hyperphrygian, although some call it also Hypermixolydian according to Aristoxenus, nevertheless I am inclined to think that Aristoxenus did not call it in this way, because its name shows in truth that he should have been a fourth above the Mixolydian, as the other ones are which have the prefix Hyper before the name of their principal tone. Hence, this name would be apt for a tone which would be added to the fifteen ones and which would correspond to the Mixolydian with the same interval with which the fifteenth, or Hyperlydian, corresponds to the Lydian. Therefore, [-<352>-] it is much more probable that it was called thus instead by who added the eighth tone to the seven of Ptolemy and for that reason it occurs in that position, and that for this reason those who accepted the thirteen or fifteen tones used the name of Hyperphrygian and Hypermixolydian interchangeably, which is the same, but in one case with the term used by Aristoxenus, and in the other with a term used by somebody else who wanted to establish eight Modes. As to calling two Modes Mixolydian, namely, the true one which is also called Hyperdorian because it is a fourth above the Dorian and the Hyperiasian, it is possible that Aristoxenus used to do this because they had possibly the same species, but I do not think this should be done, in order to avoid confusion and to avoid giving the Hyperiasian three names, while two are more than enough. However, do let us consider the origin and the basis of these terms.

Why the tones were called by the Ancients in this way.

It is certain, as Ptolemy and the other good writers mention, that in the most ancient times of Greece only three Tones were known and used, the Dorian, the Phrygian and the Lydian and that they lasted in this way for a few tens of years. In fact, one cannot say in truth that only two existed in the most ancient times, namely the Dorian and the Phrygian, as some state, as this is gathered from the ancient proverb which says 'To move from the Dorian to the Phrygian' which means 'to move on to something very different', not even because the Phrygian and Lydian were discovered and imported into Greece at very different times, because not much time intervened and the proverb is very ancient indeed. [-<353>-] For this reason one shall not find any credible author who states that the ancient used just two Tones. Therefore, if the Tones used by the Greeks in Heroic times were one of their own and two foreign ones, (I call them foreign because Phrygians and Lydians were not Greek populations but barbarian and of Asian origin, while ancient Greece was all contained within Europe. Not that they were savage, uncivilised and crude population in the same sense as the Schytians and the Cannibals, but barbarians in the way in which the Greeks called barbarians all of those who were of different descent except the Greek one, as the Romans called barbarian all the population which were not of Greek or Italian origin) those two nations had their own languages, customs, and attire, in the way that in antiquity each population had particular and general differences from the others. These differences were erased then for the most part because of the expansion of the populations and of the monarchies which absorbed entire populations and reduced them under a single rule of law, language and name, as it is happening little by little in the America, where, in the provinces which continue to be discovered, one notices enormous differences from one population to another one. However, the Phrygian and Lydian population are among the most ancient and noble in the world. It is considered certain that the latter one descends from that Lud and that the Phrygian must have descended from another one of the descendents of who lived at the same time as Lud, albeit he is not named in the Sacred Scripture. These populations occupied two of the largest, most fertile and temperate provinces of Asia minor, which used to be considered the most attractive part of the world. They were rich and very devoted to pleasures and to music in particular. The Phrygians flourished around the time of the [-<354>-] Trojan war – the Trojans were Phrygians – and the Lydians two centuries after them, before the rise of the Persian monarchy. It is true that the Phrygians were more bellicose and sanguinary, therefore they were devoted to the sacrifices in honour of Bacchus and fond of wine, hence they could be compared to the Germans. On the contrary, the Lydian were more effeminate and were particularly fond of exquisite food and large banquets, [they were more fond of eating than of drinking, hence tells the story of Candaules, king of the Lydians, who was so hungry one night that he devoured his wife. in marg.] as Athenaeus and other ancient writers report. Therefore, we could compare them to the English and to the French, although these two people are more bellicose and fond of war, as the Europeans are in comparison with Asian populations. Their singing was not at all demure, and it was apt more to dances and wedding feasts rather than to manly subjects and those connected with war, as it was the one of the Phrygians which had something of the lively and possessed. However, the Greeks, who, attracted by the abundance and the resources of the land began to land in Asia in great numbers and to build many towns and colonies to the point that in those later times Greek was spoken almost everywhere, although at the beginning they owned little more than the ports, as it

happens today in some colonies of the Portuguese in some part of the South America, nevertheless they absorbed those manners and customs quickly. Moreover, one can say that it is true that they learned the basics of music, as they learned the basics of all the other sciences from the nations which they called Barbarians, such as the Jews, the Chaldeans, the Assyrians, the Phrygians and the Lydians, but they developed them and reduced them to perfection. This is what happened in the matter of the Modes because, although the Greeks took from the Phrygians and [-<355->] the Lydians their style of singing and imitated their own tone, they turned it into an art form assigning to each System and to every note of it its dispositions and characters, after they observed [after observing the intervals and Tone of the flute in marg.] with their perceptiveness in what consisted that style of singing which expressed a great variety of traditions and feelings. Hence they found that it consisted mainly in the variety of the intervals and in the varied sequence of large and small intervals which mingle in the melodies and are ordered step by step in the Systems. Hence they created those three principal styles of singing, namely, the Dorian, the Phrygian and the Lydian. It is true, however, that Heraclides Ponticus, erudite music writer quoted by Athaenaeus in book , maintains that the three main modes had to be these three, the Dorian, the Iastian and the Aeolian, substituting the Phrygian with the Iastian and the Lydian with the Aeolian, saying that, since those nations were barbaric and foreign, it was not appropriate to derive from them the variety of the styles, while one ought to take them from the three general Greek nations and people, which are the Dorians the Ionians and the Aeolians. One can believe that the latter two differed between each other in a way which was somewhat similar to the way in which Phrygians and Lydians differed, with whom they must have had a lot in common because Aristoxenus (if indeed it was him) called the Iastian mode also Phrygian, but in a lower form, and the Aeolian also Lydian, but in a lower form. However, Heraclides' opinion [-<356->] had no following. On the contrary the three modes Dorian, Phrygian and Lydian were always considered as principal and as the basis of the others, either because of their antiquity and because their names had been accepted by everyone, or because that difference between the Ionic and Aeolian style and between these two and the Dorian derived from their familiarity and their interbreeding between the Ionian and Aeolian nation with the Lydian and the Phrygian. [nevertheless Polymnestus and Sacada, ancient musicians quoted by Plutarch, recognised only these three Tones, namely, Dorian, Phrygian and Lydian. in marg.] Therefore, it is worth knowing that those two nations did not fuse together when they moved across to Asia, but that each one kept itself by itself, the Aeolians on one side more towards the strait of the Hellespont and on the coast of Phrygia and Mysia, occupying also the island of Lesbos, while the Ionians were located more towards the south in the costal part of the Lydia and on the island of Scio. Although many colonies of Dorians moved south towards Rhodes as well, the way that not only the Spanish, but also the French and the English have occupied some small part of North America, nevertheless they are not talked about as far as music is concerned, perhaps because they kept themselves more intact and preserved, as it is known, their own more European traditions and customs. Although these three nations are Greek in an equal way, nevertheless they differ from each other in their traditions, language, laws and customs and such like more than the Castilian, Portuguese and Catalan, which correspond in many ways to those three Greek nations. Consequently, music, [-<357->] which expresses their character and individual complexions was differed very much in the case of each of them. Therefore, the singing style of the Aeolians was bloated, haughty and deep in tone, as it suited that people which was more proud and courageous than shrewd, generous in spending and

in hosting guests, breed horses and organise sumptuous dinners and participating in banquets and love-making, characteristics which, in my opinion, are more typical of the Lombards than of other people of Italy, and of the Portuguese in the Iberian peninsula. Moreover, it is noticeable that the Aeolian dialect with that termination (-aon) which belongs to the plural genitive is very similar to the Portuguese language. However, the Dorian nation had more severe and serious and patrician character instead, which are qualities that match the character of the Castilians, especially those who are older and live on the mountains. The character of the ancient Ionians which survived very much in the one of the Athenians, since the ones who moved to Asia became unnerved and dissolute within a short space of time, was to be contentious and stubborn, not keen on foreigners, in the way that the Genoese are and the Ligurians in our country, and the Catalans in Spain. Therefore their harmony was equally very plain and rather dry and harsh, although it showed something of the magnificent, hence it was accepted within the tragedy. The more modern Ionian style, on the contrary, was attractive, graceful, cheerful and dissolute, and for this reason apt to dances, banquets and to falling in love. This stile nowadays would match the character of the inhabitant of Valencia in Spain, who are very warm-hearted. These are the natural reasons of the special differences [-<358>-] of the modes. Now, since the Greeks imitated the Phrygians and the Lydians in their style of singing more than the other nations that shared a border with them, since they must have had types of singing too different and removed from their own, so that they could not find them attractive, nevertheless one has to believe that they shared with the Greeks many features of their music, as they did with their language, not in the sense that they made their words, which were very different, similar to the Greeks, but as to many combinations of letters and similarities of accentuation and terminations, and in partaking very much with that graceful and beautiful pronunciation of the Greeks and other common features of this kind that one can notice in the words of those languages that we have left in the works of Greek writers.

On two sorts of special differences of the most ancient Modes.

With the accurate reflection which we have provided for the ancient Modes and on the basis of the writers who talk about it we have observed that they had two sorts of differences and properties, some of them essential and inseparable and others accidental and that could be separated. The first consist of two elements, the first one is the different tension of the voices towards the low and high register, while the second is the variety of species of fourth, fifth and octave which they used, as it was explained in part further on.

I shall call the other differences accidental and separable because one can maintain the specific substance and nature of the modes without them, but not in the degree of perfection that was achieved when individuals of the same nation sang or played on instruments, or sang and played then at the same time, or when others played them who could imitate them perfectly. [-<359>-] These accidental differences can be reduced to three points: Firstly, to some differences which I find that they had in the particular forms of the three genera which we call species (however the word species is used in a different meaning than when one refers to the species of consonance) and which the ancient called colours [khroas], because I find that certain modes produced small intervals or Semitones more or less intense or major or minor, and proportionately in the others, or at least in the Chromatic, as I shall point out further on. The second accidental difference should have consisted in the different way to

produce *accenti*, *passaggi* (which were used in ancient times as well, but perhaps were not as long as ours) and other special singing special effects, which I call *condiments* and are also called *graces*. We must not doubt that Dorian style had very different ones from the ones of the Phrygian and Lydian style *et cetera*, because the same occurs in the different styles of singing which are adopted nowadays in the main nations of Europe, which are more mixed among each other than those were and, consequently, must not have such stark differences in their singing styles.

Nevertheless, we see that the French hold the voice in a way, the Spanish in another one and the Italians in another one still. Among the Italians the Sicilians use the voice in a very different manner, since they are for the most part of foreign origin. These *condiments* are of two sorts, because some can be noted with some particular sign (and they usually are marked in this way) because they consist either in the *melos* or in the *Rhythm*. These are the *accenti*, the *passaggi*, the French trills [*-<360>-*] *et cetera*. [These could be notated and distinguished in detail if we had a collection of the most common and natural airs which are sung not only in different parts of Italy and in Sicily, but in France, Spain and England, and if they were intabulated very accurately and purely as they are sung in these provinces by those who have no musical instruction but who make them special and interesting through their mere good talent. Certain very attractive Piedmontese airs would be of this kind, as well as some sung by the populations of the Cava near Salerno, which have a very unusual character. A musical scholar could also extract some principle from them so that they may be altered and applied according to their quality to the main ancient modes. For instance, the ones which are cheerful in character could be adapted to the Lydian, the grave ones to the Dorian, the sad ones to the Mixolydian and the lively ones to the Phrygian. One could start from the songs of those people that are more remote and that mingled the least with the others, such as the Irish, who are very devoted to music otherwise, use the bagpipes in their battles and have employed the harp for many centuries up to this day, which is also the emblem of the Reign. in marg.] Other ornaments, instead, consist in the way the voice is held and they could not be expressed very well with their own signs. These are the *tremblements* used very widely by the French and the manner of using *passaggi*, now more separate, articulated and majestic, now more *legato* and slippery, in drawing out the breath in one go or little by little, and other similar circumstances. However, the third property, which is possible to separate from the Modes, consists in the variety of *Rhythms* and different movements which are applied accidentally more to one mode than to another one, since the fast and furious movements were often used in the Phrygian. It is not as if they were always used in that mode as such, but they were used in it very frequently, although it was not applied always to lively and furious subjects. In fact, as Athenaeus says: *<aliqua desunt>*

I wanted to say this because nowadays many are confined that the variety of the ancient modes consists more in their *Rhythm* than in anything else, but they are very much mistaken, as we shall see further on.