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of the notable topics contained in the dialogue

of this following third day

[-85-] OF THE TRIMERONE OF THE HARMONIC FOUNDATIONS, OR OF THE EXERCISE OF MUSIC, DIALOGUES OF KNIGHT HERCOLE BOTTRIGARO

THIRD DAY

INTEROCUTORS

Alonso Cupino. Anniballe Melone.

ALONSO. In the end I manage to get away, but with great difficulty, stopping every four steps like someone affected by gout. And what are those lectures with which, o God, he had burdened me today? Oh, there is Melone, I believe, at one end of the porch. He' s entering and just about to climb the stairs of his school. Then I was wondering greatly if he had been waiting for me for a long time, and I was pained, fearing that he might have thought that I had done this almost in retaliation for having kept me waiting for him yesterday. However, I shall be with him even before he has put on the long cloak if I run to the top of these stairs, which are so long and steep.

Anniballe. Do not rush, Alonso, do not strain yourself running to the top of these stairs, which are obnoxious for their very steepness. Come at your own pace. I saw you from afar and I have climbed up slowly, as I usually do, counting these steps (as one says), and waiting for you.

Alonso. You are so kind. Please enter yourself first.

Anniballe. I am entering, and I am going to sit down. Please, do the same and catch your breath back, while I wrap this cloak around myself, more because of ceremony than because it is necessary. Later, you will tell me if you have considered the content of that piece of writing, which I gave you for this reason yesterday when you left, which perhaps is the one that I see you are holding in your hand.

Alonso. Certainly it is that one. I have read it over and over, and it seems to me a great thing that so many abuses were introduced into music at the time of Pope John XXII, who died more than two hundred and sixty years ago, so he was forced to write this decree under the title *de Vita, et Honestate Clericorum*. [1. in marg.]

Anniballe. It would be necessary to revive such a decree nowadays and to put it (as they say) into effect strongly, since we have fallen back into those abuses, and perhaps even greater. 'Listen. Now they break up the melodies with hockets, they render it slippery and unsteady with countermelodies, sometimes they fill it with triple times sections and with words not in Latin, so that sometimes they despise the foundations of the Antiphony and of the Gradual as if they do not know the basis on which they [-86-] build their music. They do not know the tones, (listen, listen) and, since they do not know them, they render them even more confused. The humble ascending and the temperate descending of the plainchant, by which the tones themselves are separated, are in turn eclipsed by the great number of their those notes. They run, in fact, and do not rest, inebriate the ears and do not soothe them. They picture with gestures what they omit. Devotion is despised by those who should seek it, and bawdiness, which should be avoided, is openly presented.' Pope John then shows how much he respected Boethius, not so much perhaps because of his great doctrine, but for his saintly life, for which he deserved to be numbered among the saint martyrs, by quoting his words from the *Institutione musicae*. 'In fact, Boethius says, not without reason: a licentious spirit delights in even more licentious modes and is weakened and broken by listening often to the same ones.' Now what do you think? Have you considered all these fifteen abuses, and these special instances?

Alonso. All of them, since they are described in such detail, that it is not possible to go any further without understanding them. But what meaning do you give to that word *hoquetis*?

[2. in marg.] Anniballe. The French call *hoquet* what the Romans called *singultus* and we call hiccup, and the Pope used that word in this place, as a little further he used *Motetis*, which is also a French word, because the papal residence was then at Avignon, [3. in marg.] and that style of singing originated in France, in my opinion. The Latin language, in fact, was then not very polished and pure. And, in my opinion this was based on those words 'the humble ascending and the temperate descending of the plainchant, by which the tones themselves are separated, are in turn eclipsed by the great number of their those notes. They run, in fact, and do not rest, inebriate the ears and do not soothe them.' These words have to be interpreted as describing that effect which we call in music 'gorghizare' or 'to sing *passaggi* with the throat', [4. in marg.] since the singer really appears to be hiccupping frequently and in this way he fragments and interrupts the melody. I have discussed this topic at the end of the dialogue intitled *Il Desiderio* at the request of knight Signor Hercole Bottrigaro, to which I directed you yesterday as well for another reason, and I have burst out of my discourse slightly. The venerable Bede happens to mention this word *hoquetus* in his *Musica pratica quadrata*, wher he says. 'It has to be known that there are only three genera which measured music covers, namely *discant*, *hoquet* and *organum*', but, since the most learned Zarlino did not know nor did he understand well that word, [5. in marg.] in the same place, namely the third chapter of the first book of his *Supplementi Musicali*, where yesterday I told you that he did not interpret well the word *organum*, it was corrected to *concentus*, as if there were an error in the text.

Alonso. Is the word *Motetto* also of French origin? What is its meaning?

[-87-] [6. in marg.] Anniballe. In French motet means verse in its main acception, but it is also taken to mean a brief composition on a Latin text, or in any other language. However, when it is translated into Italian, it is always interpreted as a composition on a Latin text, because we call Madrigale or Canzone a musical composition for several voices on an Italian (and not Latin) text; hence the Pope added the adjective vulgaribus, meaning 'in a language other than Latin' to the word motetis. Similarly, the venerable Bede mentions this word in his Musica practica or quadrata, with these words. 'And how motets, conducti or organa are composed of these.' He adds further on. 'But these musical notes sometimes are set to a text, sometimes without a text. They are set to a text in the case of motets, and similar compositions.' And some way further. 'to avoid that the plainchant may be fragmented in the composition or structure of the Tenor, on whose composition and structure all the motets and organa are believed to be based.' But, going back to this decree, it is very beautiful in every part of it. Look how beautiful the initial exposition of the reasons why music was introduced into God's Church. 'The learned authority of the saintly fathers prescribed that everybody's mind should be alert (point one) and the words should be pronounced fluently in the services held for the glory of God, which are performed to show appropriate submission, and that (second point) the modest seriousness (which is the third point) of the singers of psalms should sing producing a calm sound. (Moreover) In fact, a sweet sound emerges from their mouth, when they embrace God with their hearts; when they speak with words they provoke a feeling of devotion towards him. Hence it is ordered that the psalms should be sung in the churches of God, so that the devotion of the faithful might be inspired in the services of the day and of the night, and in order that the large number of masses be sung by the clergy and the congregation under a mature Tenor (and note this in conjunction with the discussion we had yesterday, namely, if the Tenor, or the Bass are or not the same part) with separate conjunct notes, so that they may please with their same distinction and produce contentment with their maturity [7. in marg.]. The Pope continues then recounting what are the musical abuses, and who are their perpetrators. 'However, while some followers of a new school are careful to measure the length of their notes, they prefer to compose their pieces with new notes and the pieces for the church are sung with semibreves and minims, and the sung with a battery of small notes. In fact they break up their melodic lines with hoquetis', and the rest is the same as you have heard at the end of that exposition. Now, here is for you the very beautiful and most beneficial regulation to provide a correction for such abuses [-88-] and return music to its previous form. 'Therefore, we ourselves and our brethren believe this situation is in need of correction. Let us hasten with greater efficiency to confine, or even better, to banish and to defeat them out of the Church of God. [8. in marg.] For this reason, in accordance with the counsel of our brethren, we order strictly that nobody should have the presumption to attempt similar things, particularly within the services of the Hours, or when the sacrifice of the Mass is being performed. However, if anybody contravenes, he should be punished under the authority of this decree through the ordinary authorities of the places where these violations have taken place, or through the deputies in those matters which are not exempt, in those exempt they will be punished through their superiors or their prelates, to whom the correction and the punishment for their sins and excesses of this time is entrusted on other occasions, or through their deputies, with the suspension from their office for eight days (punishment too light). Through this decree we do not intend to prohibit (what a beautiful and wise restriction) that on certain consonances that flavour the melody, for instance of the octave, fifth and fourth, and such like (namely, of the ones composed of these and of the diapason) should be sung above the ecclesiastical cantus firmus (pay attention those who do not want to agree that the diatessaron should be

numbered among the consonances), but we allow this only on occasion, especially on feast days or in solemn masses, and aforementioned divine services.' This is really what we call making simple and not excessively florid counterpoints, but note against note, or point against point above the cantus firmus, as the Pope himself declares by saying. 'In such a way though, so that the integrity of the melody itself remains untouched, and nothing is changed from well remembered music. Especially when this type of consonances seduce the ears, inspire devotion and do not allow the souls of those who sing psalms to God to lay idle.' These are all effects of music which are lauded by the best philosphers starting from Plato, whose opinion (repeated by Boethius in the proem of his musical Institution) I will recite, non just for this reason, but to amend the word memorata, which, in my opinion, is corrupted, albeit it can be read in all the printed texts of the Decretales which I have been able to see up to this day, since that first syllable me should be removed, and the word morata should be read instead. [9. in marg.] 'Plato also believes that one should avoid as much as possible,' Boethius writes in the proem of the first book of his Music, 'to change anything of what composes well accustomed music.' And somewhat further on he adds. 'For this reason Plato believes that well accustomed and wisely constructed music provides great protection for the state, [-89-] provided it is modest, simple, masculine, not effeminate, nor savage or varied.'

Alonso. O most wise, o most judicious, o most saint provision. The more I consider, the more I believe it to be worthy to be restored and authorised under the threat of a more cruel punishment to exterminate and banish these musical abuses of ours, which are certainly greater than those which moved the will of that pope and of those cardinals to provide to them, which were really great in themselves. 'Often they introduce melodies in a contrived way, so that sometimes they despise the foundations of the Antiphonal and of the Gradual. They ignore the basis on which they build. They do not know the tones (and you yourself pulled my ears at this point), and what they do not understand (as if this were not enough) they render more confused, while the humble rising and the sombre falling of the melody, and the cantus firmi which define the tones themselves are obscured by the that multitude of notes. They run, in fact, and they do not rest.' And if they do not do you, it is to their loss. But this confusion and this fog does not blind me any longer, thanks to you. [10. in marg.] Please, now show me what the ancient musical characters were, and let us not waste any more time.

Anniballe. Yes, so that we are not forced to do later what we did yesterday, when we almost ended up returning home feeling our way through the darkness. It is true that today we will not happen to talk about so many and so different topics, but it will not be a bad thing if we do a little physical activity with our feet and our bodies after that great deal activity which we have done with our tongue exercising our minds and our ears. I will begin by saying to you that, being absolutely certain (because of the tale recounted by Moses, most loved by God - in the Parasca Dalet, [[Hebrew] miber'sith] mi Bersuit, which we call fourth division or chapter of the Genesis, with its Greek name, or of the generations) that Iubal, second son of Lamech and Ada, and brother of Iubal Cain was a great singer to the cithara, of which (it was called by the Jews themselves [[Hebrew] khinor] Cinor) he had been the inventor, and player, as he had been of the [[Hebrew] 'ughab] Haugab, a wind instrument, as they call them, we can be almost certain that he was the inventor of the Hebrew musical digits, characters, or signs, called by the Jews themselves [[Hebrew] ta'amim] Tahamem, or accents, because they have the function of musical and rhetorical accents at the same time, according to whether they are positioned above or beneath the word with the sign, so that the particular syllable or vowel has to be

pronounced flatly with an acute accent. However, I would not dare to state in any way to state, if not as a conjecture, that the Tahamem used now by the Jews are the same as those invented by [-90-] Iubal.

Alonso. What makes you doubt that this is the case?

Anniballe. I am very doubtful about it because of the fact that all the [[Hebrew] sepherim thora], Sceferim Thora, namely, the volumes, or books of the law that I have seen, which we call the Bible [12. in marg.] from the misreading of a Greek word, and are kept by the Jews in the archives of their synagogues, are written without any sign of accents and without any other punctuation in them. Nor the Jews would have those book written in a different way, since every day they make them write out at the greatest expense to preserve their eternal memory for themselves, and they Rabbis are forbidden to read in their synagogues a reading of the Bible from a book punctuated in whichever way, [13. in marg.] but everyone else can have those punctuated books, read from them and listen to the readings taken from them, especially the Safer [[Hebrew] teyilim], or book of psalms in order to accompany themselves the chant of the Rabbis' with the same chant. However, I am growing much more doubtful about this, since I have seen the [[Hebrew] himisah homasi thora], Camisca Comasci Thora, namely, the Five fifths of the Law which we call Pentatheuc, preserved with great devotion and care by our most Reverend Fathers Dominican Preachers in their church in Bologna,[14. in marg.] and with good reason, since after the [[Hebrew] mabul], namely the universal deluge, the prophet Ezra, who was very dear to God, by grace of the Holy Spirit wrote down in a very short time the divine law received by Moses with his own hand to calm the fury and the ill feeling of the Jewish people against him, who were demanding it from him with great insistence and in a threateningly manner. This copy was lost again in the universal deluge and was written simply with letters and without any sign or punctuation. Therefore, it seems to me possible to conclude that in those first times of Iubal the habit of punctuating the letters with vowels, or to mark them with signs of pronunciation or singing indications was not in use, since this even at the time of Ezra neither of them was practised.

Alonso. You have very sound reason to doubt it.

Anniballe. On the other hand, it seems to me that, although it is true that at the time of Iubal, nor at the time of Ezra the punctuation of the Bible was not practised, this argument does not prevent the fact that, just as in our times the Jews can accent or punctuate the Sceferim Thora, the Theilim and the [[Hebrew] tiphiloth] Totiloth, namely the books of the Law, of the Psalms and of the Prayers, and read and keep for themselves the books with punctuation and accents, [-91-] this might have happened also that at the time of Ezra, that he accented and punctuated some books in particular, and that said punctuation and rules of both grammatical and musical accents were preserved in time in the manner they are now seen almost by way of cabala, or, we should say, tradition. But, however this might be, I do now want to talk about these minutiae any further.[15. 16. in marg.] The first person, who wrote about these characters or musical signs used by the Jews and by called [[Hebrew] neghinoth] neghinoth was Johann Reuchlin, as he states at the beginning of the dedicatory letter in his treatise de Accentibus, et Orthographia Linguae Hebraicae. At the end of the third book of said treatise, which is intituled [[Hebrew] neghinah] negina, he shows particular examples of each one of those characters with the musical notes and lines which we use nowadays in four-part counterpoint. I refer you to that passage and also to the second book of the [[Hebrew] sepher tob ah ta'amim] Scefer

Thob. ah Tahamim, namely, good volume, or book of the accents and punctuations, not the one by Elia Levi written in Hebrew, [17. in marg.] but the one written in Latin by Giovanni Vallense after Reuchlin. I do not know of any other writers who have dealt with this subject, but I would refer you to them in the same way if I knew of their existence.

Alonso. I hold very dear that you have mentioned to me these two or three authors who deal with said accents or musical characters of the Jews, but I do not accept your referring me to those passages, where you told me that they talk about this topic and deal with it, since I possess neither one or the other of such books.

Anniballe. I will accommodate both one and the other for you, trust me.

Alonso. I am extremely grateful to you, but allow me to finish what I was saying.

Anniballe. Continue.

Alonso. Then, even if I possessed those books, I could not do anything good with them by myself. I could look at their outside cover as well as the printed pages inside, and especially where the Hebrew words are. I do not know even the smallest Hebrew letter. Please, tell me and explain to me everything that you wanted me to understand and know.

Anniballe. I will do it with pleasure, and my explanation will consist of all that I know thanks to knight Signor Hercole Bottrigaro, and I will proceed with the greatest clarity and brevity which I will deem possible, since it is not very useful to dwell on it at length. Among the Tahamin of the Jews, (which could be called [[Hebrew] nekhudhoth] Necadoth as well, and perhaps better, namely points, as the Jews call them in Italian, since they say 'to point the letters', rather than 'to accent them' or 'to mark them with vowel sounds') there are some that have the function of vowels. [18. 19. in marg.] The Alef [[Hebrew] 'alef], the [[Hebrew] he] He, the [[Hebrew] yodh]] Iod, and the [[Hebrew] waw] uau, which they call Aeue, albeit they retain in the pronunciation some sound of a, of e, of i, and of u (since the letter corresponding to o is totally lacking in Hebrew), nevertheless they do not have the function of a, e, i, and u, if not when they have above or underneath the punctuation of one of those four vowels; but when this one is fused with that one, and this other one with that other one, and that other one with this other one, they assume a different sound, and, in short, a particular one which is in accordance with the punctuation, and especially the Alef and the He. In fact, the Iod, [20. in marg.] e la uau are more used as the i and for the u consonants, than as vowels, if they are not punctuated that one with the Chiric, this one with the Saruc or surec, or Chibus Sefataim, namely pressing together of the lips, which is the effect of the pronunciation of the letter u. These vowel sounds of theirs are twelve in all. There are five other of these points called distinctive and grammatical, because they distinguish the sections of the closes of the speech or discourse. There are others which are numbered and understood, as I began to tell you, as indicating the long or short pronunciation of each word, and there are also musical signs, of which I intend to talk about now, as far as singing and music are concerned. These, as I said, which are called by the Jews Neginoth, are thirty in number [21. in marg.]. I will explain here their form with the name added to it and, after that, the authority of the two aforementioned writers explained with our musical notes. I will present it to you in the order (as to their position above, below, or among the letters) which the sharpness of this pen, which I am picking up, will remind me of, and I will leave the series of the Kings, of the Ministers and of the Free men to their grammarians.

In order that you might get to know them better and with greater clarity, and after having told you, as I am telling you, that some of these Thamim are made up of single points, some of just straight, vertical and hanging, others of arched lines, others of circular lines, some others of a combination of straight, arched and hanging lines, some others of mixed straight, circular, and hanging lines, others of double vertical and [-93-] hanging lines, others again of arched lines, of doubled in the shape of our flat round S and of quadrupled again in the shape of a vertical saw, I will put either above or beneath or in the middle of each one of them some of those Hebrew letters, as I will deem appropriate, so that you might acquire adequate knowledge of them and in order that you might be able to distinguish them in accurate and most useful way. I have said and repeated this to you, because there are some of these musical characters which are very similar between each other, and of the same shape. I will start with those Tahamim whose position is above the letters. Here, above this Beth [[Hebrew] beth], second character of the Hebrew alphabet, I write the [[Hebrew] zrq'], Zarcha, which is our low-case round flat s, in this way [signum], and I will put its musical notation later on with that of all the other signs of this genus [22. in marg.]

[Bottrigari, Il trimerone, Giornata terza, 93,1; text: Zarcha, Pazer gadol Zachef Cathon, ouer Mazec, Zachef gadol, Gerisc, Torisc, Geriscim, Teriscim. Thelisca, Tharsa, che però molti la distinguono e la fanno pender sull' altro lato, Rebia, un punto solo maggiore alquanto del Colem significante la uocale o. Pascta, Cadma, ouer secondo alcunj Azla: ma non bene; percioche Azla è pendente sull' altro lato, cosi, Segoltha, Carnefara, Carattere molto conforme al nome; che è di Corne di uaccha, si come quest' altro, Scelsceleth, che ual Catena: ma come io ui ho detto, forse più propriamente Sega [[Hebrew] mesor]]

Beyond these fourteen which are written above the letter, there are another fourteen one writes under the letter, and that I will describe in the same way under the same Beth.

[Bottrigari, Il trimerone, Giornata terza, 93,2; text: Atnac, Thebir, Tifca ouer Tarca, Iethib, Sofar Mucharam]

[-94-] [Bottrigari, Il trimerone, Giornata terza, 94; text: Darga, ouer Sofar galgal, Munac, Sofar Inscar, olec, Iareac ben iomo, al qual nome; che è di Luna figliuola del suo dì, ciò è Luna nuoua è molto conforme esso Carattere che anco si dice Galgal ciò è circolare. Mapac, ouer Sofar Mapac, Marca pescuta, Marca cefula, Terin Cutrin, Mecarbol, Munac, Iluj, Menila, Siluc, Sof pasuch; che fin di Chiusa, ò di uerso s' interpreta, non è stato da molti Grammatici (come afferma Elia Leuita nel [[suo]] sopradettouj Suo libro titolato Sefer Tob Tahamim) conosciuto: Ma usato il poner due punti: trà la una parola fine della Chiusa, et l' altra principio della seguente.]

There is yet another sign of Sof pasuch that one can add to these fourteen, and that is written, as I said, between the end of one word and the beginning of the next one. It is this one Legarme [[Hebrew] beth | he] or Pesich, which some maintain to be two different signs.

Alonso. All these names which, as you said, these musical characters have, must have their own meaning, such as in the case of the two or three that you explained.

Anniballe. They certainly have, and it is derived from their form, or shape, or from the function that such accents perform. Some of them, as the most parts of the Grammarian

believe, are in Hebrew, others in Chaldean language, others in Arabic, and their meaning is not well understood because of the movement of the voice in their chant, as I will tell you later.

Alonso. I will appreciate if you explained to me their meaning, following the sequence of those you have already described, before you show me how they proceed in their melody.

Anniballe. Zarca, means spreader or laid-out

Pazer gadol, great spreader

Pazer caton, small spreader

Zachef Caton, minor straight one

Zachef gadol, major straight one

Gerisc, the one that chases away

Geriscim, those that chase away

[-95-] Thelisca, Ternary, or major or minor tripled, also called shield

Rebia, Square, because its point was drawn as a square, to differentiate it better from the Colem

Pascta, Flattener

Cadma, Antecedent

Segoltha, Triangle, or three points in a opposite order to the three of the Segol

Carnefara, Cow horns

Scelsceleth, Chain, or saw, which other call file, as I remembered just now

Athnactha, Sign of pause, of rest or sigh

Thebir, Breaker

Thifca, Palm

Iethib, Turner

Darga, Step, degree or horn of a wheel

Sofar Munac, Horn put away or straight horn

Iareac ben iomo, Moon daughter of its day, as I said, or circle

Sofar Mahapac, Turned down horn or trumpet

Marca pescuta, Vertical line

Marca cefula, Double vertical line or little sticks

Sofar Macarbel, Horn which supports

Sofar Iluj, Raised horn

Sofar Mecila, subulino Horn, namely not ramified, but in one piece

Scof pasuch, End of a close, or verse, and also sum and termination

Lergarme - Perfect, or solitary, and also Gnomon or, as we say, stylus

Alonso. This explanation of those signs shows well that many of them were named not if not at random, at least according to the will of gave them that name, or that they are not well understood by their interpreters.

Anniballe. Some Grammarians are really unsure about it, perhaps for this reason, namely, that many of them have no correspondence with their grammatical, nor their rhetorical, nor musical function. Now, observe. This is the movement of the Zarca. Its movement, and that of all the other musical characters that I will draw here according to the sequence that I have started, are explained mostly in the same way by both Vallense and Reuchlin. We start from the right and move on to the left, according to the habit of the Jews.

[Bottrigari, Il trimerone, Giornata terza, 95; text: Thelisca Catona, Geriscim, Gerisc, Zachef gadol, Zachef Caton, Zarcha]

[-96-] [Bottrigari, Il trimerone, Giornata terza, 96; text: Azla, Cadma, Pascta, Rebia, Pazer gadol, Thelisca gedola, ò Tharsa, Thebir, Athnac, scelsceleth, Carnefara, Gaia, segoltha, Mapac, Iareac ben iomo, Munac, Darga, Iethib, Tifca, ò Tarca, Pesich, Legarme, Siluch, ò Sof pascuch, Mecarbol, Ahi luj, Marca pescuta, Marca cefula]

Alonso. I would be very glad to understand from you some details of this musical notation.

Anniballe. And I will answer gladly your questions, if I can. Do ask.

Alonso. First of all, what do these notes of the value of semibreves, which in less than half of these movements you have represented as black?

Anniballe. They have been drawn black to show that there is some difference in that movement between Reuchlin and Vallense. Firstly, I will say that, in my opinion, some of these differences stem from the inaccuracy of the printer who printed Vallense's book, since there can be no mistake in the book by Reuchlin, because, apart from the fact that the print is from engraved plates, their accuracy is clear to those who know the rules of counterpoint written in four parts, while in the book by Vallense the cantus firmus is simple, unadorned, and written from moveable blocks of tin, which have to be combined

together one by one, as ordinarily all the letters or printed characters are in our printed books. Therefore, it is easy to make a mistake and put one in the place of another one. I will add also that said movements in the chant are very different [24. in marg.] in the Jewish synagogues according to the country where they are located, be it France, Spain, Germany, Italy, from the east, or others. I do not say this just on the basis of what Reuchlin himself and Vallense write, but from what I have heard already from some Jews from Ferrara, where, as well as in Mantua, there are Jews from every nationality, whom I have asked. I also wrote down all the melody of the Psalm fifty-one [[Hebrew] helohim], namely Miserere mei Deus sung by one of the main Rabbis of the Spanish synagogue, with the musical outline of [-97-] [25. in marg.] its intonation, which is [[Hebrew] lamena'eah mizmor li Dawid] Lamnatzeac mizmor le Daud, namely, At the end of David' s psalm, and, as I remember it very well, I will provide you with some example of this singing of theirs [26. in marg.] with a new forewarning, namely that their singing in the psalms is different from their singing in the Prophets, which is different from the one in the Proverbs, and thus one is different from the others, which Capnio, namely, Reuchlin says was the written opinion of bishop Paolo Burgos. This is the intonation.

[Bottrigari, Il trimerone, Giornata terza, 97,1; text: [[Hebrew] divaD romzim caeztanmaL]]

These black notes do not denote a difference in the movement of the melody, as the other ones above did, but a single expression of the pronunciation of the words which is quick or slow, but without definite beat and determinate timing.

Alonso. I understand very well, but what is the musical movement of this intonation if it does not conform entirely to the singing that takes places in the other synagogues?

Anniballe. I do not know what it is, neither in this one or in any other case, since I have not wanted to learn about it any more than this, as it seems to me that this level of knowledge is very well sufficient for a Christian. But, as far as I can conjecture with giving to these four accents - Gaia, Rebia, Thebir, and Siluch with Sof pasuch - their musical movement, I would be inclined to believe that its composition could be as the one that I write for you here, according to our habit.

[Bottrigari, Il trimerone, Giornata terza, 97,2; text: [[Hebrew] Lamnatzeac Mizmor le Daud]]

And for complete conclusion of these Hebrew musical accents, I will add for you benefit that, as you see that the Scelsceleth is made up of the movement of Pazer gadol and of that of Thelisca getola, similarly you will find that Iareac ben iomo is formed of the movement of Darga, or of Marca cefula doubled, or of the one and the other together united.

Alonso. Since with your explanation you have solved my difficulty in advance, since I was opening my mouth to ask you about these couplings and doublings of the accents, tell me, please, is this singing of the Jews similar to our cantus firmus and plainsong, or similar to the one with practice with measured note values?

Anniballe. Personally, I believe that is akin to our cantus firmus, with its manner [27. in marg.] of sustaining the voice on the vowels that I have shown to you in this example, as

in this way, really, and not in any other I have heard that it is used by the Jews in their synagogues.

Alonso. Why then did Reuchlin write those movements of the chant in four parts, in a similar way to our measured counterpoint?

Anniballe. I believe that he did this for no other reason than to imitate our practice of writing counterpoints above the cantus firmus, as I have heard some Jews do with counter melodies added to this effect. However, I have shown their example transposing them in the [sbq], where, I believe, the proper place of said musical movements lays. However, I do not believe that we should waste anymore time dealing with them, but that we are ready to discuss the musical characters used by the Greeks. [28. in marg.] Alypius then in his musical Isagoge, which has not come into the hands of the printers, does not deal of anything else in this Greek treatise of his, but of said Greek musical characters by drawing, as we can conjecture, forty-five tables which are mostly not only in fragments, but also lacking some parts. These tables are fifteen for each one of how many are the three harmonic genera according to him, as I told you yesterday, not the day before. Gaudentius, again, in his harmonic Institution (nothing of which, originally written in Greek, is found but a Latin translation by his friend Mutianus, as more than once relates Cassiodorus, whose work has also not been printed) deals very extensively with those musical characters deferring to Alypius. Boethius, as the writer who must have witnessed and considered both of these authors, put together a table of those musical characters covering the eighteen notes of the most perfect system in each of the three harmonic genera in their thick form together, but only in the Lydian mode, and he gave it in the third chapter of the fourth book of his Music, where he promises to produce in another place or at another a similar table for all the other modes, or tones. He put it [-99-] in the third chapter of the fourth book of his Music, but only in the eight modes or tones of the diatonic genus, and thus he does not fulfil his promise completely. Now, all characters or musical notes of the tables of Alypius and Gaudentius, just as of those contained in the two by Boethius (who in said third chapter advises to abstain from distorting anything from the authority of the ancients) are all written in Greek letters, but some are straight, some are back to front, others are crossed with a line, some face downwards, some face upwards, some are hanging, some are capitals, some in lower case, some are doubled, some are reduced, some are altered.

[29. in marg.] Alonso. Therefore, the number of these characters or signs must be very high.

Anniballe. If I remember well, it reaches the total of almost eighty, but you will be able to count them one by one, since I will write them here beneath, as I did with those few (compared with these) used by the Jews, but without repeating them and not according to the sequence of the tables of Alypius or Gaudentius, but following the eighteen notes of said perfect system in all three the harmonic genera. Also, you will have to note that, as you do, what Boethius says in the same third chapter (and these are his exact words [30. in marg.] translated thus by knight Signor Hercole Bottrigaro, who not only has translated Boethius and all his books on music together with those by other Latin authors who deal with music for my perusal, but also those by Alypius, Gaudentius, Aristoxenus, Ptolemy, Psellus, Euclid, who were Greek authors and wrote, as you learned, in Greek. "The ancient musicians, as a form of short-hand or abbreviation, to avoid the necessity of writing out the names of the notes with their full names, invented certain notes or signs, through

which they could mark the names of the notes, and they divided them according to their genus in modes or tones, including with this brevity that, when a musician wanted to write some melodic line to set a verse organised with a variety of rhythms, he could write these notes representing the sounds. Thus, they found in this wonderful way that not only the words of the verses which were explained in the letters, but the melody itself, which was written with these notes or characters, lasted in the memory and for posterity. Two signs or characters concur to express every note or sound, one of them, namely the first or at the top (precisely as Gaudentius [-100-] states at chapter eight, as Alypius before him) signifies the word (which it would be better perhaps to call syllable), [31. in marg.] while the other one, or lower, denotes the percussion, noting also that, when the superior character, sign, or note is different from the second, or inferior, it is a sign that the diction, word, or syllable is different from the percussion, and conversely, when the two signs are the same, it signifies that the word, or syllable is the same as the percussion, which also happens when the two characters or notes, albeit different one from the other, are repeated in two or more places. [32. in marg.] Now, these are these are the characters or musical notes from the proslambanomenos to the nete diezeugmenon, repeated twice in the three harmonic genera together.

[Bottrigari, Il trimerone, Giornata terza, 100; text: Proslambanomenos, Hypate hypaton, Parhypate hypaton, Licanos hypaton, Hypate meson, Parhypate meson, Licanos Meson, Mese, Trite Synemmenon, Paramese, Trite diezeugmenon, Paranete Synemmenon, Paranete diezeugmenon, Nete Synemmenon, Nete diezeugmenon, Trite hyperboleon, Paranete hyperboleon, Nete hyperboleon]

Alonso. Do these characters have a particular name?

Anniballe. All of them have. The name it is in accordance with the shape of their letter. Alypius and Gaudentius (and Boethius with them) describe with words [-101-] the character before they show its shape. For instance, proslambanomenos, half a phi laying upside down and half a beta supine or facing upwards. This is meant in the diatonic genus and the Hypodorian mode, or tone. In the Iastian diatonic tone, the proslambanomenos is represented by a tau oblique and inverted, or turned backwards.

Alonso. Those musicians, both singers and instrumentalists must have had a great memory; but, why did you repeat the same characters more than once with the sole difference of those inverted commas above them, such as in this first and second one of the paranete diezeugmenon or of the nete synemmenon which is repeated in the fifth of the nete hyperboleon and in the seventh of the paranete hyperboleon, and the first one of the nete diezeugmenon, which is repeated in the seventh of the nete hyperboleon with those inverted commas on top?

Anniballe. The ancient musicians added not only those inverted commas hanging on the left side, which they called [oxuteta], which we call acute accent, but they added also the ones of the grave accent which they called [bareia] and hang on the left hand side, as you can see here above this A' second character, or note of the nete hyperboleon, and much better above this twelfth.

Alonso. What did these accents signify?

Anniballe. Nothing but the high octave of the low notes which were marked with the same characters, or notes, which you cannot distinguish very well through this collection and description of characters which I prepared for you, since, as I told you, I have written them all together and without distinction of modes or genera in order to be brief, since it does not matter to our aim, which is only to know the form and shape of those.

Alonso. Do we have any understanding then of the manner that these musicians, poets and players, both ancient and ecclesiastical in attaching these signs, or characters to their words, so that they acquire the character of a musical composition?

Anniballe. As far as the most ancient musicians and poets, we do not have any very clear understanding and knowledge of this, since there is no mention of this in the ancient authors, who have dealt with said characters or with music in general, as far as I have seen. Galilei, music theorist and writer of our times, who reproduces the table of these ancient Greek characters only in the diatonic genus, and only [-102-] in the eight modes or tones of Boethius, and who imitates Boethius following the style of Alypius, from whose *Isagoge* he states to have copied those, but with the sequence of the notes from the high ones to the low ones, adduces three or four Greek compositions by a certain Dionysius, [33. in marg.] as an example of the manner adopted by those ancient Greek musicians. He says to have obtained these compositions from the Library of Cardinal Santo Angelo, and they can be useful in answering your question. And if you want that I give you a taste by writing one or two of the first verses of one at least of those Odes or Hymns, which I remember well, in order to satisfy this desire of yours as soon as possible, I will do it more than willingly as a favour.

Alonso. I will experience a most great pleasure.

Anniballe. These will be two Iambic Bacchii verses in Greek taken from a hymn to Nemesis, who by the pagans [34. in marg.] was believed the goddess which distributed divine favours, and for this reason also called *Fors* and *Fortuna*. Above each word of these verses one of those characters is placed, syllable by syllable, corresponding to the mode or trope Lydian, which they considered the main mode or tone among all others, as Boethius says at the beginning of the fifth chapter of the fourth book [35. in marg.] and Alypius in the proem, and in the diatonic genus, as far as I can understand.

[Bottrigari, *Il trimerone*, Giornata terza, 102; text: [Nemesi pteroessa bion ropa kuano pithea thugater dikas]]

Not only the other verses of this hymn, the end of which is missing, but these other hymns or odes, are similar in that each musical character is written above each syllable. Above some of them one finds written more than one of said characters, and this means, as I believe, and Galileo believes and states the same, that said syllable has to be extended while singing, in a similar way that the Jews extend theirs with the *Tahamim*, and in the same way as we do normally in our singing, both in the case of the *cantus firmus*, and plainsong, as in the measured music. An example of this can be seen at the end of both verses of said ode, or hymn, which I have quoted.

Alonso. It seems to me that this system of writing the melodies of their compositions adopted by the Greeks was much easier and concise than the one used by the Jews, although one needed a very great memory in both of them. I will say that the Jews needed

it for the high number of long passages proper of some Tahamim, while the Greeks needed it as well because of the great number [-103-] of their different characters. But could such melodies of the Greek compositions be comfortably reduced to our own notes, so that we would be able to sing them?

Anniballe. Very comfortably and with the greatest ease. This is the way to do it. First one finds the table of that particular trope, or tone on which it is said, [36. in marg.] or one knows for sure that the composition is based. One searches the table and finds, one by one, the musical characters written above the syllables of each verse, and above those one the writes our corresponding notes, as you can see that I am now doing on those verses which I showed you above with the five lines, according to the practice of our modern musicians. The composition then will translate be in this way by means of our musical characters which correspond to the Greek characters themselves according to the Lydian tone, in which it was composed by that musician, as one can deduce from the Greek characters added above by Galileo.

[Bottrigari, Il trimerone, Giornata terza, 103; text: [Nemesi pteroessa bion ropa kuano pithea thugater dikas]]

Alonso. But, if the mode or tone had not been or were not written above this hymn, or above another given Composition, which had been written in it, how would one have acted, or what should one have done?

Anniballe. One should have considered, or should consider the shape of the characters written above the words. Then, one should have compared them with these listed in each table of them, and the tone, or trope would have been selected according the table in which the majority of them was contained. Thus, the composition is translated into our musical notes which correspond to those that indicate, as you can see, the intonation of the notes.

Alonso. All this makes sense, but how did those ancient musicians use these other characters that demonstrates the percussions, as I think that this is no other percussion than what we call the act of playing on the keys of string instruments such as citterns, lutes, viols, harpsichords of different kinds, organs and other similar to these, or, and perhaps more appropriately, the simple act of touching the strings with the fingers, as in the simple or double harp, in the modern psaltery and other such instruments.

Anniballe. I also believe that it is so. But we have no clue, trace or line of enquiry, as to how they practised these percussions. Nevertheless, I imagine that, just as those characters are coupled in the tables, similarly they added them as a couple to the syllables of each word of the composition, when [-104-] they had the idea and the intention that the citharist should accompany the voice of the singer as well with the sound of the instrument, or the singer become a citharist. For instance, going back to those two verses, I imagine that they would write its accompanying character to the side, [37. in marg.] or rather on top of each of these characters, according to what I told you that Alypius, Gaudentius and Boethius relate, in this way.

[Bottrigari, Il trimerone, Giornata terza, 104,1; text: [Nemesi pteroessa bion ropa kuano pithea thugater dikas]]

[38. in marg.] Alonso. These writers have been more diligent and accurate in relating their system of notation than the Jews in theirs.

Anniballe. Many things might have caused this, but, in order to tell you everything that I remember on the subject of these Greek musical characters, I will add first that Zarlino in the second chapter of the eighth book of his *Supplementi musicali* exhibits a double table of some of these characters, which he says that he had been given by somebody from Scio, an island of the archipelago called in the past Chios, and famous for the infinite beauty and charm of its women. On top of a column of that table it reads [Aristeras cheiros] which means from the left, and on top of the other [Dexias cheiros], namely, from the right. But, since it does not contain any new musical character, as there are very few, and because it is very complex and contains different repetitions of the same characters and, albeit incompletely, in certain particular modes or tones, I add that one cannot extract but little which is useful from it, as Zarlino states as well in the same passage, I believe that it would be good for you to peruse said table at your leisure and ease, and that I should now continue by saying that Gaffurio as well illustrates these five different musical characters in the second chapter of the second book of his *Practice of one and of the other singing*,

[Bottrigari, *Il trimerone*, Giornata terza, 104,2]

but he adds no witness report as to their use, namely, either as particular characters to indicate the sound, or the notes that were sung. Instead, he expects that the readers should trust the sole authority of his pen. He adds that the *Arsis*, or rising of the note was understood to be occurring when a dot was written next to each of these characters, and when there was no dot, it indicated the *Thesis*, or, as we call it, the lowering of the note, (which are effects in which music is not involved). He also says that the consonant intervals (the diatessaron, diapente, diapason, ditones, and semitons and the other suited to the musical compositions) were expressed by some other characters, of which he had decided not to talk about to save time, as they were remote and inconvenient to our contemporary practice. And so he did not mention a word about it, nor produced an explanation of it. And since none of these such characters has ever fallen into my hands, I do not have any knowledge about it, nor can I discuss it further if not to tell you (I imagine) that the first character represents a laying iota, the second half of a laying beta (which is one of the percussions of the proslambanomenos), the third one half a delta or half a lambda laying crosswise, one of the percussions of the mese, the fourth a pi supine or facing upwards, one of the percussions of the paranete hyperboleon, and the fifth one an omega, [which is one of the notes of the mese, m. sec.] as you will see.

Alonso. Is it possible perhaps that these characters described there were invented by Franchino?

Anniballe. It might be, but I do not want to make such a bold deduction (a mistake made by many), [40. 41. in marg.] since I do not know that anything useful would come of it or any honour to Gaffurio, who was very revered at the time because of his presumed vast knowledge of music.[42. in marg.] Nevertheless our Spataro did not fear to oppose the great reputation of this man, not only in his music treatise printed then and in his pamphlet intitled *Errors of Franchino Gaffurio*, [43. in marg.] which are about one hundred, but with the tenth of his letters in Italian and with the following one containing the thoughts mentioned by him in said pamphlet on Gaffurio's errors, (which, to my

knowledge, have never been printed, and of which I possess, if not the original, at least an autograph copy) [45. in marg.] nor did he fear to oppose Boethius' authority, which was followed by Gaffurio himself in the false constitution and division of the second interval of a semitone of the synemmenon chromatic tetracord described by Boethius in the eighth chapter of the fourth book, and by Gaffurio in the sixth chapter of the second book de Armonia instrumentali (of which I was informed by knight Signor Hercole Bottrigaro much before I recovered those letters and considerations of our Spataro, which were in a bad state of conservation, but not as bad as those containing his eighth correction prefigured to the *Florum Libello* of Nicholas Burtius, as the first one had ended up unfortunately as paper to package shrimps and pilchards, and the second ones as paper to wrap gun powder with).

Alonso. In all the sciences and all the arts across the ages, they say that there never was a Plato, without there being an Aristotle.

Anniballe. Let us move on now to those characters which our most ancient ecclesiastical musicians used in the beginning.

Alonso. I do not want to miss out on understanding first what those two headings, included in said table adduced by Zarlino, meant. The fact that one heading says 'from the right hand side' and the other one 'from the left' is a sign that those characters would be used by them as our musicians use the modern tablature to play organs, harpsichords and other similar instruments, as one part of it is meant for the left hand, and another part for the right.

[-105-] Anniballe. Why not for the harp, the psalter, the piffero or the recorder?

Alonso. For those as well, since both hands are needed to play them.

Anniballe. As I said, we have no certain knowledge of this. Personally, to tell you what I understand, I do not believe that table adduced by Zarlino to be authentic, [46. in marg.] or to be very ancient, even if it is authentic. Perhaps it was made, for instance, by somebody as a memory aid taken from Alypius tables, [47. in marg.] whose sole characters (I want to tell you) I have seen reduced to tables by knight Signor Hercole Bottrigaro. These rise by steps of semitone from one mode, or trope to the next one starting from the Hypodorian as it is the lowest, in a similar fashion to the table inserted by Boethius in the sixteenth chapter of the fourth book, although Alypius begins from the Lydian tone, as he deemed it to be the most important of all, (as also I told you do Gaudentius and Boethius) and continues through the fifteen modes, incomplete, as they are. In this table one can see with utmost clarity the comparison of the same characters, which mean different notes in each of those systems, and one can appreciate their difference, not only through those modes, or tones, but across the different harmonic genera. What is missing is the perfect and complete number of the characters corresponding to all the notes, but, because of the injury caused by time, both in the systems as in the genera, [48. in marg.] in the enharmonic genus there are only seven tables and a third of another one, and therefore in this genus two thirds of that table are missing as well as seven other (besides another nineteen notes, namely one in the Hypermixolydian, three in the Aeolian, two in the Phrygian, one in the Hypophrygian, twelve in the Hyperphrygian); in the chromatic genus four are missing, namely, one in the Lydian, one in the Hypolydian or Dorian, one in the Hypodorian, and in the diatonic

genus five are missing, namely, one in the Phrygian, one in the Hyperphrygian, three in the Iastian. The total of the missing notes is twenty-eight. Nevertheless, the knight Signor Bottrigari is working on it in order to restore these tables (and he has strong hopes of it) to the most complete state and perfection that it is possible, and for this reason he incurred and incurs any expense to obtain from different places copies of that Isagoge by Alypius. But, since I have exhausted all I can tell you about these characters used in the past by Greek and perhaps also by Roman musicians, let us move our discussion [-106-] on to the characters or notes which were invented in the beginning by our ecclesiastical musicians and theorists. Therefore, I shall begin to discuss those that Odo treats in the first book of his musical Enchiridion (mentioned already by me several time up to this point), which is written as a dialogue, since I believe them to be the most ancient notes, of musical characters of all the others of ours, both in the cantus firmus, or ecclesiastic plainchant, as in the measured one, or figured, as far as I have been to see able up to now.

Alonso. I beg your pardon? So, was Guido of Arezzo not the first one to have written about music after Boethius?

[49. in marg.] Anniballe. Perhaps not even the sixth author. Now, at the beginning of this Enchiridion Odo shows that the musical characters [50. in marg.] used in his time were only four, but with a different order, namely, from right to left, from head to toe, or, as we say, in backward order, or upside-down, as he assigned the first ones to the first tetrachord, which he called low or the lowest, the second ones to the second, which he calls final, [51. in marg.] the third ones to the third, which he called superior, and the fourth ones to the fourth, which he called, in a Greek fashion, the excellent one. He states this in the chapter Igitur quia, in accordance with what he said in the preceding one, namely, that the notes proceed naturally always in groups of four both ascending and descending, following one after the other in the same way in continuous sequence (oh what an error!). The characters or notes are roughly the same, as the difference between the tetrachord is shown with the variety of their revolutions and conversions.

Alonso. So these first ecclesiastical musicians of ours began to imitate those ancient Greek musicians, but since their characters or signs were only four, how could such a small number of them be sufficient for their use, compared with those of the Greeks and of the Jews?

Anniballe. You will understand this presently. Odo first of all says, in the first chapter of the second half, written in the form of a dialogue, as a reply to the content of the second chapter of the first part of that Enchiridion of his, that the musical notes, or signs [52. in marg.] are mostly formed from the character t dasian, namely, (I interpret it thus, as a Greek word) harsh, or hard, but each one is modified. The first one has on top an inclined or laying s, [-107-] thus [signum]; the second one has c turned downwards on top of itself, thus [signum]; the third one is a simple iota, but inclined or hanging, thus [signum]; the fourth one has on top, or above itself, a supine c, or, as we say, facing upwards, thus [signum]. He adds that the second of these is one tone higher than the first one, the third is a semitone higher than the second one, and the fourth one another tone higher than the third one, hence the first becomes a diatessaron higher than the fourth one, thus.

[Bottrigari, Il trimerone, Giornata terza, 107,1; text: diatessaron.]

Odo says that all four of them belong to the first tetrachord called final. He continues then describing the notes, or signs pertaining to the second tetrachord called low, and he says that they have almost the same shape, except for the fact that they face backwards.

[Bottrigari, Il trimerone, Giornata terza, 107,2]

Alonso. Is not this third note, or character of the second tetrachord very different from the third one of the first one?

Anniballe. It is really very different, but let me continue, and you will understand everything of what I say through Odo's words.

Alonso. Continue.

Anniballe. 'The notes, or characters', Odo says, 'which represent the third tetrachord called superior are the same as the first or final, except for the fact that they face downwards.' However, I believe that he means 'instead of the final', thus

[Bottrigari, Il trimerone, Giornata terza, 107,3]

Alonso. I believe so too.

Anniballe. When he says 'the notes or characters of the low tetrachord that are facing downwards as well as those of the final', it seems to me that he should say that those will be the ones which partake in the fourth tetrachord called the highest, and they are such

[Bottrigari, Il trimerone, Giornata terza, 107,4]

Alonso. As to the Iota, although is crossed with that line, it is clear that it has to be read, as you said, as 'belonging to the final' and not 'to the low.'

Anniballe. Now listen to Odo, who exposes your doubt, when he talks about the third note, or character, and says that this does not involve the third sound, namely, the lichanos of the low notes, which has the [signum] inclined, the paranete of the superior ones, which has the [signum] turned backwards and inclined, the paranete of the highest ones, which has the iota crossed or transfixed with a line. He also adds that the other two notes are indicated with the two characters, or signs, first, and second, laying, namely, [signum], and [signum]. He has already said that they are repeated to the number of eighteen. [53. in marg.] So, these are his words, four tetrachords and a half of one, and they touch their last note, or the fifteenth sound, one by one. Therefore, if the three notes of the synemmenon tetrachord are added to them, the total is eighteen. I imagine that this is why they invented these eighteen signs, or characters, the last two of which could represent the trite and paranete of said synemmenon tetrachord, since you know very well that the mese, as a stable and shared note, is the beginning of said synemmenon tetrachord, and the paranete diexeugmenon, which is for this reason numbered among the mobile notes, assumes the role of nete and last note of said synemmenon tetrachord. I am not left satisfied entirely with my theory, but since this does not matter to our current aim, I will leave you to apply yourself thinking about it later, if you want to understand it better.

Alonso. I am content with seeing and understanding the different types of characters introduced at various time in the singing schools, and to ascertain how they were employed in those times, as far as it is possible to gather, leaving the speculations to anyone who now wants to derive empty satisfaction from their use. Therefore, continue and tell me how they were used.

Anniballe. Odo was a most abundant and diligent writer in this part of his work, and he has shown us many and varied examples. He started out from the most simple and short, in the motion of the Prothus mode, or tone, within a diapente, in the chapter that begins *Demostrandum vero* of the first part, and the example is such.

[54. in marg.] [Bottrigari, *Il trimerone*, Giornata terza, 108,1; text: *alleluia*, *tonus*, *semitonium*]

He unveils the same example which he later puts alongside each syllable in this way, through the five lines which represent five notes of the instrument.

[Bottrigari, *Il trimerone*, Giornata terza, 108,2]

Here you can see that the first syllable *Al* has only one percussion, or variety of note, as the second syllable *le*, but the third one *lu* has three notes, and the fourth one two because of the transposition.

Alonso. This way of writing the characters one after the other next to the syllables imitates the method of the Greeks, who used to write them above, and this must be the origin of the manner adopted by our musicians.

Anniballe. Would you be able to translate it according to our system of notation?

Alonso. I think so, not only for said characters or signs, which, if I remember, represent the final tetrachord, namely the one above the low one, which can be taken as the meson tetrachord,

[-109-] Anniballe. It is so

Alonso. but also thanks to the letter *t*, *d*, *t*, *t*, which indicate the intervals between said signs, [55. in marg.] hence I would translate them in this way.

[Bottrigari, *Il trimerone*, Giornata terza, 109,1; text: *Alleluia*. *tonus*, *semitonium*]

Anniballe. It is really correct. From this you will be able to understand all the rest very easily. Odo then continues, and he provides the same example quadrupling the number of lines up to the number of eight, in this way, only in order to demonstrate, as he says, the power of the four authentic modes, or tropes. [56. in marg.]

[Bottrigari, *Il trimerone*, Giornata terza, 109,2; text: *alleluia*. *tonus*, *semitonium*] Alonso. This seems to me to belong to the tetrachord named superior, judging from the same letters and from the signs. It is called in this way possibly because it lays above the final and because it represents in my opinion the diazeugmenon tetrachord, which can be reduced to our practice in this way [57. in marg.]

[Bottrigari, Il trimerone, Giornata terza, 109,3; text: alleluia. semitonium, tonus]

Anniballe. I believe that you understand and describe it very well. So, I will add just these two examples out of many which Odo provides further on, in order to consolidate your understanding, the first one accompanied by the signs and the by the lines, (which is the sixth of the same chapter) and it is such [58. in marg.]

[Bottrigari, Il trimerone, Giornata terza, 109,4; text: Sit nomen Domini benedictum in secula in aeternum et in seculum seculi]

the other one, will be added just to show you the entire sequence of the set of said signs or musical characters. This one is the twelfth, which was inserted into the chapter Etenim duobus because of a grave mistake in the copying. [-110-] However, I have restored it as best as I could to its original state, as far as I could deduce it from the words by Odo himself in the same chapter, and it is this one.

[Bottrigari, Il trimerone, Giornata terza, 110,1; text: Tu patris Sempiternus es filius.]

Alonso. If I am able to reduce both of them to our notational practice, this will be a manifest sign that I have mastered such ancient method well.

Anniballe. It will be so indeed.

Alonso. The transcription of the first one is as follows.

[Bottrigari, Il trimerone, Giornata terza, 110,2; text: Sit nomen Domini benedictum in secula in eternum, et in Seculum seculi.]

What do you think about it now?

Anniballe. I cannot but regard it well. Let us move on to the other one.

Alonso. I will resolve this one in this way.

[Bottrigari, Il trimerone, Giornata terza, 110,3; text: Tu patris Sempiternus es filius.]

What do you think?

Anniballe. Not good, nor bad. I do not praise you entirely for what is good, nor blame you entirely for what is bad, since I might be responsible in part, in some other part the copyist of that book, and perhaps in some measure Odo, the author. However, be happy with the fact that I have replied to you that you achieved a result which is not good, nor bad, and that I let you off, even if you have made a mistake.

Alonso. I am not left satisfied with my middling, and uncertain state

[-111-] Anniballe. You must be content and calm yourself, because we are not here to argue the actions of past music theorists, but to relate them, and to understand, by knowing them well, the judgement that the process of time itself has made of them by retaining some and refusing others through their protracted application.

Alonso. I am calming down, and I beg you to continue.

Anniballe. Galileo in his Dialogue of the ancient and modern music, page 36, 37, 38, on the subject of the use of different lines for the notes and of characters in front of those, shows various examples, first of all involving the use of seven lines with a character or Greek letter in front of each one of said lines, then by using lines with just one character at the beginning of the second line, similar to one of those signs which we call clefs. Within each one of these lines a dot is marked, which denotes that said note has to be struck or played, as you have understood that Odo shows us by writing the syllables of the words on top, one by one. Here are the first and the second of these examples quoted by Galileo as if they were bestowed up on him by divine grace, without any knowledge of the intervals.

[Bottrigari, Il trimerone, Giornata terza, 111; text: [Omega], [Phi], [Tau], [Pi], [Mu], [Lambda][Nu], E, F, G, a, b, c, d]

[59. in marg.] It seems to me that in these he wants to hint at the fact that these Greek letters put at the beginning of each of those lines have to be their seven vowels, which are [Alpha], [Epsilon], [Eta], [Iota], [Omicron], [Upsilon], [Omega], rather than the letters marked by him, namely, [Omega], [Phi], [Tau], [Pi], [Mu], [Lambda], [Nu], which correspond to the first seven letters of Latin alphabet and of ours, partly in lower case a, b, c, d, for the high notes, and of high pitch, partly in upper case E, F, G for the lower, and of the middle range, which are put at the other end of each one of said lines, and containing within themselves, as one can learn from the b flat, the two conjunct tetrachords, which were called by the ancient Greek theorists meson and synemmenon. Galileo seems to be hinting at this because of some words of Demetrius Phalereus which he adds paraphrasing them, but which, in the following translation into our Italian language, are these. 'In Egypt the priests praise the Gods with the seven vowels pronouncing them in sequence one after the other, and the sound of these letters has the function of the flute and of the cithara because of the sweetness contained therein.'

Alonso. Why then did you say earlier that we have no knowledge of the intervals contained within these letters, if you added immediately after that they contain [-112-] the two conjunct tetrachords? Perhaps because the intervals that they contain as a consequence of their conjunction are not known?

Anniballe. What I told you connected in the first place to the Greek letters of the first example; what I added later was referred to our letters in the second example. If the Greek characters matched, or had been written by Galileo in a way that they matched our letters, I would not have said, as I said, that we have no knowledge of the intervals therein contained. But one example is separate from the other, and Galileo does not say a word about it. Nor, to my knowledge, anyone else has talked about it, if not Demetrius Phalereus, whose words I have decided to quote entirely so that you might understand them better. For this reason I will say that Pierius Valerianus touches upon this in this Hieroglyphica. And since I have told you that I would believe, on the evidence of the words of said Phalereus, that those seven vowels should be instead of these seven Greek letters among which there is no other vowel but the [Omega], I will add that they should be put in front of the seven lines in this sequence, if these vowels have to correspond truly to our letters of the meson and synemmenon tetrachords, according to the second example of the Galileo himself, and how is suggested by the equal dotting of the lines.

[Bottrigari, Il trimerone, Giornata terza, 112; text: E, F, G, a, b, c, d, [Omicron], [Upsilon], [Omega], [Alpha], [Epsilon], [Nu], [Iota]]

Moreover, I believe that perhaps that lower case letters should be used for the high notes, namely [alpha], [epsilon], [Nu], [iota], while capitals should be assigned to the first two lower tetrachords, namely, the hypaton and meson, according the natural sequence shown to you, in true correspondence to both our capital Gregorian letters and to the ones of Guido d' Arezzo. I do not want to enter now into a discussion regarding both of these kinds, although the Gregorian letters, which derive their name from the great and most saintly Pope Gregory, might have been the first notes or characters introduced in the choirs to represent the cantus firmus or plainchant, but we will talk about those lines, and of their dotting as soon as we have completed the discourse which we have started on the musical characters. Nevertheless, I remember that one can find various other characters in three or four handwritten antiphonaries all different among themselves in this respect, and of which a small number of leaves made out of parchment belong to knight Signor Hercole Bottrigaro, [-113-] who managed to acquire them with great effort at vast expense from the injurious hands of a paper merchant, who, having already folded and cut them with the scissors, wanted to make covers for those paper booklets used to take notes and write accounts, as he had done with the rest of those leaves. Among the antiphons, graduals and responsoria, and verses copied in those fragments one can find these, which I copy here to show such characters, of which I have not been knowledgeable enough, nor have I been able to gather their quality, nor to observe their sequence. This is the first antiphon is read and sung in the second Sunday after Whitsun.

[Bottrigari, Il trimerone, Giornata terza, 113,1; text: Quidam homo fecit cenam magnam et uocauit multos: et misit seruum suum hora cenae dicere inuitatis, ut uenirent, quia omnia parata sunt. Aeuia.]

Similarly, this is another antiphon which is read and sung in the following third Sunday.

[Bottrigari, Il trimerone, Giornata terza, 113,2; text: Quis ex uobis homo; qui habet centum oues: Et si perdidit unam ex illis, non ne dimittit nonaginta nouem in deserto: Et uadit ad illam quae perierat donec inueniat illam, Aeuia.]

Alonso. These musicians used to superimpose their musical characters, or signs to the text, thus imitating their Greek and Latin predecessors, but they took pleasure in varying the different methods that you are showing to me. However, I have been observing that the same signs are found beneath the words homo and aeuia, (which, according to what you told me yesterday, is a word similar in composition to the euoua, and means nothing else but alleluia) and that these words are found in one and the other of these antiphons, and that the same signs are superimposed respectively to the word illam only in this second one, therefore, as a consequence they must have been uttered with the same melody.

Anniballe. It is so, and this is how things must have been. I believe then that the habit of superimposing characters and signs or musical notes to the words (except for Odo who superimposed them to the syllables and the <.....> who wrote them underneath and between them) must have been a continuous tradition of the musicians right up to our age, [60. in marg.] as you will be able to understand clearly from what I have shown you and from what I will show you later.

[-114-] Alonso. Who was that introduced these current characters in our ecclesiastic plainchant?

Anniballe. I am not able to tell you with certainty who introduced these characters illustrated by Odo, nor who invented those signs of the Jews, [61. in marg.] and of the Greeks, although I have researched the matter diligently for a long time. However, let us discuss the so-called Gregorian letters, which, to be honest, I should have discussed before I moved on to talk about Odo's characters, as chronology demanded it. In fact Odo himself, who, according to what relates Abbot Trithemius in his books on the ecclesiastical writers, was an illustrious musician and arch-singer (I interpret this word as 'head of the music') in the church of Tours and died in the year 920. He studied music itself and dialectic under Remigius Antisiodorensis, as one can read in the Register [62. 63. in marg.] of the *Chronics*, where, a few lines above, it says that, when Berno was abbot of Cluny in the last part of his life, he made Odo his successor, who was already a musician. This matches what Pietro de' Natali Bishop of Equilio also left written about him in the eighty-third chapter of the tenth book of his *Catalogue of the Saints* under the month of November, on the tenth day of which month the holy Church commemorates him, as can be seen in the *martitologies*. But, because Nicholas Burtius in his *Florum Libelli*, which I mentioned to you on other occasions, states (with excessive boldness, since he proffers no reason) [64. in marg.] that the musical *Enchiridion* of Odo himself is apocryphal, namely, [65. in marg.] not authenticated, I do not want to omit to read you the approval that Guido of Arezzo gives it, an author whom Burtius himself defends in that *Florum Libello* of his against Bartholomaeus Ramus. So, at the end of his letter to the monk Michele of Pomposa, which he adds at the end of his *Micrologo* or musical Introduction in the form of a dialogue, he says these words which I translated into Italian. 'I advise who wants to know more to look for my booklet entitled *Micrologo*, and to read also the book *Enchiridion* written by the abbot Odo with very clear elegance.' Guido had already said earlier in the mentioned dialogue that that the corrupted melody of an antiphon had been corrected very accurately by Odo. <[66. in marg.]> For the reasons that I began to tell you about him, this correction then took place more than three hundred years after the most saint Pope [-115-] Gregory the first, to whom is attributed not only the division of each one of the four tones into two, so that they became eight from four that they were, but also the addition of the letters of the Latin alphabet, both to the notes of the sung melody and to the instrumental accompaniment according to their order, not only to distinguish them and to shorten their very long Greek names, but also to abolish that great number of characters so variously diversified, which have been used to that effect by Greek musicians, as you have learned and understood from Boethius.

Alonso. Who came first chronologically Saint Gregory or Boethius?

Anniballe. Boethius. In fact, he became a martyr around the year 500 anno Domini, while the very saintly Gregory became a pope after the year 600. [67. in marg.] Aurelius Cassiodorus, who wrote about music himself, but with extreme brevity, lived in that time, which amounts to about a hundred and perhaps a few more, [68. in marg.] but his work is not relevant for our topic, since he wrote speculatively, just as Martianus Capella did as well before him and also before Boethius [69. 70. in marg.]. Censorinus lived around the year 240 anno Domini, at the time when Porphyry wrote a comment on Ptolemy's *Harmonics*, [71. in marg.] who lived a hundred years earlier under the empire of Antoninus Pius.

Alonso. Why did you say that the division of the four ancient tones and the application of the letters of the Latin alphabet had been ascribed to Saint Gregory, but you did not state it as fact?

Anniballe. I did not want to state it as fact because I have not found so-far any ancient author who says it, [72. in marg.] among those who have written about his life in detail, of whom the main one is John the Deacon. The abbot Wulfrid, who lived around the year 700 anno Domini according to Trithemius, but perhaps more probably around the year 830, and many tens of years before John himself, writes words to this effect in his book on the beginnings and growing of ecclesiastical matter. 'They say that just as blessed Gregory, finally, had introduced the organisation of the masses and consecrations, thus he introduced also the discipline of chant mostly organised in the way that we consider to be the most convenient from those past days to the present.' But I have never seen this book (if he refers to the one on music) although I have searched diligently, but I have only seen, as you have, the beginning of the first antiphon, just as it contains just the words of this antiphon, namely Ad te Domine levavi animam meam. John the Deacon is right to state in his life of Gregory himself written around the year 860, that he built two rooms in Rome as a school for those who wanted to learn the cantus firmus, that he established the singers and their Primicerus, or first one, namely, their teacher, and that the stick or the cane with which the students were beaten was still preserved up to his day. In the pamphlet On truth by Brother Nicolaus Aurificus, under the heading Berno, one reads these words. 'Where it has to be noted (he says in Latin) that, as we believe that Saint Gregory wrote these melodies in the book of the Sacraments and of the Antiphones, equally we must believe that Saint Jerome organised the lectionary entitled Comes Sive Lectionarius,' and these antiphons and said lectionary are printed in one and the same volume. Nicolaus Listenius in the first chapter of his Musical Elements says these words in Latin, which I will repeat to you in Italian. 'It is also called ancient Gregorian music, because it was used mostly by Gregory, by Ambrose and by the ancients.' Similarly, Nicholaus Wollick writes in the second chapter of the third book of his Enchiridion musicae the following words in Latin. 'They do not think that this is allowed in measured compositions, but also in the simple chant called Gregorian.' And although Pietro de' Natali in the third book of his Catalogue of the Saints at chapter 193 writes on the subject of the very saintly Gregory that he compiled the antiphonary for the day and for the night with graceful modulatione, this word modulatio could be interpreted not as referring to the musical melody, but to the metre, namely, meaning words well ordered, well weaved and well structured together, such as good writers and poets use, because when they are recited they produce audible elegance. If I wanted to quote to you what Gaffurio, Vanneo and many other modern writers on music, and [[<.....>]] among the chroniclers, I would have much to tell, and you to listen, but without arriving to the firm certainty that the most saintly Gregory was responsible for applying such letters to the notes which were sung [72. in marg.] and played by instruments. For this reason, I abandon this question as not very pertinent to our scope, or useful, but because it is an idle and vain extension of our discourse and almost damaging for it, and I continue by saying that the first letters of the Latin alphabet were added to the first seven notes, or vocal and instrumental sounds in sequence and according to their order up to the interval of an octave either by the most saintly Gregory himself, or by someone else under his papacy following his orders or with his permission. [-117-] Beyond the octave, the same letters were repeated again, as one can see in various examples preserved in their original state both in the Micrologo, and in the dialogue by Guido of Arezzo. I will describe here these

two of those examples which now spring to my mind exactly in the way as they stand in that book, although they are quoted there with a different aim.

[Bottrigari, *Il trimerone*, Giornata terza, 117; text: *Tertia dies est quod haec facta sunt, Antifona, la qual canta la Santa Chiesa il secondo giorno della Pasqua di Resurrezione, Primum quaerite Regnum Dej, Et questo altro anchora. Assumpta est Maria. Il Galileo medesimamente nel suo Dialogo dell' antica et moderna Musica ne pone anch' ej due altrj; de' quali uno è questo; che io mi ricordo. Sit nomen Dominj benedictum in secula, a, b, c, d, [sqb], e, D, E, F, G*]

Alonso. In each one of these two last examples I recognise clearly that the most saintly Gregory, or someone else who lived under his papacy, wanted to continue the tradition of several musicians who came before him consisting in writing the characters or musical notes above each syllable of the words. However, I do not understand yet, nor I have been able to imagine by looking at the first two examples, why they are written in this way, resembling a snake or a wave, if not, perhaps, because the usual four lines must be understood to be interposed among them.

Anniballe. No other supposition is required, nor other line has to be assumed to be interposed, but I believe that such letters must have written in such a weave-like fashion to show more clearly the high and the low part of this cantus firmus, and, to be brief, that there is no difference between these letters written horizontally and those drawn as a wave or as the peak of a mountain, as I hope you will be able to understand better yourself when we talk about Guido of Arezzo. As I told you, [-118-] [74. in marg.] the venerable Bede, who was a saint, lived around the year 700 anno Domini, two hundred and twenty years before the abbot Odo and before Guido of Arezzo. Bede was not only the theorist who wrote a pamphlet on music which knight Signor Hercole Bottrigaro has translated into Italian, but he wrote another one on as well the cantus firmus, or plainchant entitled *Musica quadrata*. The title derives from the fact that the notes or characters with which he explains it are all of square shape or form and black. Some are placed between the lines and others on the line themselves, following the method that has been used up to our times almost always, and it is still in use. I said almost always, because there are very different characters from the ones that I have already shown you in those few parchment of different chamber antiphonaries handwritten in pen, [75. in marg.] which I would have added then for your perusal, had our discourse moved rather further away from this. However, perhaps this will be no less convenient place and time to do it now (because of the great similarity, and perhaps identity, of said characters with those presented by Guido of Arezzo with the addition of the four lines) than it would have been then, because of the mere identity of the words contained in both said antiphons which I have chosen on purpose. The first of them is this one.

[Bottrigari, *Il trimerone*, Giornata terza, 118; text: *Quidam homo fecit Cenam magnam, et uocauit multos: Et misit Seruum Suum hora caenae dicere inuitatis, ut uenirent quia omnia parata sunt. Alleluia. La seconda quest' altra: Quis ex uobis homo, qui iubet centum Oues, et sj perdidit unam ex illis nonne dimittit nonaginta nouem in deserto, et uadit ad illam quae perierat, donec inueniat illam, Alleluia*]

Alonso. If I remember correctly, there are similar square notes in the cantus firmus and a similar red line that signified (as I was told then) the clef of *F* in a old antiphonary for choir made of parchment of sheep, or perhaps veal written in pen and stored for its

conservation in the archive of the Fabric of our collegiate church of Saint Petronius; but I do not remember this yellow line at all.

Anniballe. Your memory of this not incorrect, but it is incomplete. I had wanted to see it myself for many years, having been greatly enticed by the words of our good old Giovanni Spataro, which can be read in his defence of Bartholomeus Ramus against the eighth Correction of the *Florum Libelli* by Nicholaus Burtius printed already in the year 1491, which I have seen (not many months ago) written in his own hand. I found a chant in the above mentioned [-119-] antiphonary which corresponds perfectly to his words, since it contains not only a red line, out of the four, which carries the clef of low Ffaut, but also conforms to the words by Guido, quoted by him, which are these, when he talks about the notes. 'Some others are placed on the lines, others between the lines.' Our Spataro continues a little further on. 'Again, some of them are yellow in colour and are between lines, the very low c and the very high c; others are yellow and are on the lines, such as the high c; others are red and are on the lines, such as the low F; others are between the lines such as the high f et cetera.' Another one is yellow, which is this one indicating the clef of csolfaut, and you can see here that one and the other of these clefs have been added at the beginning of each one of those lines, in the fashion which is common in such books of plainchant or cantus firmus. In order to show this manner of notation at my ease and will without referring to said antiphonary, I copied out from it not only this antiphon, where one can see the yellow line above the red one with a white, or false one, in the middle, but this verse, where conversely the yellow line is drawn above the red one with the white one in the middle of the two.

[exemplum deest]

You can see this in this Gradual, which is sung in the mass of the Wednesday of the four times of Lent copied from said fragments and in this tract taken from the same mass, which are much more similar to this hymn provided as an example by Guido of Arezzo [-120-] in this letter of his to Michele, a monk of Pomposa, because one has at the beginning or at the head of the red line the letter F, and at the beginning of the yellow one the letter C, which are signs of the clefs of Ffaut and csolfaut, while the other one has the sign of the lower octave of that Cfaut with the D square, or, angular, to be more precise, under the line of the Dsolre, and in the space, as they say. In Guido of Arezzo's letter one does not see the angular D in the space between two white, or false, lines, but the Dsolre at the beginning of the first white line under the red one of Ffaut [see the *De necessitatibus m. sec.*]

[Bottrigari, *Il trimerone*, Giornata terza, 120; text: *Tribulationes cordis mei dilatata sunt. De necessitatibus meis eripe me Domine. TRACTVS Vide humilitatem meam et laborem meum, Et dimitte omnia peccata mea. Alme Rector mores nobis da sacratos Summe Pater seruis tuis miserere nostra Salus Honor noster esto Deus: Deus iudex iustus fortis, et pacificus tibi omnis Seruit Mundus eterne Deus: stabunt iusti ante Deum semper leti, Domino laudes omnis Creatura dicat.*]

[77. in marg.] I could have added here for you also the hymn of Saint John the Baptist, on which Guido built his Ut, Re, Mi, Fa, Sol, La, basis of his music, - in fact he says in that same letter that he used it at the beginning and at the end of training his pupils - but, since in that one there is only the red line of the Ffaut with the D of the Dsolre at the beginning of the first white line under the Ffaut itself, instead of the angular C in the space beneath,

I would have been forced for this reason [-121-] to add also another one, and therefore another two examples, where this one will suffice,

[78. in marg.] Alonso. So the plainchant which is sung ordinarily to the words *Vt queant laxix* is not the same as the one on which Guido founded the instruction, of syllabic Hand, namely, *ut, re, mi, fa, sol, la*?

Anniballe. It is not the same really, but a very different one.

Alonso. Well, since you bear it in mind, do me a favour and show it to me.

Anniballe. Gladly, but, remember that we have many other things to discuss, and that we have said so many and so different of them, that we will not be able to exercise our bodies but for a short while, after we have exercised our memory and our tongue for so long.

Alonso. Well, that is fine with me, since we could have our physical practice tomorrow, if we cannot fit it in today. I am saying this, because I have another thing to ask you, even before you continue the thread of your discourse.

Anniballe. Do ask, and blame yourself for this. This is the hymn.

[Bottrigari, *Il trimerone*, Giornata terza, 121; text: *Vt queant laxix Resonare fibris Mira gestorum Famuli tuorum Solue poluti labii reatum, Sancte Ioannes.*]

As a conclusion I will relate also Guido's words, which, translated into our language, are these. 'Therefore, you see how this melody, which spans across six particles, starts on six different notes. If anyone then has practised them, and knows the beginning of anyone of these particles, which, whatever it is, begins with an ascending interval, he will be able to pronounce the same notes easily, wherever he will see them, according to their individual property.'

Alonso. Now I understand and know very well the colours of the lines, the letters, and the shape of the clefs, and what it means to lower and to raise the red line, [79. in marg.] its advantage being to be able to use no more than three lines, how all these examples are in agreement with each other, and, what I like the most, how Guido applied these [-122-] six syllables to the formation of the scales of his hexachords, which is something that I could not understand through the usually employed *cantus firmus* of that hymn, since in that one the first syllable, *ut*, is placed on the *Dsolre*, where also lays the syllable *Re*; the *mi* is on *Gsolreut*, where the *fa* is also found in one of the two ordinary variants, which is the most usually sung, although it is on *Ffaut* in the other one; the *sol* is on *Cfaut*, and the *la* is in *Gsolreut* in both of the two variants which are normally sung.

Anniballe. You have understood really well how Guido of Arezzo invented the *ut, re, mi, fa, sol, la*, but not why he did it, which is what matters.

Alonso. I have not really understood why, but if I have enjoyed to have been able to understand clearly how he invented it, I will be much more pleased if you tell me why he did it, being happy to delay asking you the question which I said that I wanted to ask you, and I was ready to put to you.

Anniballe. Since this is what you want to know, then I tell you that it has always been a necessary tradition to give some name of choice to each instrumental or vocal sound, in order to distinguish and organise them, as you have learned well from the Greeks, who distinguished them with the names which you have heard which signify their organisation within the five tetrachords. However, since the Latin ecclesiastical musicians were of the opinion that those names were too long, foreign and difficult to pronounce and remember, they resorted to put those short names which I told you about. This happened under the papacy of the most saintly Gregory, when all the notes of the perfect system were named after the seven letters of the alphabet repeated in succession from the capital letters to those in lower case. How the mutation of said Gregorian letters into the characters or letters described by Odo which I have shown took place, I do not know. Nor do I know how those musical notes came into use, of which Odo talks in the chapter *Ad hunc modum* in the first part of his *Enchiridion*, where, in Latin, he says these words. 'In this way they used the usual compositions written in the same way to investigate the power of each tone. The primary of those tones start in their superior sounds and end in their final ones, and the secondary begin and end in the final, nor do they touch any of the superior ones.' Odo puts this example, *no na noe an et noe agis*, and the other remaining. These words or syllables are quoted (before Nicholas Burtius) by Bartholomeus Ramus in the seventh chapter of his first treatise on practical music, [80. in marg.] where he refers and quotes them in this fashion. *noe [-123-] noan anne cane agis*, which are mere names of the notes or musical voices to distinguish them and to memorise their order without them having any particular meaning, as Odo himself adds at the end of that chapter, where he says that they indicate not so much the words, but the syllables ascribed to the melody. However, much more clearly in the chapter *Autenticus autoralis*, which I have quoted to you several times, he calls them Greek notes and characters, and in the chapter that follows that one, *Propitia divinitatis gratia*, he says words to this effect, in their Italian translation. 'Let this be sufficient for the wise reader, but as to the names, which are written above said tones, for instance to the first one [EO EE EO Ea EE], and to the second one [Io io Ea EE, Ee], and the other ones which move the souls of the readers to want to understand [81. in marg.] what their meaning is, for this reason I asked a certain Greek man how they should be translated into Latin. He replied to me that they had no translation, but that they were Greek expressions of joy, and that the wider is the melody of the voice, higher is the number of the syllables written on top of it.' After having added an example for each tone of the authentic and plagals, he says. 'The above mentioned Greek man added these words as a conclusion. 'In our language they resemble the usual threatening expressions of the Aranti, or Agani, except that this is a word suited only to a happy person, who is not conveying a particular message. But Guido of Arezzo (and perhaps other theorists and musicians who came before him, or were contemporaries of him) was not happy with those characters nor with those syllables, about whose connections and pairings I cannot tell you very much, since I cannot remember anything else but that Odo shows a very small or brief examples, and that it is the one placed towards the end of the chapter *nunc Tetrardus*, in the second half of his *Enchiridion*, which is this one.

[Bottrigari, *Il trimerone*, Giornata terza, 123; text: *noannoanne*]

Nor did Guido of Arezzo approve of those other seven meaningless syllables which might have been used in those times, which Burtius mentions in the proem of the first part of his *Florum Libello*, namely, *Tri po de nos tri te ad*, and that before him Ramus [82. in marg.] in the seventh chapter of the first treatise of his *Musica Pratica*, or *Isagoge*, mentions (and

better, in my opinion), where he says. 'Ei, Tu pro de nos tri te ad' avoiding the repetition of the syllable [-124-] tri, and are also discussed by Giovanni Cartusino. So, Guido of Arezzo invented another way to pronounce said musical notes, or sounds, hence he composed his seven hexachords which then superseded the others with just short of eight tetrachords always counting in the synemmenon, by adding among the seven Gregorian letters which contain the two first conjunct tetrachords a syllable to the first one, two to the second one and three to the third one, repeating the first two in the second and the first and second ones in the third one and changing from capitals in the first and second to lower case letters of the alphabet in the third, fourth and fifth, and repeating those for the sixth and seventh tetrachord. The syllables, which he added to those Gregorian alphabetical letters were ut, re, mi, fa, sol, la which he took, taken by him, as we said, from the first syllables of each first word of each of those verses of the hymn of Saint John the Baptist Ut queant laxis, and he created the hand, or the scale out of them. Now you have understood the reason why Guido did this, and if some details were missing from the explanation of how he did it, you have understood it now at the same time.

Alonso. I have heard and understood everything very well. As you were talking I have been considering how Odo's example with his own characters should be translated into our system of notation, in this way.

[Bottrigari, Il trimerone, Giornata terza, 124; text: noannoeanne]

Anniballe. This is very good and works very well.

Alonso. As to those other ancient syllables shown by Ramus and by Burtius, how were they coupled with the musical characters, and which ones were these characters?

Anniballe. I can tell you much less than what I have told you about those words used by Odo. Therefore, I can tell you nothing, because I have seen that both Burtius and Ramus do not say a word about it. Ramus does promise something in the same chapter seven, namely, to discuss them at the appropriate place, saying that they signified the places of the modes, or tones, but I have not been able to find that place in all that book of Music Practice, or Isagoge of his. To the contrary, he disregards those together with all the others and he proposes some other ones of his own invention, which have something as to their meaning, [83. in marg.] but nothing as to the organisation of those notes apt to singing or musical sounds. They are these, Psal li tur per uo ces is tas. He talks about their shape and the way to use them in practice at the end of the first chapter of the second treatise. The example which he gives is this one.

[-125-] [84. in marg.]

[Bottrigari, Il trimerone, Giornata terza, 125,1; text: Psallitur per uoces istas]

Our fellow Bolognese Giovanni Spataro, loving pupil of his, celebrates and greatly extols the excellence of these eight syllables which all together spell Psallitur per uoces istas and he demonstrates it in his ninth correction of the Burtius' *Florum Libello*, firstly with the contrapositions of those syllables, namely,

Psal uo quarta
li ces prima
tur is seconda
per tas terza

which they contain compared to the forms of the four fifths, or diapente, and to the tritone, which is contained within the syllables [[<.....>]], and then with a visual explanation, of which is the basis.

[Bottrigari, Il trimerone, Giornata terza, 125,2; text: C, D, E, F, G, A, [sqb], c, Psallitur per uces istas, tonus, semitonium]

Also, to make their comparison to the example of the ones by Ramus easier a clearer, I have added their Gregorian alphabetical letters above them.

Alonso. It seems to me that in none of these methods of applying syllables to notes there is that useful disposition, connection, that ease in pronouncing and remembering them both ascending towards the high range and descending to the low one, which is necessary, particularly in our measured compositions, where sometimes the singer begins singing a long sequence of them not only with great rapidity, but also with great speed.

Anniballe. One could say that this facility derives from our frequent use, and from our level of familiarity, both past and present. However, as to their organisation and internal connection, we cannot say anything. Among other things you should be informed that, when one completes the sequence of these syllables and wants to repeat them from the beginning in other octaves, either upwards or downwards, as in this example by Ramus, the note, or sound csolfaut, named by Ramus in this first part with the syllable tas, is marked with the syllable Psal in the second part of it ascending, and conversely, if one wants to descend from said Cfaut marked Psal, one must mark it tas, otherwise all those octaves would be wrong, or rather, they would be ninths, and such Psal would have li as its higher octave, li would have tur, tur would have per, and so on and so forth. [-126-] Hence the meaning of the words created by these syllables is imperfect in its origin itself and remains acephalous and apodous, namely, with no head or feet, unless we want to say instead that he has shoes on his head, and the cap on his feet.

Alonso. Ramus did this perhaps as an act of deference to the dignity of the diapason and to its superiority compared to the other constitutions and intervals of both consonant and dissonant sounds. Is the year itself not represented and depicted as a figure that arches backwards and holds the feet close to the head with its hands?

Anniballe. Indeed it is, and also as a snake with the tail in its mouth, to signify, as Oro Apollo writes the return and the new beginning of the year in his book on Hieroglyphics (or sacred letters of the Egyptians). For these reasons the invention of the first seven letters Tu, pro, de, nos, tri, te, ad seems to me that would have been much more appropriate, if the obstacle of the tone, which divides and separates the two first tetrachords from the second two ones forming a tritone, had not intervened. But, please, let us stand by Guido's invention, as it has been approved for [86 in marg.] so many centuries by the universal opinion and consensus of those who exercise the practise of

music, because they have found it well organised, well connected, easy to remember and suited to be pronounced both forwards and backwards, while pronouncing in these cases only the syllables of the hexachord one by one, and each one without their Gregorian alphabetic letter, and applying the necessary and due mutations in raising, lowering and mixing together the notes of the melody, in order to connect and link the seven ones, [87. in marg.] connected to three alphabetical musical Gregorian letters in threes in a hand. Thus, not only the four repeated couplings of two syllables were created, namely, C fa, ut: De sol, re: E la, mj: F fa, ut, but also the four groups of three of three syllables, namely, G sol, re, ut: A la mi, re: c sol, fa, ut: d la, sol, re, with more necessary notes or repetitions of them. Now, what is the question that you still wanted to ask me, and were also ready to do so, but you agreed to delay asking in order to hear these words of the beautiful invention of Guido of Arezzo, which I have explained to you?

Alonso. The question that I wanted to ask, and that I want to ask you now even more than then, after I have understood these things, is if you had minded and if you could please me by relating to me those words that our Spataro refers that were written by Guido of Arezzo with regard to the variety of notes and of the different colours of the lines, since they seemed to me very hard to understand and intricate.

Anniballe. They must be really so, as even Bartholomeus Ramus and our Spataro, his pupil, interpreted them in a very strange way, and very differently from what their meaning appears to me to be. [88. in marg.]

Alonso. What is the cause of this?

Anniballe. None other, in my opinion, than the words , lineae, et interlineae; lineum et interlineum, which have to be understood as referring to the notes, as adjectives, and not to the lines themselves, as our Spataro and Ramus, his teacher, seem to have understood. The first one in the eighth correction of Burtius' Florom Libelli says some way before. 'You know well that your Guido in those verses, which say 'Of the musicians, and singers', you will find these verses (very harsh turn of phrase) 'so that the eye might discern immediately which sound is and where it is, the third note of the sequence should be marked in resplendent yellow, so that the specific quality of the sounds may be noticed more clearly, et cetera.' Guido says: 'We mark some of the lines with different colours, so that the specific quality of the sounds may be noticed more clearly and so that the eye might discern immediately where a particular sound is found,' and wants the third letter, which is c, should be written in yellow, and thus the sixth one, namely, f, with the red or red lead, as my Ramus, as a cleverly articulate investigator, discusses with subtlety. He says also that there is some confusion, as it is necessary to draw another line between two of the others, as it is shown here.

[Bottrigari, Il trimerone, Giornata terza, 127]

Gaffurio appears to be of this opinion, rather than opposed to it in the third chapter of the first book of his *Pratica* of one and the other cantus, where he says this. 'In fact, the notes of the introduction are distinguished into low, high, and very high notes by two signs, which are called clefs, and the first sign (to follow the beginning of the ancients) is a single red in colour among four or five others, which, if it is on a line in the introduction, denotes the low Ffaut, if it is in a space, it denotes the top Ffaut. The second sign is a single line among four or five others blue in colour, which, if it is on a line, it is ascribed

to the csolfaut, while if it is in a space it will denote the top csolfa.’ And since our Spataro continues by saying that Guido was reprehended by singers and musicians of his time for this folly, I tell you that I would believe that this really happened if Guido had intended it to be understood in this way, which I do not believe. I do believe that his intention was similar to this one, which I want to illustrate here.

[Bottrigari, Il trimerone, Giornata terza, 128; text: Ff, Cc]

Here you can see clearly that the note of the low angular [ClefC] is yellow in colour [89. in marg.] and located between two lines, namely, the two white lines. The line of the Ffaut is red, that one of the csolfaut is on the yellow line, the note of the acute Ffaut is red and between two lines, [90. in marg.] the note of the top csolfaut is between two lines and it is yellow, in conformity to the words that Spataro says that Guido wrote, which I repeat now for this reason. ‘Of which some are on a line.’ And further on. ‘Again some others of these are of yellow colour, namely, the low c, and the top c, and are between lines.

Alonso. In fact this is the position of these two notes.

Anniballe. Others are yellow and are placed on the line, such as the high c.

Alonso. And this is so, since the note is yellow.

Anniballe. Others are red and on the line, such as the low F.

Alonso. This also corresponds very well, since the note low Ffaut is placed on the red line.

Anniballe. Others are red and occur between two lines, such as the high f, and if the word rubeum is missing, one has to refer to the previous word rubeum.

Alonso. Excellent. It seems to me that Spataro’s, Gaffurio’s and their contemporaries’ interpretation of these words by Guido is very far-fetched, and while it is very far from their true meaning, thus yours is really the appropriate one. Now you may continue at your leisure to tell me about the more modern characters and musical notes.

Anniballe. I would not want to forget, and therefore to omit telling you that Franchino adds these words to the ones quoted above. ‘Add to this that the ancients used to employ a single sign of blue colour, which indicated, if written in a space, the high bfa, and if on a line the very top bfa. Thus they could discern easily all the other sounds and notes following in the low register and in the high by referring to the lines and the spaces.’ However, I am not aware, nor do I remember to have ever seen any example of this sort in print or handwritten, showing that the character or note of the bfa is of blue colour and in a space for the high register, and on a line for the very high bfa. Now, what I will inform you of, and help you understand about these characters or modern notes of ours used in the cantus firmus, or ecclesiastic plainchant, will seem perhaps very strange. In fact, I tell you that the venerable Bede, as I mentioned to you before, was the inventor of those characters, not Guido of Arezzo, [-129-] [92. in marg.] nor Giovanni de Muris, who lived just less than two hundred and forty years after Guido, as Don Nicola Vicentino states in his first book of the Ancient Music reduced to modern practice at chapter four. In fact, the venerable Bede who lived more than three hundred years before Guido of

Arezzo, and, consequently, about six hundred and forty years before Giovanni de Muris, as I told you, [93. in marg.] illustrates six main sorts of characters or notes in his treatise, which I mentioned many other times, On the Musica quadrata or plainchant. These main six sorts in truth can be reduced to four, are the perfect longa, which is this one [L], called by him foundation, beginning and end of singing, the imperfect longa, which is this one [Bcdsn], the straight breve, which is this one [B], and such is the other breve, and the semibreve of this form [S], and, similar to it, the minor semibreve. He also shows six other types of notes, which he calls pliche, the first of the ones he names descending perfect [Scddxosn], and this one ascending perfect [Bcsdx], the second descending imperfect [Scdsnosn], and this one ascending imperfect [Scs], the third one descending [Scddxosn], and this other ascending [Bcdsnscsdx]. To these he adds this other sort of straight breve [B], and these other notes [Scdsnosn,Scsnodx], which are used in the many different ligatures explained by him, which are many and are subject to so many distinctions and rules that cannot be explained more briefly than Bede does, and in a more concise way than he writes them in said Musica quadrata, or plainchant of his. Alonso. I am content with this.

Anniballe. One can see in the mentioned Musica quadrata by Bede that such notes are placed both on the lines, which he says must be five, and in the spaces between them. [95. in marg.] Also, he mentions also the quantity of the rests which he ascribes to the notes already shown to you according to the value of their perfection, and imperfection according to this example.

[Bottrigari, Il trimerone, Giornata terza, 129]

[96. in marg.] He maintains that the line that covers all of the five lines is called perfect rest, the one that covers four, imperfect rest. As to the one that covers three lines, he calls it a short sigh, while he calls greater sigh the one that covers two, and the one that covers only one minor sigh.

[-130-] Alonso. Thus I can summarise as a conclusion that since the time of the venerable Bede there were longae, breves, semivres, righe, o linee, rests, sighs, and half sighs in the plainchant, similar to the ones used nowadays not only in the cantus firmus or plainchant, but in measured composition. It is just left for me to understand if the ligatures of the notes of that time have any resemblance to these ones of our time.

Anniballe. They bear the greatest resemblance to them, and, in order for you to see this clearly, I will write here one of his own examples, [97. in marg.] which he inserted to explain this manner, of difference

[ClefC3,L,Lig3aart,Lig2cdsnod,Lig3cdsnodart;
L,Lig3cdsnod,Lig3aart,Lig3ad,B,B,Bcdsn,Lig3cdsnodart on staff5]

Alonso. I recognise in it this first character now commonly called clef of csolfaut. Guido of Arezzo, as you have shown me, used to write it with the letter c, [98. in marg.] while he wrote the one of its lower octave, Cfaut, with the angular [ClefC] which is no longer in use, and the one of low Ffaut with the F, which was written as a C back to front and two dots after it, one above the line and the other under it, as I remember now to have seen written in some books printed a long time ago, in this way.

[Bottrigari, Il trimerone, Giornata terza, 130,1]

Nowadays it is represented by a white long and two minims, of which, that one takes the place of the inserted C, while these, one above the other each side of the line, are written instead of those two dots

[Bottrigari, Il trimerone, Giornata terza, 130,2]

in this fashion.

Anniballe. These clefs or signs of Ffaut are used nowadays only in the measured compositions, while this one is used in the plainchants or canti firmi

[Bottrigari, Il trimerone, Giornata terza, 130,3]

consisting of a black breve before two other such breves linked together, crossed by the line, in front of which is placed the first breve itself, which is the opposite of Bede's one.

Alonso. Why is this character [signum], or sign in the shape of a scroll, or the shell of a snail is understood as the clef of high Gsolreut?

Anniballe. Because it represents a capital G, mercantile, or French, and it signifies the beginning of said compound note Gsolreut, just C signifies the beginning of low Cfaut and, c the one of high csolfaut and F the one of low Ffaut. Knight Signor Hercole Bottrigaro has always been in the habit of marking those letters to show those places, or clefs of the compositions which he composed in his younger years in the style of the best practical musicians of those times, while he abandoned the abuses of those ancient and renewed characters and following the doctrine of Guido of Arezzo. [-131-] I can show you this in many copies of those compositions for four, five and six voices hand-written by him hand.

Alonso. I will take the chance to see some of those, not only to check this, but because I did not believe that he had ever taken delight in writing music as a practical musician, but he was interested only in music theory.

Anniballe. Take this and have a look now at these three madrigals of his, which, as I told you, are autograph, so you will be able to ascertain both facts.

Alonso. This is for five voices. Come il candido piè per la herba fresca.

Anniballe. All of them are for five voices.

Alonso. Pien di un vago pensier, che mi disvia.

Anniballe. And all of them are sonnets by Petrarch.

Alonso. Poco era d' appressarsi a' gli occhi miei. Would you do me the favour to allow me to have them, so that I can hear them, and shortly after that I will return them to you?

Anniballe. I agree to do that, and I want to tell you that you will hear some varied and very artificial suspensions, so that it is hard to believe that they were composed in those years, [Before 1559, or rather 1556, then, as at the following page m. sec. in marg.] namely, more than forty years ago. I will also add that in this madrigal which begins *Come 'l candido piè*, you will hear a fugal passage with repeated answers in the parts at the verse *Amor, che solo i cor leggiadri invescia*, which is the first of the second quatrain. Philippe de Monte liked and admired this madrigal so much (as one can judge from what follows), that he took it, whenever it was, as a model for a madrigal for three voices. In order to invite the appreciation of this imitation and to highlight the occasion, he also used as a text some words that perhaps he had someone compose especially in imitation of those by Petrarch, and that begin *Amor; che sol de' i cor leggiadri ha cura*, and not content of imitating only this passage, he repeated a similar imitation under the similar words *Amor ogni uirtù simplic' è pura*. This trio is the first one of the book of the same Monte for three voices printed by Antonio Gardano in Venice in the year 1582.

Alonso. Might it not be possible that this is the result of the opposite imitation, namely, that Signor Bottrigaro set out to imitate the trio by Monte in this part of his own madrigal?

[-132-] Anniballe. Beyond the natural conception of this fugal passage in the madrigal by knight Signor Bottrigari, and the rather forced effect in the trio by Monte, two conjectures will prove to be very probable first-hand proof of this fact. The first one is that knight Signor Bottrigaro uses as a text the original poem by Petrarch, while Monte uses a text which is an imitation. The other reason is that knight Signor Bottrigari wrote this madrigal for five voices back in the year 1556, or thereabouts, and the old appearance of the copy which you now have in your hands provides you with most ample proof. Monte gave Gardano leave to publish these trios of his (as one can read in his dedicatory letter) in the year 1582, so the two dates of composition of these two works are more than twenty-five years apart, and in 1582 knight Signor Bottrigaro was living outside his native city had other things to think about that, to skew a note of Solfa, as we say. He also disliked such manner of compositions somewhat, although in occasion of some entertainments and to satisfy his friends he showed himself of a different opinion and despite the fact that he received new music, books (sometimes even before the composers received them) from Gardano himself, from Scotto, Vincenti and Amadino with every delivery of the ordinary courier from Venice to Ferrara.

Alonso. Who was knight Signor Bottrigaro's teacher in this practice of music?

Anniballe. Spontone.

Alonso. Which Spontone? Bartolomeo, or his brother Alessandro?

Anniballe. Bartolomeo, who was his companion and contemporary of the same age. They dined and lived together for many uninterrupted years and he was a friend and a brother from childhood until he lived, most dear to him and beloved. For all these reasons and causes, when Spontone published his first book of madrigals for four voices back in the year 1558, he dedicated it to him, and later the knight Ciro, his son, following, or rather fulfilling his father's intention, and for other personal reasons of respect and devotion derived from those of his father, who is so fond of knight Signor Bottrigari for his virtuous qualities, in the publication that he saw through of his father's third book of madrigals for five voices in the year 1584, included a dedication to Signor Bottrigari.

Alonso [[<...>]] I remember well to have seen this third book by Spontone with a dedication to said Signor Cavaliere.

Anniballe. Also, Alessandro, both as brother of Bartolomeo and as a very good practical musician, was a valued friend to knight Signor Cavaliere and was his regular dining partner, [-133-] both in their exile and when they returned to Bologna, for a few years until Alessandro's death. But nobody taught knight Signor Bottrigaro practical composition except Bartolomeo.

Alonso. Who was Bartolomeo's teacher in this art? Do you know?

Anniballe. [99. in marg.] After Bartolomeo was taught the first and fundamental rules of counterpoint by that good old Nicolò Mantovano, who was also my teacher in this musical profession and was the master of the chapel of our cathedral church of Saint Peter, he studied in Rome first under Giaches de Ponte and then under Morales.

Alonso. Two excellent and famous practical musicians in those times. Nor it is surprising if he achieved the great success that he achieved with immense pleasure of the entire world.

Anniballe. It is almost as if not only you want to infer, but also to conclude that good and able disciples are a consequence of good and able teachers.

Alonso. This is what I want to know, in a certain way.

Anniballe. This consequence is not really necessary. Although he was not yet twenty-five years old, he was, for his part, just as able as Cipriano Rore judged him to be, when he was in Bologna. Now, by singing and examining these three madrigals by knight Signor Bottrigari, as well as all his other musical works, consider, if you please, how different his way of proceeding [100. in marg.] and his compositional style, as a pupil, from Spontone's style, who was his teacher, as you find them so different that you will deem it really impossible for the former to have been a pupil of the latter.

Alonso. Of such miracles, so to speak, some have been seen in this profession and in others, as far as I have read and heard, but they are always important things to notice. But pick up the thread of your discourse about the notes or characters both of the choral plainchant, or firmus, and of measured or figured composition, in order to bring it to its conclusion.

Anniballe. In truth, I do not believe that you want me to get involved in telling you what I am sure that you know through your day-long exercises, namely, that the musical notes that are used nowadays in the cantus firmus, or choral plainchant are four, and the ones used in figured composition are eight, namely, the previous four and another four. Nor do I think that you want me to tell you what are their relative duration [-134-] according to their ascending and descending sequence, nor the lines that represent the rests corresponding to those notes and what are the characters of the different time signatures, which are all things that practical musicians have discovered more through their idle curiosity, than for the real needs of musical harmony. Nor should you be surprised that I have told you this almost emotionally interjecting, because such things clash, interfere

and debilitate rather, than foster and increase musical harmony and aural enjoyment [101. in marg.].

Alonso. There is no need for you to waste time and effort like this, because I know very well which of them is the maxima, the breve, the semibreve, the minim, the semiminim, the chroma, or fusea, the semichroma, or semifusea, but I would be really pleased to know from you which the chroma, or fusea is so called.

Anniballe. It seems to me that the name fusea comes from its shape, which is similar to a spindle, and the name chroma, from its colour and blackness which distinguishes it from the white semiminim, as both notes have the same shape and figure. However, just as the fusa or chroma has two characters, which has also been called corsea by some, [102. in marg.] on account of its great speed, thus the semifusa or semicroma itself has two characters. And not only both of these notes have been represented sometimes with two types of figures, as I have mentioned, but also the semiminim and the semibreve have been, and still have been represented sometimes with two types of notes.

Alonso. I know that the body of all these four figures, or notes, together with the minim and the other that follow, has been reduced from a square of rhomboidal figure to a round form, to make them easier and quicker to write.

Anniballe. This is not what I want to say, but that the semibreve was at first of triangular shape, almost half of the square figure of the body of the breve, being halved by means of the common diameter, just as it represents orderly half the value of the breve. The semiminim is similar in shape to the minim, and it is found not only with a hook at the top of its line, but with a black body and no hook. The chroma or fusa, it is represented as a minim with two hooks added to the line, or with a completely black head and one hook. The semichroma [-135-] or semifusa is similar to the white chroma, as to the line and hook, but with a completely black body, or, with a white body and another hook added against the line together with the other two hooks. This is the Semibreve [Sv]. [signum]. This is the semiminima [Svcdvxdx,Av]. [Scd]. This is the chroma, or fusea, or corsea [Svcd2vxdx,Svcs2vxdx]. [Scdvxdx,A]. This is the semicroma, or semifusa, or semicorsea, [Scs2vxdx,Scd2vxdx]. [Svcs2vxdxcdvxsn,Svcsvxsn2vxdx]. So that you know the reason of their difference between them, I tell you that all three these white notes were invented only to be used in prolations, as Frà Lodouico Zacchone (among the other writers of this topic which is useless and vain obstacle to composition) explains very clearly at chapter twenty-nine of the second book of his Practice of Music with these words. 'All the figures that are naturally dark are banished from prolations.' Then he adds an example from the Sequentia of the day of Epifany set to music by Henrico Isaac.

Alonso. [103. in marg.] I have noticed that not only you dislike these prolations, modi and tempora, invented by contrapuntists, but that you are totally opposed to them, hence I will stop asking you many details about them, as I had planned, since the opportunity had presented itself to me, despite being rather removed from our intended subject.

Anniballe. Had you asked me these questions, I would not have declined to provide you with the answers which I would have been capable giving you, but, to be completely honest, with little personal enjoyment, since I always abhorred such vain devices, as they can all be resolved and reduced very easily to common time. Listen to what [104 in marg.] Don Nicola Vicentino, the man who woke up the musicians who had fallen asleep,

in his Ancient music reduced to modern practice at chapter thirty-one of the fourth book. He says. 'More than fifty years ago composers wasted much time on the study of such proportions, but nowadays, when experience has rendered man an expert of everything, those who know about music have realised that the advantage gained from such proportions is small. Hence they have retained in practice the sesquialtera proportion, the major and minor hemiola, and the proportion of equality. Zarlino (as I do not want to deprive you of his opinion) said at the end of the seventieth chapter of the third part Harmonic Institutions. 'But since they are rarely used (he intends the proportions and the tempi) and are of no use to the good and resounding compositions', and at chapter seventy-one of said third part, calling such inessential devices chimera, and complications, he says. 'If they are not of any use (as they do not, in truth) it seems to me really great madness that anybody of elevated talent should interrupt his studies, spend time and labour around such irrelevant things, while I would suggest that anyone should put these characters on one side and devote himself to acquiring those skills through which he can acquire a good and suave style of writing music.' Nevertheless, should you want not only spend, but throw away your time and devote your attention and effort to such useless topic, I want to give you a list of all the writers, whom I have come across, whom I have seen treat this matter in their books, with the disclaimer that I do not want to be responsible, nor liable for the damage (caused by the great loss of time) which you will inflict on yourself.

Alonso. It is still better to be knowledgeable than ignorant, since if one is knowledgeable he can apply what he knows, but, if one is ignorant, he cannot. Therefore, please, do me the kindness to allow me to partake in the doctrine of these writers as you volunteered.

Anniballe. Arm yourself with long patience in hearing me and with prompt and solid memory in listening to me.

Alonso. The hand and the pen will be useful for a long time in both these things, if you agree.

Anniballe. Do as you like.

Alonso. Here is the paper, here is the pen, here is the hand and all of me, ready to write all that you will dictate to me, being endowed as much patience as will be necessary

Anniballe. Write, but do not expect me to follow any other order (either chronological or by author) that the one that I will be faced with taking these books into my hands.

Alonso. I do not believe that any particular order is necessary, so begin from the author that is more comfortable for you to begin with.

Anniballe. Now write at your leisure. I do not want what I am about to say to be without some order, so the order [105. in marg.] will be according to the shape of the books. Hence, I will start from these, which you will write under the heading 'In folio'.

Glareaunus in the first, second, third, fourth, fifth, and sixth chapter throughout the third book of his Dodecachordon, Don Pietro Aaron in the first book of his Toscanello.

[-137-] Frà Ludouico Zacchone at chapter 34, 36, 37, 41, 42 up to 47. of the first book and in all the second and third one of his Pratica di Musica.

Franchino Gaffurio in the third Treatise of his Angelicorum Opus, in the the third chapter of the first book and at chapter 2, 3, 4, 5, and 6 of the second book of his del Pratica Musicae utriusque Cantus.

Stefano Vanneo from chapter one to twenty-one of the second book of his Recanetum.

Giouannj Froschio at chapter 15, 16, 17, and 18 of his pamphlet entitled Pratica di Musica.

Don Gioseffo Zarlino at chapter 2, 49 and 53 of the third book Istitutioni Armoniche

Don Nicola Vicentino at chapter 3 and 4 of the first book, and at chapter 31 of the fourth book of Antica Musica ridutta alla Moderna Pratica.

Giouannj Spataro at chapter 3, 4, 5, 6, 9, 13 and 21 of his music treatise and passim.

Now, just as you have written on top of that list of books the title 'In folio', add to the list of the following the title 'In quarto'.

Alonso. All done.

Anniballe. Continue. Frà Bonauentura at chapter Capitolo 2 and 6 of his Breuiloquium musicale which can be also found printed in octavo.

Frà Angiolo at chapter 1, 2, 3 and 4 until chapter 15 of the second book of his Fiore Angelico

Frà Illuminato at chapter 10, 11 and from chapter 12 up to chapter 22 of the third book of his Tesoro Illuminato and at chapter 3 of the first book if his Illuminata.

Don Pietro Aaron at chapter Capitolo 10, 11, 12 and 31 of his second Dialogo di Musica.

Don Vincentio Lusitano at the beginning and then under the title Of canto figurato Del Canto Figurato of his Introdutione Armonica.

Don Nichoaus Burtius at chapter 1, 3, 6 and 9 of the third part of his Florum Libelli.

Giouannj Spataro in the fourth correction of the second treatise against the Florum libello by Burtius.

Bartholomeus Ramus in the first treatise of the third part of his Isagoge Musica Pratica which was as badly printed as I have ever seen another printed book to be, and even if I had not seen other books outside the ones collected up to now by knight Signor Bottrigaro in all the sciences except medicine and jurisprudence, I would nevertheless so many and many thousands that would made me competent in expressing this true judgement, as I do now.

Don Paolo Pontio in the fourth of his Ragionamenti di Musica.

[-138-] Nicolaus Wollick at chapters 1, and 2, and from 3 up to chapter 11 on Musica figured, all of which are contained in his Enchiridion.

Write this title of this book as well, although it is anonymous and in French, namely, Livre plaisant, et tresutile, which means pleasant book and very useful, in the first dialogue, towards the end.

Alonso. What is the subject of this book?

Anniballe. It deals with the subject of how to play the lute, the harpsichord and the recorder.

Ottomaro Luscinio at chapter 2, 3, 4, 5, 6, 7 and 8 of his first commentary of the reason of polyphonic compositions, namely, for several vioces, which is printed together with the Musurgia, or Music Practice.

Don Oratio Tigrino at chapter 16, 17 and from chapter 18 to chapter 25 of the fourth book of his Music Compendium.

Under the title 'In octavo' you have to write only these now, since the ones in quarto are finished.

Nicolaus Listenius at chapter 3 of the first part, and from chapter 1 to chapter 11 of the second part of his Elements of Music.

Alonso. What summary or conclusion seems appropriate to you, who must have read and well considered all these writers, as far as this matter is concerned?

Anniballe. None.

Alonso. Why none?

Anniballe. [106. in marg.] None, since everything is based on the opinion of those who were the first to waste theirs and other people's valuable time, not to say their intellect around these most vane vanities and who invented such signs of perfect circle [O], semicircle [C], circle with a centre or [Od] in the middle, semicircle with a dot [Cd], cut circle [Odim], cut semicircle [Cdim], which they call cut c, circle with the number 2 [signum], circle with the number 3 [signum], and all the others, of which I do not want to talk anything else in conclusion, but refer you in any way to those writers, who (if you let them) will fill your head with them without any advantage.

Alonso. Will we be able to include the characters or signs used by lutenists and harpsichordists in their tablatures, as they call them, among the musical characters and signs with good reason?

[-139-] Anniballe. And why not? The answer seems to me to be 'absolutely yes', both duly and necessarily. Do you not remember that when I discussed the Greek musical characters I told you that it is not a mere opinion, but a secure witness account, by

Alypius in the proem of his *Isagoge*, by Gaudentius at chapter eight of his *Musica* and by Boethius also at chapter three of the fourth book, that the first, or superior of their two musical characters indicated the word, or rather, in my opinion, the syllable, while the second or inferior indicated the percussion?

Alonso. I remember very well.

Anniballe. If you remember that then, why should you not believe without a doubt that such signs have to be numbered among musical characters, if not of any other reason because these characters, invented by lutenists and organists (I consider under the categories of lute and organ also all the other species of instruments with strings and keyboard), albeit different from each other, resemble the musical notes?

Alonso. I asked this question to reinforce my belief, rather than because I have any doubt about it. However, I would not want that my being late in asking you another question made me forget to ask you, or caused you not to be able to answer it, and I would be forced to defer obtaining the answer to another day.

Anniballe. So, ask me straight away, since time it is high time that we should have a rest.

Alonso. If the Greeks were forced to invent those numerous characters which you have explained to me in order to build in practice the three harmonic genera (we could call this practical music-making with instruments and with the voice), how can our modern musicians practice all three with such few and often repeated signs?

Anniballe. Are you saying that they are few? If you consider [107. in marg.] and count them accurately, you will find that their number is perhaps higher than the number of signs used by both Greek and Jewish musicians, [108. in marg.] who I am not sure if they knew any other musical genus than the diatonic. Besides the twenty-four characters which we have discussed, not counting the breve and semibreve coloured, or black, and their ligatures, have we not got this note, #, which is typical of the chromatic genus and signifies the minor semitone, this other X, distinctive of the enharmonic genus, and that signifies its diesis, and these two [sqb] and [rob], which are not only in common with [-140-] both these genera, but mainly with the diatonic genus also? Are there not also then these five to which you attracted my attention just now,

[Bottrigari, *Il trimerone*, Giornata terza, 140,1] [vide infra]

which are used by lutenists and represent respectively, with dots, and without dots, the semibreve, the minim, the semiminim, the chroma, and the chroma, either with or without dot? If you want to add to that number the doubling or trebling of the five lines, by both singers and harpsichordists, the four bars, or better, the four bar rest, the ones lasting two bars, one bar, half a bar, also called the sigh, and the half-sigh, and, if you do not want to omit the six lines representing the six strings of the lute, and the ordinal numerals, or the letters of the alphabet, indicating the number of each fret of the neck of the lute itself, you will see how great is the number reached by adding together of all the modern musical characters. And, to be honest, since the ancient musicians and also the ecclesiastical ones had no notes of different values, nor the concept of greater or smaller quantity of time in those notes, [109. in marg.] since I have not so-far discovered that the Jews, the Greeks and the early ecclesiastical musicians had no other measure of timing than their good

pronunciation, whether slow or fast, nor the variety of many melodies at once, which are as many as the vocal parts that make up the composition, unless the parts build a fugue of some kind or are written in imitation one of the other, or linked to each other with another similar artifice, it stands to reason that contemporary musicians should have discovered and have a larger number of signs which they can use in their musical needs, as they present themselves.

Alonso. You have included the lines of the bars of rest or the rests among these modern musical characters which are sung, but they are not sung or played.

Anniballe. Although they are not sung, but, to the contrary, the singer is silent and thus rests, and catches his breath, this does not mean that they are not musical signs, or characters, as they provide the singer with some information as to what he has to do. And if the singer, following the indication of these rests, stops singing for a certain amount of time, [-140-] do they not belong to the enharmonic and chromatic genus, but also, and also more importantly, to the diatonic? Are there not also these five signs which you have remembered just now,

[Bottrigari, Il trimerone, Giornata terza, 140,1]

and are used by lute players to represent, respectively, with or without dots, the semibreve, the minim, the semiminim, the chroma and the semichroma dotted and not dotted? If you want to add to that number the doubling or trebling of the five lines by both singers and harpsichordists, the four bar, or better, the four bar rests, the ones lasting two bars, one bar, half a bar, also called the sigh, and the half-sigh, and, if you do not want to omit, as I almost did, to add to this number the six lines representing the six strings of the lute, and the letters, or ordinal numbers which lutenists use nowadays instead of those letters, you will see how great is the number reached by adding together of all the modern musical characters.

Alonso. What are these letters instead of which you say that lutenists use numbers nowadays?

Anniballe. [109. in marg.]

They are the first letters of the alphabet and they indicate the number of the fret on the neck of the lute. Nowadays lutenists are in the habit of putting numbers to indicate above each line, namely 0, 1, 2, 3, 4, and the others.

Alonso. I have never seen a tablature with such letters.

Anniballe. So, I will show you some other time with greater ease you the entire copy of a madrigal, of which I note the beginning here beneath, in order that your desire to see it may not go unfulfilled. Moreover, European lutenists use this method as well in writing their modern tablatures. [[[111.]]] 110. in marg.]

[Bottrigari, Il trimerone, Giornata terza, 140,2; text: Stauasi Amor dormendo sotto un Faggio]

[-141bis-] [Bottrigari, Il trimerone, Giornata terza, 141bis; text: Stauasi Amor dormendo.]

This was written in tablature at my request by my friend of many years Leonardo Maria Picinino according to the method well practiced by our modern Italian lutenists. First of all, the strings are to be understood as written in inverted order.

Et	a	stands for the open string	0
	b	at the first fret	1
	c	at the second	2
	d	at the third	3
	e	at the fourth	4
	f	at the fifth	5

The composition is in mere two parts with an inelegant and awkward counterpoint, but it has to be considered only as an example of the method of tablature used in those times.

[-140-] I will conclude by saying that the number and the quantity of modern musical characters is, as I said, perhaps greater than the number of the number of characters of the ancient musicians. And, to be honest, since the ancient musicians and also the ecclesiastical ones had no notes of different values, nor the concept of greater or smaller quantity of time in those notes, since I have not so-far discovered [111. [112. ante corr.] that the Jews, the Greeks and the early ecclesiastical musicians had no other measure of timing than their good pronunciation, whether slow or fast, nor the variety of many melodies at once, [112. in marg.] which are as many as the vocal parts that make up the composition, unless the parts build a fugue of some kind or are written in imitation one of the other, [113. in marg.] or linked to each other with another similar artifice, it stands to reason that contemporary musicians should have discovered and have a larger number of signs which they can use in their musical needs, as they present themselves.

Alonso. I see this principle which I apply throughout this tablature, and I like how it works. You have included the lines of the bars of rest or the rests among these modern musical characters which are sung, but they are not sung nor played.

Anniballe. Although they are not sung, but, to the contrary, the singer is silent and thus rests, and catches his breath, this does not mean that they are not musical signs, [114. in marg.] or characters, as they provide the singer with some information as to what he has to do. And if those signs which indicate the notes are of the greatest importance, (whether a note is held still for a certain length of time, or one moves rapidly onto another one) [115. in marg.] these signs, which indicate to rest and stop for the amount of time written listening to the other singers, are of no less [116. in marg.] importance, or value in our modern music, which is called measured from this variable measuring of time, [117. in marg.] just as it is called figured from the many and different figures of said characters which are used to represent it. But, my good God, see how fitting this is. When we were dealing with a subject matter related to singing, we have discussed. Now that we have encountered the topic of rests and silence, it is very reasonable that we do not miss the chance to rest, and stop talking. Therefore, let us end our discussion.

Alonso. Let us do so now.

Alonso. Tacciamo.

I completed this third and last of my dialogues on the tones and musical characters, both ancient and modern, entitled the TRIMERONE of the harmonic foundations, or the practice, if not the essentials of music, at 21 hours and $\frac{1}{4}$ (according to what my clock with a band in small box shows) of Tuesday, seventh day of September 1599 at my pleasant villa in the town of Santo ALBERTO.

I, Hercole Bottrigaro

And I have completed this copy at 21 hours and $\frac{1}{6}$ according to that same clock of mine on Wednesday 27 October of the same year 1599. at the same pleasant villa, which I own, in the town of Santo Alberto.

Hercole Bottrigaro