JOSEPH RIEPEL'S THEORY of METRIC and TONAL ORDER, Phrase and Form

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The original frontispice for Chapter 2.

CHAPTER 2

Grundregeln zur Tonordnung insgemein. Abermal durchgehends mit musicalischen Exempeln abgefaßt und Gespräch-weise vorgetragen von Joseph Riepel, Sr. Durchl. des Fürsten von Thurn und Taxis Kammermusicus. Frankfurt, Leipzig, und aller Orten Teutschlands, wo das erste Capitel von der Tactordnung zu haben ist. 1755.

Principles of Tonal Order Generally, Once Again Set Out with Musical Examples Throughout and Presented in Conversational Style by Joseph Riepel, Chamber Musician to His Highness the Prince of Thurn and Taxis. In Frankfurt, Leipzig, and all other German lands where the first chapter on metric order is to be had, 1755.

Report of a Friend to the Author

[i] Dear Brother!

Your customary [remark], "He who praises me must himself be worth very little," hinders me from proclaiming anything else than that one was indeed pleased with the delivery of the first chapter in the bookstore. However, it took scarcely fourteen days for it to become clear that no one knew anything of this musical publication. I want to describe to you, furthermore, the cause of this, specifically and completely comprehensively. In some distant place, people who wanted to buy it were told that the chapter was not yet complete because the remaining parts of it were being waited upon. Do you see the malice? For were I to say, "Fux discussed counterpoint in his incomparable work (Manuductio). Since, however, he promised to write still several further chapters of the work, one may not, therefore, read the Manuductio," would that not be an insolent conclusion? (One of our composers here said to me right to my face that he would not look at a single note of it until he had all of its following chapters, regardless of the fact that he does not understand a single note of the chapter on metric order.) Furthermore, I have provided several of my best musical friends with copies and have asked them to make the chapter known to several amateurs. However, that happened very seldom. This may have also had a reason. May heaven protect me from such friendships! Because I then saw that the pitiful chapter would have lain about rotting, another bookseller, namely Mr. Montag, took it on at my request. From that moment to this, it flutters around valiantly in various places, so that the future parts of Tonal Order, etc., will be awaited with desire.

One person, I believe perhaps even one of your fellow countrymen, named Perile, was heard to have said the following words recently while drinking coffee, "I do not know what this stupid person is thinking of by publishing a worthless little book on composition, except to play around. I would want to bring something different into the world, were I to make the effort. But first I want to say by word of mouth to my own acquaintances that his scribbling is of no use." This pompous speech gave the Monsberger and the Urbsstädter uncommon pleasure. For I would almost bet that all three have sworn that the one would lift the other's dainty compositions up to the clouds. But, brother, I did not know how it came about that in your letter you portrayed me as a poet. The influence of the stars is, of course, as I observe, just as fruitful here as in other places under the heavens, if only I first really understood how to make declinations or inflections in our dear native language. You know what I mean. It is true that during the past year I have cobbled together forty-some-odd verses about music. However, the famous poet in Opolisburg found fault with, beside innumerable errors, [my setting of] the first word, "music," because I have made the first syllable long and the second one short. My neighbor, the old, well-read, plain-speaking Frank, of course, took my part and contradicted the poet, "You follow your pronunciation and we follow ours. Yours is not the oldest but only the most affected. Those who make the first syllable of *music* short and the second one long are Franco-Germans. Were one but only to ask that old dear, the sick, the abandoned mother Latin, she would unfortunately have much to say. In this connection, it astonishes me that you have addressed your dedication just to me. After all, you confided in me that for the most part you owe your understanding of the art of notes to learned Dresden, exactly where you had the good fortune to hear many audible musical beauties for five years. Why have you not, therefore, dedicated your work out of gratitude to the great master of that place or to one of his colleagues? In my position I am not capable of protecting what you have written. Lastly, I would not even know how to guide someone through an introduction. Thus, have I let the reply you sent to me be printed below, altogether. If you now send me the second chapter, I will do the same with it, and moreover I want to add this letter of mine, too. I assure you that the printer was delighted to the point of laughter by this contrivance. In expectation, etc.

your loyal brother,

Leiper

[anagram for Riepel].

[ii] *P.S.* I do not know why it was suggested to me and was finally allowed to be placed "Frankfurt and Leipzig" on the title page, even though this can

easily be obtained in Regensburg and elsewhere by receptive musical amateurs. You know well that I seek no gain in this, if I were only to get my own money out of it soon, so that I may, by this means, have your promised violin concerto quickly printed. For I observe that the Urbsstädter and Monsberger will consider you to be a blow-hard until then.

Reply:

Worthy Friend!

How easy it would be to write out several hundred chapters for beginners one after the other, were it not that one might die of hunger because of this in the meantime. And even if one had the time for it, death itself would generally prevent it more than would all contrary persons. Which, of course, teaches us more and more to look to our righteousness in the world. Meanwhile, I can still marvel at perils, namely because from this I can conclude that my work is of use. Furthermore, I have personally received letters about this from completely different places, which give me more credit than I ask for or deserve. Concerning the following, I do not try to answer you at all, for, in the past, composers have assiduously explained poetry, and poets music. These days, however, it seems no longer to be usual. Your noble Frank may, thus, not be very well-read, if he considers our Latin mother to be sick. For if, according to what I hear, she already has been dealt a death blow in legal transactions, and if, perhaps, many a one who finds a bit of ill-will in himself after his defeat over her Probemus cries for revenge, she nevertheless remains a healthy interpreter of heavenly secrets as well as earthly disputes between elevated personages, so much so that her renegade French daughter will threaten her complete demise in vain. And what do I care about these things and about poetry? I see well that you, like me, are over-abundant in your writing. I, too, have sometimes spent several minutes chatting about other things with the discantist. However, that took place rather for the refreshment of the soul, especially, however, in order that his weak brain would not become too keyed-up by the rules about fifths following one after another in such rapid succession. By now I know well that I would have to talk with a grown man quite differently. As for Dresden, you are entirely correct, for there I got to examine many masterpieces from Berlin at that time, since my limited purse, alas, did not allow me anything more.

However, a dedication, in general, seems to have I-do-not-alwaysknow-what selfish final purpose. The famous composer [Benedetto] Marcello, *Nobile Veneto*, in the critique (against opera that he has published), mocks it in the following way: in dedicating a new book, one should valiantly praise the dedicatee for his generosity and finally conclude with: In this hope, I kiss the feet of the fleas on your dogs and remain, etc. I, however, continue to be

your sincere brother,

Riepel.

P.S. Overleaf, I have put on the other page the contents of the whole chapter. You, who are taken to be a musical expert around here, will judge what is right. Sometimes I personally think that I go too excessively back and forth with my opinion. Evil persons in this world, however, often make the biggest mysteries out of many trifles, so that I cannot determine whether they write so obscurely about music by choice, or whether nature simply failed to teach them how to make sense more clearly. It used to be done like this some years ago in Leipzig. They presented themselves as quite learned, of course. Thus it is, from one point of view, not wrong if my theses are somewhat contrary to some others. From this proceeds, perhaps, another important advantage. For people, even in schools, argue often as if they wanted to kill each other. At heart, however, they are nevertheless good friends with each other. One thing more: you must ask the readers repeatedly and quite cordially that, as soon as the chapter is bound, they correct the misprints [listed] at the end, at least with pencil in the margins. In that way the discourse will certainly be much clearer to them. This easy and useful precaution is not understood by many careless people.

I, however, will not really hope that such a poor expert will examine this and consider such purely candid instruction, here and there, merely to represent a censorious style. You know me best. Farewell!

[iii]

Contents

The nomenclature C^{\ddagger} , D^{\ddagger} , F^{\ddagger} , etc., without differentiation from C^{\flat} , D^{\flat} , F^{\flat} , etc., is considered incorrect; whereas when this distinction is made, it is considered correct. Although in many places both of them are unknown. Pages 2-3

My nomenclature for these pleases me best, not simply because of mere egotism but because I learned it that way. Page 4.

The nomenclature *D la sol re, E la mi, F fa ut, etc.*, has long been in disuse. Page 10 The plainchant nomenclature, first tone, second tone, etc., rightly belongs to the four-line staff. I will say something about it in passing some other time.

Solmization no longer fits with the majority of keys. And the **Dorians**, **Lydians**, etc., knew nothing about them. Page 12.

The old Dorian, Lydian, etc., modes are today considered dead, except for expressive choral music. Pages 15 to 20.

Mathematical calculation of ratios does not help composition. Consequently, it is an irresponsible tale concocted in a dream, in which, by means of the same, this one and that one learned to compose so fashionably. However, it can, strangely, help those who have no natural ear tune the harpsichord or organ. Pages 20 to 25.

The unique **art of permutations**, by means of which one can invent far more than ninety-nine themes in a single day; is at least ninety-nine times healthier for composition than the aforesaid mathematical calculation of ratios. Pages 25 to 32.

It (the art of permutations) helps all together with pitch oscillation. Page 112.

Tonal order long in use, especially in Italy and Germany, etc., as well as the arrangement and organization of symphonies, concertos, violin solos, etc., will be explained. From pages 66 to the end.

Even the American sloth takes up tonal order.

Composers do not orient themselves to the verse meters of the Latin poets, except insofar as rhetoric or the art of oration requires it, contrary to the opinion of the **honorable P. Spiess**. Page 127.

NB: The violin concerto that the author promised in the first chapter will issued from the press within a few weeks.

Second Chapter:

Concerning Tonal Order¹

Discantist. Greetings, good-mornings, and good wishes [*Seitderzeitherimme rmitleibundseelwohlaufgewesenzuseynan-wünschen*] are, in fact, something praiseworthy, although, in my opinion, often merely an empty formality. We want, therefore, now and in the future, to advance quickly to the main business. However, I must yet mention, among other things, that during these eight days, according to the instructions of the first chapter, I have produced far more than a hundred examples, arias, concertos, and symphonies, and have brought out such strange things in their arrangement of measures as you certainly have not thought of in all the days of your life.

Preceptor. You also use a quite strange German vocabulary.²

Disc. I must also confide that the Urbsstädter has noticed many errors in your writing. Except for that, he says, the chapter would be quite worthy to appear in print, especially if you would hand it over to him for correction beforehand, because, in his opinion, day in and day out even much worse printed books and music collections come out.

Prec. All people are capable of committing errors. I am a person. <Therefore>. . .³ And do you know of any errors in it?

Disc. Yes. On page 60 you called the inversion of the <theme> *contrarium reversum*. But that was wrong, because the <theme> moves only through a minor third, while the inversion, on the other hand, moves through a major third.

Prec. The good Urbsstädter ought not scorn my stock in trade until I have explained it fully! I certainly have not yet written about fugues. Ask him,

¹De Melopoeïa

[1]

³To be sure, David says, "<I spoke upon my death: every man is a liar>." But this has nothing to do with me and those like me.

²The discantist's third main word (*Substantivum*) reminds me of Tobias Beutel's *Arithmetica der Radix: Pentakischiliohexacofiotessaracontaheptagonalis.* To say nothing of the longer chains of link sausages that are found here and there in old mathematics books. I simply think that, in time, there may well arise a compass-harmonist who could apply such *radices* even to current practical mathematical calculation in order better to fill up the links of his book where otherwise *Logarithmi or Cubicubi, Zensizensi, sursolidizensi,* etc., etc., would not be sufficient. In many respects, the world seems really to have become much smarter!

therefore, whether one can remain always in the same key. Now, when the <there> revolves around the third, what is wrong with that? e.g.



Can one not call this *contrarium reversum* or an exact inversion? And he wants to censure books without understanding even such a simple thing?

Disc. All right. I will bring this to him when I have a chance. He also says that on pages 49 and 50 you have explained and proven too little about the old comma.

Prec. Therefore, in his opinion, I perhaps should have put out an entire folio volume just on metric order. For example, two years ago in Brussels I saw a French song of the following kind:



[2] We Germans would make the divisions in this way:



A Pole would even make a Polish dance out of it, because he is also oriented toward his national style, for example:



If, in order to please the **Urbsstädter**, I should now have to seek out each detail of 30 or 40 such examples, we would need a year and a day to deal with a single chapter. At the same time, it is impossible to help him who does not himself want to take part and understand.

Disc. Oh dear! I, myself, have also doubted you a little. But my lord may well have been right. He says that *As* ("A flat"), *Cis* ("C sharp"), *Dis* ("D sharp"), *Fis* ("F sharp"), and *Gis* ("G sharp") would be better known, clearer, and easier to pronounce than your designations. The Lord Choral Superintendent in Vallethal maintained recently the opposite and vehemently declared your views to be his own. He said, quite in opposition to my lord, that it would be better to send *As* ("A flat"), *Cis* ("C sharp"), *Dis* ("D sharp"), *Fis* ("F sharp"), and *Gis* ("G sharp") to Siberia for the sable song.

[3]

Prec. I do not want to thank you for this improper defense of his. Everyone who speaks this way is, as far as I am concerned, mistaken. So that you may, however, have a small idea of it, show me D sharp in notes.



Prec. Now consider whether it is possible that one can actually say D sharp, since the little words D sharp have for their forename D and not E. Just as F sharp has F, G sharp has G, C sharp has C, and A flat has A. On the contrary, your two notes have E as their basis and not D.

Disc. That is admittedly mistaken.

Prec. For this reason, one would also not be able to call a *D* with a \flat , a *C* sharp. *A* with the \flat is not *G* sharp. *G* with the \flat is not *F* sharp. And *C* with the \flat is not called *B* natural.

Disc. Therefore the ones where a \ddagger is used are called by Hansmichel *Cis dur* ("C-sharp major"), *Fis dur* ("F-sharp major"), *Gis dur* ("G-sharp major"), etc. On the contrary where a \flat is used he calls them *Cis mol* ("C-sharp minor"), *Fis mol* ("F-sharp minor"), *Gis mol* ("G-sharp minor"), etc. However, people are not content with this either.

Prec. This is certainly a useless bedevilment. For this a few wise German composers (not long ago) have thought up a more clever nomenclature. Note that all the notes that use a sharp sign end with the letters *is* [in German]:



Disc. It is true, here D sharp is written with the note D.

Prec. On the other hand, all notes that use the flat sign end with the letters *es* [in German]:



Look at the scales⁴ of both along with their natural notes, e.g.

[3]



Disc. Why do you write "As" and not "Äs" [for A flat]? Earlier you said that all notes with the b end with the letters *es*.

⁴Scale. Latin *scala*. Among the French it is called *Gamme*. For the Greeks, G is called gamma. For the Greeks, G is undoubtedly considered to be the first key, since, in general, for beginners it is also the easiest.

Prec. I want to have nothing to do with that. "As" is easier to say than "Äs."

Disc. Another thing, *B* sharp is the same and *C*, and *E* sharp is the same as *F*.

Prec. Not at all. For *B* sharp and *C*, as well as *E* sharp and *F* are never juxtaposed as they are here. This has been done this time only in order to show you the specific designation of each note. Perhaps you believe that because *B* sharp is played on the keyboard no differently from *C* natural, or *E* sharp no differently from *F*. It just works the same way as *F* flat and *E*, and for that reason the sign + has been placed between them in the second scale [in Ex. 343]. But listen. In each key in which the melody is found, one must begin from below [with the tonic note] and count upward. Thus, *B* sharp is the seventh degree of the C-sharp scale. The Italians and the French, in addition to this nomenclature, which is foreign to them, also know this, e.g.:



Here you see the seventh marked with the number 7.

Disc. I notice that. Is it not the case that the tonic note is marked with a "1" below it and from there one counts in the following way: *seconda* means second, as in "the second note **counting from the tonic note**?" *Tertia nota*, the third. *Quarta* the fourth. *Quinta* the fifth. *Sexta* the sixth. *Septima* the seventh, and *Octava* the eighth. Usually, however, one says only the second, the third, the fourth, the fifth, the sixth, the seventh, and the octave. It may sound a little like Latin or Italian.

Prec. Good. Now do you want to use a *C* instead of a *B sharp*? Maybe like this?



Here, however, (since *B* is skipped over) this pitch is no longer a seventh but rather a diminished octave, that is a perversion of an octave. See what kind of confusion that would introduce?

Disc. Now I understand all of that quite well. However, to return to the earlier nomenclature, should I call this key



E flat and not *D sharp* because its tonic note is an *E*?

Prec. So it is, and not otherwise. If you do not want to believe me, look it up in the majority of today's German books that deal with music.

Disc. I only fear that my lord will send me with these novelties all the way to Siberia, or perhaps even to Krakow. What do you think of that?

Prec. I give them their worth. But precisely because I have not become accustomed to it, I have always comfortably followed the nomenclature that the Italians and French have in common with many Germans, which does not recognize the H ["B natural"].

Disc. Oh, I practically know it already. The Lord Choral Superintendent recently opposed my lord on that matter, saying that one would be changing the ancient A B C into A H C, and he set out for him the octave in this way, i.e.



Now it may be, of course, that the Italians and the French agree on this old form and say *B* instead of *H*. But Fux?

Prec. Fux, as a German, says so also. Your lord should look it up it in the Latin edition on page 50 in the middle. He will find nothing of the *H* there.

[4] Disc. But the person who translated it into German?

Prec. He says the same thing, namely Prof. Mitzler.⁵ Simply turn to page 70 in the German, right at the beginning, and, in fact, it will say, "Because such

⁵Namely, Professor of Philosophy and not Professor of Music, as one or another reader might, perhaps, stupidly assume.

a *B* is not a perfect fifth."⁶ In a word, both [versions] recognize, the so-called *H* by [the letter *B*].⁷

Disc. What does that mean: "Because *B* has no perfect fifth?"

Prec. That means that the F above the B forms only the small fifth, the so-called false fifth.

Disc. So perhaps one must put # before the *F*, or the \flat before the *B*, e.g.



Prec. Those certainly would be perfect fifths. But you must know that the ancients knew of neither the \ddagger nor the \flat . Therefore, they could not use the key of B at all, but rather such a *B* served them only to complete the remaining keys.

Disc. Therefore they did not have more than 6 notes, namely A, C, D, E, F, and G. Since we today have the \ddagger and the \flat , what do you call the following three notes?



Prec. I call the first B, as do Fux and others.⁸ The second one [I call] B flat, and the third one B sharp.

Disc. I understand. However, for now I ask you, for goodness sake, let me stay with H instead of B. In time I will become one of those who says B instead of H.

Prec. I will do everything that pleases you and is not actually sinful. Yet, I advise you, rather, to conform always to the nomenclature of your lord

⁶That should say, however, "Because B has no perfect fifth." For a single note cannot be a fifth, but it can only have or take on a fifth. For that reason, Fux wrote, "<This (B) does not have a consonant fifth>."

⁷As is to be seen in the Latin version on page 131, line 7, and in the German version on page 114, line 19.

⁸Some Italians call this B natural a hard B. That is, however, false, as is seen above.

when you are with him. I, too, have had to conform everywhere to all people. Consequently, I want to set out the scale in my manner but with the H, in order to please you, i.e.



Hopefully you know that the word *durum* means *hart* ("hard") in German, and it is shown by the sign \ddagger , just as the word *molle* means *weich* ("soft") in German and is designated by the small letter $b [\ b \]$. However, one speaks in an abbreviated fashion: "dur" and "mol," and not "durum" and "molle." Thus, I say in the case of the scale: c, c sharp [*dur*, etc.], d, d sharp, e, e sharp, f, f sharp, g, g sharp, a, a sharp, b, b sharp, c. If speaking in German, I also say, c, c cross, d, d cross, e, e cross, etc. And thus an Italian also understands me, if he can get around in German halfway. Thus:



And one says c, c flat [*mol*, etc.], b flat,⁹ a, a flat, g, g flat, f, f flat, e, e flat, d, d flat, c.





Prec. I call this E with the minor third. For *minor* in German means "small," and *major* means "large." Since the third, namely G, is only a tone and a half from the tonic note, E. On the other hand, the following third is two whole tones away from it, e.g:



For that reason, I call this key E with the major third. For from *E* to G# there are two whole tones or four half tones. Likewise, the latter is called a major key by some writers; the one with the minor third, however, is called a minor key.

⁹I may no longer say "B flat," since the youth wants to have H instead of the natural B.

Disc. We out in Monsberg call the E with the minor third "E mol," precisely because it is much gentler and softer than the E with the major third, which we call "E dur."

Prec. I have known that for a long time. But what does the primary tone have to do with the third? *E* remains for now and always simply *E*. *E* flat remains for now and always *E* flat. It may, accordingly, associate with the major third or the minor third, or not.

[5] Disc. Does Fux call my lord's *D* sharp also *E* flat, that is, in German a soft *E*?

Prec. Indeed. Correctness and naturalness require nothing less. Suffice it to read in the Latin version page 235 from the middle on down. In the German version, however, see page 175 from the sixth line down. Now I will show you the nomenclature of today's usual keys, i.e.



¹⁰E flat with the minor third is not usual, for example in a incidental way, that is, by dint of the modulations in the middle of a piece. And this happens rarely.

¹¹This B, or the H according to the Discantist, with the major third is also used only in an incidental way.

¹²I have seen this A flat only once (when I was still very young) in a violin solo. For it must truly be a strange melancholic who loves such keys. The keys of the organ of a 70-year-old organist were finger-worn, except for the sharps and flats, which were a finely polished as when they were new. When he was asked the reason for this, he answered, "I do not need the sharps and the flats for an entire year at a time." That, however, is too much.

Disc. Since these are called the major keys, why do you only designate the major third in the case of the second [i.e., the last four]?

Prec. Because the others are already so well known and customary that it is not needed. Nevertheless, whoever wants to refer to them as "major third" everywhere, he will break his jaw as little as an Italian and a Frenchman. On the contrary, in the following minor keys, the minor third must always be designated, i.e.



Here the last two and the following two appear only in an incidental way, e.g.



[6] Disc. What does "in an incidental way" mean?

Prec. That all keys with the minor as well as the major third may be introduced during the modulations in the middle, as for example:



¹³Here I say "hard C, or C cross." ¹⁴Here hard G, or G cross Now F with the minor third is the principal key here. B flat with the minor third is established only incidentally (as you see).

Disc. I understand that. In such a way one can freely introduce and incorporate all keys.

Prec. Likewise you will hopefully also understand that the following two keys are played one exactly like the other on a keyboard, i.e.



Likewise the following two with the major third:



Disc. I believe that, because the \ddagger raises a note by a half tone; the \flat , on the other hand, lowers it by a half tone. Thus it follows necessarily that C^{\ddagger} and D^{\flat} are the same pitch, and they are played with the same keys. Oboists and transverse flutists, etc., must know that as well. Similarly, E^{\sharp} is none other than F, or likewise B^{\sharp} is C. The Urbsstädter has filled an entire book with such keys for the training of youngsters, and has made a strong wind about it. Thus my lord once drunkenly reproached him that he could save himself the trouble simply by putting two or three examples on a quarto sheet in the key of C. And then the student or also the teacher could have been emphatically directed to transpose the two or three examples into all the other twenty-three keys using \ddagger and \flat . Prec. Then, however, his wind would have been bottled up. It is certainly beautiful, useful, and even unavoidably necessary to get to know all keys. However, after one knows them thoroughly, one has to choose only the most common of them for daily use. For I think a composer can show his art only in a few keys, as long as he lives. Just as an entire empire was founded in the past upon only one key, we could actually be content with as few as a half dozen of them.

Disc. It is true. My lord said only the day before yesterday that very many books and even entire musical libraries conduct their business with the old keys [modes]. But tell me. . . .

Prec. Watch out. We will fritter away our time on it. However, I will treat a

little of it briefly if I am but first assured that you know how to distinguish the major sixth from the minor sixth and the major seventh from the minor seventh, and so on.

Disc. I was able to tell the difference between them already in the first chapter at the beginning of page 70. For a minor second consists of a half tone. The major second consists of a whole tone, or two half tones. The minor third consists of a whole and a half, or three half tones. The major third consists of two whole or four half tones. The fourth consists of two whole and one half tones. The augmented fourth consists of three whole tones (thus called the <tritone>) or six half tones. The fifth consists of three whole and one half tones, or of seven half tones (which, of course, it is not necessary to say). The minor sixth consists of four whole or half tones in the scale. The major sixth has four and a half tones or nine half notes. The minor seventh has five whole tones or ten half tones. The major seventh has five and a half tones. The octave has six whole tones or twelve half tones. I will now demonstrate each one with notes.

Prec. That can easily be left at home. I already believe you. Only you should also rightfully know that we have three kinds of seconds, three kinds of thirds, three kinds of fourths, three kinds of fifths, three kinds of sixths, and three kinds of sevenths, as follows:[7]



¹⁵This pure, commonplace, and natural fourth is only called "<minor>" in the context of the <major> fourth, or so-called <tritone>. ¹⁶Many call this the false fifth.



You already know <major> and <minor>. <*Augmented*>, however, means "overflowing" in German. And <diminished> means "reduced."¹⁷

Disc. From *C* to *D* is a whole tone. From *D* to D^{\ddagger} is a half tone. That makes one and a half tones. Consequently is the augmented second not unlike the minor third, which consists, likewise, in one and a half tones?

Prec. Just for that reason such a second is called "excessive" or "superfluous," because its *intervallum* ("interval") is not different from the minor third. On the other hand, I cannot call them thirds, because it is based on D. The latter, however, namely the third, is based on E. Furthermore, if I invert the [augmented second], it becomes a diminished seventh. If I invert the [minor third], however, it becomes a major sixth. For example:



Thus you see here that there is a difference between the given second and third, because out of one arises a seventh and out of the other arises a sixth. The inversion is in general to be seen in the following numbers:

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1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1
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¹⁷Some say "the smallest" instead of "reduced." In fact, the one does no harm to the other, as long as one understands the interval.

The octave comes from the unison, the seventh from the second, the sixth from the third, the fifth from the fourth, on the other hand, the fourth [comes] from the fifth, the third from the sixth, the second from the seventh, the octave from the unison.¹⁸ Now, what is small [minor] prior to inversion becomes large [major] by means of inversion. For example, if I invert the minor sixth from E to C, a major third results. If I invert a major sixth, however, a minor third results. And so on with all the rest. As follows:



First I transpose the *E* upward, and then I transpose the *C* downward. For the third can be turned into a sixth, just as the sixth can be turned into the third.

[8] Disc. It is all laid clearly before my eyes. In this way I never once have to count, for example, how many half tones a major or a minor sixth have, for I only need to look quickly at its inversion as a third.

Prec. I now go back again and say that a minor third is used quite differently from an augmented second, e.g.



Disc. I see and hear it. The minor third belongs to C minor; the augmented second, however, belongs to E minor.

Prec. And likewise in the case of a simple melody here, there is, therefore, a big difference between the two of them in two-, three-, or four-voice harmony («chord»), e.g.

¹⁸Unisonus



Disc. That is also true. In the first example one comes by means of the minor third into G [minor], in the other example, however, by means of the augmented second into E [minor]. Nevertheless, on the keyboard both «chords» at the # signs are played with the same keys. But tell me, what is the diminished fourth used for in a «chord»?

Prec. Like the previously written two, it belongs among the chromatic «chords». It is used, however, very rarely. But its inversion, namely the augmented fifth, is used even more rarely, and actually, in general, it is prepared and resolved in the following way, e.g.



Disc. I, myself, believe that the inverted fifth in the second example attacks my innards a little too sharply. Although, as is shown in the first chapter at pages 71 and 74, it can also just brighten a simple melody, e.g.



Disc. Wonderful! The normal fifth is, at any rate, much better than its inversion, the normal forth.

Prec. The augmented sixth is also used often. Its inversion, however, the diminished third, is cut much too thinly, and is, therefore, of no use. I would

scarcely trust myself to include it in a vocal work, even were the text to express great pain. I will now write out both of them, but only in two voices, e.g.



[9] In contrast, in a single-voice or simple melody, the diminished third is better than the augmented sixth, e.g.



Disc. You must have forgotten about this augmented sixth in the first chapter. Admittedly it simply does not sound good. However, what is surprising is that a seventh is a wider interval than a sixth, that is, the sixth is smaller and narrower than the seventh. Nevertheless, I notice that the diminished seventh consists of only four and a half tones, while the augmented sixth has five whole tones. Therefore, one can, quite correctly, call it "augmented." I simply say "five whole tones," because even if, in a truer accounting, two or more half tones occur in the scale, I always reckon only two half tones for one whole tone.

Prec. According to your account, the augmented fifth is likewise nothing other than the minor sixth. And the diminished fourth nothing other than the major third. Yet, their application is completely different, which difference you have already perceived, in part, between the augmented second and the minor third.

Disc. I already know that, now. Because each one, on account of its particular key, is lodged with another interval or gap. Of the ninth you need say nothing to me, for it is only a second doubled [by an octave]. And the tenth is a third doubled, just as the octave is a unison doubled. *Nona* means "ninth" in German. *Decima* means the "tenth," namely the tenth note, and so on. It strikes me, however, as something different. My! Tell me, what do you call the following six [intervals]?

¹⁹I write only repeatedly "bene" when it comes to the inverted third.

²⁰Here I merely say *bene* ["good"] in connection with the displaced sixth, because these two "good" [intervals] are still used sometimes nowadays.



The Urbsstädter names them the way that I have written above and below each one.

Prec. His «consonances» may well serve the Urbsstädter if he wants to drive away some mice and rats with them. Otherwise a real composer will always certainly recoil from them. Or perhaps he wishes to have them understood as a chromatic melody, e.g.



Here (just as with a hundred similar sharpened ideas, also in the remaining keys), however, the C^{\ddagger} is not considered merely as an octave but more as a passing note to the *D*. Likewise also the diminished second (which the Urbsstädter wanted to decrease) is to be understood. Thus, many cautious composers would never have written it as above, but rather would have composed the passage as follows:



I will tell you more about this some other time. However, if I look at the Urbsstädter's augmented third, the augmented seventh, and the diminished sixth, I am reminded that I once used an *E double-b* and a *C double-#* and got a unison on *D* out of them. You would not believe what pleasure I got from that, for I was just fourteen years old.

Disc. That is, therefore, quite different. Otherwise I would have believed the Urbsstädter concocted his six changelings with the compass.²¹

²¹I will soon have the opportunity to tell the boy that "diatonic" means much more than "without sharps and without flats." Prec. I am only glad that you know how to distinguish the intervals well.²²

[10] Disc. Now I finally know that my lord was incorrect. He calls the large sixth "<minor>," and the small one "<major>."

Prec. Ah, I can perhaps imagine how that came about. Fux, on page 38 of the Latin version, shows it this way:



It is reversed in just this way because it should have been in the alto clef, e.g.



The misprint with the tenor clef is also found in the German version. See Table I, Figure 17.

Disc. I am already thinking about something else that I have recently heard. Look, un poco lento means "a little bit slow" in German. Allegro, ma non tanto, or in brief, Non tanto allegro, means "cheerful, but not too much." Con brio, means almost the same as con spirito. Afffetuoso or grazioso means "fetching or charming." Maestoso, "majestically." Tenuto or sostenuto, "sustained"; if, specifically, a quarter, half, or whole note is stroked and held without interruption with the bow. That *tenuto* is usually accompanied with a bit of *forte*, even if *forte* is not always expressly marked in such places. On the other hand, spiccato is executed with the bow almost shorter and more bouncing than when staccato is marked. Pizzicato means "to pluck or pick with the fingers," our neighbor says "dryly." Con arco, "with bow," or the same as coll'arco, "with the bow." Mezzo forte, "half strongly," sotto voce, "under the voice," the same as mezzo piano or mezza voce, etc. Con sordino, "with the mute"; we stick or clamp a key with a split comb on the bridge. Senza sordino, "without mute," for which some use sciolto, which means the same as "to take away," "to unbind," etc. However, senza sordino is better known and clearer for us. Crescendo, "growing;" came into the musical world only a few years ago. Wherever this word is found, the notes begin *piano* and they become little by little ever louder, even making a fortissimo at the end. Dolce, "sweet," is used often instead of piano, even if occasionally somewhat sour notes occur thereby. It would be better if one aimed for a little more than *piano* and a little less than *forte*. Many composers have already observed this. The Lord Choir Superintendent in Vallethal recently related all of this.

²²Hereafter, that will serve us also for the old keys.

Prec. I must also laugh when I see *Affetuoso*, *Maestoso*, and several other such pompous words set down. A composer should rather wait for the comments of the listeners.

Disc. But listen to me! Now, all of these words (says the Lord Choir Superintendent) like also *violino*, *violetta*, *violoncello*, etc., are Italian, and we Germans use them all the time in our music. Why should we be ashamed to take over also their nomenclature of notes, which they designate as *ut*, *re*, *mi*, *fa*, *sol*, *la*?

Prec. Now I finally understand your long digression. But you pay attention to me, too! Six or seven hundred years ago^{23} this designation was not so much out of fashion as today, because at that time only a single \flat was in use, namely on *B*. In order to explain that to you clearly, I will begin with *A*, e.g.



Thus I have an *A* **in all three, and one calls it** "A la mi re." Secondly, because in those days one did not yet say "H," but rather "B," the following occurs, e.g.



When, however, ab is added to it, it becomes *fa*, e.g.



Consequently, one says "B fa mi."

In the third place, we have to observe two forms of the note C, e.g.

²³For Guido Aretinus, who thought up the eq added to the B, lived about the year 1024 A.D.



[11] On this basis, one can say "C sol fa ut." In the fourth place, we take the case of the note D, e.g.



Example 385.

This is called, consequently, "D la sol re"

In the fifth place we turn to *E*, e.g.



If I place a b on this scale, nothing more than a mi stands above or below.

Therefore, I can similarly say "E la mi."

In the sixth place the note F is treated, e.g.



This is then called "G sol re ut."

Many among the Latins²⁴ are still in the habit of using these designations. The Italians and the French, however, have partly shortened them and partly changed them.

Disc. However, one could also speak according to the order, as you have extracted one thing after another, e.g., *A la re mi*, *B mi fa*, *C ut fa sol*, *D re sol la*, etc., etc.

Prec. I have also once, in order to make a little joke, expressed it exactly as you have done here. However, it seemed to me like someone who has learned a crude error completely by rote like a parrot. I want to set out all two or three of the said customs in order for you, e.g.²⁵

Latin	Italian	French
A la mi re	A la re	A mi la
B fa mi	B fa mi	B fa si
C sol fa ut	C sol ut	C sol ut
D la sol re	D la sol	D la re
E la mi	E la mi	E si mi
F fa ut	F fa ut	F ut fa
G sol re ut	G sol re	G re sol

Of course, from God we have just as much right to the Italian language as the Italians themselves. Since we have, more than a \flat , even a cross (or the so-called little cross \ddagger), these old designations can possibly be proper for our very numerous keys. The difference between *B* fa [12] and *B* mi alone is not enough. For how will one derive the key of $E\flat$ from E la mi, or the key of $F\ddagger$ from F fa ut. You must know that each of our major keys begins with ut, e.g.

²⁴Not all. Not even all Frenchmen and Italians. There remain those who sit at home. I have sought after the ut, re, mi, fa, which I, myself, learned in my youth. For almost every school-master has another manner in which to instruct his boys. One uses do instead of ut. Another uses a French si instead of mi. All conclusions from this would be superfluous and confused. ²⁵Because I have found these abbreviated Italian designations only in a very badly written book, I have doubted them, and I have since found that they do not go back to the Latin designations.



And likewise with all the remaining ones.

Disc. In this connection I have observed that all the major-key scales are throughout like the key of C.

Prec. Many call them transposed keys for precisely that reason.²⁶

Disc. What do the French and the Italians call these two keys, i.e.



Prec. They call the first E la mi with the and smajor third. The other: F fa ut with the and smajor third. Or also this way: E la mi with smajor third in the and key signature. This last [term] we also call in the principal key signature, or with the tonic note and. And so on for all the other and key signatures.

²⁶*Modi transpositi*. One could leave [Guido of] Arezzo alone with his newly formed keys. Yet it will be very difficult for anyone to try to compare our minor key with the old one, as we will soon see.

Disc. That is certainly a very boring and awkward designation. We would rather send it also to Siberia in order to form from it a field cry for the very same hunt. The Latins, the Italians, and the French use no fewer than *A*, *B*, *C*, *D*, *E*, *F*, and *G*, therefore. Why do they still mend this with the *ut*, *re*, *mi*, *fa*, *sol*, *la*, and *si*?

Prec. Some scribes [retain this] because they do not want to give up the old custom²⁷ for such an insignificant trifle. Others because they know no reason for it. Still others because they want to boast and show that they are musical.

Disc. The composers would have done better to do that already at least three or four hundred years ago (namely, ever since \ddagger and \flat have been in use), to designate **each major key as** *ut* and **each minor key as** *re*, e.g., *A ut, B ut, C ut, D ut, E ut, F ut, G ut*, so that it would have not been at all necessary to add "with the major third."²⁸ The minor keys would be *A re, B re, C re, D re, E re, F re, G re,* and *F* \ddagger *re*, so that it would likewise not be necessary to add "with the minor third." Eb ut could, according to my lord, be his D sharp.

Prec. You are entirely correct. Only this would be such an unknown novelty that we would be sent with it to Siberia.

Disc. Then I want to know and hear nothing more at all about the *ut, re, mi, fa.* For I find no difficulty in «solmising» with *C*, *F*, and *G*. However, as soon as a key occurs with several \ddagger and \flat , I may, perhaps, sing a hundred times *mi* where *fa* should be and, on the contrary, a hundred times *fa* where *mi* [13] should be. As long as my lord does not know of any other way to help himself. Thus the Lord Choir Superintendent recently said that from now on he does not want to torture the choir boys for such a long time with «solmization», but rather to impress them correctly with the intervals and leaps by means of the simple letters, such as *A*, *B*, *C*, thus:



And so that they throughly know every interval in particular, he transposes these scales into all remaining major keys. Afterward he takes up the minor keys, and does it once more in that way. *NB*, however, as a supplemental support, he teaches them also at the same time on the keyboard. And, finally, he mixes in \ddagger and \flat , e.g.:

²⁷I do not dare call such a habit a misuse, since I fear the wicked critics and parodists.
²⁸Or to express.



And in the following way, by which they learn to know the half tones well:



It may have \ddagger or \flat in, for example, *A*, in which case he calls it nothing but *A*. And he tells them only that one is hard and the other soft A. And likewise with B, C, D, E, F, and G. In this way he has already been pleased that they become as good note-fixers as many who must «solmize» eternally. "To sing a *tutti*," he said recently, "is not at all difficult for them, because a contrapuntist, for the sake of easiness, does not even dare to write a leap of a major sixth." A boy, however, who does not have it naturally within him, he will recommend that he [the boy] should rather take the plow in hand or learn a craft, or seek his fortune elsewhere with the quill, etc.

Prec. In fact, he is not wrong. Only our elders²⁹ imagined a different clef in the case of each (so-called) transposed key.

Disc. How could that be, we really have no more than three clefs, of which the first, on G, is the violin clef. The second, on F, is the bass clef. The tenor, alto, and descant clefs all are on C. To these three clefs, G, F, and C, our Philip still wants to allow a fourth, namely the key (clef) to the [wine] cellar.

Prec. He must merely be a drunken musician. You will know, however, also that the descant clef puts C on the first line,³⁰ that the alto clef puts C on the third line, and that the tenor clef puts C on the fourth line. The bass clef F embraces, likewise, the fourth line. And the violin clef G encircles the second

²⁹I do not mean the elders who did not yet know about the flat, but rather those who, following Guido of Arezzo, took the beginning of the Vespers hymn of St. John the Baptist, namely: UT queant laxis REsonare tibris MIra gestorum FAmult tuorum SOLve polluti LAbii reatum ["So that your servants may, with loosened voices, resound the wonders of your deeds, clean the guilt from our stained lips, O Saint John."]. Some claim that he pulled the names ut, re, mi, fa, sol, la out of his memory because of the beginnings of these verses.

³⁰Namely, by counting from lower to higher. Whoever wants to may count the two lower NB secondary lines downward. I call the five lines together a note-row, whether there are notes on it or not. The Latins may have always called it the <system>, for all I know.

line. If I place the alto clef even lower, namely on the second line, it [the music] is sung even higher. Thus, the one [i.e., with the *F* clef on the third line] is called the "high bass," and the other is called the "high alto."

Disc. I have known that for a long time already. The old French even placed their violin clef G on the first line, so that one in that way must play a third higher throughout. I first saw this French clef eight days ago in a dusty, old *sonata*.

Prec. Now, the *C* of the descant clef is placed on the first line. Why did you think, however, that a *C* could be placed also between the first and the second line?

Disc. I only wanted to imagine that, if that *D* were the *C* of the high bass, I could thus begin as well with *ut*, *re*, *mi*, *fa*, and certainly without a single \ddagger and \flat , as if it were my descant's *C*. For the *C* of the high bass comes exactly between the first and the second line. This imagined transposition would help me, then, to begin in E or $E\flat$ with *ut*, *re*, *mi*, *fa*, if I imagined the *C* of the high alto. My *F* could be represented by the *C* of the bass, my *G* by the *C* of the alto, my *A* by the *C* of the violin, and my *B* by the *C* of the tenor. In order to offer you my opinion more clearly, I want quickly to write down the currently used keys in the descant clef and to place the others underneath beginning with *C* or with *ut*, *re*, *mi*, *fa* (which I must only imagine in any case), i.e [14]



Prec. Thus, I want only to remember that the elders once created an indescribable good for young people with these transpositions through clefs. For how long does it take nowadays for someone like you to learn all the keys thoroughly? Knowledge of these transpositions would be useful to the majority of Italian composers,³¹ who do not know that most hornists and trumpeters are accustomed to playing in the violin clef and everything in C.³²

Disc. It is true. I have already seen many such Italian oddities. Because writing in C with the violin clef is too artificial for them, they dare only to transcribe, for example, the horn part for a symphony in A into the descant clef. Consequently, the hornist would be able to imagine that it were in C in the violin clef. And so on with all the remaining keys, e.g.



If also in the keys of B_{\flat} and E_{\flat} a \ddagger and a \flat were encountered instead of a \ddagger and a \ddagger , it would present no difficulty.

Prec. You are completely correct in everything. In that way each tonic note is placed certainly between the third and the fourth line, just as the C of the violin clef.

³¹I do not want to conclude anything about such negligent composers, who never knew how a trumpet or a horn is played, much less how many pure notes they play. This, however, can easily be grasped in two or three minutes.

³²They can, for that reason, nevertheless always be as musical as an Italian.

Disc. I must confide one more thing to you. Two years ago, a foreign musician came to us and said, among other things, that he wanted to allow the boys to <solmize> the octave of a major key no longer as it had been done previously, namely *ut*, *re*, *mi*, *fa*, *sol*, *re*, *mi*, *fa*, but rather approximately like this: *ut*, *re*, *mi*, *fa*, *sol*, *la*, *si*, *ut*. And he wanted this to remain unchanged in all major and well as minor keys, both ascending and [15] descending (whether or not \ddagger or \flat were in use).

It would be as follows:



Of these, I want to illustrate with notes only E major, E_{P} and E minor, in order that you understand me better, e.g.



He is also not incorrect. Even an Aretino [i.e., Guido of Arezzo] of today would not be able to object to this. But the A B C D E F G can serve us even in this. Why should one allow such matters to be brought up? We rather want to rest a little now.

That was, thus, something about the different nomenclatures of the keys.

*

Now finally we want to look at the old keys [i.e., the modes] a little,³³ for I already observe that you know the currently common ones well.

Disc. I hope at least that, for every major key is displayed as is here the key of C, i.e.



On the other hand, each minor key rises in general with the major sixth and major seventh, but descends with the minor seventh and minor sixth, e.g.



I say "in general" because one can descend sometimes with the major seventh and minor sixth, especially in a simple and not especially swift melody, e.g.



[16] With rapidly running notes, if the upper C comes on the down-beat, it would certainly be much better in the following way, i.e.



If I do not go stepwise up from the *G*, or even from the lower *C*, I need only the minor sixth, both in a many-voiced piece as well as in a simple melody, e.g.



³³Everything that I have said and written up to now came about because of these old keys. The boy will not unlock all of it now just because he finally has the key to it. I will merely help him a little.

Consequently, I want to observe shortly to what extent the old keys are different from ours.





Now, the first, Dorian Mode (*Modus Dorius*), which was particular to the Dorians, and from which people it has its name, *Dorius*, just as the *Phrygius* from the Phrygians, the *Lydius* from the Lydians, and....

Disc. Please be still! If I exclude just the sixth, Ionian mode, which precisely overlaps with our C, and, on the other hand, the fifth, Aeolian, descending, I find no others that are comparable to our modern tonalities. I must laugh heartily about the Phrygian mode, E with the minor third, because they didn't yet know to put a [#] on the F. I must also laugh at the Lydian mode, F, because it lacks the B flat and thus can have no proper fourth. In short, why are we concerned about the miserable conditions of the elders? Always to Siberia with it!

Prec. Only not too heatedly! It is true, of course, that the old keys (C excepted) will no longer be in use in this world.³⁴ Fux, of course, did not

³⁴Because I do not see how it would go otherwise. It would certainly not be humanly possible [for them to be in use].
completely reject the modes and even has their transpositions in his treatise in Latin, page 222, and in German, page 159, Table 42. However, I have never seen in his polyphonic compositions for church anything of the sort. For whomever does not believe me, I could [17] place in evidence before his eyes two of his last Requiem Masses (which I still have on hand).³⁵

Disc. How, then, does he write out his examples in order to teach counterpoint?

Prec. Often in the old modes. And exactly this makes many beginners annoyed over this treatise of his, because they occasionally cannot discover a regular melody in it. At the same time, he sometimes does use \ddagger and \flat in the midst of them.

Disc. My lord notates the key of D minor with no \flat at the beginning. Perhaps he only wants to pay his respects to antiquity. He overlooked that fact that in the middle he uses \flat and \ddagger quite diligently and frequently.

Prec. Your lord is not the only one who has deceived himself thus. Fux, however, only wanted to teach us about the old modes in his treatise, and by using the \ddagger and \flat in the process, he has shown us that the elders must have produced necessarily bad melodies.

Disc. I would have liked to hear an opera in the Dorian, Phrygian, Lydian, and Mixolydian modes! How long has it been since these keys were in use?

Prec. About 3000 years.³⁶

Disc. In this way [Guido of] Arezzo, with his \flat and natural signs \natural , came to it later. By the way, I hope and almost sense that you will shortly explain the rules of counterpoint to me according to the precepts of our present-day keys.

³⁵One certainly cannot envy the choralists for their old modes. Only I advise that no one dare to say that one cannot compose as sadly and movingly (pathetically) with today's keys. Otherwise, he could easily be taken to school by a discantist and be shown by him the abundance of counterexamples. I do not write this without cause and prior knowledge. One need merely listen to one or another Requiem by Fux.

³⁶The historians, themselves, do not always understand one another well. Rather, they generally only know best what they observe and comprehend. The double # and the simple \times were invented long after Guido of Arezzo. Whereby take note that the \times was named and written "simply" because it divided a half tone into two quarter tones; consequently it belongs to the enharmonic genre. We, however, need it today for the raising of a complete half tone, as with the double # itself. And precisely for the sake of clarity, on the same note that has already been raised by means of the #. On the other hand, some say that because the \times to some extent doubly raises the pitch, so should the # be written only singly rather than doubly. It is just better if one does not think about it at all.

Theory of Metric and Tonal Order, Phrase and Form

Prec. Indeed. There are also adequate reasons for this.

Disc. Our elders, therefore, had six modes; we, however, have only two.

Prec. You are making a fundamentally wrong leap. For the old Dorians had only one wretched mode, the old Phrygians had only one, and the old Lydians likewise had only one, all of which were gathered up into one heap according to the [Guidonian] hand. We, on the contrary, have two graceful, clear, and perfect modes, with which we can live and die.

Disc. My lord, however, said once that each old mode possessed an individual and particular power to draw the emotions, such as love, hate, fear, courage, etc., out of the human innards.

Prec. He might sooner have said, "to coax out something different." I know well that many people try to fill out their writings with such tomfoolery. It is, however, absolute self-delusion.

Disc. Ay! If you will put away your anger, I will say nothing more about of the elders. You will have to confess, however, that our D major is livelier than C major.

Prec. The violins are the cause of that, because their open strings D, A, and E always valiantly help there with their sound, e.g.



In the key of C, on the other hand, the strings are more restricted by finger pressure, e.g.



In C minor, the strings are even more restricted, e.g.



Because the modulation here can also happen on the fifth, G, a couple of open strings can sometimes come into play.



[18] Thus, this key is also a little fresher than F minor. However, the situation might halfway be reversed, as you will soon hear. Indeed, you yourself can probably give me something like this. Now, in which key to you prefer to sing?

Disc. Last year, I preferred to sing in A. These days, however, I prefer to sing in G, because I not only have the perfect fifth, *D*, above and below, but I always have a few additional notes, so that I can complete the octave when needs be, e.g.



It is true that the disposition of this key is just right for me. For if I sing alone, without any violin accompanying, this seems to be the most cheerful of all the keys. An alto, who does not easily sing so high, may seem most cheerful in C.

Prec. The choral writers chose D as their first key.

Disc. I believe that it is a principle key for them because in it the bass and tenor can scream together valiantly, if needs be. However, the tenor will have to drink more brown beer if he wants to properly bring out the depths.

Prec. I do not know whether my ear deceives itself if the violins, playing in B flat, come across as more lively because of this comfortable range, e.g.



than the key of F, in spite of the fact that the latter has only one \flat .

Disc. I even believe that B flat with violins could be more lively than D itself if the strings would not be stopped in it. But listen! On an organ I will immediately distinguish between D minor and F minor, even if I don't stand near it when my lord plays on it.

Prec. But listen! Were your organ tempered according to the drawing compass throughout all the fifths, thirds, etc., that is, quite purely tuned, then I would grant that you might distinguish [the keys] any day of the year. In addition to which, you could casually investigate the highness or lowness (secretly singing) with your voice. In short, I once heard two bands of oboists play, one in C with small, so-called «cornet»-oboes,³⁷ and the other in D with so-called French oboes, so that the C and the D had the same tuning. I assure you and your lord that the C seems to me almost more lively than the D. *NB*: There were no violins present. Only one of the witnesses held the opposite opinion, because he presented himself as a composer and had already written many convoluted books about such things.

Disc. I would not have been able to look at him without laughing to myself. Look, now something else occurs to me. Recently I have heard three violin concertos played, of which the first was in A minor, the second in B [minor], and the third in E-flat [major],like these, e.g.,



The first two seemed to me lively and far sharper than the last. Here also the open strings may have contributed to that. My lord, on the other hand,

³⁷Cornetto. This instrument is generally used in church, pitched in the high *Chorton*, to reinforce the discant voice in a tutti. *Chorastro* is not as high as *Chorton*, as an Italian recently wanted to explain to me. The French or so-called *Kammerton* is a whole tone lower than the *Chorton*. There is, however, another distinction to be made in all of this: in many places the *Chorton* is taken to be a whole tone lower than the *Cornet-Ton*.

calls the first two keys "soft," and the last one "hard," exactly the reverse. Moreover, it is clear that a lively text requires a lively key, and a sad text a sad key. E
i, moreover, may not be ill-suited to setting an angry text, if one makes the music *Allegro* or *Presto*.

[19]

Prec. One should only make no rule about it. For I have even recently seen a sad text belonging to an aria in D major, and, in fact, by a great master to be sure. The aria was made to go very slowly, and there were horns in it.

Disc. Perhaps the text was of the following content: "Alas, ye gods! Such pain has oppressed me, that I had to leave that place where I have enjoyed so much happiness." I will not even say that he has stolen in this place. Such considerations may have been used unerringly by that artful violinist (who passed through here a few years ago). According to reports, he knew how to move his listeners now to crying, now to laughing and merriment. To draw out happiness, he surely must have played on his violin in D major, and . . .

Prec. I was told about him, however, that he, himself, always began to weep quietly beforehand, so that he really shed tears. Afterwards he began to make such strange and absurd gestures with his mouth, nose, and eyes, that only an ape or only an ass can be compared. In short, his art was that he put both crying and laughing together into one bag, like women. Tricks may even have helped him to engender crying.

Disc. I have also seen many musicians put on quaint monkeyshines. Our Philip, however, learned from an Italian to stand always industriously in front of a mirror in order to examine himself up and down, to see whether violin playing suited him well or badly. He even knows how to take and hold the violin and the bow in his hand mathematically. This concerns me not at all, but it reminds me of something else. I know well that the Dorians, Phrygians, Lydians, etc., possessed only the diatonic genre (*genus diatonicum*), namely that without any sharps or flats. Explain to me, however, the <chromatic genre> and the <enharmonic genre>.

Prec. The chromatic genre³⁸ was invented long ago so that one could have all the half tones in the scale, i.e.

³⁸At one time this Greek word (*chromaticon*) may have originally meant "a color," such as black or white. Not even a thousand Greeks know this themselves. At any rate, the explanations of such a name in musical books are aimed at puffery rather than usefulness. Besides which, I place the flat among this as well, regardless of the fact that Fux only uses the sharp in his [chromatic] scale.



At the time when this genre was invented, a musician sought to develop it, I no longer know in what Greek city, in the hope of pulling together something extraordinary from it. However, he had hardly begun to show them how much the state and fatherland depended upon this genre, when he was expelled through the other gate, because the citizens alleged that the people could easily be led into villainy by this desperate genre. Now to recall something about the enharmonic genre,³⁹ you must know that long ago, likewise, there were curious people, among them those who snatched at novelty. An impish musician⁴⁰ at that time further divided all the half tones in the scale (except for step from A to B natural), so that actual quarter tones were to be perceived. For example, between B and C he stuck a quarter tone notated by a simple \clubsuit , and so nothing but quarter tones sounded all the way up to the octave.

Disc. One should really have given that the broom.

Prec. Be still! It is this confused genre that was abolished anyway.

Disc. I believe it. Otherwise the people would have been able to become even more evil than they were.

Prec. Since then, the diatonic and chromatic have been mixed together, so that today both are happily used at the same time, and neither the words *diatonic*, *chromatic*, nor *enharmonic* are needed any longer.

Disc. I know that well, because the \ddagger and the \flat always run along together, e.g.



³⁹This word *enharmonicum* may be derived in the Greek language directly from "harmony" or "polyphony," so that we maintain the contrary only cautiously. Otherwise we might spend time as uselessly as some do.

⁴⁰However, it would not be worth the effort of seeking out his name, the year, the day, and the hour. Additionally, I am very skeptical of many pieces.

Our E minor is written the way, i.e.



The Phrygians, however, could not have composed anything but the diatonic, i.e.



[20] If now, however, a present-day composer, for example, begins a fugue in the old modes and then, in the middle, uses a \ddagger or \flat in the continuation, such a fugue is certainly no longer Lydian, Dorian, Phrygian, etc. For all of these modes certainly had not a single sharp or flat.

Prec. And who can doubt that?⁴¹

Disc. I understand it. That means, I want it very much and cannot [have it]. One more thing. If we no longer have need of the word *chromatic*, why is it heard so often, "That is a chromatic hand position on the organ; such and such a piece is a very chromatic?"

Prec. You are also correct once more. Only we want to speak about it tomorrow and take a breather now. That was therefore something about our keys and the old keys [modes].



Disc. Yet another things occurs to me. Hansmichel is now learning how to compose mathematically from the Urbsstädter. On Saturday he entrusted me [with the knowledge of] how one should tune the harpsichord. I now let all the fifths hover downward, that is, I do not tune them sharply and purely but rather imperceptibly lower. I begin with C, and I tune all the Cs on the harpsichord purely. Then, as I have said, I add a slightly lowered fifth, G, and tune all the Gs to this purely. To the G I add the fifth D, likewise sunk

⁴¹I must, however, leave the boy a small delight sometimes.

downward, and immediately all the other fifths. In this way I have tuned my harpsichord, just yesterday, within only four to five minutes altogether. Whoever does not know this advantage and tunes the fifths completely purely, will certainly spend a half day on it and in the end his harpsichord will sound fundamentally out of tune in most of the keys. I have unfortunately found this to be the case quite often. Our organ actually does not sound in the key of E flat differently from wolves howling together. The day before yesterday, on the harpsichord that I had begun to tune, I let the fifths hover a little bit too much downward, for in order to tune the octaves properly, various fifths still had to be tuned purely. This, of course, may not exactly be a crime of high treason. Only I consider it better if one arranges the vibration so finely and sparingly that all the fifths become identical one to another throughout. On the basis of such a tuning, the fourths as well as the major thirds and their inversions, the minor sixths, will have nothing wrong with them. Hansmichel now foolishly wants to enlighten me about this. It is strange, in this regard, that the Urbsstädter himself cannot tune a harpsichord, because he by nature does not have a good ear.

Prec. However, other temperaments have been brooded about these days.⁴²

Disc. What does "temperament" mean?

Prec. To temper or to moderate is simply when an organ or a harpsichord is tuned as you have learned from Hansmichel. From this you must conclude that the scale is not pure within the octave. For a singer by himself can always sing purely, and a violinist (if he has a good ear otherwise) can play purely, because they can simply allow the intervals to vacillate upward or downward. But an organist or a harpsichordist must play the way the instrument has been tuned.

Disc. Now I have noticed something. Our Philip, while playing, lets all the major thirds hover upward and all the minor seconds hover downward, e.g., C against B, F against E, G against F sharp, etc. And this manner of his pleases me very much, particularly in an Adagio. Perhaps a violinist should let his fifths hover downward when playing with a harpsichord or an organ, in order to be better in tune with them?

⁴²However, I want to explain nothing further about it to the boy, because it is of no use to our purposes. Should he, in time, become an organ builder, however, then he, himself, would cast about for such books. For me, perhaps, the best among them are the least well known.

Prec. I must certainly agree with your opinion. But with a trumpet, a violinist would have to tune the fifth E rather higher than lower, because the F of the trumpet on the fifth line is, by nature, always sharp and not pure. Consequently the F of the violin would clash with it badly.

Disc. That is, therefore, only confused housekeeping. I will tune my violin as before and would rather make a greater effort to finger it all the more purely.

Prec. Be that as it may, we must be happy and thankful that the organ builders let us hear better temperaments from time to time.

Disc. How was temperament invented, then?

[21] Prec. By dint of mathematically rational calculation?⁴³ For you know that a whole tone can be divided into two half tones. You have heard also that in the enharmonic genre a tone can even be divided into quarter tones.

Disc. My lord still has an old harpsichord at home up in the attic that had its keys divided also into quarter tones. I can recognize a half tone very easily, of course, but a quarter tone would be a little indistinct for my ears, for someone could easily fool me into thinking it to be a fifth tone.

Prec. Therefore know that a whole tone can be divided not only into eighth tones but even into a hundred or even into a thousand parts.⁴⁴ This, however, is not carried out with the hearing but rather with compasses and numbers.

Disc. I would like an example of that.

Prec. Now, how far does the sound of a string of a violin, viola, or violoncello vibrate when the bow is drawn across it? Is it not from the bridge⁴⁵ to the nut?⁴⁶ What I call the nut, as opposed to the scroll,⁴⁷ is the small, very low little bridge at the end of the neck, whereupon the strings lie.

⁴³Of course, one still doubts whether Jubal, in order to perform table music on [Tubalcain's] name day, tuned the hammer and iron rod of his [half-]brother Tubalcain as purely, or even more purely together, as the Urbsstädter tuned his harpsichord with all of his mathematically rational calculation.

⁴⁴I purposely want to name no larger number in order not to frighten the boy.

⁴⁵The "bridge" is called the "saddle" in many countries.

⁴⁶I often call it Boanl, similarly Bainel, or Beinlein ["little bone"], because it is often made of a support bone.

⁴⁷In other places, "screws."

Disc. You are really wonderful. For above this little bridge and beyond the [larger] bridge the string certainly cannot vibrate. You mean, therefore, that the string from the nut to the end is just as long as the neck, right?

Prec. That is right. Now, take a violin or a viola, or, (better yet) a violoncello, and lay it down on the table with the neck to the left and the body, where the bridge is placed, to the right.

Disc. I understand. But for the past two years our violoncello has had only one string.

Prec. Even so. For now we do not need anything more. Then take or cut off a piece of twine just as long as the string from the bridge up to the said nut. Imagine that such a string or length of twine is a unison, be the note a C, D, or E, etc.

Disc. Since it is all the same, I will let the open string stand for C. What now?

Prec. Next cut the twine in two, take one of the two parts, and stretch it out on the string of the violoncello from the bridge, say from right to left. Thus the twine will reach halfway along the string.⁴⁸

Disc. That is quite natural. What follows from this?

Prec. Exactly at this half-way point, place the finger of the left hand firmly upon the string and stroke the string with the bow in the right hand, so that you hear the octave C above the open C.

Disc. Is that possible? In this way, an open, sounding string divided in the middle gives an octave?

Prec. Nothing but. If you then cut the remaining part of this twine once again into halves, so that it makes a quarter of the full length of the twine, then you can in the same way hear a second octave above the open C string. The eighth part of the string length will consequently give you a third octave, etc.

Disc. I will immediately try that tomorrow at home.

⁴⁸One could, of course, also measure from the left to the right. That would be the same, if the violoncello were placed on the table with the neck to the right and the bridge to the left. However, I must present the boy with a certainty, so that I do not confuse him.

Prec. Further it is worth knowing that the unison is represented by 1. The octave by 2:1. The double octave by 4:1. The triple octave by 8:1

Disc. That seems to me to be quite natural, because I can make the triple octave with a 1/8 length of twine, a double octave with a 1/4 length of twine, and a single octave with a 1/2 length of twine. Will one be able, however, to produce other intervals in such a fashion?

Prec. Of course. All intervals without exception. For example, take a quarter of the string or a half-length of twine, place that quarter three times on the string toward the left hand, and put your finger and bow on it: thus you will have a fourth on the right hand. This fourth is designated with numbers as 4:3, or 3/4 of the length of twine. Further, take a new piece of twine, that is, a new string-length piece, and cut it into **three** equal **parts**, so that two of these parts, placed in the same manner on the right, makes the fifth sound. Its numbers are 3:2, or 2/3 of the twine. A length of twine cut likewise in five equal parts, of which four parts are taken, gives the major third.

Disc. Would you be so good as to divide an entire octave by these numbers. I want to measure this quickly at home.

Prec. Why not? Just look:

The fifth 3:2
The major sixth 5:3
The major seventh 15:8
The octave 2:1

Disc. I see clearly that for the major second I must cut the twine into nine equal parts and use eight of them to measure. But why have you added "or the large tone?"

Prec. In the first place, you know that the major second from the unison, say, counting from the bass note forms a whole tone, and exactly in this way the word "**tone**" is distinguished from the word "**tonality**." How much one is accustomed to say that D major is a lively tonality, etc. On the other hand, 9:8 is too high, sharp, and impure. Thus, some people define this major second as 10:9, which is called the small tone. Now because this 10:9 is too small or flat and, on the contrary, 9:8 is too large, so must one here, in order to find the middle between the two, come to the rescue with

fractions.⁴⁹ Measure away, you will hear it. And so it goes also with the intervals that one wants to temper upward or downward.

Disc. Our neighbor Hanserl sang all notes so flat that it was secretly so painful to me that I actually often wanted to help him with a screw-jack. And when my lord sometimes wanted to raise his pitch by pulling on his ears, then he screamed a half-step too high. Would one not have been able to correct him with such fractional numbers from rational calculation?

Prec. No.⁵⁰ It is already in the blood, like the false fingering of many instrumentalists. For I have known similar old singers who were very fine excepting this fault of nature.

Disc. If, however, such a singer pleads that he sang according to the downward-tending rational calculation?

Prec. He neither knows nor believes, for all eternity, that he sings too low. I will give you an analogy. Someone who from birth onward has no regular beat in his head will always beat in time to the music and will tap his foot. Why? He thinks the other people are wrong and are confusing him, just as an intoxicated man holds the other people to be drunkards. Years ago, many Italians stomped their feet heavily in the theater⁵¹ to correct the orchestra.⁵² They did it, however, only to conceal their ignorance and error⁵³ and, consequently, to put down people who have learned what is right. For this reason, they are at present certainly believed little or not at all in Germany.⁵⁴

⁴⁹I do not want alert the boy to the so-called comma, 81:80, much less its abundant comrades. ⁵⁰<Nobody can deny what nature gave.>

⁵¹Theatrum, a stage.

⁵²Orchestra: the place in front of the theater. By this, however, is generally understood as a kind of strongly reinforced instrumental ensemble.

⁵³<One's destruction is another's birth.>

⁵⁴One hears, however, what an Italian, himself, said, namely the count Santi Pupieni, in the first volume of his critical letters, page 74, line 27. It says, "Today the title of virtuoso is given paradoxically to female and male singers, especially to *castrati*, although they are the most arrogant, lascivious, and ignorant people on earth, etc." However, if he understood more of them in the world than he had met, he, himself, must have been certainly the biggest ignoramus in the world: that in Germany a nation is to be found where there are people who yield nothing to the most cunning Italians, such a man cannot know.

Disc. If only there were not such disloyal and impudent flatterers in our midst! But because one can let the open string stand for a C, D, E, F, G, A, or B, would you not want to put the following numbers on the following scale for me, i.e.



Prec. You should have said that to me right away at the beginning. Now look:

Unison 1	Fifth 3:2
Octave 2:1	Fourth 4:3
Minor seventh 9:5	Minor third 6:5
Minor sixth 8:5	Second, or small step 10:9
	Unison 1

[23] However, if you would want to set out this scale on the same open string an octave higher, then it looks like this:

Octave 2:1	Double fifth 3:1
Double octave 4:1	Double fourth 8:3
Double minor seventh 18:5	Double minor third 12:5
Double minor sixth 16:5	Double major ninth 9:4
	Octave 2.1

Fux designated the double minor seventh (*septimam minorem compositam*) with the numbers 9:5, which misprint Dr. Mitzler has overlooked.⁵⁵ See in the Latin edition, page 33, and in the German, page 51. There is really no shame in that. If today or tomorrow you find some completely idle and boring hours for this, you can, in order to save twine, also measure the intervals at your leisure on the violin with a ruler made out of paper. I, however, stretched a wire on a yard-long plank instead of on a violoncello, violin, etc., a little raised so that it could be sounded. Such a plank is called a monochord (*monochordon*), because it is an instrument with one string. Some time later I gave the plank to a carpenter to have it fitted with underbody and sides and also with seven tuning screws to draw seven strings. This was, therefore, a *heptachordon*, or a seven-stringer. Then I tuned all seven strings in unison together purely, so that I could mark all the half, third, fourth parts, etc., upon each particular

⁵⁵Yet it is already enough that he should have had the goodness to translate this splendid book into German.

string on the plank. For this purpose I bought a compass (instead of a length of twine). I also had at the time about a dozen rational calculation books lying around in order to consult them. However, I soon grew tired of the compass and ruler.⁵⁶

Disc. It is wonderful and again wonderful that one can measure pitches and can point to them from a distance with fingers. Can one, however, produce harmony, let us say a full-voiced song, with twine or compass? Prec. Yes, indeed. But one must first already know what a harmony is.⁵⁷

Disc. But one cannot prove with the compass why, for example, the fourth is resolved to the third. Why does a twosome generally work better than a threesome in metric order? Why does one create variations in tonal order just so and not otherwise?

Prec. No, I say to you. For I have explored [the topic] and must now regret the time that I have spent on it uselessly. At the same time, I will gladly grant such an undertaking to a person who receives both his meals and his livelihood directly from God, in order to avoid idleness to some extent.

Disc. There are, however, credible people and books that announce explicitly that one can compose mathematically without understanding music beforehand or without having learned to compose.

Prec. I assure you, however, on my honor: [that stance] is fundamentally wrong, and there is no truth in it.⁵⁸ I know well that there are such foolish Passau-Angels who let themselves be burdened by such mythologies. Years ago I deplored that scholar who could produce various harmonious intervals from the relationships of the numbers in architecture. Namely, he took 1:1, 2:1, 3:1, 4:1, 5:1, 6:1. Then also 3:2, 4:2, 5:2, 6:2, as no less 4:3, 5:3, 6:3. However, as he also wanted to use 3:2, 5:4, 6:5. and 5:4, 6:4, 7:4, likewise

⁵⁶Because, beyond admiration, I found nothing else.

⁵⁷Some mathematicians can certainly, at least, give a plausible explanation for a new mechanical trick, which another, who is naturally born to it, has discovered.

⁵⁸I have certainly also often heard it said. In fact, two impressive men once persuaded me that they happened to know one such knowledgeable composer. However, once I began most humbly to wait upon him [the composer] and took the opportunity to ask him about it, he began to smile and entrusted me with the matter, by which it came to this false rumor. I would not have the boy read so much of this material or even to read anything at all, if I were not so often affected by such misconceived works. I consider myself bound by my own conscience, in this respect, to warn the poor boy so that he can deal with this fellow cleanly and with caution in the future.

5:3, 7:5, 9:7, and could not thereby derive any shadow of harmony, he became sick over it and died.⁵⁹ What is funny about this is that there are people who since then maintain and swear by stone and bone that he was able to compose. There is, of course, certainly a difference between composing and composing, just as between painting and painting. Even little children can compose as well as paint. For *compose* generally means merely "to sweep together."

Disc. With your permission, another completely different joke occurs to me just now: our Philip was so angry in the court tavern that he became sick about it. For the Urbsstädter said there publicly that the harpsichord was the emperor of all instruments and that the violin and other such instruments, on the contrary, could be considered only as underlings and servants because they have no full harmony. Philip answered this in the greatest heat, thus: I know quite well that not only you, my lord, but all harpsichordists without exception, NB, whom I know, are blinded with these arrogant thoughts. But they should consider that a harpsichordist owes a considerable part to the skill of he who purely tunes the harpsichord. [24] A violinist, by contrast, must study a very long time before he learns to finger purely. Also, one cannot know immediately whether a harpsichordist is born with an innate sense of harmony, until he shows, in a violin concerto, that he does not finger incorrectly. A violinist can play fifths purely; they, my lord, must let them slide downward. Do you, perhaps, have reason to be arrogant because you can put down ten fingers at once and let both hands help each other? Now on the common harpsichord, where are the held notes? Where are the *forte* and the *piano*? After all, these make up a key part of a song? Not withstanding this, I tend to attribute more skill to their instrument than they themselves do. Hopefully they will consider it no special skill to have selected this instrument in preference to others, or perhaps had to select it for the sake of [earning] bread. In short, you really have no good reason to call us violinists "scratchers," if you do not want to be called a "rattle." My lord! Learn rather to compose better violin pieces, for your creations are so offensive to play that one....

Prec. Alas, such base squabbling! I know, here, a young person who squeezes out with the Jew's harp⁶⁰ the most artful songs as clearly as one could ever wish. And, in consideration of his instrument, I consider him to be a far more

⁵⁹His *symmetria* and *eurhythmia* would, for a certain reason, likewise have helped him very little with this.

⁶⁰Called "mouth harp" by some.

⁶¹The boy would have me come around with this corny story, because I myself play a little violin and harpsichord when necessary.

capable master than the Urbsstädter and Philip.⁶¹ To return, however, to our previous conversation, I also regret the misery of those who call themselves *compositores theoreticos*,⁶² and on the title pages of their books allege that the kernel of composition is to be learned only from rational calculation.

Disc. These are even worse than the pickpocket, because one loses both time and money in addition to one's effort. The desperate compass harmonists! But, but, what does Fux think of this?

Prec. He agrees with the Roman orator,⁶³ who says, **"One should not apply too much industry and put too much work into obscure things that are not useful**." See in the Latin edition on page 34 and in the German on page 51. Thus I am surprised that a foreign but otherwise very famous composer did not deviate from composition until in his old age and dragged himself into his grave with rational calculation.

Disc. That is really astonishing. Otherwise I would almost have formed the suspicion that all compass harmonists sought to improve only their poor natural talent for music by means of rational calculation. But when and by whom was rational calculation invented?

Prec. By Pythagoras, who lived about 530 years before the birth of Christ.

Disc. Did the Dorian, Phrygian, Lydian, etc. also have this rational calculation?

Prec. No. For I only know at this point that the Lydian mode was already common 688 years before this invention.⁶⁴

Disc. Thus one should have chased away Pythagoras.

Prec. Not on your life! We must be ashamed, rather, to honor him, an unbelieving heathen, as having discovered a miracle of the creator. Dydimus,

⁶²*Theoria*, mere consideration without real practice. For one can consider the rational numbers of harpsichord tuning without being able to tune the harpsichord purely. Another theory or consideration belongs to composition, which, however, must always be tied properly to practice (*praxi*). One perceives this connection in the compositions of the greatest and most famous masters.

⁶³Cicero.

⁶⁴<As the rule of the Lydians began in the year 2835> [B.C.]. Pridle Non. Dec. *Consumto prando*. ⁶⁵Of course, many want to maintain that Zarlino was the first one who improved the temperament of Pythagoras. It is of no consequence to me, beyond the fact that I gladly give this honor to Dydimus, for it really means the cattle of darkness are smarter than the cattle of the light.

likewise a heathen, improved Pythagoras's tuning only 500 years afterward.⁶⁵ For he flourished 38 years before the birth of Christ. This Dydimus is said to have written 4,000 books.

Disc. Then either he must have lived very long, if the books were large, or else the books must not have been of much worth.

Prec. Could he, then, not also have copied off some other books, like the majority of compass harmonists do? I say the majority and not all. For we must prop up one or another of them so much that we are never in a position of having to untie their shoe laces.⁶⁶

Disc. I believe everything you say. Had he only explained temperament in writing fundamentally, clearly, and more concisely (as you are doing for composition). At least I would like to have some small understanding of it. But first a question: Our Hansmichel knows how to say so many Latin names that he immediately makes me feel bad, because I can neither answer him nor learn anything from it. He calls, for example, the octave *diapason*, the fifth *diapente*, the fourth *diatesseron*, the sixth *hexachordon*, the seventh *heptachordon*, etc.

Prec. These are actually Greek.

Disc. However, I also mean the following, e.g., *supertredecimpartiens-trigesimas-duas, superoctodecimpartiens-quadragesimas-quintas*, and several hundred of the like, none of which can I find in my grammar, which I must study at home. Is perhaps something hidden behind such names?

Prec. You are not clever. There is no more hidden behind it that than there would be if I called a poodle "Perucca" and his trimmed tail "Apostroso." In this case Hansmichl is, consequently, too clever by half as those in one or another country who foster the habit of saying, "He is a cellist," instead of "He is a [25] violinist." It is perhaps already enough for these people if they only find *chelys* defined as a fiddle⁶⁷ in the Frisii dictionary. Yet at the same time, the Greek word *chelys* means "tortoise shell" in German. To be sure, the violin has much similarity with a tortoise shell; a lute, however, has even more. For that reason a lute is called *testudo* in Latin.

⁶⁶I did not know why I should make myself their enemy for nothing and concerning nothing. ⁶⁷*Fides*. Which also certainly means also only the strings themselves. The French name the violin according to the Italian augmentative, *violone*. For that reason one could almost think that they came to it with their music very late, because they write and say *violon* instead of *violino*. Disc. How beautiful would it not be if each person stuck to a single language! For my lord, himself, always says, "Many languages, little learning." Lord von Brunnborn, the son of our gracious lord judge, speaks Latin all the time, for he was recently newly minted as a doctor. On the contrary, our village quack cannot cure people other than in German. The latter, on the strength of his profession a very eloquent gentleman, continually burdens the former with doubts. Only yesterday he asked him again whether the life spirits manipulate the fruit only with fingers or with another instrument, or whether it performs such a furious conceit by itself as when a woman sometimes misjudges, just as, unfortunately, happened to my mother, who prophesied it four months ahead of time? And why an egg becomes hard when cooked, while, on the contrary, other food becomes soft? Whether the goldsmiths, perhaps, even call their *aurum putabile* for that reason among others a philosophical egg? He wants to conceive only a halfway reasonable explanation of these and a thousand other questions, for he believes, anyhow, that no like-minded scholar in the world knows a genuine *razzionem fisicam*, etc. Lord von Brunnborn interrupted after this: "It would be easier for him without exception to dispute about all the sciences with his fellows in Latin for fourteen days one after the other than to resolve and to answer a single such bad question in German."

Prec. Shame on you! You are much more garrulous than your barber outside. **Our conversation up to now was only about the twine**.

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Disc. But may I not rub one and another thing under the nose of the Urbsstädter in the future? For he holds himself above the greatest masters, who do not have the time to make themselves familiar with the compass. In addition, he has written an entire musical name book or dictionary, in which he gathers all the musical deeds, e.g., of my lord and of a thousand others like him, whose births, lives, and deaths are told in great detail. Only he either leaves out the widely famous chapel master in Opolisburg and many other upright musicians, or he looks for nothing at all praiseworthy by which to remember them.

Prec. And why are you worried about a big man, you small boy, even if a mosquito bites him on the sole of his foot?

Disc. However, he would have without fail put you in the dictionary, too, had he in fact not had so many issues with the first chapter. For he recently laughed again even about the round Θ , which sign since then has already

Example 4	18.
i	1,1
	2
. 6	- 3
- 24	- 4
	5
720	6
	7
40320	
302000	- 10
3026800	- 11
39910800	- 12
4/9001000	
87178001000	- 13
8/,1/8291,200	- 14
130/0/4308000	- 15
20922/89888000	- 10
35508/428090000	- 17
0402373705728000	- 18
121043100408832000	19
\$100004217170040000	- 20
1194000797777767767767767	- 22
25852016728884076640000	- 22
62044840173888449/0040000	-24
15511210042220085084000000	- 25
493291461126605635584000000	26
1088886045041835316076800000	27
394888344611713866501504000000	28
8841761993730701054543616000000	20
265252859812191058636308480000000	30
8222838654177922817725562880000000	31
26313083693369353016721801216000000	32
8683317618811886495518194401280000000	33
29523279903960414084761860964352000000	34
1033314796638614492966665133752320000000	35
371993326789901217467999448150835200000000	36
1376375309122634504631597958158090240000000	37
52302261746660111176000722410007429120000000	38
2039788208119744335864028173990289735680000000	39
815915283247897734345611269596115894272000000000	40
33452526613163807108170062053440751665152000000000	41
140500011775287989854314260624451156993638400000000	42
6041520306337383503735513206851399750726451200000000	43
205827157478844870804362581101461589031963852800000000	44
1190222206054801945019031014950577150043837337600000000	45
550202215981208894985030542880025489290105175296000000000	40
124120155025260726728622800429043551530119/990919/032389120000000000	4/
68281864024267566872050156224904/3/33/50365214803540///0000000000	40
20414002201212872904051260916604160916606176094187764762060210000000000	19
394149932911337894301200610004/0604437704130890051200000805080	2010

often put me in mind of a new theme. With whatever difficulty this invention poses, I will exert all the more industry on it, although it cost me a whole bundle of paper. For I notice that in composition, as also in music generally, one can set everything right with variations.

Prec. One does not have to be so wasteful with paper, either. You seem to me just like that physician to whom the commander, in whose service he was, said, "He should go to each of the other commanders with help and advice in hand. Because of a completely unknown plague in the barracks, alas, many soldiers have already died of it." The former answered, "Your Excellency, do not trouble yourself about it; I will determine the cause of the sickness, even were the entire army to succumb to it."⁶⁸ Now I will explain the round sign Θ , by which the art of permutation⁶⁹ was understood in the first chapter. I know well that you also learned to multiply from your lord in school. Perhaps, however, the following multiplication, etc., and duplication is not yet known to you [Example 418]. Your first name is Jacob, and your surname is Rab. Now Rab has three letters, namely R, a, and b, which three letters can be changed around in six ways. For I might say on account of multiplication: 1 times 1 is 1. And thus 1 cannot be rearranged. I say, however, 2 times 1 is 2; thus I see that 2 can be rearranged in two ways. For example, ra and ar. I say, 3 times 2 are 6, which elucidates why, for example, the three letters in your surname can be rearranged in six ways: rab, rba, arb, abr, bra, and bar. In order to spare you, I will undertake to multiply out the numbers from 1 to 50, shown [in Example 418], in order to demonstrate the numbers that result from multiplying, as shown on the left hand. [26] Whether this table of numbers is called **Encyclopedia**, or the key to all sciences, or whether one or another Sophus holds it in contempt, or whether the recently published very important Cyclopedie or Encyclopedia has opened the eyes of many again or closed them even more completely, I do not even want to know. I only know what it has done for me and that it has been of the greatest service.

[27]

Disc. Thus, in this type of multiplication, I must once again multiply what results on the left hand by the number following on the right hand and say: 1 times 1 is 1, 2 times 1 are 2, 3 times 2 make 6, 4 times 6 make 24, 5 times 24 make 120, 6 times 120 make 720, etc.?

⁶⁸Ut refert D. Wunger Tymp Tatisp.

⁶⁹Ars permutatoria. De arte combinatoria, or, the art of combination, of which I will relate something tomorrow.

Prec. Quite so. As you see, I have multiplied out from 1 to 50 in just that way.

Disc. Thus, if my name were not Rab but rather named "Rabe" with four letters R-a-b-e, that name R-a-b-e could be rearranged twenty-four times, and thus, simultaneously, each of the four letters can stand at the beginning 6 times?

Prec. Quite so.

Disc. I will try that out quickly, e.g.

Rabe	Aber	Bare	Erab
Raeb	Abre	Baer	Erba
Reab	Areb	Brae	Ebra
Reba	Arbre	Brea	Ebar
Rbea	Aebr	Bear	Earb
Rbae	Aerb	Bera	Eabr

It is really true! Your are right. The four letters remained the same but were simply switched around. Thus my baptismal name, Jacob, because it consists of five letters, can be switched around 120 times, and, furthermore, each of these five letters can stand at the front 24 times? And, thus, can, as I see in the multiplication table, 6 different things [be switched around] 720 times. For example, can Jacobus, with its 7 letters, be switched around 5040 times and each of the letters stand at the head 720 times? And so on with all of the others?

Prec. Certainly. For that reason the switching around can go on forever, as the numbers prove. Just as the ancient German verse says:

Es steckt in jeder Sach' ein gewiss gemaass und ziel, wo nichts kann möglich sein zu wenig moch zu viel. (Everything has a certain appropriate place and purpose, Where nothing can possibly be too little nor too much.)⁷⁰

I believe that the druggist and the gracious lord doctor could make use of this art in order to mix many thousand million combinations out of *cold*, *hot*, *moist*, *dry*, and twenty more things. Also by the cooks, in order to cook up

⁷⁰And even here, perhaps, the Latin verse still may be best suited, as "<There is moderation in things, and there are certain limits, beyond which no good can be found>." It can find its place tomorrow in the art of divination.

their foods in so many different ways. Furthermore many a roguish innkeeper may have the benefit of this method in order to mix his wines together, but what are you trying to say to me with that?

Prec. Just as letters, so can musical notes be mixed, namely 2 notes twice, 3 notes 6 times, 4 notes 24 times, times, 50 notes as many times as shown in the immense yea, as it were, inexpressible number sequence at the end of my multiplication table.

Disc. That is astonishing! I will try it at first, however, with just two notes, namely *C* and *D*:

Example 419.



Now I will change around these two notes, namely to set the *D* in front:



It is true that these two cannot be rearranged more than two different ways. Now, however, with three notes, for example, *C*, *D*, *E*, e.g.



That is really a sixfold permutation! Now I will change around four notes, C, D, E, F, in 6/8 meter, e.g.



[28]

Prec. You have carried out your task very well. Each of the four notes remain in their designated place, with proper order, namely the two quarter notes remain on the C and the E throughout, and the two eighth notes, on the other hand, remain on the D and the F.

Disc. However, I see that many of the permutations yield a melody that is not of much use but rather too foreign.

Prec. That doesn't matter. One ought only to select the best of them. At the same time, music lovers are constantly asking for ever stranger ideas. And besides, no composer would be needed any more. However, if I look at just these four notes, or rather your twenty-four permutations [of them] from before, choose a measure from them here and there, and if I combine them with one or two completely different measures, I can have twenty-four beginnings of a theme in a twinkling of an eye. In order to prove this to you visually, I will mark the newly added measures with a \clubsuit but leave those, however, that already have numbers assigned to them, e.g.



Disc. It is true that you have taken the first and third measures from my permutations. I would have recognized them even if you had done it without numbers 1 and 7.

Prec. I will continue in this manner, e.g.



Disc. And here I see the second and eighth of my permutations, which now form the first and fourth [*rect.* third] measures.

Prec. Now be still! I will derive something from each of your permutations, e.g.



Look, now I have already [taken care of] twelve of your permutations, as you see. Because, however, none of the other notes begins with the tonic, *C*, I will place a completely different measure at the beginning and at the end, in order to use the remaining twelve permutations in like fashion, e.g.





[29] Disc. That is astonishing!

Prec. That is not really astonishing but completely natural. You will, however, hopefully recognize the arrangement of the notes in 6/8 meter, e.g.



Disc. I know. Such arrangements are familiar to me from the first chapter. [30]

Prec. If I now likewise change around the notes of the newly added measures and combine them with your permutations, I could derive several thousand themes from them in an instant.

Disc. I believe it. For as I see in the multiplication table, a mere eight notes can already be changed around in 40,320 ways.

Prec. And just as the notes, so entire measures can be changed around, to the extent tolerated by tonal order and melody.

Disc. I understand that, too. Namely, five names, e.g. Jacob, Philip, Hansmichel, Gerhard, and Adam, can be changed or shifted around 120 times just as if they were five single letters.

Prec. But if one wanted to change around these five names as well as their letters, a very large number would result, once again.

Disc. A very large number to be sure. Because in these five names there are almost more than twenty letters, the number would run not into just millions or billions but trillions. One might merely count up the letters and find the number in the table. But it seems to me the mere concept of this art of permutation is sufficient to remind me henceforth of a new theme and to vary my compositions at my discretion in thousands and thousands of ways. Formerly I had to reflect a long time in order to compose a fermata cadenza (during which the accompanying instruments remain silent). Now, however, I will always just take the next best measure out of the aria, which will provide me with an introduction to it. Indeed, that would yield twenty cadenzas from one measure from a single aria. And because I already understand a little about figured bass, it will not be difficult for me to likewise sing and to vary one aria twenty times, one after the other. My lord will be amazed, for he has thought quite often how it is possible that, after so many things have been composed in this world and are still being composed, all these thousand million musical pieces are nearly as different from one another as are men among themselves, whose outward appearance and feelings are so various. I won't mention enduring clothing styles. But painters, portrait artists, and generally all artists must have some form of these permutations in order to invent ever new things. I myself (although with difficulty) have made countless variations upon the first chapter, so that unfortunately I really began to be arrogant about it and to ascribe to my own abilities that which is merely placed there by nature, which now, thank heaven, I am learning by means of the art of permutation. Mustn't the orator also be well versed in this?

Prec. Without a doubt.⁷¹ I have been assured for many years that even the Greek heathen philosopher Aristotle invented and pondered all types

⁷¹Previously the youth called the fermata a *Ferma-Cadenz. Fermare*, indeed, means "to hold still." However, only the participants hold still. Beyond that, in some places, the fermata is also called Systema. It is also called Capriccio if it is carried out by an instrumentalist much longer than by a singer, and is, in this case, executed with wandering melodies. I once heard a violinist play a capriccio that lasted longer than the entire concerto. In proper German, this is called a "shot," from "one who is shot."

of syllogisms⁷² and indeed other innumerable superoctodecimpartiensquadragesimas-**quintas** by means of permutations, with the help of his unbelieving followers in the beloved garden house that lay outside the city of Athens.

Disc. Was it not he who invented gun powder?

Prec. No. He did not invent gun powder, but it is claimed that he drowned himself in despair.⁷³

Disc. How could the obstinate villain not have had the foresight to realize that God did not create the world and its people so that each one could shorten his life according to his own whim. But did he know, then, that, e.g., five, six, or more letters could be rearranged just so many times and not more?

Prec. The writer whose work I have here on this table is said to have doubted that.

Disc. You see, I mean that each of the following two measures can be rearranged 720 times, e.g.



[31]

Prec. The first measure can certainly be rearranged 720 times but not the second.

Disc. That is something new. And why not? Doesn't it have six notes just as the first?

⁷²Modos syllogismorum, cu suis figuris & c. ex his selecta 19 barbarta, celarent & c. Locos dialecticos & c. prima qualitares &c. &c.

⁷³I recently read in a little booklet (written by P. Defing, printed in Freyning) that he really died, like a regular heathen, in bed. Perhaps the tale about the drowning was only concocted to preserve his honor to a certain degree. Because he undoubtedly heard something of God's gospel and miracles but nevertheless trusted his concocted chimera more than building on infallible revelations. Some claim that he only began practicing music in his old age. And when a cheeky fellow threw this up to him as a weakness, he answered, "It is better to learn something than to know nothing." But it was much more likely that it was Socrates who answered thus. Both of them certainly understood music well.

Prec. Because the first have six different notes while the second has rather two alike, namely two *E*s, one still counts the 720 but must divide it by the number 2. From this division, 360 results. From this one can conclude that six notes, of which two are the same, can be rearranged only 360 times and under no circumstances 720 times.⁷⁴ If, however, *NB*, several or all sorts of like notes are found in a single measure, e.g.,



then one must look for an entirely new rule. For here in the first measure there are three *Cs* and two *Ds*. Therefore, I say that three can be rearranged six times and two twice. I then multiply these together and say: 2 times 6 make 12. With this 12, I divide the 120 (which 120 arises here, as usual, from the number 5 and arrive at 10. Thus, the first measure can be rearranged 10 times and not more, e.g.



Because there are, in the second measure, two *C*s, two *D*s, and two *E*s, namely, six notes, which can usually be rearranged 720 ways, I thus multiply these 3 times 2 by themselves and say: 2 times 2 are 4, and 2 times 4 are $8^{.75}$ With this 8 I divide the 720 and arrive at 90. Which the correct permutation of the second measure \clubsuit demonstrates. In the case of the third measure $\clubsuit \ \blacksquare$, I have two *C*s, two *D*s, two *E*s, and two *F*s, so I multiply these four 2s together and say: 2 times 2 make 4, and 2 times 4 make 8, and 2 times 8 make 16. With this number 16 I divide the 40,320, which usually arises from the

⁷⁵I do not consider it necessary to call this 8 a <cube, or solid>, under any circumstances.

⁷⁴Once, when I was in Poland, I rearranged the 6 notes cc dd ee for all of 4 weeks, according to this rule, which Kircher and, in addition to him, Taquet considered to be a commonplace. And I could still never find out the true number [of permutations], until I finally got a hold of the algebra books by the abbot Prestet, where, right in the first volume, on page 134, I notice the error of the two priests. Then I arranged it as it can be seen above at the NB.

number 8 and arrive at 2,520, which is the true number of permutations of the eight notes in the third measure $\mathbf{E} \mathbf{E}$. You can try this at home at your leisure.

Disc. I notice, thereby, that three, four, five, or more notes, when they are all the same, cannot be rearranged, for example, these four:



Tell me, however, how many ways can the following be rearranged?

Example 433.
\$ t:
A _0_2_E_E

Prec. These four can be rearranged in twenty-four different ways, because they differ from each other in respect to their duration. For one is a whole note, another is a half, the third a quarter, and the last an eighth note.

Disc. If that is so, I will immediately analyze something in which fifty different notes are to be seen, e.g.



Allow me, just for now, to call this thing a minuet. There are, as you see, four *D*s, both below and above the fourth line, consequently all available for permutation, as are all the rest of the notes.

Prec. Indeed, I count 50 completely different notes therein that allow permutations throughout, because, e.g., one A is a quarter, one is an eighth, one is low, and one is higher, and so on with all the rest.

Disc. I know well that most of the permutations would really sound quite strange. But how long will I have to work with this?

Prec. You are very foolish, even after you have the monstrous numbers of the multiplication table before your eyes. Look, in this minuet there are two systems; therefore ten systems [would fit] on an entire page and forty on an entire bifolio, or exactly twenty permutations. I will now assert that if you were able to write ten bifolios per day, that would then be 200 permutations per day. Thus, in a full year you would produce 73,000 permutations. Now if you could live a thousand million years, always thus continually permuting, and a thousand copyists were to assist you throughout this long time, these permutations that are [hidden] in your minuet. Just do a little of the multiplication and look at the size of the number next to the 50 in the table.

Disc. Astonishing! In this way the entire earth could be covered with this single minuet, that is, with all its written-out permutations, and, in fact, so completely that the many books of paper would in the end, in fact, have to fall down on the earth.

Prec. On the other hand, they should not fall, for a certain writer⁷⁶ has said that only with the 23 or 24 letters of the ABC's, so many different books could be written that entire surface of the earth would not suffice if each book were a quarter-foot thick, three-quarters wide, and a half-foot long. In another place, he shows that if the books stood upright, seventeen circumferences of the earth (land and sea together) would not be long enough. Whoever has any doubt of the one or the other and has the time, can take the time to check. The two of us will now let lie these books in all their length and breadth. **And that was something about the art of permutations**.

Disc. I have taken such delight in this art of permutation or art of invention, that I have the desire to talk another full half-hour about it.

Prec. You will not be able to forget about it anyway. But pay attention! For we now are really beginning with tonal order. Do you know how one recognizes a tonic note?

Disc. Certainly. By the beginning and especially by the last cadence. For one can often begin instead of the tonic, namely with the fifth, e.g.

⁷⁶*Guldimus*, 1.4, *de centro gravit c*. 5. To be sure, to this also belongs the art of the fugue (*Ars combinatoria*), which, if God grants us life and good health, we will deal with tomorrow, and of which the youth will be amazed over and over again.



Or below, also with the fifth, e.g.



Now all these openings are in C, regardless of the fact that they make their entrances with G. Not long ago, I blindly believed that because of such a first note (which, counting from the tonic is five, thus the fifth) the tonic of such a piece of music must be G and not C, unless I saw the last cadence finish in C. Since that time, however, I catch myself in an instant, for the following notes reveal it to the ear quite soon. If, however, the piece began with the tonic, I had no doubt about it anyway, e.g.



[33] These openings seem to me clearer, more natural, and consequently more emphatic that those that began with the fifth. You may believe me or not.

Prec. Not only will I believe you but I agree to it myself. Now may I know whether you understand this also in the key of D?

Disc. And why not? Look, e.g.



That was in the key of D with the major third. And now I will also take the same key with the minor third, e.g.



Prec. It was certainly not necessary to form this womanly [minor] key, because it is begun just as the manly [major] key.

Disc. In other words, do you call the key with the major third "manly" and the key with the minor third "womanly?" Perhaps because the major third is clearer or more understandable than the minor third. For men (as my lord tends to say quietly and with a sigh) are created more upright and understandable than are women.

Prec. Be careful! Not at all because of that. But rather because the minor third sounds much gentler and more flattering to the ears than the other.⁷⁷ Furthermore, I have only once seen this nomenclature in a two-hundred-year-old Latin book. Please continue, then, to begin in all the other keys in this way.

Disc. Mercy! Why do you want to torture me so long with all of this writing? No doubt every discantist knows that every key is formulated in this way.

Prec. Now just form the previous examples only in the key of G.

Disc. I already understand you. You believe that I am so foolish as to begin too high, e.g.



⁷⁷For that reason I still do not say "hard D, soft D" when I mean an overall tonality.

No, look: I begin this way, nicely in the lower register, because the violin would come to be, thus, too high, e.g.:



[34] And such a transposition a discantist can make just as well as you, with all the pitches and keys. At one time, you will call the five lines "a staff" and at another time "a system." Tell me instead, if one cannot also begin with the third degree?

Prec. No. I advise you to do this neither at the beginning nor at the cadence. However, I will explain to you a critical exception to that, especially in many-voiced pieces.

Disc. The evening before last I heard, outside on the bench beneath my window, two drunken women who had a bottle of brandy with them, and they began such a pretty song with such thirds, that I began to fall asleep over it. I will write down for you in passing only a verse of it, e.g.



Prec. Such songs (always including the text cautiously) may well put to sleep such a wordy ne'er-do-well, who takes the third for a perfect consonance.⁷⁸ And you are also not worth a kreutzer more than those aforementioned poor wretches, if something so tasteless puts you to sleep. I regret that I ever stirred my quill on your behalf.

Disc. Oh no, it didn't please me but rather my wife. Look, the minuet from Swabia also begins with the third, and in addition some incompletely stirring measures follow each other; but nevertheless overall it pleases people quite well. The beginning sounds this way, e.g.



Prec. Indeed, people generally like whatever is unusual. But if this and similar melodies were so good, even a Swabian quintessence, we must still always abide by natural rules.

Disc. However, I also have seen the following opening, NB, in the music of a great master, e.g.



It was, however, preceded by an Andante, so that even this opening did not sound bad. But I remember having heard an opening on the sixth [degree], and to be sure by a very great master, e.g.



[35]

Whereupon all the rest of the voices joined in unisono, or unison.

⁷⁸That even decent people actually search out such bleak things! One ought to rap them on the knuckles a little when they copy such stuff (one from the other), in order, perhaps, to make those who walk blind and those who hear deaf.

Prec. (The youth is really driving me into a corner.) You are right; one occasionally even sees arias that begin on other than the tonic or its fifth. Such an accident or idea always happens with forethought. And this either in view of the text or of the <theme> itself, etc. The orators tend to call such an extraordinary beginning in their orations *ex abrupto*, that is, abrupt, unexpected, unfilled, even imperfect, etc. **This** *ex abruptio* **suddenly imposes an astonished attentiveness upon the listeners**. You, however, can hold off on this for a few years yet and thereafter compose one such *ex abrupto* every two years. However, I want finally to allow you to begin with the third, etc., if, preceding it, a cadence were also to be concluded with the same pitch, e.g.



For remember: a fugue should never be started with other than the tonic, but rather so:



Provided that either the entire piece stands in the fifth, or else if it only closes with a full cadence, or else with a half cadence⁷⁹ on the fifth, then one can allow the fugue to begin quite well on the fifth, e.g.



⁷⁹Which is generally called a "church cadence," because one seldom makes use of this outside of church.

Disc. Thus I could even begin with the fourth if, for example, an Adagio or an Andante [ending] on such a fourth or even on the fifth were to precede it. In order to make my opinion clear to you, I will set down only the last cadence of such an Andante as follows:



Therefore, this Allegro, which begins directly with the note F, would be in the key of C. [36]

Prec. Were you to think up a thousand similar things, and were you to set them out with all care, no person would object to them.⁸⁰ **Composition exists in everyone's free will.** But do not fly before you have wings. Furthermore, the fourth is not an imperfect consonance but rather a dissonance.⁸¹

Disc. I remember having heard an Andante with one, two years ago, e.g.



Prec. Because it is an opening *ex abrupto*, either a church cadence, a fermata, or perhaps a short Largo in G must have preceded it. Furthermore this opening fourth [degree], F, which forms a seventh with the G in the bass, does not sound so bad as long as the rest is composed in a masterly fashion.

Disc. By the same master, I once heard an Andante that began with the third [degree], and pleased all the connoisseurs, e.g.

⁸⁰For, in this way, a fugue can even begin with the second, fourth, or seventh [degrees]. I have heard and seen this more than once.

⁸¹And, in fact, such a dissonance that many harmonists would much rather hear the major seventh (according to kind) with 2, 3, as well as 4 voices. It is indeed not yet the time to remember something definite about this irresponsible mirror-fencing.


Prec. Because you know every key very well, we will proceed to our principal task.

Disc. Have we not already properly dealt with tonal order?

Prec. No. That was only your first greeting, and way of saying "good morning." Now we will at last explain that amazing, long, third principal word. Notice that in the first chapter I explained two commas. Now, however, since you are ready to handle a bit more, I will tell you that the first of them was not a real comma (*Absatz*) but rather only a segment or caesura (*Ab- oder Einschnitt*).

Disc. What is the difference between the one and the other?

Prec. There are all sorts of caesuras but only two kinds of commas: one is called a tonic comma (*Grund-Absatz*) because it always takes its position at the tonic [i.e., it concludes with the tonic]; the second, however, is called the changing comma (*Änderungs-Absatz*) because after it a change (*Ausweichung*) of key always appears. Now it all depends on whether you are ready to grasp this difficult and useful material by means of mere examples. Otherwise I would rather not begin with it at all. If we rely on idle verbal explanations alone, we would spend an entire half-year without becoming any the wiser for it.⁸²

Disc. Since I was able to find myself within this subject in the first chapter, it will not be too difficult for me now.

Prec. I will use only the 3/4 meter most of the time, because experience has already taught me that you know well how to orient yourself in the other meters without the least trouble.

Disc. That is fine with me. Just begin!

Prec. We will also stay with the key of C, e.g.

⁸²Because we would have to think up far more names than the Latin poets for their poetic meters. Concerning this, see Scaliger, *Poet. Lib.* II. C. 4C. I just mean, for those who would not believe it now.



Now the tonic here is C, and because the fourth or last measure here has its location on C, it is, for that reason, called a tonic comma.

Disc. That is quite easy to understand. Look. I will show this comma even more clearly, e.g.



[37]

Prec. This is the conclusive tonic comma,⁸³ and . . .

Disc. Be still. I know that already on account of the first chapter, because it reaches the tonic note at the end. Pay attention. I will, myself, sketch some examples of conclusive and inconclusive commas for you, one after another. I begin with the foregoing two categories.



The notes of the conclusive tonic comma may lie either in the upper or in the lower register, e.g.

⁸³Perhaps I should have used the plural here: these are conclusive commas. However, although their inner essence as commas remains eternally immutable, its notes may be altered in a thousand ways, as will be made clear in the following examples.



Or they may even be varied, e.g.



Or in the high register, which is indeed one and the same, e.g.



Prec. Quite incomparable!

Disc. Now I will tackle the inconclusive tonic comma, which is, e.g.



Because this does not reach the tonic note at the end but rather only the third. Notwithstanding that, its harmonization is C, for the second violin can help to show it, e.g. [38]



What is more, my ear indicates to me, herewith, another inconclusive tonic comma, e.g.



For although the last note is a bit far from the tonic note (on the fifth, *G*), it nevertheless implies a *C* in the bass here, considering all the preceding notes. I will once again put the second violin part with it, e.g.



I will show them to you separated from their preceding notes, in the high register as well as the low, namely those that belong to the tonic comma, e.g.



Varied, they turn out scarcely different, as approximately thus:



[39] And that explains the duality between conclusive and inconclusive **tonic commas**, if you are satisfied with it.

Prec. My heart rejoices! I even thought, meanwhile, that it is no longer necessary to write out for you a chapter on the bass, so well have you done with it right away.

Disc. You must by no means think so, for I have simply followed my ear in everything.

Prec. Now I must say to you that all the notes after the tonic comma, be they short, long, thick, or thin, immediately hurry toward the changing comma, just as if the one kind of comma could not live without the other, e.g.



This changing comma is also called by some the questioning comma; the tonic comma, on the other hand, is called the answering or affirming comma, because the latter lends itself well to affirming words, etc., while the former, however, lends itself to questioning words of a text, e.g.



Because, in consideration of the text, it is so much more natural than if the question were to be expressed by means of a tonic comma in the following way, e.g.



Nevertheless,⁸⁴ one can object, here, that....

Disc. I cannot, in fact, agree with you.

⁸⁴One should not be so stubborn here, because the answering words, *Was ich kann, da zeig ich dir* ("What I can do I will show you"), is so bound up with the foregoing question that both, together, form practically a single essence of the question.

Prec. I really ask nothing more than to introduce to you the commas in their essence.⁸⁵

Disc. I believed that you were just teasing me, because it must be obvious to the world that the first example is better than the second. It is true that because of this my lord even prescribed for Hansmichel some exercises with «recitatives». He has, however, such a weak talent for music that he cannot yet grasp the lesson of why a melody is good, e.g.



My lord will not permit the first and especially not the last questioning comma $(\Psi \Psi)$, because the notes descend. [The last comma] seems to me, however, to be just as natural as all the others, although certainly not more natural.

Prec. We will speak about it tomorrow. [40]

Disc. Now, however, Hansmichel did not even understand that in the penultimate questioning comma, where the mark P is placed, as in all the following affirming commas, the notes are written this way only for the sake of the bass, but they are sung as follows:



⁸⁵Many discantists or, perhaps, even real composers may be opposed to the theory or philosophy of a [particular] text, or they may not wish to think about it at all. I, however, cannot help it that my ears were made like this. In general, each person will believe what he wants to. No one will fault me, I hope, for writing in this way about one thing or another simply because However, he is so clumsy that he precisely inverts the commas in relation to the text, so that my name, Jacob, could almost be ashamed of itself, e.g.



And thus, he sings the notes exactly as written here. Even less did he notice that when the text of a question lasts long, one must dwell upon the changing comma just as long. He goes, however, with the bass at every instant and without a single reason, even into the chromatic notes. And he did the same thing with the affirming or answering comma. He trusts himself to use neither quarter notes nor sixteenth notes to set [the text] beneath, in order to make the arrangement of the measures so much the easier. Why not? Because he does not know that a singer would pay no attention, but rather give more to the proper expression of the words. In two or three minutes my lord explained to me these things about which Hansmichel has doubts.

Prec. But we have the changing comma before us here, which has G in its harmony (with respect to the bass), and forms a fifth with it. It is no less conclusive and inconclusive, and can also be varied, e.g.



That was, therefore, the inconclusive changing comma with several variations. And now it follows in its conclusive form, e.g.



I have had neither the fortune nor the misfortune of composing for the theater. Many people wish that there were no theaters in this world. Each person has a right to his opinion. NB: This knowledge of commas belongs equally to the church [i.e., to church music].

Likewise in the low register, e.g.



Disc. Oh my! Why do you need to mention the low register, which is obvious. Something else occurs to me: I thought that the following would also belong to the [category of the] changing comma, e.g.



[41] or conclusive, e.g.



I will not even set down all the examples in the high and the low registers. You know that.

Prec. You are completely correct. I really would have forgotten this comma. It is called the incomplete changing comma because it usually presents the third of the chord only in the second violin, *NB*, when it is inconclusive.⁸⁶ If it is conclusive, however, [the third of the chord] can be presented in the first violin just as often as in the second. In order to find our way out of the fog, quickly compose some examples of it! In order not to have to use so much writing all the time, you may designate the conclusive and inconclusive **tonic commas** together with their variations by the sign \blacksquare and perhaps the conclusive and inconclusive **changing commas** together with their variations by the sign \square .

Disc: In the blink of an eye:

⁸⁶Concerning "conclusive" and "inconclusive" commas, see page 19 of the first chapter.



You would not believe how much the Θ overwhelms me, for example referring to the art of permutation. I trust myself to write out several hundred and more similar examples in a flash, were I only [42] to write out [further] permutations for one of these seven examples. But why should one waste time over it. I would be a poor discantist if I did not immediately recognize the two commas even from a distance. But tell me why you call the last of these a changing comma? Is it, perhaps, because it does not have the tonic *C* in its harmony but rather (counting from *C*) the fifth, namely *G*?

Prec. Not at all for that reason but because always immediately after it the key must be changed. Such a change or modulation (*Ton-Abweichung*) may hasten directly toward a cadence in G, or it may by all means simply hurry back to the tonic note, C, e.g.



Disc. I knew very well why you wrote the word "solo" at the end here. You want to imply, by that means, that these sixteen measures are an opening tutti or forte of an aria or, perhaps, a short concerto. Furthermore, such measures could form a respectable minuet if the repeat sign : $\|$: were placed in the middle.

Prec. I cannot even hear the mere word *minuet* without disgust.

Disc. That is just what I wanted to say. So, are the two tonic commas in this forte or tutti correct?

Prec. By all means. For, because the changing comma is placed between them, and the melody immediately strives back toward the principal, or tonic, cadence, such tonic commas do not seem at all superfluous to the ear.

Disc. But the second measure after the \Box -comma also seems to be a comma, and in particular a \blacksquare -comma in D, e.g.



Prec. No. This is merely a caesura. Because a twosome is not sufficient for preparing a comma. A foursome, on the other hand, is long enough for it, e.g.



Disc. Consequently, I may always only consider a foursome. However, because two \blacksquare -commas are allowed in such a brief melody, I might form, on the other hand, also two \square -commas, e.g.



[43]

Prec. Each of these two examples is just as bad as the other. For two successive \Box -commas would not only be called an offensive repetition,⁸⁷ but they would be such in fact.

Disc. And I have noticed it, not only now but also in many compositions. But I merely wanted to try them out on you. However, what if one of them were a complete and, at the same time, inconclusive \Box -comma while the other one were incomplete and, at the same time, perhaps conclusive, etc., e.g.



⁸⁷<Tautology>. This is unfortunately found in compositions just as often as in most orations.

Or the other way around:



Prec. The first example will perhaps please you better than the second. However, I would allow either only in case of the most urgent necessity.

Disc. You let far too little pass with me. I understand you well, however. You do not dare tell me to my face that both examples are no good. For what it is worth, I have guessed it.

Prec. That may be. You hopefully will leave me to my free will.

Disc. That is none of my business; I only know that the second of the foregoing \Box -commas is no good.

Prec. I tell you, however, it is good if, instead of the first one, a cadence in G were written, e.g.



Disc. Now my ears are finally at home. This example could really not sound better.

Prec. Two tonic commas rhyme⁸⁸ also in this way, e.g.

⁸⁸The word *Rhythmopoeïa* ("rhyme scheme" [*recta* "metrical scheme"]) will already be clearer to those writers who troubled themselves, now and again, merely to mention it in their expanded collections, than [it was] in the first chapter. What effort this requires!



[44]

Disc. That is a colossal fallacy. Did you not say, only five minutes ago, that all notes after the \blacksquare strive to reach the \square ?

Prec. I really should have added to that: "or to reach the cadence."⁸⁹ Look, then. Here it only makes sense if one wants quickly to compose an opening forte. Three or four minutes ago, however, it was my opinion that if one wished to compose a forte with more than sixteen measures, it could not be otherwise than this way. I will quickly set down for you the third principal model of which we will speak shortly, e.g.



Now you must remember these three examples as long as you live and have health. The first, which contains a *monte* ["mountain"], begins, after the \Box -cadence in G, with a cobbler's patch, which, however, is varied a little bit. The second (*fonte* ["fountain"]), after the aforesaid cadence, makes a caesura on D minor in order to form a tonic comma, namely in C, the tonic, by means of a repetition one step lower, and thereby to come back home happily with a **\blacksquare**-cadence. The third (*ponte* ["bridge"]), after the aforementioned cadence, continues entirely in G in order to turn back easily to the **\blacksquare**-cadence.

⁸⁹With all diligence, I waver back and forth a little between explanations, so that I may bring home to the Discantist by and by the need to sharpen his own hearing. Whomever does not want to believe it, him I cannot help.

Disc. I see this threefold difference clearly. And because C is the tonic here, and G is only a secondary pitch, one cannot call such a cadence on the fifth, G, anything but an changing cadence, for one must also take leave of it quickly. But since we should value our German mother tongue more highly than all others, why have you set Latin or Italian names to them?

Prec. It was done in haste this way; no harm is done by it.⁹⁰ I will have to remind you often of the three models only today. Look, I write the beginning at once, e.g.



Here, at the beginning, the \blacksquare -comma hurries toward the \square -comma. Thus your previous doubt is removed.⁹¹ The rest of the notes after the \square -comma belong to the *fonte*, namely to the second model.

Disc. Thus, the \Box -cadence can be exchanged for the \Box -comma. In spite of that, as I see it, a cadence and a comma are so very different from one another that they could be placed right next to each other, and nevertheless the ear could not be offended, while two similar commas have that shortcoming when they are placed one after the other. Now I will [45] set down Θ some trumpet or horn pieces according to the three models, but at this point with one and the same rather bad melody. For I am quite often opposed in these matters by the tower master in Urbsstadt, e.g.

⁹⁰*Monte*, mountain, to climb up. *Fonte*, fountain, to climb down. *Ponte*, bridge, to go across. I have still more useless words.

⁹¹A confident composer cannot tolerate a minuet with this \Box -comma instead of the \Box -cadence. Another composer, however, to whom such a cadence, perhaps, closes too strongly and conclusively for such a short piece, would rather hear the opposite, namely the \Box -comma. Furthermore, both examples are orderly, although the first also has its reasons.



Now, instead of a \Box -cadence, I will make a \Box -comma, e.g.



Prec. I said it, and you yourself have also said that two similar commas in succession do not sound good, and nevertheless you have set them here!

Disc. Because, however, the first is on the fifth, the second, on the other hand, is on the third, the ear finally will be able to tolerate them. Therefore, to please you I will make it better, e.g.



I will try this \blacksquare -comma also with a \square -cadence, e.g.



Prec. These four examples of yours are very well varied with respect to the *monte*. [46]

Disc. Now I will undertake variations on the fonte, e.g.



And now a \Box -comma instead of a \Box -cadence, e.g.



To vary this *fonte* this way may still work, e.g.



But the following would perhaps sound much too bad, because two similar commas would follow one another, e.g.



I will also try varying the ponte a little bit, e.g.



[47]

So that no two \Box -commas follow one another, I will now place a \blacksquare -comma in the second part.



The following, however, with two successive similar-sounding commas, would then, once again, not sound very good at all, e.g.



Until now I have been guided by your *monte*, *fonte*, and *ponte*, and at the same time by my ear.

Prec. Incomparable! Your ear exceeds nearly all the rules that I can give you for this. Above all, I am pleased that you doubt a little here and there, for this is the unique advantage in learning ever more thoroughly to explore the nature of composition.

Disc. Whether that is just flattery or real praise, I am only happy because you assure me that I now know the orderly passages for horn pieces. At home I will at once compose several hundred, yet for the most part in common or 2/4 time so that no one may call me a 3/4-time composer. If you, however, doubt that I am in a position to vary everything at will, I will quickly show you it with the last part, that is with the second half [consisting] of the *ponte*, e.g.



[48] Also with a \Box -comma, as far as the ear tolerates or requires it, e.g.



Prec. Stop it! Once you understand something about harmony and taste, as regards metric and tonal order, then you can always vary freely upon this.⁹²

Disc. Heavens! I would have now composed with zeal for two days in a row. I will, however, also, with your permission, set down a few **bad** and erroneous examples in order to make myself more secure about how they differ from **good** examples, e.g.



At first you see the \Box -cadence, which is so similar to the following \Box -comma in the second part that one could use such a comma itself for a cadence.

Prec. What if somebody told you that this is a repetition?

Disc. This is a repetition? [49]



⁹²<Therefore, music is nothing else but variation. It encompasses taste and expression, etc.> We have sufficient models today of the proportion of a whole, so that we no longer need any-thing from mathematics, except for the arts of permutation or fugue.

Look. I will show you what a real repetition is, e.g.



For one must consider more than just two measures, which are not unfavorable to repetition. Now I will set a **bad** example upon the *fonte*, e.g.



And now also complete, e.g.



If a hornist, etc., varied the first \square -comma, the error would strike the eye and the ear even more, e.g.



The following example would be quite **good** in a pinch, whether it belonged to the *monte*, to the *fonte*, or to the *ponte*, e.g.



[50]

For your three [examples all] begin the second part as follows, e.g.



With those variations it has, moreover, its own correctness, e.g.



And thus in more than a thousand ways. Could one not also vary the first part a bit?

Prec. Certainly. Perhaps once or twice a year one can use a \Box -comma at the beginning instead of a \blacksquare -comma \clubsuit , e.g.



And because the three Italian names did not please you earlier, I have attached the [German] word *Stieglitz* ["goldfinch"] here.⁹³

⁹³I have not written down these names for nothing. That will become apparent later today.

Disc. Never in my life would I have thought of this \Box -comma. It seems to me that it is nothing other than an *ex abrupto*, because here this key of C has not been previously established by means of a regular \blacksquare -comma. By placing the \Box -cadence in between, I could once again make a \Box -comma in the second part (although with completely different notes), e.g.



Prec. This example is, out of necessity, quite good. It would be better, however, if your ears were a little doubtful of it.

Disc. Your previous one is really better, because it has two kinds of comma and two kinds of cadence. In it I notice that such a \Box -comma immensely loves to have a \blacksquare -cadence after it. Therefore, I will try one in that way, and perhaps label it *Spatz* ["sparrow"], e.g. [51]



Prec. Instead of calling it a sparrow, you should have rather called it a bullfinch [i.e., a dunce]. To set two similar cadences in a row in such a short melody! What are you thinking? It is completely different if a cadence is repeated for its own sake.

Disc. Likewise I recognized, while writing, that it is too simple that way. But because the first part is good in and of itself, I can actually throw eight more measures into it, e.g.



At the P I have indicated that such a comma wants the following cadence \oiint \oiint . From that point onward, namely to where the R is placed, I would have been able to form the full close by way of the *monte*, *fonte*, or *ponte*. But I wanted to show you only one further type beyond those. If only I just would have been permitted to mark only **da capo** at the middle cadence \oiint \oiint , then from the *R* onward it would not have been necessary to write out anything else, because the first part formed in that way can always, at the same time, take the place of the conclusion. Furthermore, I could have called this example "**peacock**," because the second part is so extraordinarily long.

Prec. For a horn piece, this example would almost certainly be generally too long. Moreover, in certain circumstances, I value the **da capo** not very highly.

Disc. What if, however, a hornist just wants to have one or another piece longer than all the foregoing examples are?

Prec. For that, one has entirely other means than the da capo, as you will hear from me soon. Because only by this means will you learn to recognize that the various commas must call and answer each other in an orderly fashion.

Disc. Exactly so. My lord very often says, "**A good composition must speak** without, nevertheless, pronouncing one word. And because many composers make all their pieces monstrously long and know how to write nothing briefly, one should first learn to organize everything according to philosophy."

Prec. That seems to me a strange and yet at the same time also a really sensible observation, provided that your lord is otherwise sincere, and thereby understands that one should investigate nature without empty turns of phrase, without groping around in a sack.

Disc. Often he calls philosophy also "world wisdom," and he asserts that no one with complete world wisdom has ever existed on earth or ever will, the reason being, he says, that this science encompasses all the other sciences and the natural arts within itself. On this account, the chaplain, who styles himself a Master of Philosophy, gave him a very sharp rebuke recently as they stood together in the churchyard. My lord became indignant and, in return, gave him, in quick succession, some twenty questions about mass, force, herbs, stones, and, in a word, about all four elements. Finally he suggested to him that he might answer very quickly how tall our church tower is. The chaplain retorted full of anger, "He [my lord] himself should go fetch a string to measure it with." What a wonder! Our carpenter, Görgel, scarcely heard this when he threw himself down to the ground on his side and measured the tower in one minute, merely by means of his ruler and the judgement of his eye. [52] To this hour my lord has not yet laughed enough at the chaplain because of the string.

Prec. Your lord may rightly be spiteful.⁹⁴ The master's "world wisdom"⁹⁵ certainly was placed somewhat in doubt by this.

Disc. So, tell me, then, what connection can music have with this? You have just heard a philosophy lecture or perhaps transcribed one.

Prec. It makes as much sense to me today as if I had spent those three years catching mosquitoes in a thick fog.⁹⁶ My one-time little chick became an old hen for me because of that. The imaginary thing,⁹⁷ the non-thing, the omnipotential thing of the alchemist, and many hundred similar things made me so dumb and confused that I might have been rendered incapable of

⁹⁴The boy said *Spagat*, which word, like *Babisch* (both borrowed, perhaps, from the Bohemian language), is customary here and there in southern Germany. The first of these means "string" in German; the second means "a notched stick" or "measuring stick."

⁹⁵<The science of all things possible in nature, their quantity, and their quality.>An Idler (as he is called) in the works of proscribed authors) may certainly prefer to choose only the <quality> in order to do himself some good.

⁹⁶On the other hand, I was sustained at that time by a Christian and ethical way of life, which truly is the main thing in this world.

⁹⁷<That which exists only in thought, a fabrication of the mind, first matter, etc.>

making music for ever. Now I can remember only a few names from it. If you already understood the caesura, I would set up a trial of it.⁹⁸

Disc. A caesura (as I observed) is found only in the second measure of foursomes, and there necessarily must also be \blacksquare -caesuras and \square -caesuras.

Prec. Most beautiful. Look, because many people do not know, for example, how they should formulate a very short opening tutti or forte in an Adagio, I will set down here two of them (with two kinds of caesura), e.g.



Two such measures would be, in the view of philosophy, no more than mere nouns.⁹⁹ Just as if they would say, "compass and numbers" or "hearing and keyboard." Now I want to write out a forte or tutti of four measures, namely with a real comma, e.g.



Disc. Certainly such short opening fortes may often be of good use in composition. But what would it (excluding the solo that might follow it) be called according to the usage of philosophy?

Prec. A **sentence** (*Satz*).¹⁰⁰ Just as if its notes wanted to speak to us with the following words: "Compass and numbers help, perhaps (\Box -caesura), the ear to tune the keyboard." Or four similar measures with a \blacksquare -caesura, e.g.

⁹⁸I thought that this sort of trial ought to be more useful than an argument as to whether music is an art or a science. For I respect him who can do much but knows little just as much as he who knows much but can do little.

⁹⁹<Subject or conclusion.> In respect to the ensuing solo <signifying little>, as far as I am concerned.

¹⁰⁰<Proposition.>



And here the notes likewise give us to understand, "The hearing helps numbers and compasses (—caesura) to tune the keyboard **purely**." Judge whether the music cannot express its meaning by means of mere notes more briefly and more laconically than many philosophers can express theirs with all their assembled words.

Disc. If, however, I want to set an opening forte of eight measures, e.g.



[53] Prec. From the philosophical point of view, this is no longer called a sentence but an actual conclusion because of the \blacksquare -cadence: nevertheless it is not termed a complete one but an abbreviated and **curtailed conclusion**.¹⁰¹ Likewise, it is as if its notes want to say, "If measurement has become practice these days (\square -comma), then one can certainly not call it theory."¹⁰² Or with a \blacksquare -comma, e.g.,



which eight measures then express the following curtailed conclusion: "Calculation of ratios does not serve composition (**—**-comma); therefore it can be left untouched without much cost."¹⁰³

¹⁰²<They discover confused things; above all, they are silent about known things>.

¹⁰¹Enthuymene.

¹⁰³<Such is the power of reason! But such a one lacks reasonableness.> The treatise of Mr. Rameau is, without doubt, not the best but one of the most vainglorious, specifically: *Demonstration du principe de l'harmonie, servant de base à tout l'art musicale theorique & pratique*. What is more, *approuvée par Messieurs de l'Academie des Sciences*. I was just as eager to read this treatise as I was to know that Nicolaus Klim finally found a fifth kingdom in the middle of the earth. As an Italian recently wanted to convince me, Mr. Rameau sought, perhaps, only to inform the rest of the world about his and his learned nation's universal imagination, which the conclusion of this treatise clearly lays out as follows: "«Crowned by the kindness of the public



Disc. If I now compose an opening that is like the *monte*, *fonte*, or *ponte*, e.g.,

what would this be, then? (I may certainly not call it a minuet.)

Prec. This would be a **complete conclusion**.¹⁰⁴ Which, as it were, seems to convince us of the following: "Any sort of usage is unnecessary to composition (\blacksquare -comma) if one cannot know how to give any rule for it (\square -cadence). Now, one cannot know how to give any rule for compass usage (\blacksquare -comma). Therefore compass usage is certainly quite unnecessary to composition (\blacksquare -cadence)."

Disc. I have likewise noticed, in writing, that commas and cadences want to relate various things with their notes. If this 1) were not an opening tutti then 2) no solo would follow, 3) and if both halves were repeated and 4) if several like this with the *fonte* and *ponte* were played in our wine house in the castle, neatly, without pause in Tempo Allegro, then I assure you that, as they are demonstrations of proof and **complete conclusions**, most people would have to start dancing to it. But would a sixsome divided into two threesomes also be a philosophical beginning? E.g.,

through the success of my practical musical works, sufficiently satisfied and content with myself, if I dare to say it, on account of my discoveries in the area of theory, I wish only to obtain from the most respectable tribunal of Learned Europe the seal of approval upon that part of my art in which I have always the highest ambition to succeed»." I say, however, that the prophet of Bömischbroda must have been totally drunk to have ranked him right behind Lully. *NB*: This so-called or self-styled prophet, in France, wrote a criticism against music. If one, however, looks at the refutation by Mr. Bolliud de Mermer, nothing remains of it but a complete vacuum. Furthermore, a Frenchman assured me last year that the arts and sciences in his motherland must be more renowned than elsewhere for that very reason, since care and work were still always repaid well and justly. In that respect, my Italian friend was incorrect.

¹⁰⁴Syllogism. Whosoever enjoys such <a mountain giving birth> could easily discover and distinguish the subject, predicate, axiom, postulate, and *notiones* [inclusive general concept]. However, I would rather try to make the Discantist independent of this immature instructional mode, since I hope to have already made him disgusted with one or another
birth of a ridiculous mouse.> Up until now, it was rather attractive because he learned to understand comma [segments] correctly by this means.



Prec. And why not? You should be able to imagine everything for yourself from the first chapter. [54]

Disc. If that is the case, then I do not need any philosophy. Look. I have also at times seen an opening like the following:



And so on in Θ . I can also thus write two foursomes and repeat, perhaps, one of the twosomes \blacksquare , e.g.



Prec. Quite good.¹⁰⁵ Now you will hopefully see for yourself how a horn piece can be lengthened at will.

Disc. Or perhaps I also may make two repetitions so that twelve measures result from it, e.g.



¹⁰⁵What a relief that the young man has grown tired of philosophy on his own.

Prec. Without a single objection. For the ear always accepts such twelve measures as merely a reinforced eightsome. Furthermore, as you have already heard in the first chapter, repetitions do not easily spoil that. Indeed, I would almost seize upon such twelve measures just as readily, if not more readily than three unrepeated regular foursomes, e.g.



Disc. My eyes and ears are open. I understand everything and notice that I can write a thousand million repetitions and variations upon this, so that I have no further need of your or of any other human help in this.

Prec. If or because I am assured of that, we can continue ever onward in good spirits. Notice that there are actually several kinds of caesura. However, one can easily distinguish them from the commas if one pays attention to metric order just in passing. I will not tax your brain with much writing about it, but I will simply trust in your talent, which I have already observed; and, in that hope, I likewise ask whether you already understand the following, e.g.



Disc. That is mere child's play for me. Look. The fourth measure is a \blacksquare -comma, and the eighth is a \square -comma; the others, however, are nothing but caesuras. I will show you in writing, e.g.



[55] Prec. Very good. This opening would serve well not only for an Andante but for all other things that one would make shorter rather than too long. Furthermore, the \blacksquare -comma as well as the \square -comma often are placed farther along at will. I will show you the caesuras with the sign ", in order to save letters, e.g.



Disc. That is certainly something new to me, and so new that these two kinds of commas seem too far apart to me. If I may trust my hearing, the foregoing half-as-short comma [segments] are no less adequate to make a piece as long as desired.

Prec. You have taken my meaning.

Disc. Accordingly, if the bass had opposing notes, e.g.



such a piece, cut up by so many caesuras, composed once or twice a year, may be, perhaps, not awkward but rather something superior. But my lord almost does not know how to compose without the same (caesuras), so taken with them is he. I would like, at least, to form it with more notes that sing out, e.g.



Or with running and boisterous notes, etc., e.g.



Prec. You are quite right. But these discussions do not belong here. First we will learn to distinguish the caesuras from the commas.

Disc. I already know that. A caesura often can also take the place of a comma, and vice versa. Accordingly, if the caesura in the fourth measure of the first example were more similar to the comma P, the latter, namely the comma in the eighth measure, would also become more intolerable to the ear, e.g.



Which is also to be understood in the case of the second example, namely:



[56] Prec. Between two equivalent commas there should certainly be placed a cadence or a different sort of comma. Perhaps, however, could one hear these two examples as simple repetitions of the **—**-comma?

Disc. In that case, one's ears would have to be twisted. I do not accept the last example as correct even once for that reason. For a proper repetition, as you yourself know, must indeed be incidental, as follows:



One would proceed similarly in the case of the last Allegro, too, e.g.



I have varied the repetitions a little at the same time, which would have been, in truth, not necessary. Otherwise, such sixteen measures must hopefully sound a bit different from the previous ones with their expanded comma [segments]. And whoever wanted to have such an opening shorter needs but repeat only one comma and leave the other, on the contrary, unrepeated, e.g.



[57] And certainly this does not apply only at the beginning of a musical piece, but one can make short or long repetitions throughout, in my opinion, when, where, how, and as often as one will, in a word, in all Θ .

Prec. Now I myself confess that you will no longer need my help hereafter, neither for repetitions nor for caesuras. Consequently, we will immediately begin to look at the modulation after the changing comma. Notice that, if one composes an Andante, a solo, an aria, or a symphony, commonly and at a minimum a cadence in the fifth (e.g., in G) is formed, which cadence is also commonly announced by a changing comma, e.g.



The double repetition signs : $\|$: could, for the sake of brevity, be omitted, and the second part can begin with caesuras in other keys, namely on *monte* \blacksquare or *ponte* \blacksquare , e.g.



¹⁰⁶Or in the fifth.

¹⁰⁷Caesura in C, or on the tonic, for I cannot call it a comma here without fearing that I will create confusion. I hope, nevertheless, to soon set the boy on the right track.
¹⁰⁸Caesura in F.

¹⁰⁹Caesura in G.

Disc. If, however, these thirty-two measures seemed to me too short for a complete Andante or for the final Vivace of a symphony, might I not also place the signs : $\|$: in the middle of them?

Prec. Heavens, why do you doubt it? Such small details are all arbitrary. [58]

Disc. Thus I will, meanwhile, quickly compose the second part, namely the last sixteen measures, over the *ponte*, e.g.



(First I must ask something.) May one also repeat a cadence?

Prec. Do not doubt it! Even occasionally more than one, two, or three repetitions if you wish. For repetitions of cadences singularly help make the melody seem unusual. Just look at opera arias!

Disc. I will bear that in mind for now and for ever. Meanwhile, it is indeed true that the commas and cadences in these thirty-two measures speak with one another in an orderly fashion. However, I trust myself only with a *monte*, *fonte*, or *ponte* of sixteen measures, drawn out to thirty-two measures by means of repetition, and with the most beautiful embellishment, e.g.



I fear only that there are too many repetitions. Otherwise I could have included more of them, which I will show you by means of only the last system, e.g.



Prec. I now leave that to your future sensible judgment. Now you know how to prolong (*verlängern*) a melody in two ways, namely by means of [the creation of and relations among] **commas** and **repetitions**. However, you do not yet know anything about **expansion** (*Ausdähnung* [literally, "drawing out"]).

Disc. Perhaps that will come about over time. Namely, if I, e.g., use nothing but whole or half notes in common time and perhaps write Adagio above them?

Prec. No, that is not what I mean. Rather how the measures and the notes of a *monte*, *fonte*, *ponte*, etc. would be prolonged (*verlängert*), e.g.



[59] Disc. Although it is almost indistinguishable from the previous two prolongations, I would not have thought of it readily. I like everything about it. But you have only prolonged the caesura [segment]. With your permission, I will include the comma [segment] together, namely:



I will thus prolong both of them, e.g.



Stop, stop! Now I see that I have made the comma segment two measures shorter than the caesura [segment]. Therefore, I will quickly. . . .

Prec. Just let it be! One often sees, even in good compositions, that the comma [segment] is longer than the caesura [segment], e.g.



They sometimes flow as smoothly into the ear as if they were both of the same length, if perhaps not more smoothly.

Disc. It pleases me anew to hear this. Besides, I notice that repetition \blacksquare can likewise help expansion, e.g.



Prec. Certainly, namely in all Θ .

Disc. May I then also sometimes deceive the ears a little by means of an occasional separation (*Zertheilung*) of twosomes?


[60] Prec. You can write such passages three to four times per year, for I find that the twosome is not just separated but rather a bit confused by means of varied notes.

Disc. Good. I have already become more clever still. I will therefore expand the *fonte* a bit, e.g.



That the caesura [segment] or the comma [segment], whether longer or shorter or both together, can be made much longer through repetition is already well known, anyway. Thus I will form one or two examples on the *ponte*, namely:



However, these prolongations almost make me tired. I would rather put them in order at home as soon as I have the opportunity. For this is not one hour like any other.

Prec. And this is not one day like the other, either.¹¹⁰ However, in the view of many, the one whose imagination has the capacity to do the most is the one who invokes the unfavorable influence of the stars and uses the pretext of a stomachache, no matter how healthy and lively he always appears, because since birth he has given himself over to idleness.

Disc. Well then, tell me more. I don't want to appear either too lively or too weak.

Prec. The fourth way to prolong a melody is **insertion** (*Einschiebsel*), which is called *parenthesis claudatur* ("parenthetical clause") in Latin. First I will just set out a quite plain opening, e.g.



[61] And now I will insert, say, four measures, e.g.



¹¹⁰<On the same day, she is mother and stepmother; since a lazy man is always on vacation.>

And this can be done not only at the beginning but throughout, wherever desired.

Disc. I know that well. But is it a rule?

Prec. It is certainly a rule, or rather a prescription or a model, but not entirely a law. You can also omit the previously mentioned three prolongations as far as I am concerned. Likewise the following fifth type, namely prolongation by means of **doubling** \clubsuit **the cadences**, e.g.



Or varied, if you wish, e.g.



Or here with the fourth measure cut away, e.g.



[62] Or with the bass varied, e.g.



Or the cadence can be repeated, together with its preceding comma, e.g.



Or with something removed from the comma, e.g.



Or more deceptively than before, namely if the third as well as the tonic \mathfrak{B} is left out in the first cadence, e.g.



I should hold off explaining the # until tomorrow, e.g.



Or the cadence doubled still more, e.g.



Here there may be too many cadences for you. But I once saw eight cadences placed in succession in an aria without there being anything strange about them. Besides, I have only tossed out some examples quickly. You, yourself, can discover thousands of them at your leisure, as often as you compose something. For you have already heard that [multiple, successive] cadences create oddities. You also know that they are found in concertos and symphonies just as in arias, because one must imitate the vocal passages with the instruments. To this I will only add that the **—**cadences are doubled more often than the **—**cadences. I will give you a little sample of this in a horn piece, e.g.



[63] It also seems quite natural that the greatest emphasis be saved until last. In spite of that, I have often seen, in good opera arias, that the \Box -cadence is doubled up to three, four, or five times, more than the \blacksquare -cadence. Just look at the arias that your lord has at home; perhaps I am deceiving myself.

Disc. I am benumbed with delight! For, by means of these five kinds of prolongation, I venture now to vary a single Allegro of a symphony or of a concerto quite easily in a thousand ways, in all Θ . I only want to try a few measures with the individual types of repetition, e.g.



And now I will repeat the first four measures all together and then also the last four, e.g. [No example is given.]

Prec. I believe you are confused. You are going backward, crab fashion. We have already had one or another example of it. I would rather compose for you a quite short and simple Allegro, just as if it were a symphony, on which you will then make a few alterations, e.g. [64]





At the sign + I have made a fifth[-degree] changing comma in order to announce the following cadence in G, because such a comma also belongs to G, and at the same time its harmony, according to the bass, is on D. Accordingly I could have made a similar cadence after a tonic changing comma, e.g.



Or, if you prefer, a bit longer, e.g.



[65] That concerned the + in the first part of the Allegro. Now further, at the beginning of the second part, I have, at the mark P, repeated the notes of the opening theme in reverse in order not to climb into a high register. At the double sign ++ I have made a \blacksquare -comma in order to return home to the tonic,

C, in the most beautiful manner. The last mark, Q, means that I could not climb as high as at the Q in the first part.

Disc. My lord said, however, that the second part must be longer than the first. You, on the contrary, have made both parts of this Allegro equal in length.

Prec. Your lord should show me a fixed rule! Doesn't a minuet have both parts generally of the same length? And yet it can unfortunately win over human sensibilities none the less.

Disc. Did you yourself not say, in the first chapter, that it would be good if the second part of a minuet had about two more measures than the first part?

Prec. "Would be good" is different from "it must be."

Disc. Because it is good, I want to make the second part always longer than the first, for the sake of greater force. But you know what? You could have shown me the foregoing Allegro in miniature, just as painter depicts a journey through the countryside on a piece of paper only as broad as your hand, in so-called miniature, e.g.



Or even more briefly:



Or, because in this only the tonic C and its fifth G are presented, I could also set out the commas this way, e.g.



Or the miniature could be still smaller, namely just in letters, e.g.

C - G - C

Prec. In the foregoing Allegro there are only the same two [keys], namely the tonic, C, and its fifth, G. Just as if, e.g., a steward $(Meyer)^{111}$ and his foreman (*Oberknecht*) work in the field and speak to each other with perpetual questions and answers. C is like the steward and G is like the foreman.¹¹² [66]

Disc. Furthermore, our steward, who is in charge of the household on the estate of the honorable lord baron, has several people, namely 1) a foreman (*Oberknecht*), 2) a chief maid (*Obermagd*), 3) an assistant maid (*Untermagd*), 4) a day laborer (*Taglöbner*), 5) an errand girl (*Unterläufferin*), and, beyond these, often black Gredel (*schwarze Gredel*), his neighbor, must help to work a small piece of land. But the steward is always the first and the last at work and the most industrious among them all.

Prec. You are really catching onto the idea of this story. I beg you, remember this order well! For there could be, in all the world, no better analogy to tonal order than this ready at hand. Just a little patience: I must tell you something else before concluding.

Disc. I would prefer that. I only began to speak with so much energy, so that I could rest little, for you have made my head quite dizzy this past half hour with such abundant examples. Even the steward always sits down a while and observes what his people are doing. And mental work drains one's strength

¹¹¹The steward on many farms is practically the lease-holder. Elsewhere, again, he is a half-farmer, who has his own house. I use this word in the way that it is understood in my homeland and in Monsberg.

¹¹²On the other hand, the fifth is called also the dominant (the ruler) in several musical writings. I know, however, nothing more than *nota dominans* or *modus dominans*. This last [expression] would not fit well with a tonality with the minor third, except in fugues, as we shall see. The term *nota elegans*, etc., have I also seen once in a book. Since, however, a work by the author, himself, came into my hands, in which I found very few *notas elegantes*, I have been able to form no correct idea of this term.

even more. I will prolong the Allegro immediately afterwards. Just tell me what you want to say.

Prec. I have read, not only in Kircher but also in several more recent and generally more trustworthy authors,¹¹³ that in America there is an animal about the size of a cat, which inspires everyone's compassion with its ghastly and yet pathetic face and, thereby, preserves its life. On the other hand no human power can tear loose from it what it once holds fast in its extraordinarily large and strong claws. No one knows, even at this time, what kind of food it eats, or even if it eats. It is called *Pigritia* or sloth because it cannot roam much farther than a across a grove in fourteen days. It requires two days to climb to the top of a tree (where it generally is in the habit of staying) and two more days to climb down again. The Spaniards call it by I don't know what other name. American settlers, however, call it a haud, perhaps because it lets itself be heard nightly in the following way, e.g.



It stops on every interval for the sake of clarity, as you can see.

Disc. That is an astonishing musical wonder of nature. Just as if this wretched little animal wanted to sing either with letters, or, e.g.



Prec. Truly a wonder, for exactly this number of scale degrees and no more can essentially be used in the tonal order (e.g., here in C). *C* is, thus, the steward or tonic pitch,¹¹⁴ *G* is the foreman, *A* with the minor third is the chief maid, *E* with the minor third is the assistant maid, *F* is the day laborer, *D* with the minor third

¹¹³Actually, for the first time a few days ago in a Saxon musical lexicon.

¹¹⁴The boy even calls him Mr. Steward. If the polite title perhaps even comes into use among the farmers, then the struggle over rank between whole- and half-farmers will at last really start. I was recently even more shocked in that I heard of one wealthy court farmer named Florian von Steinbruch. Except that I learned immediately afterward that only his farm held the name "von Steinbruch" from time immemorial. Why are the French not as addicted to pomp in this matter as we are? In order to come up with a sensible heading for a letter, and not to sin against the aristocracy, the farmers will soon have to start learning French. Shame on us and our language. Only our music remains free from the French fashion.

is the errand girl. C with the minor third is, on the other hand, the chief maid of $E\flat$ However, because she can sometimes also help here, we will also let her represent the black Gredel. I will display this only in a miniature, e.g.



[67] You see, the steward or **tonic** C often returns, even in the middle, as if he wanted continually to deliver new orders or reports. In a word, he **must be left neither out of sight nor out of hearing**. Everything winds and turns around him as a cat turns around the mash. Through him one can get to any of his subordinates in an instant, e.g.



Theory of Metric and Tonal Order, Phrase and Form



That advantage must be at hand without interruption. If I omit the black Gredel and the steward from the middle, however, I can represent the preceding example by means of letters, e.g.

C - G - A - E - F - D - C

In an Allegro of a symphony or a concerto, however, we use none beyond the foreman and occasionally the chief maid.¹¹⁵ The steward is already understood. The rest of them generally occur only as caesuras or commas and always alternate with one another, and precisely this way: the day laborer makes the *monte*, the errand girl the *fonte*, and **the foreman always takes the** *ponte* **for himself**, e.g.



[68] By means of the two + signs you will notice that I have called upon the steward each time in order to direct myself toward the successively appointed middle keys. I said before that the rest [of the keys] can alternate with one another. In order to show you this, I will now omit the *ponte* and *monte*, e.g.

¹¹⁵Many pieces also sound too common and pedestrian in their use of the sixth degree.



Or I will compose instead a monte from a fonte, e.g.



Disc. The free alternation of *monte*, *fonte*, and *ponte* is already known to me from horn pieces. And I already could have seen the chief maid (namely the modulation to the sixth degree, *A*, as a feminine tonality) in the Allegro in the first chapter on pages 53 to 54. In the second Allegro, namely on page 56, the opening is repeated just as above, with a *ponte* after the cadence in G, e.g.



[69] However, one could entirely omit such a repetition of the opening, that is the *ponte*, at one's pleasure, and likewise, after the cadence +, turn toward the chief maid, A, e.g.



What pleases me most, however, is that I, myself, composed these two Allegros, since we wrote the first chapter together. The first has the alla-breve style, and the second has the common-time style. I even went to the sixth degree, *A*, and from there back again by means of the *ponte*, namely as follows:

In this I merely followed my ear. This structure must already be found in nature, not that I would want to make an analogy between myself and the above-mentioned sloth. So that I now really have become acquainted with this structure, I will likewise use it to arrange your Allegro, which you set down about four minutes ago, in sixty-four measures, and will meanwhile now prolong it a little, e.g.





[70] I have prolonged the two comma [segments] at the beginning, which was not really necessary. I could also have repeated the two measures following the + sign, had I wished to, just as one sees at S in the second half. I have written "beginning of the second part" at the letter P, for a major repetition could be placed there by means of the sign : $\|$: . However this major repetition is seldom used any more these days, as far as I can see. It may perhaps indicate the composer's poverty of ideas.

Prec. The double bar is certainly a very easy way to prolong a piece. But that is no reason to reject the concept of an opening Allegro. Just look, however,

at the Andante and the final Allegro in symphonies¹¹⁶ by great masters. One will see the : $\|$: as often as not. Because a symphony is written only as a introduction or opening¹¹⁷ at the theater or at a concert,¹¹⁸ all composers not only achieve prolongation by means of the : $\|$: but some (I say, not all) Italians throw together such bad introductory symphonies that one would almost believe that they do it in order to make the voices that follow sound better.

Disc. I am, however, of just the opposite opinion, for such a symphony could spoil the whole opera for me. At the same time, a strong [opening] can elevate, cover up, and, in part, improve many weak things. Now, however, further: at the ++ I have once more leapt quickly downward to the lower octave from the high *D*. From letter P onward, [until] that point [++], all the notes for my harmony (*application*) are easy for the fingers, for I know that in this case you give great consideration to simplicity.

Prec. Certainly I give as much consideration to [ease of execution] as to metric and tonal order themselves—those that can be achieved without difficulty. For difficulties can be composed even by a peasant, if he has merely made a little beginning in music. I knew several of them in Bohemia.

Disc. Instead of the *fonte* at letter Q, I will immediately form a *monte*. At letter R I have, afterward, made an insertion of four measures, which I could have omitted according to necessity. I should have set the two measures at letter S together with the previous two measures an octave higher in view of the [71] two-measure rise in the first part at the sign +. Only the difficulty of fingering held me back from doing it. I would have gone up much too far. In order not to write out the whole Allegro again, I will only write the two measures before letter Q, in order to show you a *monte* instead of a *fonte*, e.g.

¹¹⁶*Symphonia*: good-sounding harmony in music. There can be found often, also, unfortunately, a *symphonia discors* especially when the composer, himself, is incorrectly tuned. This misfortune has not yet befallen me where I am in service, because I came from people of good sense.

¹¹⁷That is why a symphony is also often called an overture (*ouverture*), which French word seems to have been taken over even by many Italians, for I have heard *overtura* said more than once; but *apertura* from *aperire* [*aprire*], "to open," not once. An *ouverture* always consisted of a brief, heavy Andante and a fugue following immediately thereafter. Instead of a final Allegro, Gavottes or other pieces were composed. Since that time, however, especially in Germany and Italy, the theater has been opened by means of a symphony just as well.

¹¹⁸*Concerto*, here, means a performance of music. Speakers of Romance languages, however, say *collegium musicum* or also *accademia*. "Concert" comes from the word *concertare*, to strive with each other, because in a [performance of] music, now this one now that one puts oneself forward and is heard in a solo in order to win a victory. Many, however, come merely for a glass of wine or for applause.



Here, in order to create a *monte* that rises by one step, I have written six measures, namely three measures for each member [of the chordal sequence], just as the previous *fonte*, which fell by one step. Hopefully you will believe that I could have stretched them out longer, even twice as long. Accordingly, I will vary this Allegro industriously several hundred ways at home by means of repetition, expansion, prolonging or shortening the [segments punctuated by] commas, doubling of cadences, and insertion, at my pleasure. But what do you think of it the way it is now?

Prec. For anyone who likes a clear melody it is quite good, for there are enough commas in it to separate one [segment of] melody from the other. However, it is also said that the purpose of a symphony¹¹⁹ must be to knock down everything. Accordingly your Allegro might not be lively enough for many people.

Disc. Thus I should perhaps make the commas hang together more, e.g.



¹¹⁹*Requisitum Symphoniae*. For that reason, a rather rioting symphony is also called by many an overture. On the other hand, one that rather sings retains the name symphony. However, I consider both [types] equally competent. Besides, I do not know to what extent the singing [type] or the rioting [type] must be propagated. To be sure, a distinction is probably to be made between tragedy and comedy.





[72] Prec. Stop! I already know that you are in a position to bring an Allegro to its conclusion, even to write symphonies one after the other for three days on end. Certainly the commas hang together better here; for that reason it may even sound a bit more lively than the previous Allegro.

Disc. I must first quickly explain to you that I have omitted the \blacksquare -comma, and I have likewise interrupted the **goldfinch** with the \square -comma at the +. You will also see the fivesome repeated by means of the Gredel. At the letter P a forte begins, which belongs to the key of G; it consists of two successive threesomes. I hope that such a slightly confusing arrangement of measures cannot be too harmful. At letter Q I have abandoned the Gredel, and I am. ...

Prec. I am not worried today about metric order. I will merely advise you that you should not be too artful but rather you always should carefully follow your ear. For complete knowledge of metric order is only good insofar as one knows immediately why many melodies do not sound good. And the same is true of tonal order. In fact, I myself often pay it no proper heed. Look, here I have laid out several horn symphonies by both German and Italian masters. We will examine one after another.¹²⁰

Disc. With your permission, I will sketch out all the whole [movement] for you on the basis of my previous theme, so that I may consider the changes more clearly and quickly. Toward the end I will also write only quarter notes and eighth notes instead of the running, boisterous, and leaping sixteenth notes that are found in it at several places. It is enough if I merely learn, thereby, to recognize what. . . .

Prec. Here, in a similar vein, you have the **first** [horn symphony] by a German master.

Disc. I already see that his commas hang together better than mine do. Therefore, let us begin, e.g.



¹²⁰Such considerations are very healthy. However, it is also salutary if one already knows a little bit beforehand. Since many put strange things in their score and never know why many passages can make a good effect when the violas go in unison with the basses or why often both violin parts go in unison together or why at the same time the violas and the basses go in unison together so that out of four voices only two are heard. Whoever does not understand counterpoint probably can also not comprehend such things. The word *partitur* or *partitura* comes from the Italian word partire, from the Latin *partiri*, "to divide" and otherwise means "to depart." Hence, many take rather the word simply from *sparta* ("saving"), as in *spartitura* or *spartimento*. This word *sparta* comes from the Italian *spartire*, "to distributes," because a composer takes the subject already conceived in his mind and distributes it on the musical manuscript paper among the middle voices, etc. Others use the French word *tablature*. Tablature shows the notes or letters that one plays on the keyboard or lute. Finally the simple organ bass is called a *partitura* only incorrectly.

Example 579, cont.





[74] One can certainly tell that this Allegro was composed by a master. It all hangs together; everything flows. Furthermore, it was in D major, which is a much more lively key than C, in which I have written it here. Where he wrote sixteenth notes I, in several places, have used eighth notes for brevity. Really wonderful: at letter L he seems to have wanted to return with the opening theme in the fifth (the foreman), but he only began it in a regular way at letter N, in order to put off and entice the ear for a few measures. At letter M the repetition is heard more beautifully in the minor, because it is soon thereafter given up. The whole Allegro consists only of the tonic, C, and the fifth, for at letter O he allowed the sixth degree (chief maid) to appear for only a little while; likewise the fourth, F, at letter P and the second, D, or the errand girl, at letter A. At letter R, I would have thought that he would repeat an entire [first] half from the beginning. He soon draws it to a close, however. In a word, there are many pleasing things in it. I have only two doubts. I know that here and there in the middle he cuts away a half measure. Why, however, at the beginning, at letter I, doesn't he write it as he does at the single +, or as it is at the double sign ++? For it seems to me that at letter I there is either a half measure too much or too little, contrary to nature. I would have written it in the following way, e.g.



If there were a little alteration in the notes between this letter I and the double ++, such an alteration would, perhaps, not ruin it as much as it would make the composition richer in ideas. At the single + , metric order would certainly be more correct (omitting the foregoing measures), namely as follows:



From these two described methods, as you see, all the following measures would come into better order.

Prec. You are right. But such a great master no longer composes or studies, but rather he just writes, that is, all his ideas already lie on the tip of his quill in order to please the ear as if from a distance. And he has all the less incentive to return a while to the ABCs of counterpoint. In the first chapter I said to you that a little disorder often flows more pleasingly into the ear. Certainly you and I may not stray so far. [75]

Disc. I believe it. At letter K, however, I have still a greater doubt.

Prec. I believe it. We now leave aside the names of the steward and his helpers and rather speak seriously. You know that the tonic note of C with the major third is also the same as for C with the minor third, and further that it is principally assisted by D, E, F, G, and A. Of these, F and G have the major third. These two, according to one composer, can readily take the minor third for a short while, just as is to be seen at letter M and at the end, at letter S. Now, however, the three other auxiliaries, D, E, and A, are already with the minor third.

Disc. Then, the other way around, these three can sometimes be altered with the major third, right?

Prec. No. You have certainly never heard that in your whole life, e.g.,¹²¹



Here in the first example, A [minor] brings along E with the major third +, but it is only a \Box -comma, which belongs to the feminine [minor] key of A.

¹²¹I once tried out some measures with it. It did not please, however. It is different to place a sharp in front of one, two, three, or a few notes according to fashion.

In the second example, D brings along A with the major third ++, but this is only a \Box -comma, which belongs to the feminine [minor] key of D. Further, a third and fourth example:



Here in the third example. G brings along *D* with the major third, but it is only a \Box -comma, which belongs to the key of G. In the fourth or last example, E brings along *B* with the major third, but it is only a \Box -comma, which belongs to the feminine [minor] key of E.

Disc. Here in the last example, [in] E [minor], I will make a knot in the corner of your handkerchief in order to remind you of the *B* a bit later. Now, however, why did the master remain in D with the major third so long at letter K, which key is completely foreign to the tonic, C, and runs contrary to everything in our ears?

Prec. It happened in order to awaken the ears a little bit. And because it is designated Allegro assai, those notes also run by very quickly. What is, however, to be noticed is that all these notes belong to the following key of G. Furthermore, such sharped transitions or modulations are very seldom heard and seen.

Disc. I believe it, for I would have rather written it in the following way, namely I would have wanted to come in with G, e.g.



Or in an orderly fashion in the feminine [minor] key of D, as it perhaps is otherwise usually suitable, e.g.



Prec. As an alteration, this is just as incomparable as the previous. Go a little further; you are already on the right road.¹²²

Disc. Now I will go back to untie the knot in the handkerchief and ask why the seventh degrees, *B* natural and *B* flat, have never been mentioned before, since they are contained within the octave just as the second, third, fourth, fifth, and sixth degrees are? [76]



Prec. I can well answer: because the American sloth, with his song, only goes up to the sixth and not to the seventh degree. But we diligent and rational creatures know to use these seventh degrees, *B* natural and *B* flat, as passing notes, caesuras, and \Box -commas, so that we cannot bear to be deprived of its help even once.

Disc. I already know from my lord that we, by means of our intellect, can roam the whole world in only two or three minutes, and observe everything in it. That must surely leave the sloth behind. I already know about the *B flat*. But (leaving aside passing notes and caesuras) how would a comma on *B flat* look when the tonic is *C*?

Prec. That is a little difficult to show you quickly. Nevertheless, I will extract a few measures from the end as well as from the middle of an Allegro, e.g.



¹²²I always merely try to lead discantists onto the smooth and even road, for the only error of most beginners is that they generally fall into debauchery and difficulties. A few of them have remained stuck there into old age. As soon as he is out of my hands, his lord, the schoolmaster, may do with him what he will, as far as I am concerned. He is still young, and he has more to learn.

Disc. This melody that reaches all the way to $B\flat$ + seems to me even less endurable than the foregoing one by the master at letter K, because it would belong better in the key of F. I will wait fifteen years more before my ears accept such a precipitous melody (others have leave to discover such strange and delicate things sooner). It would sound more natural, in my judgement, if I made the comma + only on the fourth, *F*, e.g.



Prec. Good and more than good. The foregoing example was certainly bad. I am glad that you now recognize the seventh degree + , *B flat*, as accidental and not essential. Here you have another symphony by another German master.

Disc. I still have something remember about the previous Allegro, however. In addition to his <theme>, the master has two principal clauses, which he repeats constantly with pitch alterations and, at the same time, always a little varied, namely these, e.g.



Additionally, he has still other passages and ornaments. My lord says, however, that a composer must stay with his <theme> as a preacher with the gospel.

Prec. The master also always stayed with his <theme>. A preacher cannot constantly repeat and read aloud the gospel, but he must interpret it. He even makes passages or <transitions>, etc. After a thesis he has, at the very least, an antithesis. For example, "do good" [77] might be the thesis and "do bad" the antithesis. Therefore, he draws now happy parables now sorrowful stories from the holy scriptures, and he explains with them what can result either from good or from bad. Or he demonstrates that he who fails to do what is

good does what is bad, even if he does not actually do evil. Just as when a musical chord is sustained, immobile, for a half day, it may not sound so pure any longer. Or it is as if the composer wrote always according to the mere rules, without troubling himself about the effect.¹²³

Disc. Such an argument seems to be just like an insertion in music.

Prec. Be that as it may. I am only making an analogy.¹²⁴ And your lord hopefully meant it in that way as well. However, strive to stay with the <theme> as much as possible, the antitheses will soon flow from the quill by themselves. And here the analogy stops.

Disc. One more thing. Since the master has no important or regularly executed cadence on the sixth degree, A, the Allegro can be represented by miniature letters in no way but as follows:

C—G—C

Prec. One uses the sixth much less in an Andante and final Allegro, because they are usually composed briefly. Rather one goes from the tonic, C, to the fifth, G, and then back to C.

Disc. That is something new. Is it a rule?

Prec. It is not exactly a rule but good advice. In brief, in an Andante the sixth degree sounds too musical, that is, it seems to be either too unnatural or too natural, because it does not have enough material to elaborate or to expand. Hence, one can still make the second part a bit longer than the first, at one's pleasure. There may also be the sign : $\|$: or (according to the opinion of many) better not. In this, one can often make the sixth heard a bit in passing, as the previous master did in his Allegro.

Disc. What if I want to make an Andante or final Allegro somewhat long?

Prec. You can do as you like, as far as I care. I will not let myself be tied down on this account, provided that one does not stray from nature.

¹²³*Effectus*, effect.

¹²⁴I am thinking of one day writing a chapter on rhetoric, especially on the rhetorical figures, in the hope that it would also be of help to beginners in executing a piece of music, if only we first have the more necessary essentials.

Disc. Let me see, I will thus compose this **second** symphony, but with my previous theme and with plain notes in C, e.g.



Example 590, cont.





[79] Wonderful. This entire symphony is tied together by the short Andante, begun and ended in one breath. In my circles, I have never yet heard this arrangement. The Andante begins with a *fonte*. Perhaps I could have begun it also with a *monte*, e.g.



Prec. Have no doubt of it! In the last measure of the (first) Allegro, it could have a fermata \uparrow ,¹²⁵ and a regular Andante could be carried out, at one's pleasure, in G or in F, e.g.



For the Andante in F, the bass would have to begin ex abrupto, namely on C, e.g.



¹²⁵Which sign is also called a *corona*.

Disc. That sounds quite strange. Thus, I could form a fermata on G after the final cadence, e.g. NB that the violin has B natural: [80]



In the second part of the Andante, the final note, F, was omitted after the repetition, which I have indicated here with the numbers 1 and 2. If I wanted to make the Andante without the : $\|$:, I would not need all this fuss, anyway. It could, however, be an Andante in 3/4, or a Grave in 2/4, and just as short or also a little longer. Or the Grave could stand all alone in 2/4 time, or several such measures (without Grave) could have the same tempo as the Andante. Right?

Prec. Without doubt, and in all Θ , that is, **many thousand**.

Disc. In this connection, our innkeeper also says "many thousand things" all the time, when the people ask him what he has to eat and drink. But as soon as he becomes serious, it turns out he has only a bit of sour beer in the cellar.

Prec. The reason why I had the bass begin *ex abrupto* in C earlier and not in the tonic F is because an unusual opening sounds bad when it stands one step higher or lower.¹²⁶

Disc. By lower you mean, perhaps, the seventh degree, e.g.



Prec. Yes, that is what I meant. It is only good to begin on the third, fourth, fifth, or sixth degrees.

¹²⁶It is the same for major or minor seconds or sevenths. More about his tomorrow. In a melody, however, there are minor seconds or sevenths, as well as major, as long as the <mi against fa> and the forbidden fifths and octaves are avoided.

Disc. I do not wonder about the seventh on that account. But the second degree, which otherwise can serve a key as a transition, is found, to my knowledge, in a C-major aria that I have at home, in which the composer closes the second part in D minor and begins again *da capo* in C. For now, I will leave out the ritornello and set out only a few notes of the vocal part to give you the idea, e.g.



In another aria, also in this key, the composer, after closing with the voice part likewise in D, does not begin in C *da capo* but returns to C by means of a few measures with the instruments + , e.g.



[81] After this, he similarly has the voice begin again (without the opening ritornello), which is how the sign is to be understood. Only now, however, am I finally beginning to understand, for the cadence in D strikes me as the first member of a *fonte*, and after it the following preparation with the violins serves at last as the second member of the *fonte*. To my ears it certainly seems to be a thousand times better than if one simply stumbled from the D back to the C, even though it is simply D minor.

Prec. Nevertheless, I saw a symphony by a master six years ago, in C major with an Andante nevertheless in B flat.

Disc. How can that be? B flat, as the seventh degree, must sound simply terrible there.



Prec. He prepared the key of B flat over the course of one or two measures, e.g.

You must imagine, however, how the first and last Allegros as well as the Andante were completed, for I have shown you only the beginning of each.

Disc. I see that already. But with such a precipitous and forced transition there [into B-flat] and back again, that master must have meant it as a joke.

Prec. I think so, too.

Disc. I would rather ask, then, whether a twosome is long enough to serve as an insertion?



Prec. Certainly. As long as it does not happen too often. Otherwise such an insertion can, at the same time, be heard as an antithesis and can be prolonged here or there at will. You can, meanwhile, quickly make an alla-breve cadence instead of a common-time cadence, etc., e.g. [82]



Or the other way around. For now I am giving you more freedom, because you know that metric order exists in the world.

Disc. Now, that also pleases me to some extent. At home I will correctly expand and adorn symphonies, concertos, solos, and arias with extension, measure repetition, cadence doubling, and insertion, in order to make the melody more flowing.

Prec. But not too artificially; that will come with time.

Disc. The last Allegro of a symphony, etc., can also often be in 2/4 time, or even in alla breve. Or perhaps can it instead be composed as a singing Tempo moderato or Tempo «di minuetto»?

Prec. Yes indeed. For a thousand concertos, symphonies, and solos have a thousand different arrangements. Nevertheless, it is difficult that a composer is not recognized as the same even when he changes his taste so much.

Disc. In this connection our Philip often says that he knows the compositions of the chapel master of Opolisburg in an instant, just because of their beauty.

Prec. Yet there are also composers who are simply satisfied by planning and carrying out one piece like another, that is, when one has heard one of them, it is just as if he has heard a hundred. It can also be that they themselves are not aware of this. And perhaps I myself have this fault. For generally variety or abundance of ideas makes beauty and the composer. The rules, or the ABCs, are certainly always presupposed.

Disc. Our Philip, however, knows still another chapel master who makes his pieces, for the most part, unclear because of the abundance of his thoughts, even though he may have come up with a good clause here or there.

Prec. He may, perhaps, just lack the fundamentals or the ABCs. The title really means almost nothing. Therefore one must be glad for him that there, where he is in service, he can give sufficient pleasure, that the musical world is expanded more than dishonored by him

Disc. Enough of your musical world! We would rather look forward. Give me the **third** symphony. I see already from a distance a glaring lack of clarity. In my transcription, I will once again only use the plain notes, e.g.



I cannot give myself the trouble to write out any more. The thing goes up and down again, and up again, etc. The composer of it is really too full of ideas, for he has four antitheses already at the beginning, and later on he adds a thousand more.

Prec. That doesn't mean that he is full of ideas, but rather one is full of ideas when one knows how boldly to link together one, two, or three antitheses.

Disc. He exposes the fifth and the sixth degrees only a little at the beginning, after which he no longer trusts himself to leave the tonic, C, so that the whole symphony looks like a wolf's intestines and sounds like a barn dance. Just like two symphonies that my lord had recently received even from Italy. I would never in my life have believed they came here from so far away.

Prec. I once heard an upright Italian speak about it. The good composers among them are almost more hidden there than in other countries because the number of miserable scribblers is similarly far too large. [83]



Disc. Now the **fourth** symphony, here:

Here all the parts form a unison together until NB P, where the theme, proper, begins. At \oiint \oiint the \square -comma is cut away, without which cut it could have been, e.g.



The rest of the minor cuts and alterations are already well known, because this Allegro does not modulate farther than the fifth, G. The Andante and the last Allegro, on the other hand, modulate to the sixth, A, in addition to the fifth, which seemed strange to me at first glance. Now the **fifth** symphony, e.g.



Example 604, cont.




[84] I believe you are working hard to find such strange symphonies for me. Where I have placed the sign \textcircled , I find three whole or common measures in succession. This happens by means of repetition or pitch alteration. Here the composer cuts out a measure, and there he adds one. While he [85] certainly goes toward the fifth, G, he never once makes a formal cadence in it, but he stays almost throughout in the tonic, C. That may well happen in order to make an Allegro more flowing and livelier. However, when an antithesis is heard three times in succession, he could certainly please the ear better.

Prec. You should, however, form no immutable rule from this: rather it simply demonstrates, as it were, an overwhelming zeal. Such repetitions can often be heard in a truly lively Allegro of, *NB*, Italian symphonies. I am not completely ill-disposed toward them once in a while.¹²⁷

Disc. However, because it has many important measures in the fifth, for pleasure I will still set out the miniature of it as follows, e.g.

С—G—С

Wait! I have forgotten something. It contains two piano markings. The one in the first part is heard in the fifth, G, e.g.



The one in the other half looks almost the same as the monte, e.g.

¹²⁷I once heard it said, "<Things repeated twice are liked, thrice even more>." It does not always work, however, even less in all things when it is changed to "<things repeated ten times>." For the poet is not to be trusted.



It offends the ear a bit. The *monte*, however, would come across more clearly in the following manner, e.g.



And in view of the first one in the fifth, he could have set it thus, if he liked, e.g.



Or in the low register:



Or only halfway:



Or:



Or:



Look how the art of confusion or of invention already helps me to work.

Prec. Well and good. However, he could have begun in the key of C and made a \Box -comma here, for the ear really tires of such similarity, e.g.



Or, in order to deceive the ear even more, he could have done this exactly as at first but in the fifth, G, and then thereafter ended normally in C, e.g.



Those ideas are often found in an aria. However, you already know that one must be sparing with decorative features in order not to make them too commonplace.

Disc. It is true, it sounds strange and unusual. Thus, a piano repeated in the other half may be more than enough in an Allegro of a symphony, especially since it can be simultaneously viewed as an insertion. In this connection, still one and another measure could be repeated piano here and there. But I have already often noticed that if several similar piano insertions appear in an Allegro,

the symphony becomes far too soft and sleepy. At home I will write a few Allegros and only put one piano in each of them without repeating it; in this one I will place it right after the beginning, in another Allegro in the middle or at the end before the cadence, or even after the cadence and thereafter set the cadence again, either shortened or prolonged. In a word, whatever the art of variations suggests to me. The choral director at Vallethal says that many composers put the piano mostly in the wrong place because they do not know how or why to write it that way. "They," he says accordingly, "have a headache and lay plaster over their eyes." I really believe that one must have heard a lot of good music in the world in order to achieve the true effect in this. But I have as yet heard little, and nevertheless I can correct Hansmichel in his compositions, which he fills with thousands of pianos and fortes, perhaps only because he has seen it that way in other compositions. But have patience. Because in composition everything can be varied and prolonged, so our composer could have even also prolonged the piano, at will, as long as it were not, perhaps, much too slack for a symphony Allegro, e.g.



It could, however, even appear in the tonality in which it previously appeared. If I wanted to form the following cadence in G out of it, it could also be done that way, if desired, e.g.



For the cadence in C would sound too precipitous and harsh after the \Box -comma at the *NB*. It is already known that it could, however, be still longer, e.g. [87]



Or even without a major repetition, e.g.



In short, **many thousand** ways. But now I notice the alla-breve style here. In the common-time style it would certainly sound more lively. Nevertheless, whoever would want to have the alla-breve style more lively than singing could actually arrange the bass, viola, and second violins for this.

Prec. You are right. For the accompaniment¹²⁸ can enliven things throughout, at one's pleasure.

Disc. I usually do it, in general, this way, e.g.



The Urbsstädter, however, calls the one as well as the other a drum bass.

¹²⁸*Accompagnamento,* from *accompagnare*, to accompany or keep company, to participate, whereby the middle voices are helpers to the upper, primary, or principal voice.

Prec. He is not very bright.¹²⁹ However, to give each of the four voices, from time to time, a different animation is really not counterpoint, but merely gives a lively effect here and there, e.g.



.[88] Or the bass is given its own melody for a while, e.g.



However, I do not mean that the bass has a melody right at the beginning but that such a melody can also be incorporated and expanded several times in the middle of an Allegro. Notice, here, that the open A string of the viola is an octave higher than the open A string of the cello, and that the cello A is an octave higher, in turn, than that of the contrabass.¹³⁰ Accordingly, the con-

¹²⁹I will express my opinion about such unfounded and childish insults in the chapter on the bass. If that, however, does not please the Urbsstädter, he may stay with his own opinion, as far as I am concerned.

¹³⁰A short- or small-bodied instrument certainly seems actually to produce a lower pitch. One observes this with the transverse flute. One may, however, sometimes allow even the violins in the high register to go in unison with a bass singing voice or a bassoon, indeed, however one can better bring out the effect. The organ has quint and octave registers. That is why, a

trabass is grandfather to the viola. Now for just that reason I should have set the viola in the last example an octave lower in order to seem more in unison with the bass, e.g.



I have observed this almost every time in an Adagio, etc., when the bass has a clause, an imitation, or its own melody. Only when the violins are set strongly enough and are undivided can the viola, as before, go into the upper octave, because in that way it cuts through the bass and helps it to rise.

Disc. It is true that as soon as the violins have a rest one hears the violas in the upper register and the contrabasses in the lower singing together, like daughter and father. I have noticed that more than once in passing. But why haven't you used a fifth, G, in the harmony of either of the two examples just previous to the last given? And in the last one I don't see one single use of the third, E. I would rather fill it out beautifully, as I learned to do on the harpsichord, e.g. [89]

few years ago, a musical Frenchman said to me, "«Everything in between makes wind»," a fat belly makes you sloppy. I asked him, however, whether the outer voices might be covered up by (the filling out of) the middle voices. With that, he was gone.



Prec. If I were you, I would write it that way, too. However, by means of such filling out, the melody or effect often is only more hindered.¹³¹ The Dorians, Phrygians, etc., usually wrote full chords. But it is now a different world; you cannot return to that one. In time you will increasingly see, to your astonishment, just how empty one frequently makes a setting these days. Nevertheless, one piece is not like another; consequently also one composer is not like another. For that reason, I do not look down upon your two examples at all, but I want to have merely told you that a bass melody is clear and pleasing just to the extent that the inner parts are shallow and empty.

Disc. That is why I have often wondered from whence this tiny little thing, the viola, should obtain the power to reinforce the bass so much by playing in unison. Certainly three voices are perceived more clearly than four, and two are more pleasing than three. Must one, therefore, always write the two violins stoutly in unison and also have the viola and bass go together, likewise?

Prec. Be careful! It is not a rule, but it can only occasionally be that way for the sake of the effect.

Disc. Three years ago the chapel master in Opolisburg had to compose an opera in haste. He composed the last aria so hurriedly that he did not think of the effect. But this very aria had the greatest effect, much to everyone's and his surprise. Such a great man!

¹³¹Another time I will say it differently, but the young man should not be confused by that.

Prec. From that it is to be concluded that no one is done learning. Namely, from your story the rule is simply to be drawn that one must search for the effect as long as one lives.

Disc. Now seriously, we have been writing notes long enough. We now want to chat a bit more together.

Prec. Your chattering is keeping me from my lunch. It is actually, as I see, already 2 in the afternoon.

Disc. I am not yet hungry. Day [or] no day. The Urbsstädter always says (I must finally show my colors) that the chapel master does not fill out enough but uses only two voices in many musical pieces, namely the two violins in unison and the violas with the basses also in unison.

Prec. The Urbsstädter does not know why that happens.¹³² The chapel master will gladly forgive him for it provided that he recognizes it or at least when he thinks about it. For that which is a rule at one time can be contrary to the rules another time.

Disc. He says that the chapel master writes only *Zschentschi* songs, and if one had the rule, one could make a soup of it. But I do not understand the word *Zschentschi*.

Prec. By the sound of it, it is certainly taken from the Italian word *cencio*, "rubbish," "rag," or "ragged," such as is offered for sale at the flee market. Notice, now, how offensive and insulting it sounds! However, I have already noticed that the pitiful Urbsstädter is merely a rule composer. Thus he writes nothing more than vain ABCs. He doesn't even know that the rules themselves are invented in the course of composition and furthermore are continuously revised.¹³³ I know other similar upstart heros who want to force and obligate people to their bad taste, that is, to their ABC rules. One or another even believes that an injustice has been done, and even dies over it. In fact, one could not dream of anything crazier. Why not rather live and let live?

Disc. You are right. The Urbsstädter is now making every effort possible to make a soup or broth of his rules. But it will no longer align the back with the

¹³²Therefore, I will concede absolutely nothing to the discantist in the chapter on counterpoint. ¹³³I must say more to the discantist than I can answer for in order to make him immune to the Urbsstädter.

front. He, himself, now puts so many drum basses one after the other that one becomes bored with it. Therefore, many recognize that. [90] When they hear the Urbsstädter's compositions played for three hours on end, they become ill. When, however, they hear, at last, just a single aria by the chapel master they become well again. From that I conclude that I ought not to compose what is pleasing to such a rule-bound composer, because he cannot give me any bread but rather must look for his bread himself. He has recently set Hansmichel to learning the difficult keys with \ddagger and \flat at the keyboard.

Prec. That is a good idea. For thereafter one can compose in the easier keys, such as C, D, E, F, G, A, B-flat, etc. with less difficulty.

Disc. Hansmichel, however, now no longer wants to play or compose in the easy keys. In that way he has been lead into nothing but artifice, or it may be a question of talent. His beard may have already grown over and over again because of this, and yet he is still so childish. For if any doubt should arise, he claims to know better than anyone else. Not even his master, the Urbsstädter, himself, may speak. And when, from time to time, I must look over something and correct it, he invariably says, "Yes, that is just how I wanted to make it." If, however, a stranger arrives unexpectedly, heavens! He startles and is struck dumb. He puts away his compositions in a twinkling and begins to explain his own rules to me, just as if his extraordinary intelligence, or deeply rooted arrogance, would help him out. I take this as a compliment, for he thinks I am blind.

Prec. That is not new in the world.¹³⁴ But just keep on going, for you can learn more that way than from many a master. I am never ashamed¹³⁵ to ask others openly for the solution to a problem. It has more often hurt me that I was not able to succeed in that. How happy I was about fourteen years ago when a rather solid composer (a really upright and harmonious soul) explained one and another equivocal principle to me in just a few hours. Prior to that, most [composers] had given me nothing but a mocking answer and then sent me back with my questions only even more confused that before. Soon one of them asked whether I were in a position to pay for such costly lessons. Then another [teacher] advised me to give up composition entirely, since it was too difficult for me, and everything else that such despicable braggarts say. For

¹³⁴It would certainly benefit such a man if he would recite, thirty or forty times a day, the following little verse: <If, foolishly, you are ashamed to learn, you will remain a barbarian>.
¹³⁵<We cannot all do everything>. Whoever knows me, knows it. I accept anything gladly when someone does me a good deed.

that reason I have always tried, ever since, to get revenge, namely, in that I expose and share with beginners, etc., as much or as little as I have picked up here and there.

Disc. That revenge is also useful to me. I thank you heartily for it. There is, as my lord said, no man without faults, only that the faults of each are different from the others'.

Prec. A half-grown orator¹³⁶ in Opolisburg recently tried to maintain that in front of a Latin class in the great lecture hall. But he carried on about it so arrogantly that nearly all of his listeners left. Only I, alone, was so stupid as to remain until the end. Even now I cannot get many of his uncouth sentences out of my head.¹³⁷

Disc. Perhaps he stated the truth too obviously. We want to write some more notes for a while, for something has occurred to me. You wrote a little caesura or comma on the fifth of the tonic in order to arrive at the sixth degree more easily, e.g.



Beginning of the second part of an Allegro in C.



One can also go all at once likewise from G to A, that is, from the fifth to the sixth degree, as my lord did, e.g.

¹³⁶<A good orator, or rather, a desert>. [A pun: *Orator disertus, aut potius desertus.*]

¹³⁷<There is an infinite number of fools; but there are so many types of their insanity that neither folly nor laziness can redirect the progression of foolishness, etc. The one who deems himself wiser is an idiot or lacking in judgement, etc. Indeed, he will be considered the wisest of all, who recognizes his own different kinds stupidity, and who tries to dispel silly ghosts, since he who knows much understands little>. He who knows much understands little, etc., etc.



[91] I already know that seconds in direct succession are not much good. On the other hand, these two measures in A are, with respect to the previous two measures in G, merely a repetition. On account of the bass, at least, it means nothing. For if a minuet began in C, and the first half ended in the fifth, G, e.g.



Two octaves would follow each other, between the violin and the bass, by means of the repetition (according to my lord), namely [from] the last G and the [return to] the opening C. And if a minuet began with the fifth degree and ended the first half with a fifth[-degree] \Box -comma, two successive fifths would result, e.g.



Thus, repetition must necessarily be the reason why in the end a greater part of the world would hear such two forbidden fifths and octaves rather than an artful fugue. If that is so, then it can be the same with the second, although it is a dissonance. This mature observation on the part of my lord could often be of good use to me. Certainly better is better. One could certainly arrange a minuet quite differently. And if I knew that, for example, the Urbsstädter did not like the direct series of seconds, I would simply use the following type of \Box -comma \mathfrak{P} :



Or one could perhaps prepare the second degree, A, if needs be, with a seventh-degree passing tone \clubsuit , e.g.



Prec. The single little raised tone, marked \clubsuit [in the previous example] should give you to know, correctly, that one could go also in the following way from the fifth to the sixth [degree], e.g.



Or by means of the accompaniment \square , e.g.



[92] Or, e.g.



Or, more quickly into the sixth degree, if one pleases, e.g.



Disc. This last example here seems a bit too fast, or too artificial, to me. Be that as it may, these several remarks will be worth a lot to me in all future transitions.

Prec. Now I like it well that you can see into your lord so deeply. Thus, we want to examine the sixth symphony a little bit.

Disc. I can do that at leisure at home, since my lord certainly has more than two hundred symphonies. Nevertheless, give it to me. . . . Look! Look! This master actually goes to the third degree. I will just transcribe it quickly, beginning in the middle, e.g.



Prec. You already know he could have turned from the third degree, E, back to the tonic, at will, by means of the *fonte* or *ponte*. I have shown this merely

in brief. Here, in the seventh symphony, he makes a comma on the third degree, E, which belongs to the sixth degree, A, e.g. [93]



I have merely added the second violin at the piano. The composer, as you see, gives these same notes to the violas and simply lets the second violins fill in.

Disc. I see that well. I only wonder about such a strange comma on the third degree, E, because the theme immediately begins again in the tonic, as at the beginning. I have as yet heard that in no symphony. Since this comma [segment] is extended only to the sixth degree, A, it allows no other miniature than

Such a comma [segment] could also have been formed in the following, or in another way, e.g.



This idea ought also to find a place sometimes in a concerto when one lets the tutti end with the $[\Box -?]$ comma and the solo begin in the tonic, or perhaps the other way around, etc. But I am surprised no less than with the previous example from the sixth symphony, since the composer actually closed with a cadence on the third degree, E, and used the sixth, A, merely as a transition. Therefore, one must construct the tonal order in miniature as follows, e.g.

Prec. Quite naturally. But among 100 symphonies you will find scarcely one with the third degree in this way. Also you will sooner hear 40 concertos and violin solos with the sixth before you would hear one with the third degree. For concerto-style structure is rather this, e.g.

Disc. I know it, because it is the most natural.

Prec. Fugue-style structure is, however, just as previously (in the sixth symphony), namely thus:

Disc. Does Fux use this structure for the fugues in his Manuductio?

Prec. Certainly. He seems almost to prescribe it as a rule. Just look at page 126, first line; in Latin, however, on page 146, line 22. I will show both of them in succession in miniature, e.g.



Disc. Is one not allowed at all to go to the sixth degree in a fugue?

Prec. Yes, indeed. Fux himself has an example in the *Manuductio*, in the Latin on page 244, in the Kyrie from *Missa vicissitudinis*, in the German, page 46, where he makes a cadence on the sixth degree and not on the third. [94] I have also heard, seen, and even possess similar fugues with the sixth degree, by famous masters. However, many use the third degree as well as the sixth degree in order to prolong the fugue at will, e.g.



Or with the sixth degree first and the third degree afterward, e.g.



Disc. Just as good. Thus may I, if I wish, also use the second and fourth degrees, at least as transitions?

Prec. Not only as transitions, but you can even form cadences in both these two keys. Only one ought not remain in them so long that the tonic is forgotten.

Disc. Better still. Now I would like to imagine that I want to prolong a fugue quite a lot, so that I could present together in a miniature all the degrees belonging to the tonic, e.g.



Now the fifth degree, G, always stands as the first immediately after the tonic. But can't these four, namely A, E, F, and D, be mixed up in twenty-four different ways?

Prec. Without doubt. And in the middle of a fugue, the fifth degree can be mixed in with the others at will, so that you have five, namely G, A, E, F, and D, which can be mixed up in 120 different ways.

Disc. I actually knew that from the table of numbers. But further, since a fugue can partake of the concerto-style structure, a concerto, etc., on the other hand, can partake of fugue-style structure now and then. Moreover, I suddenly remember now that I, myself, have already heard a horn concerto as well as a trumpet concerto with the third degree instead of the sixth. The first of these concludes its second solo in E, somewhat like this:



And the other, namely for the trumpet, thus:



In case I were to stretch an Allegro of a concerto exceedingly long, perhaps even with four principal solo sections (since one of them usually has only three), my first solo would begin in C and then modulate to G, whereupon the first middle tutti, or middle forte, would come in. The second solo would start in G, again, and then modulate to A, where the second middle tutti would come in. The third solo would have to begin there, in A, and move to E, namely, to the third middle tutti, after which I would begin the fourth or last solo in this key of E and go from there to the tonic conclusion in C; or else the last solo could immediately begin in C after the penultimate middle tutti. The fugal structure for such a long elaboration would, perhaps, be just as good, e.g.

[95]

Prec. Yesterday I heard the Allegro of a new concerto, in which the first solo began properly in C and moved to a cadence in G. Then the middle tutti began properly in G, but without a cadence, e.g.



Disc. Thus, the composer began the second solo not in the fifth degree but likewise in the sixth. Amazing!

Prec. From there he returned and began the third solo in the tonic, C, with the minor third, although he ended, as is proper, in the same key with the major third. This structure did not seem bad to me for a change. But it seemed too strange and unnatural to most listeners.

PRINCIPLES OF TONAL ORDER GENERALLY

Disc. I, myself, would almost prefer the fugue style. In it one can, perhaps, trick the ear by presenting the key of E as the third degree for a while and afterward form, nevertheless, a cadence on the sixth degree, A. Or the other way around?

Prec. By all means. And certainly in all Θ . As long as you don't upend nature by doing it.

Disc. Might I not also write a principal solo in the fourth degree at times?

Prec. Certainly that can often occur, especially if one is presented with a difficult key, e.g., E major, etc., whose sixth and third degrees go too far into the crosses # in the accompaniment.

Disc. And in that way one can choose and place rather more convenient notes in the accompaniment. Because I would not gladly omit the sixth degree from a concerto, etc. Thus, I will use the fourth degree as well as the second for the most part only in passing, the third, however, necessarily yet very sparingly.

Prec. I have here a symphony in which the composer brings in the entire theme in the fourth degree toward the end, so that at the conclusion the tonic is mistaken for the fifth[-degree] of the fourth and the fourth itself for the tonic. For that reason it sounds very offensive.

Disc. I agree with that, because the fourth degree is always softer (*weicher*) than the tonic. How would it be, however, if one abruptly moved too forcefully to the fourth?

Prec. In that case one would have to prepare for the tonic again and sharp it by one degree. Imagine that I had already traveled around in the fourth degree, of which I will meanwhile set down the last measures, and then I would return to the tonic by means of a sharp, e.g.



For $E \neq$ is harder and sharper than C.

Disc. I feel it quite well. Since the F was too soft, the ear must be brought back to its senses by means of the sharp key of E. And if one has gone somewhat too far into a sharp key, must one, therefore, go to a key one degree softer than the tonic?

Prec. Without a doubt. This is also a good way to prepare, again, for the tonic after one has, at one's pleasure, modulated into foreign keys by means of chromatic harmonies.

Disc. And that is what I prefer to do. Now I know how to handle the fourth degree. However, ought I to use the second degree essentially never?

Prec. And why not? Fux has it even in the *Missa vicissitudinis*, namely at measure 46, and in the Latin version at page 244. For the Kyrie is, itself, in F, and he makes a cadence on G in the middle, which G is, counting from F, the second degree.

Disc. Since one can, thus, use all the keys within the octave (with the single exception of the seventh degree), it is all the easier to take apart or dissect the <theme>. For I have heard many concertos in which one-, two-, three-, or four-measure tuttis between the solos are constructed out of the <theme>, so that one can scarcely detect a principal solo. We have a [96] concerto at home in which a complete antithesis is not inserted into the <theme> but rather only in the last measure of it during the solo. My lord has procured recently yet another concerto in which only the beginning of the first measure of the <theme> is always heard in unison in such a form. I will give you a sample of it, e.g.



Now, as mentioned, he presents the five notes of the beginning during the solo instead with all four voices in unison, only where it is allowed with a comma, or he may have set up one or another comma by this means with all diligence, e.g.



And also at \Box -commas in D, A, G, and E, e.g.



Among others also with the minor third, e.g.



There are also redoubled ones in it, e.g.



In the last two examples, here, he has not used unison but has mixed in some full-voiced texture. I have also heard the following three with inversion, e.g.



To be sure, I cannot claim that he has gone from key to key exactly as I have done here, but perhaps in the way that the art of permutations lay on the tip of his pen. Furthermore, although a concerto of this sort may not appear to be quite learned, it seems to me that the repetitions of the internal tuttis or [97] fortes are too many. One quarter as many would be more than enough for my taste. To be sure, I will also see, in time, whether it is especially artful always to interject one, two, or three-measure tuttis into the solo.

Prec. The concerto takes its name from *concertare*, which means "to contend with one another," also "to understand one another" or "to thrash out an agreement with each other." That suggests that the middle voices, likewise, can make their marks in this. Disc. In that respect, most Italians really have written no concertos, since they give the middle voices almost nothing, or little, to do.

Prec. I once advanced that idea to an Italian. However, he came back at me with the following words: "I know well that the Germans currently compose in a more thorough fashion than we do. However, there is one thing about this that I must remember: they put more composition into them, while we Italians put in rather more instrument into them, that is, we let the principal voice sound and predominate throughout without covering or hindering it with such copious composition. Accordingly it is said, even at many German courts, "This one or that one was heard in a solo," rather than "this one or that one was heard in a concerto." The middle voices must only help support the principal melody, and in this case we use the word "composition." Enough. In the end we still find connoisseurs in every place. Certainly a pure solo, namely one without any accompaniment at all, we no longer have these days at all, except for some capriccio, hand-, or galanterie-piece. Because I was not capable at the time to maintain the opposite, I have ever since then built on his opinion for the sake of [earning] bread. Over time, you can do as you please. Only you should take note that among twelve Italians there is scarcely one who composes purely and orderly in all respects.

Disc. That is certainly so in Urbsstadt. Whatever a certain counselor does well, the other eleven spoil. Thus, one could, e.g., call a violin solo a concerto, since the bass concertizes with it or at least helps support it. But what does it have for a tonal order?

Prec. A violin solo has the same tonal order as a concerto, namely, in general:

C—G—A—C

and you already understand this well from what has preceded.

Disc. In the preceding, I have a privately thought, if I meet a virtuoso who is able to play, sing, or blow only a few notes, I will valiantly bolster with composition everything that is weak and helpfully throw in long tuttis, which will, perhaps, help both of us. This will not go over in a violin solo, etc., however, which one may begin with an Adagio, since an Allegro at the beginning, without a ritornello, would perhaps sound too naked.

PRINCIPLES OF TONAL ORDER GENERALLY

Prec. It is really not a rule that the Adagio should form the introduction. I have already seen many in which the Adagio stands in the middle.

Disc. Thus, one can, at will, even use another key in the middle for this purpose; I mean occasionally, for variety. In the meantime, I know well that a solo must be aria-like and singing throughout.

Prec. Shadow and light are also very well suited to it, namely, if here and there a boisterous passage [*rauschender Gang*]¹³⁸ is inserted in order to stir up the melody [*um den Gesang zu erheben*] or at least to make it a little more pleasing. I will just quickly write out a brief sample, e.g.



¹³⁸Brillante, or in French brillant, means, therefore, among other things, lively, animated, etc.

[98] You see well that I have not expanded anything further.

Disc. I would have thought that boisterous notes would be indispensable so close before the cadence, for they animate it uncommonly. In the meantime, I have come to see that after the second boisterous passage, namely the one in the key of the sixth degree, A, you have added four singing measures before the cadence, and perhaps for that reason you have annotated them with 1, 2, 3, 4. But today you said that two similar commas are found only in the case of a repetition, yet here at letter Q there is a \Box -comma on the sixth degree, A, and the following boisterous passage has a \Box -comma in the same key at letter P. Does it have to be that way?

Prec. I doesn't have to be that way, but it can be that way only once in a while. For that reason I have written in the letters Q and P next to them. These two commas are so different from one another in that the first is inconclusive and in the low register, while the one that comes after the boisterous measures is in the upper register and is conclusive. Furthermore, the boisterous passage is so completely set apart from the rest of the melody that it is practically perceived as an expanded insertion. However, now I want to set apart this insertion, as well e.g.



Disc. And also two tonic commas in succession? To be sure, the first is conclusive by nature, and the second is, on the contrary, inconclusive. And if they were placed even further apart, they would be even more tolerable, in my experience, because the ears would have forgotten the first one. But after the cadence on A, couldn't one have made a transition by means of the *fonte*?



Or finally couldn't the theme at least be varied a bit, e.g. [99]



Prec. Without any doubt. In many thousand ways.

Disc. This solo of yours has only two parts because of the double bars : $\|$: , and yet you make three parts out of it?

Prec. That is done only for the sake of greater clarity. Look, the first part begins in C, but it has most of its passages and notes in the key of G. The second part begins in G, but it has most of its passages in the key of A [minor]. The last part may begin as it will, although it has most of its passages again in the tonic, C. Now if a solo is carried out with regularity and expansion, the first part can actually have two boisterous passages, just as the second part can have two boisterous passages, just as the last part can have two boisterous passages or migrating passages (Schwärmer). Or in the first and second parts overall there could be only one but with two in the last part. Or even none in the first part and none in the second part, but with one or two in the last part, as one wishes. In short, in all Θ . Only, it is good if the most strongly boisterous passage be reserved for the last part in order to close the whole Allegro, etc., as impressively as possible. Likewise, an orator or perhaps a preacher saves the strongest arguments for last. Only the Italian listeners, according to what I am told, must be drawn in by having the most impressive passages right away at the beginning. I truly don't know whether their natures have made them so.¹³⁹ Nevertheless, when one or two strongly boisterous passages are found in the second part, it is not entirely necessary that they be as strongly stated in the last part, but rather it can be done as one wishes. The boisterous passages in the first and last parts ought not to be too similar to each other, as they are to be seen in my model, but rather completely different migrating notes can be used in the last part, even more strongly than I have shown you before, if desired. The Italians do not pay much attention to that. One sees many violin solos by them in which there are neither strong nor weak boisterous passages anywhere.

¹³⁹Whoever does not see that I am only boasting for the sake of the discantist certainly would imagine that I understand things rightly. I split my sides laughing.

Disc. Certainly, it is by means of boisterous passages that each part obtains a body or a belly. But you yourself often say that one should imitate an aria melody with instruments.

Prec. An aria generally also has its boisterous passages.

Disc. Which mostly consist of running passages, however. For double claws [sixteenth notes] are perhaps not performed [well] by a singer.

Prec. If he [the singer] can produce or sing them, he would certainly not leave them out. Why shouldn't one sometimes display the powers of an instrument? Nevertheless, one should not use only sixteenth notes all the time. In fact, an aria-like boisterous passage can sometimes serve just as well.

Disc. Thus I will make many Θ , now this way, now that way, and rarely will I put no boisterous passages in them. Cadences are stirred up greatly by means of them. By the way, I see an error in your model. In the first part, you have written a transition, which, perhaps of necessity, can also introduce an antithesis. On the contrary, in the second or, most importantly, the last part, you have not presented it again, namely this:



Prec. It does not have to be that way. There is, nevertheless, enough unity in it. I would almost have said that a melody can now and then be just as flowing when everything is not so precisely circumscribed. Here I will also tell you briefly that we have another light and shadow (other than the boisterous passage). This, however, is not made by the composer but by the violinist, himself, while he plays, e.g.



Here I mean mezzo forte, *halb-stark* in German, when I write "dolce." Now, a violinist might play similar notes (I mean not just these) in all Θ , without the forte, piano, or half-piano written in. [100] Some violinists, on the other

hand, especially in Italy, apply equal strength with the bow throughout. Here, too, it comes down to preference.

Disc. Good. I will observe, over time, which style has more supporters. However, you could have also expanded the boisterous passage in the second part, e.g.



Or you could have prolonged the cadence + after the boisterous passage, e.g.



Prec. Certainly. Haven't I chatted enough with you today concerning the various prolongations?

Disc. If, however, a boisterous passage in the second part simply acquitted itself better in the key of the third degree, E, might I then not eliminate the sixth degree, A?

Prec. Yes, indeed. Your needless doubt could almost make one irritated.

Disc. Thus, with your permission, I will slightly prolong the boisterous passage of the last part, e.g.



Disc. When our Hansmichel, for example, composes a concerto or a solo in C major and falls into the key of G, he holds so tightly to it that nothing can free him from it but the following cadence. I will give you a sample:



And he does the same thing in all the rest of the intermediate keys and tonalities: but often only expanded even farther. Now Philip calls the notes from the sign \clubsuit onward a lyre passage (*Leyer*).

Prec. Philip is right. Hansmichel perhaps does not know that in the middle one can use all the keys that belong to the tonic, be it [the middle section] of the [101] short or expanded type, even though the tonic, itself, must suffer for it most often. For example:



However, I want to present the key of A more clearly for you at the sign ₱, e.g.



Now you should see F:



Now you should see E and D.



The foreman can once again be helped when he begins to work, in fact, the steward, himself, is the least at liberty, e.g.



[102] Or:



Disc. But up to this point do all of them rather help the chief maid, A?

Prec. That may be. As long as you know that all of them can help each other throughout, either briefly or extensively, as one wishes. For that reason, there would be nothing at all to complain about in Hansmichel's lyre passage¹⁴⁰ if he had introduced and arranged it better. You mustn't let yourself be discouraged by such censorious people.

Disc. Ought I therefore to use no keys other than the three with the major third, C, G, and F, and the three with the minor third, A, E, and D, except that I may allow the first three to be heard at times for a little while with the minor third? I can certainly satisfy myself forever composing with just one sixth degree.

Prec. One can easily deceive the ear for a while, as you have seen in the symphonies. But it is actually dangerous. You are still too weak to do it. Nevertheless, I will give you a small sample of it, e.g.



Here, at the sign P, the D comes with the major third, which does not belong to the key of C, for, rather, the key of D with minor third should have been established by means of a \flat in front of the B, e.g.



Nevertheless, the first example is, in my view, just as good as the last one, for the reason that the D major does not last long, and it leans rather more toward the succeeding \Box -comma in [the key of] the fifth. Were I, however, to formulate a melody, e.g.

¹⁴⁰It behaves generally, for that reason, like a distress-note passage, about which I included a remark in the first chapter, on page 39, all the way down [in a footnote].



[103]

Disc. I beg you to stop! The comma at the sign \textcircled is already too superfluous and offensive, let alone if there were a cadence or comma in D major following it. In the face of such a horrible tonal order, all the sables must run out of Siberia. It would be different if in the second part in G, the tonic itself were [brought in]. Furthermore, I would rather write it something like this



Or I could have made it a little longer than the first part; in a word, in all Θ .

Prec. Good. Now at last we are at home with tonal order.

Disc. It seems to me, however, that I have also once sung or heard a *fonte* that is contrary to every tonal order, or at least contrary to the ears of all discantists, e.g.



Prec. That is a perverse hermaphrodite,¹⁴¹ for the arrow on the note A in the second-to-last measure points to a comma in C minor, and yet, contrary to expectations, there follows a comma in C major. The person who wrote this for the first time may perhaps have thought that he had to use the diminished seventh in the second member arrow
arrow of the*fonte*, just as he did in the first <math>
arrow member. However, the second member with the brow in front of the note A rather longs for a <math>
member arrow of the minor, e.g.



This member ♥♥, however, is not desired here.

Disc. Unless, one wanted to make a brief excursion into C minor with all diligence and then immediately return to C major from there.

Prec. Were the hermaphrodite, however, drawn out longer and introduced better, the ears could still be deceived in a graceful way. This rather pleases a hundred connoisseurs, but it has, as yet, seldom pleased me. From this I conclude, once again, that I have a deficiency of nature and was not born with a proper sense of harmony.

Disc. Recently I encountered the word "hermaphrodite" in our dictionary, and I asked my lord about it. He said, "There are a number of such species among the trees and herbs; the lilies, on the contrary, are of another nature, etc." "Between us," he said finally, laughing, [104] "a hermaphrodite is a person who carries on both shoulders." Still, I cannot tolerate such an unharmonic rogue. Accordingly I will stick with my natural and clear *fonte* (without \flat), e.g.

¹⁴¹*Hermaphred*.



Prec. In time you will learn more than you will from me.

Disc. And that which we have said up to now with respect to shadow and light, etc., in the violin solo, ought one also to observe in concertos and the rest?

Prec. Do not doubt it! The one is suited to the other.

Disc. My lord is fond of saying, "An *Exomnibusaliquidista* usually becomes an *Extotonihilista*." I should learn one single thing properly and let the rest go on their way. The harpsichord is the best instrument for composition because by means of complete harmony one can always find on it enough strange ideas and themes, as we know to some extent from experience. I, however, also know from experience that one thing can help the other. For as soon as Philip began to give me violin lessons I immediately became a stronger singer. Singing, as the principal foundation, has certainly already helped me very much with violin and harpsichord playing. My lord, however, does not realize that he does not understand the nature of the violin, although he makes himself out to be a fine composer. Because I am mainly thinking of earning my bread through composition, I will apply diligence to become still better acquainted with the above-said instrument.

Prec. You will do well with that. To that end I will give you the incomparable six violin solos that you see lying here.

Disc. Heavens! We also have two concertos at home by this famous master, for the very name of Sig. Franc. Benda is on this. He is, as Philip says, the Royal Prussian Chamber Violinist.

Prec. When you are done with them, I will look for some others for you.

Disc. Philip must help me that I may thoroughly explore and fully grasp them.

Prec. The natural and the pathetic are as artfully projected throughout as one could wish.

Disc. My lord, however, calls only church chant pathetic.

Prec. In German, *Pathetisch*¹⁴² means "moving," "touching," even "stirring," namely stirring other people, but not only sorrowfully, as some of your and my countrymen have claimed. For in church, a piece of polyphonic music¹⁴³ can have a very slow tempo and downright tragic keys and still not be really pathetic. On the other hand, a church piece can have a brisk tempo and lively key, as long as the text calls for it.¹⁴⁴ A concerto, etc., can be composed in an orderly and artistic fashion, filled out, and at the same time consistently laid out. That alone is not sufficient. Many who compose that way continue to believe that they are done an injustice when they receive no applause out in the world. There are, on the other hand, many very common songs that are called immortal by many people, whether or not the composer of these was the equal of a theorist or a discantist.

Disc. I understand. What comes from the heart goes to the heart. One must above all try to make an impression on the listener, as a preacher does. And the so-called affect, itself, can perhaps sometimes be different from the pathetic, according to the aspect of the thing.

Prec. In short, that is the true theory of music,¹⁴⁵ which has been sought by all true connoisseurs and experts in all ages, and will be sought until the end of the world. Some are born to it, but they become stronger the more they compose and tirelessly apply diligence to it. It is often said that the French have much more of the pathetic style in their melodies than the Italians. I gladly confess it.

Disc. As I understand it, a pathetic expression can also often be put into many minuets, yes, even into a Presto, etc. But my lord expresses the word *ascendit* with rising notes and *descendit* with falling notes. Is that pathetic?

Prec. He can perhaps make it pathetic at the same time. Only it is not so just on account of the fact that *ascendit* means "rising" and *descendit* means "falling." For such an expression of the words is, contrary to pathetic expression of the words, merely a shallow artifice.

Disc. Thus, the following, which I copied out from a printed book last year, must hopefully be at least a little pathetic, e.g. [105]

¹⁴²Patheticè.

¹⁴³The slow chorale melody is pathetic because of its strong setting in unison.

¹⁴⁴These days, however, there are very few composers who feel called upon to think of this. Concerning this, one hears sighs and laments daily [from] real connoisseurs.

¹⁴⁵Which I practice as long as I live, and still, up to this point, I cannot achieve it.



Translation: The courtier, when he rises, raises his voice. But as soon as he falls, tone and sound fall with him.

Prec. Here, because of the text, there may be a little something of [the pathetic], but [were it performed] with only instruments it would be difficult [to think of it as pathetic]. We will speak more about this later.

Disc. When I think of composing a concerto or a violin solo, etc., I can certainly conceive of it as if I had the text of an aria in front of me. For all time, I have never done otherwise. The melody becomes so much clearer, more luscious, and expressive, as in the music of my lord. Surely he understands the rules better than I. And certainly he has always had a few operas lying around him, from which he takes ideas, now from this one, now from the other.

Prec. Such theft betokens no great rule. On the other hand, your way of composing is just right for the pathetic.

Disc. I simply do not know rightly whether I should make the tutti of a concerto long or short.

Prec. The theme or opening tutti may well be made several measures longer so that some of its antitheses may be incorporated into the solo every now and then. Some want to force the following solo to be longer than the stated theme. I, however, find no good reason why one should always observe that so strictly. For it does not depend entirely on the first solo. The middle tuttis certainly should not be made as long. In every way, the solo should be heard and not the tutti. So the last tutti often consists of only two or three measures, as if it were crying out to the solo, "Vivat! Bravo! Beautiful! etc."

Disc. But what if, for example, the solo sounded bad?

Prec. Then the tutti would cry, "Phooey! Nasty! Loathsome! etc."

Disc. One often hears long and disgusting middle tuttis. Only for wind instruments may one make the middle tuttis longer by a couple of measures, so that they may catch their breath meanwhile.

Prec. There, again, you are quite correct. Meanwhile I would rather hear someone say, "It is a shame that this concerto, etc., is too short," than to hear it said, "It is a shame that this concerto is too long."

Disc. I know well that you wish to consider brevity as a significant sign of skill. That, however, does nothing for me.

Prec. I usually begin the first middle tutti with the same theme as the [first] tutti, except that it is abbreviated. However, I rarely begin the second middle tutti, the one that is in the key of the sixth or third degree in that way [with the theme], but rather I make use of the antithesis at its beginning, or else the solo, itself, must lend me a few measures, that is, measures that have already been heard in the solo. And I do that in order that the beginning of the theme not be heard so often. In the final tutti I do the same thing, although I usually take care to form only a suitable antithesis in order finally to make a brief return at the end.

Disc. My lord says that one must begin the solo quite differently from the [first tutti] theme.

Prec. Your lord, therefore, does not even know what "theme" means. Why does he not just say that every tutti must begin in its own way, while also every solo must begin differently. In that way, one could turn a single one of his concertos into an entire dozen. Why should we not be permitted to imitate opera arias, in which the clauses and ideas are heard so often in repetition that they remain better fixed in the memory of the listener? Another way is to let the solo begin with an antithesis, in any desired variation, e.g.




[106] Now the solo begins like the [tutti] theme, e.g.



Or, if you prefer, it can begin this way, now and then:



Or perhaps even a bit varied:



Or it might perhaps be better this way:



Or this way:



or:



or:



or perhaps even on the third degree:



[107] Since all these measures and brief antitheses are, as you see, derived from the theme and have already been heard, it follows that it is because of the unifying cohesion that not much doubt arises in the end. The antitheses, however, are usually scattered much more throughout the entire concerto and incorporated into the solo. And this seems to be the only way to make a concerto aria-like, because it can already easily become sufficiently novel by means of repetition, expansion, and various pitch alterations. I know well that often the solo begins quite differently from the theme. On the other hand, the middle voices are often given some familiar notes or measures from the theme during the solo. This is something one certainly sees also in one or another aria. I will just give you a little sample of it, e.g.



PRINCIPLES OF TONAL ORDER GENERALLY

You see here the four or five opening notes of the theme used in the accompanying bass \textcircled , and that the viola or second violin could also be filled out similarly if they were written for them instead of for the bass, which has its assigned duties, anyway. However, notes or measures from the [tutti] theme should be placed not right at the beginning but further on in the solo. In fact, I once heard a concerto in which the solo had its own flattering melody throughout, without borrowing the least thing from the [tutti] theme. However, the [tutti] theme merely made an appearance first here and then there with its antitheses during the solo, just as if they always wanted to meet in a hostile fashion. Likewise, there are fugues in which the theme is heard throughout with a major third, while the countersubject, on the contrary, is heard with the minor third. But these are only selected rarities.

Disc. In the meantime I have noticed that the second middle tutti, for example in the key of the sixth degree, does not always have a cadence and also does not have to remain always only in the sixth degree, because the solo that follows it can begin, if desired, in the tonic again, that is, in all Θ . However, since, in particular, each middle solo can have for its use five middle keys, it would be difficult, nevertheless, to put the keys of E and F one after the other.

Prec. However sometimes real out-and-out delicacies can be turned out by that means.

Disc. I will, however, try just a little bit of it, e.g.



The F sounds so impulsive after the E, as if it were chromatic. But now the F first:



[108] This example falls a little more gently on my ears than the previous one. I really hope to figure out over time which one it has to be. Two minor keys, such as E and D, go together far better, e.g.



Or the reverse:



Actually, I could have also gone to A here, e.g.



However, that is not the question. But rather, I want to ask you about something quite important. However, we will first rest for a little while and talk of something else. Look, as soon as I neatly wrote down and organized all our explanations and discussions about metric order from the past Monday and Tuesday, as you wished me to do, the Urbsstädter came across it and paged through the whole chapter, unfortunately! Mr. Ipleer from Opolisburg, who often comes with him to the coffee house, has now also turned against you.

Prec. I know the latter already through his books and so-called dissertations, which he has published. And what more?

Disc. The day before yesterday it really came down on you, that is, he said that you think you can soar like a lark in your disordered and superfluous explanations, but you are poised to fall, at every moment, like a quail in a puddle. They say that you want to show that you have an understanding of many things, which, however, is false; for you have only picked up something here and there superficially by the hair, to make a lot of wind with.

Prec. Then is it not enough that I expose my weakness forthrightly to the light of day? I must have also a little conversation for my trouble.

Disc. To be sure, what pleased me did not please these two gentlemen; and what pleased them did not please me. You should not be angry on my account. They, however, spoke against you with strong words such as our neighbor Hanserl is not nearly in a position to use against me, no matter how ill-bred he is. The word "brainless" was the most polite among them, so that Philip could not listen any longer but rose up against them: "You want to be scholars, but you may still be both far more sensitive and rougher than many scholars! Mr. Ipleer, you have written good books. One of us must contrive something novel on the violin and overreach the mark in doing it, etc." Tomorrow I will tell you how the Urbsstädter ground up your situation in life, for everything is known to him.

Prec. The good hay rakers (for scolding is no art) should rather write some chapters on metric and tonal order, etc. Then you could compare his opinion with mine.

Disc. Don't think badly of me. I decided, anyway, for the time being, to consider as false yours as well as all other writers' explanations. What will, consequently, be good will remain good.

Prec. In all natural things, this is an excellent way to judge something.¹⁴⁶ [109] In fact, I read that good advice again just yesterday in a French book.¹⁴⁷ If only you will not get hold of the bad by chance instead of the good, which unfortunately! among us mortal creatures commonly happens. The good Ipleer, however, is merely a straw raker. He understands absolutely nothing about music, and he wants to help the Urbsstädter, who, on the whole, does not need any help.

Disc. At home, I have to read a German grammar together with one in Latin. You know well that I could not otherwise compel myself to speak

¹⁴⁶For that reason, I explain even everything problematic to the discantist.

¹⁴⁷By Mr. Descartes.

with you this way. It gives the ancient and affected High German words, such as *affi* or *auffi*, which is derived from *auffein*, instead of *hinauf*; *nachher* instead of *hernach*; *anhi* from *einhin* instead of *hinein*; *abi* from *abhin* instead of *hinab*; *aubi* or *aussi* from *aushin* instead of *hinaus*; *um* from *umhin* instead of *hinum*, etc. But why do you call the Urbsstädter and Ipleer *Strohumi* and *Heu-umi*?

Prec. Be quiet! I am already very sorry about it.¹⁴⁸ Besides, this story has merely been translated from a foreign language into ours. For once upon a time, I do not know when or where, the militia had to practice and could not understand "left face" and "right face," so that the sergeant ordered them to bind a little bundle of hay on their right arm and a little bundle of straw for their left arm. Then he cried, "Hayside! Strawside!"

Disc. That was certainly a good stratagem on the part of the sergeant. But to go back again: because one can use the tonic in the middle, e.g., of a concerto even as a middle key, every middle solo can be rearranged 120 different ways, as was explained a few minutes ago on page 94.

Prec. There is truth in that. We will make a test of that in miniature. But since we have written everything in the key of C, we will see whether you know also what to do in other keys.

Disc. I may only tally it up. Or I will in order to make it evident to you, write something in all the usual keys in miniature. I will go no further than the fifth, however, e.g.



Stop! I think that 3/4 time is easier to write:

¹⁴⁸It is true, <nature dictates>: my strict upbringing did not entirely enabled me to respond to such scathing speeches, although I believe that I considerably reduced this hateful deficiency years ago. In this respect, I wish to nourish myself as little from it as from contemporary writing.



Or, arranged more briefly, I manage with a single line of notes, e.g.



Prec. Good. Now do it just as Mr. Ipleer does in his dissertation.

Disc. But why? I have nothing to do in that case but transpose this example, namely thus:



[110] Prec. I would also like to see the sixth degree in this.

Disc. Right away. I just want to fashion one more, diligently, with an expanded miniature, e.g.



Now tell me quickly whether such a miniature would not otherwise be of any further use.

Prec. Why not? Just write the word "solo" and "Adagio" above it. A violinist will readily decorate it with ornaments. In fact, it will be a thousand times preferred to a solo cobbled together by a composer who does not understand anything about the violin.

Disc. I, however, have become more clever. Our Philip has, among other things, very graceful Adagios. One of them that he has is by an old Italian master in which all the middle keys, beyond the tonic, are substantially introduced, e.g.



[111] I could scarcely imagine that there were so many middle keys. Formerly such an Adagio may well have seemed pathetic. But now it sounds a bit too old fashioned. Our Philip certainly tries to make it new with his ornaments during performance. Now, however, the sixth degree with brief miniatures, e.g.



Now alternatively in fugal style with the third degree, e.g.







Prec. Good. In this way one could continue even with the 120 permutations if one wanted actually to bring in all five middle keys. I will give you, in the mean time, just a sample with an organ bass in the key of C, e.g.



For a feminine example, however, I will take the key of A minor, e.g.



Disc. I do not even want to examine these two miniature models closely. It is just as if I were not capable of recognizing modulation without the organ bass. Please continue with the violin clef.

Prec. And do you want me to write out all 124 permutations? What would the Urbsstädter say afterward?

Disc. He can remain who he is; I wish to know well and clearly whether it has its correctness in this way. I ask for nothing more than a miniature. You also write ten times faster than I do.

Prec. You have too good an opinion of me. But because you still do not quite know the advantage of it, I will let that stand. If I kept, e.g., C as the tonic, unchanging, then the five, namely G, A, E, D, and F, could be rearranged 120 times. Then I divide and say, "5 into 120 are 24." That demonstrates that each

of the five middle keys can begin the series 24 times. Just look at the ordering (but without the tonic, C) in letter miniatures, e.g.

Example 703.

		1.0		
gaedfi	adige	ediga	diage	fgaed
gaefd	adfeg	edfag	dfaeg	fgade
gafdel	adegf	edafg	dfegal	fgdae
vefed	adefg	edagf.	dfeag	fødea
gedef	adefe	edpaf	dfogal	foode
gadfal	adaef	edafa	dfgaal	food
gauic	auger	5 4 5 1 m	uigae	rgead
gedfa	aedfg	egdfa	daefg	teagd
gedaf	aedgf	egdaf	daegf	feadg
geadf	aegfd	egadf	dagef	fedael
geafd	aegdf	egafd	dagfe	fedgal
gefad	aefdg	egfda	dafge	ferid
gefda	aefød	egfad	dafeg	Feedal
	stream and			
graed	agedr	ergad	agrea	tdage
grade	ageid	ergda	dgfae	fdaeg
gfdea	agfed	efdag	dgaef	fdgae
gfdae	agfde	efdga	dgafe	fdgeal
gfeda	agdef	efadgl	dgeaf	fdega
giead	agdfe	efagd	dgefa	Edead
1	- [] .	and a f		a K
guear	aluge	eadgi	degta	faedg
gaeta	ardeg	eadig	degaf	faegd
gaate	ategd	eargd	deagt	fagde
gdacf	atedg	eafdg	deafg	faged
gdfae	afgde	eagfd	defga	fadea
Igdfeal	afged	cagdi	deiao	fadaa

[113]

Disc. You do not have to tell me. For in addition to the 24 initial keys shown above, there are four more to rearrange, which, amongst themselves, can be rearranged another 24 times anyway, as can be seen in the number table. Now I say, "4 into 24 yields 6." Thus, each of the four keys can begin the series six times. For that reason you have made nothing but rows of six. Then there still remain 3, which can be rearranged six times themselves. Were I to say then, "3 into 6," I would know that each of these three keys can be placed at the beginning of the series twice, etc. as you see. You left out the tonic, C. But I would like to see it proceed as the leader and, in fact, with a note miniature.

Prec. In fact, a cruel desire. That is the most exhausting.¹⁴⁹ You look to me like that man who sighed so sorrowfully as his wife lay on her death bed. She asked him whether he really loved her. Whereupon he gave her this lamenting and bitter answer: "Oh yes, my dear wife, I have seen you young, I have seen you beautiful, healthy, strong, cheerful, thereafter, in your approaching age, now, sadly, also long enough have I seen you weak and sick. But I would also like to see you dead someday."

Disc. God keep me from such a wicked thought!

¹⁴⁹I do not usually even like this. But if I do not have everything in detail before my eyes, I cannot understand anything. And it is as if people, just from listening to legends, [try to understand] such things are written here.

Prec. Now take note, I will follow the letter miniature exactly, only that I now also begin and end with the tonic, e.g.

Example 704.	۵.
	IJ
	調
	H
	艱
] j ∉
	J.F.
	J.J.F.

Example 704, cont.



Example 704, cont.

JX 2 2 P PXPRE







Example 704, cont.



[121] Disc. Since a single modulation of a single middle solo can be rearranged in so many ways, I would gladly believe that a single concerto can also be varied in many thousand ways. For what have we not already described today as regards the variation of measures and notes?

Prec. Rearrangement does not, however, only pertain to concertos but to all other types of work; and not only to the key of C but to all keys.

Disc. Yes, I know that very well. If my lord does not yet know about this art of permutation he will certainly say again: "Consider, man, how music advances!" For two weeks this word has been in his mouth almost daily. For fourteen days ago an officer rode through and ate in Urbsstadt at noon in the post house. After eating, he quickly took out his transverse flute for a bit and played such a gracefully ornamented tune on it that the choir director in Vallethal himself was not able to imitate it on the organ. The latter, the Urbsstädter, and my lord were together on this occasion. They finally introduced themselves to this gentleman as music connoisseurs, when he was ready to move on. He said, among other things, that he plays this instrument only for his entertainment. He was (as it seems to me) from Petersburg in Sweden. He hopes that the Lycea musica will, in time, warm and cheer the Icelanders more and more, after which they would be dispersed from the East more and more, and eventually quite widely, etc. They praised his art, with the open-hearted declaration that they had not yet heard the like and that music could probably never climb higher. Alas, he answered to this, "In

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my journey through Berlin, I heard something beyond this; there I did not dare to show my flute once. Music certainly progresses," he continued, "because the great monarchs themselves are bringing it to its highest peak." [The Urbsstädter and his lord] replied that they had already heard this many times, but they did not know whether the rest of the music from there would be as excellent. It seemed, however, he did not deign to answer this, but rather he wrote the following verse on the table, and said «goodbye»:

<Following the king's example, know the whole chorus [i.e., all musical personnel]>.

My lord has not yet explained that verse to me. However, *Lycea musica* means musical high school.

Prec. However, Petersburg is in Russia, not in Sweden.

Disc. I know that. Now I rather think to myself, "If only the officer could impart his knowledge of music amongst us. At court, in any case, he would get to hear beautiful music everywhere. Whoever is rich has good art to study. It is not always so, as my lord says. For I am sometimes so hungry that my ribs hurt, and he notices it and therefore calls me before him and babbles on about how necessity teaches better than all the best teachers in the world." You may now laugh at me for that. Previously it was often a little difficult likewise for you. But I thought we wanted to call it a day. Why are you bringing light here?

Prec. So that we can see the minor keys better.

Disc. Are these so different from the masculine keys, then?

Prec. Of course. A feminine key derives its essence from a masculine one and really has no scale of its own.

Disc. Doesn't the A-minor scale, for example, go like this: [122]

Exan	npl	e 7	05			
8=	1	-	-	-0-	P	
9=	A	B	====		+	=t=#

Prec. I say no. One must borrow the C-major scale for it, e.g.



Now these six pitches can be used [as chordal roots? as middle keys? concluding chords of commas?] essentially in the key of A minor and no others.

Disc. Thus must I once again pass over as merely non-essential the B natural, which is the seventh degree in the masculine key of C and here is the second degree of A.

Prec. Yes, indeed. One can only use it from time to time for a \Box -comma in E.

Disc. I know that, namely:



However, I will also undertake a small but important trial with it, e.g.



You are right; it sounds horrible. I did not want to believe you. Those are now two feminine keys that stand one after the other, or only a step apart. In this connection I will now ask you an irrational calculation question. Today we have worked with the tonic C all day and we have often placed E minor and D minor after one another.

Prec. Yes, and so?

Disc. Now if I make D minor (like A in relation to B natural) the tonic, can't the key of E minor be used with it?

Prec. No.

Disc. And why not?

Prec. In fact, I know of no other reason than that D minor is the tonic and therefore borrows its scale from the key of F major.

Disc. I probably understand that a little bit. The ear is always oriented only to the established tonic. Thus, the ears have a more harmonic sense than we do. For that reason, my lord often says, <It does not please the hearing; it does not go to the ear; a sophisticated ear cannot tolerate such horrible thickness, etc.>" Although he sometimes says, contrary to will and wisdom or perhaps out of hate and envy, that the ancients sought to capture the soul, whereas today's composers try only to charm the ear. I, however, think that if a present-day minuet causes people to dance or a Nachtmusik can put them to sleep, then. . . .

Prec. You should rather say, if pathetic church music can stir people to piety, then. . . .

Disc. Then the soul must not be too far removed from it. The famous natural scientist in Opolisburg says that the sense of hearing is a small body lying upside down. I believe it. For if I hear a very silly or a much-too-artful piece of music, I feel a quick twitch, shiver, and shudder one or two fingers' length under the pit of my stomach. Even the sense of hearing inevitably must shake its head at it. Therefore, the ears may well be not a major part of the body.

Prec. Tell me, rather, how do you make, e.g., an Andante in A minor?

Disc. I would take A, E, and A. Or with notes in miniature, e.g.



Prec. Now I finally realize that you have as yet heard and understood but little. That is the fugal structure, and the third is commonly included in that, e.g., A, E, C, A. Or in notes: [123]



On the other hand, concertos, violin sonatas, symphonies, Andantes, etc., use the third instead of the fifth, e.g.



I have formed the second part with the *ponte*. You know well that it can also be done with the *fonte* and with the *monte*, e.g.



Disc. However, these three, the *ponte, fonte,* and *monte,* are rather borrowed from the key of C. This raises no doubts in me, but a concerto. . . .

Prec. A concerto goes first to the third, then to the fifth, e.g.



Disc. If, however, I want to make even four principal solos in it?

Prec. Then D would be the most appropriate as the third middle key, e.g.



Because G is the seventh as either too close to the main tone, or too far away. The sixth, F, on the other hand, would be more suitable, for that reason, but it is too soft for it.

Disc. And it seems to me that the fourth, D, is just as soft. After it, one could reintroduce a sharp P, for the masculine key of F would be much preferable to me, e.g.



Prec. The fourth, D, must certainly be introduced by means of a sharp. And as long as a soft middle key lasts, the sharp must be kept even a little longer than usual. It is true that sharps and, on the contrary, softening [flats], can be of good service to the hearing, after which one finds oneself truly back in the tonic key. Nevertheless, they ought not always be introduced so abruptly, but rather little by little.

Disc. I just want to try out the seventh degree, G, a little, e.g. [124]



That is right. The seventh is in no way to be scorned in a feminine key. Indeed, I would not have believed it. However, I do not think of using it many thousands of times or as often as the rest of them.

Prec. Take note 1) that I am no admirer of four long, extended principal solos; 2) that one can furthermore use the middle keys quite well; 3) that even the violin solo, symphony, etc., can have the same tonal order as a concerto.

Disc. I have known that for a long time. Because, additionally, there are no differences between the execution and prolonging of feminine and masculine keys, I myself will try see whether I can correctly work out the 120 permuta-

tions. But one small question: May I rely on the fact that one always goes first to the third (except in fugues)?

Prec. Certainly. As otherwise stated, the people in certain countries or kingdoms have been bound, for the most part, to the fugal structure. Only fourteen days ago I heard such an Adagio played in G minor, e.g.



The violinist gave the small appoggiatura notes strong expression with his bow, but he let go of them after the attack and played all the rest of the notes quite *delicat* and, NB, also played the cadence trills on open strings without turns.

Disc. Why don't you speak German? What does *delicat* mean?

Prec. Delicate, the same as *dolce* or also \hat{a} *mezza voce*, half strong, etc. At present, as they say, the same countries now go to the third, although they cannot completely forget the fifth.

Disc. As far as I am concerned, that may well be a pathetic flavor. But here in this country, I would consider him to be a regular **womanizer** who prefers such a weak melody. For the tonic itself is feminine, and the succeeding cadence in the fifth is likewise feminine. It may be otherwise with fugues and when, in the middle, two such feminine keys come to stand next to each other as commas. In short, I will always go directly to the third, e.g.



[125] With your Lentement or Adagio, you have unfortunately! reminded me of the last war. For, toward us in Monsberg around noon, there came a regiment of soldiers who sang nearly all their songs in a minor key and never

added in anything but trills. As soon as they were gone, there came, as you know, their coarse enemy with their long butcher's knives at their sides, and they sang their songs plainly and without a single trill, and generally only after they had eaten as the guest of the innkeeper. They had quite extraordinary yet manly melodies, for they had stronger chests than any others.

Prec. You may, perhaps, prattle along without any understanding.¹⁵⁰ Show me, rather, the rest of the usual minor keys in miniature.



Disc. Sure. I will therefore begin in A [minor], e.g.

Now for a concerto, etc.

¹⁵⁰It is true that the French still do not at all desist from writing and speaking contemptuously of the Germans. But that is of no concern to the lad. For the most reasonable of them still do not know how to hold their tongue.



[126] Now I will execute something with the fugal structure. Only, before I close in the fifth, I will remain with the masculine third long enough.

Prec. One also hears quite often old things mixed in, and often quite nicely carried out. Today a composer must know how to work in everything.

Disc. Furthermore, I want to briefly examine the 120 permutations with the minor third; these will impress a further understanding upon me. I use the key of A minor, e.g.

Example 721.

a c e d g f a a c e d f g a a c e f d g a a c e f g d a a c e g f d a a c e g f d a	a e g d f c a a e g d c f a a e g c f d a a e g c f d a a e g c d f a a e g f c d a a e g f d c a	agdfcea agdfeca agdecfa agdefca agdcfea agdcfea agdcfea	adfcgea adfgcea adfgcea adfgeca adfecga adfegca	afcegda afcedga afcdgea afcdega afcgdea afcgdea
acgefda acgedfa acgdefa acgfeda acgfeda acgfdea	a e d f c g a a c d f g c a a c d g f c a a c d g c f a a e d c g f a a e d c g f a	a g c f d e a a g c f e d a a g c e d f a a g c e f d a a g c e f d a a g c d e f a a g c d f e a	adcefga adcgfea adcgfea adcgfea adcfega adcfega adcfgea	a fecgda a fecdga a fedcga a fedcga a fegcda a fegdca
acdfega	a efgcda	agfccda	a d e f g c a	afgecda
acdfega	a efgdca	agfcdea	a d e f c g a	afgedca
acdgfea	a efdgea	agfdeca	a d e c f g a	afgceda
acdgfefa	z efdcga	agfdcea	a d e c g f a	afgcdea
acdefga	a efcdga	agfeeda	a d e g f c a	afgdeca
acdegfa	a efcgda	agfedca	a d e g c f a	afgdcea
acfgdea	a e c f d g a	a g e d f c a	adgcfe:	afdgeca
acfgdea	a e c f g d a	a g e d c f a	adgceia	afdgcea
acfdgca	a e c d g f a	a g e c d f a	adgefca	afdcega
acfdega	a e c d f g a	a g e c f d a	adgecfa	afdcgea
acfegda	a e c g f d a	a g e f d c a	adgfcea	afdegca
acfgdea	a e c g d f a	a g e f c d a	augfeea	afdegca

The Urbsstädter gathered most of his principal rules in just a few written definitions, so that perhaps no beginner but only a few scholars (namely those who have learned or perhaps already know more than he) can understand. However, I will illustrate also these permutations with notes, e.g.



[127] Prec. Stop, and generate the remaining 114 permutations at your leisure at home. One must not disturb clear water without a reason. The Urbsstädter was right when he stopped us. You certainly have a sufficient grasp on the art of permutation already.

Disc. Yes, it seems to me as if I had known, already for years, everything that we have dealt with today. My lord also has a folio volume, etc., in which something of tonal order is mentioned. This, the *Musurgia* by Father Kircher, and with the treatise by Father Spiess he locks up both together in a special chest.

Prec. He is completely right. For the Honorable Father Spiess wrote of counterpoint without having an adequate understanding of it. When we deal with counterpoint, I will lay all his erroneous examples before your eyes as a warning. He presents himself as an advocate for the old keys [modes], but he is not, as we shall then see.

Disc. But he also writes about the theatrical style, and my lord holds him in as high esteem as he does the folio volume and the *Musurgia*, etc.

Prec. That is his duty. One must, of course, be grateful to them for giving so much honor to music and for troubling themselves over it, as was their doing.

Disc. He [Spiess] also includes the word *rhythmopoeïa* therein.

Prec. I know it.¹⁵¹ However, he did not know that musical rhyme structures [*recta* "musical poetic-meter schemes"] (*rhythmopoeïa*) consist of several measures, caesura [segments], and comma [segments]. He wants to apply the scansion feet of Latin poetry. However, how could a poet force scansion feet upon the following notes?



And in music don't we have a thousand times more variations? Furthermore, the poets have only 120 names for five-syllable words, corresponding to the long and short feet or syllables of each newly imagined word. Father Spiess sets out 27 of them, and I do not know what sort of rule he lays down, for he himself cannot know that. I will write down only four of them. The first word consists

¹⁵¹For that very reason I was recently given a strong reprimand, because I have used this word in the [chapter on] metric order.

of two long (syllables). The next consists of two shorts. The third consists of a short and a long. The fourth, on the other hand, has the first long and the last short. Now look what they are called and how he expresses them with notes:



He explains, additionally, that the first is used in serious and elevated pieces, the second in rapid and warlike pieces, the third in moderately jolly, and the fourth, namely the trochaeus, is suited to satirical, quite innocent things, [128] and so on for the rest of them.¹⁵² Now is it possible to think that way? Cannot all feet without exception be made cheerful as well as sorrowful in music, whether they are used in Adagio or Allegro, or at the same time in the accompaniment, etc.? According to the precepts of all the famous masters, I ought to be able to find one and the same word set to all four types of foot, e.g.



For an iamb is not to be initiated with anything except an anacrusis, e.g.



If I now want to write it also in Latin, e.g.



¹⁵²Father Spiess certainly may have let himself be misled by others, for he is not the first and the only one who has written of this. But many have actually written books about music who have never really learned about music and for whose sake I do not trouble myself to dip my pen in ink. Still, if only he had been strongly advised by his colleagues to write nothing but church pieces, and this so that people would not have reason to bother themselves about it or on the contrary to mock him about it.

¹⁵³Just as some in some parts of the world: *Ōbsērvānt quāntītātēs cæsŭrāsqŭe cărmīnūm*. But, *NB*, all of this no longer applies to Father Spiess, but rather I am only explaining the iamb.

Sometimes a small, forced exception will not excuse this bad rule. This Latin verse would not come out so tastelessly, e.g.



In short, I cannot think of any pure Latin iamb. Composers have guided themselves from time immemorial according to the syllabic meters of speakers.¹⁵³ And speakers according to the following:

<the accent<="" th=""><th>on a monosyllable word is open.</th></the>	on a monosyllable word is open.
For e	example: Rex, pax, vox, etc.
It moves ba	ck in a two-syllable word.
For	example: hómo, cánit, etc.
Then, a shor	tened penultimate syllable makes the following one sharper.
For	example: canémus, etc.
A long sylla	ble is pronounced with a sharp sound.
For	example: cánitis, homínibus, etc.>

More about this treatise on another occasion. I have only remarked on this small part in order to have a little fun with your lord about it. If, however, he has something against my opinion, I would be glad to hear about it.

Disc. Fun, for sure! Recently our Philip mentioned that in I don't know what country or kingdom, a few years ago, two composers were made doctors, which, by itself, was perhaps a common occurrence. At the end, instead of an examination as in the other fields of knowledge, unknown musical pieces were set before them. However, both of them made audible errors during their performance. Not withstanding that, they obtained this honor. The leading composer of that country (even known to us), who attended the pompous ceremony, was also exhorted to take a doctorate as well. [129] Because he, however, had perhaps no interest in such illusions, he answered thus: "Oh! Heaven preserve me from the doctorate, since I could also fail, like these two." Now, from that hour on, my lord is the archenemy of Philip, because this tale has now been told in a treatise. For Father Spiess describes himself

¹⁵³Of course, Cicero (like the Germans) may also have distinguished the troche from the iamb from its usual pronunciation. For good writers assert that, e.g., Virgil applied no rule to the rhythm of syllables, because he was a native speaker of Latin, and, consequently, he conformed to the general mode of speech, namely, how even the peasants near Rome spoke about their agriculture. Therefore, kitchen Latin must have sounded quite different from that of our times.

as: "Honorary corresponding member of the society for musical knowledge in Germany." The animosity has its sufficient basis perhaps in that [Philip] continues to hope that he be permitted to correspond with them. Just as if he would and should live forever. I therefore appeal to your conscience to tell me which books are good or not good, so that I may not throw away money, effort, and time needlessly. Could I but only execute a fugue theme!

Prec. Since you must already play the organ, I will recommend the fugues by Mr. Eberlin, chapel master in Salzburg. It is the same book that had its first printing in Augsburg. The Italian title is translated as follows: Nine Toccatas and Fugues, composed by Johann Ernest Eberlin in Salzburg, etc., printed by Lotters Erben in Augsburg. It would also be good if you already had a practiced and ready finger technique, for which I would recommend a German work with the title Die Kunst, der Clavier zu spielen, durch den Verfasser des critischen Musicus an der Spree (Berlin, published by Haude and Spener, 1751) [by Johann Marpurg]. This book, in quarto, has only four and a half gatherings. If you wish a fuller treatment of these things, you should seek out the large folio edition by Mr. [C. P. E.] Bach. There is also a special explanation in German included.¹⁵⁴ That title page reads as follows: *Die wahre Art*, das Clavier zu spielen, etc.¹⁵⁵ If you want a real treatment of fugal composition, buy the two parts in quarto by Mr. Marpurg. They are also written in our native language. The title is this: Abhandlung von der Fuge nach den Grundsatzen und Exempeln der besten deutschen und ausländischen Meister. Entworfen von Friedrich Wilhelm Marpurg. Nebst LXII Rupfertafeln (1753). In the second part, however, Nebst LX Rupfertafeln, 1754. Both parts are published in Berlin by Haude and Spener. Use it and read it carefully. I have encountered unexpectedly in this Abhandlung von der Fuge so many beautiful rarities that I might never have thought of in all my life. Indeed, we will have scarcely three or four hours all together to write and to speak about the fugue, for I will show you one and another composition from these masterful treatises and refer you to them. Furthermore, these four or five mentioned books are to be had everywhere, or at least to be inquired after in all of those bookstores where musical works are also usually for sale.

¹⁵⁴In these parts it costs 6 gulden.

¹⁵⁵Recently Mr. Marpurg, of the *Critischen Musicus an der Spree*, published an extended edition of the aforesaid *Kunst, das Clavier zu spielen* with seventeen copper plates. It is now called *Anleitung zum Clavierspielen der schönen Ausübung der heutigen Zeit gemäß*. The positioning and alternation of the fingers can be seen in it so completely that one could rightly call it "the true way to play the keyboard." And hereabouts it costs no more than 1 fl. 15 kr. It is to be had where the

Disc. But will they be too expensive for me?

Prec. Some certainly cost more than others. But just consider that you will receive a benefit thereby from them. For it is far better to spend 14 or 15 gulden for good books than 100 gulden for bad ones or for a teacher who makes you inefficient for the rest of your life. From time to time I will tell you which good ones have been published, insofar as I am able to distinguish the useful from the useless. And in order to feel confident in this, I will submit my comments to you and your lord. I really know very few books, and most of these I have not had the time to go through completely.

Disc. But I might then. . . .

Prec. Away, then! Away! It is truly already midnight. Now this day was ours. If God grants us another day, we will deal with tonal order in particular. One generally takes, alas! too much of the world upon oneself. Much is forgiven on the basis of good intentions, however.

Disc. I am especially pleased by this tonal order.

Prec. In that way we can learn to consider cantatas, opera arias, etc., in passing at the same time.

Disc. But I am going to stay tonight with my cousin here, and since I will certainly sleep late tomorrow, I would rather return the day after tomorrow. Nevertheless, tomorrow I must bring a little cheer home to Hansmichel. He would like to ask you for a crab minuet. Be so good! I almost forgot about it.

Prec. Not at all? Well, you should certainly make use of the advantage of setting all three voices in an orderly fashion one after the other until the midpoint, in order to work out the second part with two voices by means of inversion. In the meantime, I would do it this way: [130]



Now one violinist plays it regularly forward as usual, the other violinist, on the contrary, begins at the sign \blacksquare and plays all the notes backward from right to left. Each one makes cadence trills when he will. The bass could be played by two in the same way, except that it would result in an unnecessary reinforcement. But I also want to set down something quickly for a single violin, e.g.



Here you play with the violin normally as usual. Hansmichel can, however, join in and play the bass on the violoncello normally as if the bass clef were placed at the sign Φ .

Disc. In that way it is no longer a crab canon.

Prec. From the first chapter you already know that I do not hold with such a forced and unexpressive trifling.

Disc. I thank you for this bonus and wish you a good rest. I myself, however, will certainly have good dreams, for you are right, music is a fathomless sea.

End of the second chapter.

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[The printing errors, identified here, at the end of the second edition, have been incorporated into the text as translated and in the musical examples, rather than listed here as in the original print.]