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Concise Manual of Harmony, Intended for the Reading of Spiritual Music in Russia (1874)

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CONCISE MANUAL OF HARMONY,
INTENDED FOR THE READING OF SPIRITUAL MUSIC IN RUSSIA (1874)

PIOTR ILLYICH TCHAIKOVSKY

The presented study is nothing more than a reduction of my *Textbook of Harmony* written for the theoretical course at the Moscow Conservatory. While constructing it, I was led by the desire to facilitate the conscious attitude of choir teachers and Church choir directors towards our Church music, while not interfering by any means into the critical rating of the works of our spiritual music composers. From the technical side, as well as from the artistic point of view, only very few of our famous compositions of this kind in circulation could pass even the most lenient criticism. If anything could shatter the undeserved authority of some and establish the mediocrity of others, it would only be the greatest possible dissemination of theoretical musical knowledge to a mass audience. I would be very happy to be of even slight assistance for such an especially desirable effect.

I believe it not superfluous to add that the rules of harmonic voice leading offered here were meant for those already familiar with the elementary concepts of music theory.*¹

* See Professor Kashkin's *Textbook of Elementary Theory*. [Editor's note: Tchaikovsky's own notes are designated by an asterisk and displayed as footnotes; my own editorial notes are designated by numbers and presented as endnotes.]

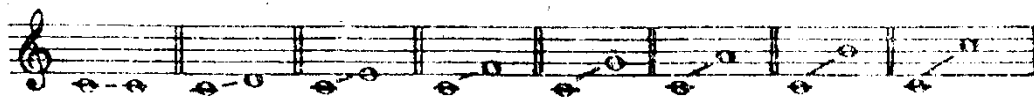
INTRODUCTION

THE STUDY OF INTERVALS

Before we begin observing the laws by which numerous different combinations of sounds connect with each other, it is necessary to provide a study of *intervals* that build the chords we will study.

An interval is an expression of the relative height of two pitches. The lower pitch of the interval is called the *fundamental*. The naming of intervals comes from the Latin language which provides the following literal translation: the *first*, *second*, *third*, etc., after which the following words are implied: *scale degree*. The *second*, for example, becomes the second scale degree; the *third* – the third scale degree, and so on. Within an octave, we can form out of the different sounds of diatonic and chromatic scales² the following eight intervals:

Ex. 1



As a result of raising one of the two pitches, an interval [number] is not changed, but the distance between both pitches becomes larger or smaller. This is the reason for the existence of secondary subdivisions of intervals into perfect, major, minor, augmented, and diminished. The second, third, sixth and seventh can be *major*, *minor*, *augmented* or *diminished*. The intervals shown above, which we have built on the pitch *do*, are in fact perfect or major. Each of these, by

means of symbols for raising or lowering pitches we may, at our convenience, turn into minor, augmented and diminished if the interval used to be *major*, and only into augmented and diminished if it used to be *perfect*. Minor intervals are a half-step*³ smaller than major intervals; augmented ones are larger than major or perfect intervals by a half-step; diminished intervals are a half-step smaller than minor or perfect ones.

Let us observe the amount of whole and half steps that would result when measuring major and perfect intervals.

In a major second – one whole step; in a major third – two whole steps; in a perfect fourth – two and a half steps; in a perfect fifth – three and a half; in a major sixth – four and a half; in a major seventh – five and a half; in a perfect octave – six steps.

Let us now, in order to understand the above-mentioned information, comprise a table of intervals within the borders of octave *Do*:

Ex. 2



* Intervals are measured in whole and half steps. A half-step is the closest distance between two distinct pitches; a whole-step is comprised of two half-steps.

Ex. 3*)

	Major	Perfect	minor	augmented	diminished
Primes					
Seconds					
Thirds					
Fourths					
Fifths					
Sixths					
Sevenths					
Octaves					

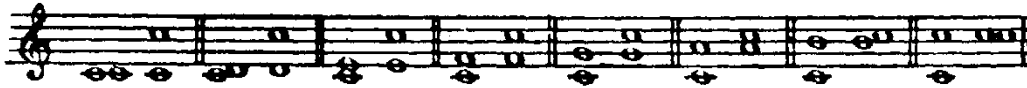
Instead of changing the upper pitch and leaving the lower one in its place, we may do the opposite, by raising the lower pitch in order to get smaller intervals, and by lowering it for larger ones; for example:

Ex. 4 major sixth minor augmented diminished

* Letter Y represents the intervals that are usable in harmony.

The intervals that exceed the borders of an octave repeat the relationships that result among the intervals within the octave. Only the *ninth* bears independence in harmony:

Ex. 5



Intervallic inversion occurs as a result of relocating the top pitch down the octave, or the lower pitch up the octave. Resulting are the relationships expressed by the following rows of numbers:

1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1

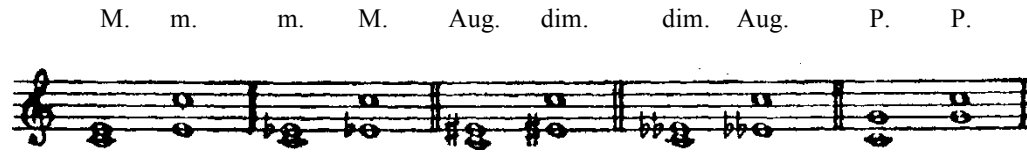
A prime in inversion becomes an octave; the second – a seventh; the third – a sixth; a fourth – a fifth; a fifth – a fourth; a sixth – a third; the seventh – a second; an octave – a prime:

Ex. 6



In addition, the major intervals in inversion result in minor ones; the minor ones become major; augmented – diminished; diminished – augmented; perfect remain as perfect, for example:

Ex. 7



According to the impression created by the intervals, they are separated into *consonant*, resembling *peace*, fulfilling itself, and into *dissonant* ones, creating an effect of *movement*, demanding support in the interval that follows. Belonging to the consonances are: perfect primes, octaves and fifths, as well as thirds and sixths, both major and minor. From these, the perfect prime, octave and fifth are *perfect* intervals; major and minor sixths and thirds are *imperfect* consonances. Seconds, sevenths and all augmented and diminished intervals belong to the dissonances. A perfect fourth lies midway between a consonance and a dissonance; however, it more closely relates to the latter category.

A STUDY OF HARMONY

PART ONE

Section One

CONSONANT HARMONIES. TRIADS.

1. Combination of three, four or five pitches, located at a distance of an interval of a third from each other, is called a chord:

Ex. 8



The most important of these three differently comprised chords is a (I) *triad*, comprised of the lowest tone called the *fundamental*, the middle one called the *third*, and the top one called the *fifth* of the chord. For instance, in the first of the above chords, which is a triad, the lowest pitch *do* is the fundamental tone, *mi* is the third, and *sol* is the fifth.

2. Triads differ from one another based on the kinds of thirds and fifths they are comprised of. A triad that is made up of a major third and a perfect fifth is named *large* or *major*; a triad with a minor third and a perfect fifth is named *small* or *minor*; a triad with a minor third and a diminished fifth is called *diminished*; the one with a major third and an augmented fifth – *augmented*.

Chapter One

TRIADS of a MAJOR SCALE*

3. If we were to take a diatonic major scale and build a triad on each scale degree, we would get the following sequence of chords:

Ex. 10

Do-major Scale



Major triads occur on the 1st, 4th, 5th scale degrees:

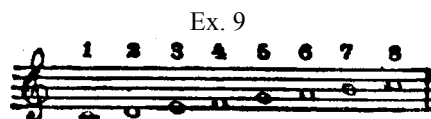
Ex. 11



These triads are named by those scale-degrees on which they are built.

A triad built on a first scale degree is called *tonic* (from the naming of this scale degree *tonic*); a triad built on a fifth is called *dominant* (from the word *dominant*, meaning a fifth scale

* It is assumed that the student is familiar with the subdivision of scales on major and minor. In a major scale, the arrangement of pitches is the following: first scale degree, a whole tone higher is the second scale degree, a whole step above is the third, a half step higher is the fourth, a whole step above is the fifth, a whole step above is the sixth, another step above is the seventh, a half step above is the eighth, which is the repeat of the first scale degree, for example:

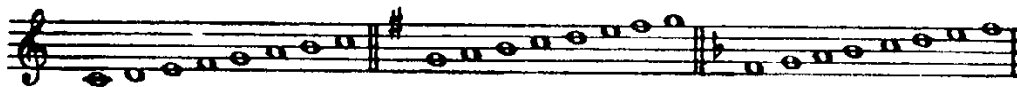


degree); a triad built on a fourth scale degree is called *subdominant* (from the word *subdominant*,⁴ meaning the fourth step).

4. Minor triads of a major scale are found on the 2nd, 3rd and 6th scale degrees. In their impression, these chords differ from major ones with a lesser force; although with greater softness.

5. It is known that the closest relationship is found among scales that differ from one another by one sharp or flat sign [in the key signature]. As such, for example, the immediate relationship is found among scales *Do* and *Sol*, since the former has no sharps or flats in the key signature, and the latter has one sharp; a similarly close relationship is found among scales *Do* and *Fa*, since the latter has only one flat sign:

Ex. 12



Similarly, from the knowledge of scales it is known that another close relationship, similar to the one described above, exists among two scales, one being major, the other minor, that bear the same key signature. Such a relationship is called *relative*, and, when two scales are related to each other in such a way, the major one is located at the distance of a minor third above the minor scale. For example, the scale *F* major is parallel to *d* minor; the scale *G* major – to *e* minor.

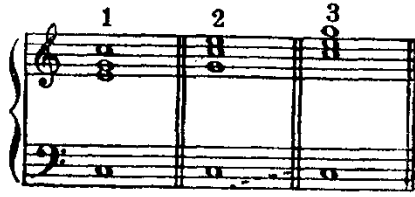
Chapter Two

COHERENT CONNECTIONS

7. Chords may be found either in masses, with numerous repetitions of exactly the same intervals, as found in compositions for an orchestra or fortepiano, or distributed onto a small number of independent voices. Since we are concerned with the application of the common laws of harmony to Russian liturgical singing, we shall, at first, confine ourselves within the borders of the solely four-voice writing that may be found primarily in the works of Bortnyansky, L'vov⁵, and other composers. In addition, four-part harmony is the most normal and is, beyond all comparison, most commonly found in both sacred and secular music. These four voices are as follows: the first and top voice is called the *descant* or *soprano*, the second is known as the *alto*, following is the third – *tenor*, and the lowest – *bass*. Bass and soprano are known as the outer voices; alto and tenor – as the inner voices.

8. In order to break up a triad into four voices, the fundamental tone is placed in the bass. The top voice might have the fundamental, the third, or the fifth. With regard to the inner voices, we will, for reasons of simplicity, place them at first directly below the descant, or, in other words, the alto and tenor will occupy: *downward from the soprano, the two closest intervals of the triad*. This way, extracting the tonic triad from [the scale] *C-dur*, we will set it into four voices in one of the following ways:

Ex. 14



These three types of a triad are called the *positions* of a chord. Depending on the tone that lays in the top voice, these positions are called: first – *position of the fundamental tone*, or position of the *octave*; second – *position of the third*, and third – *position of the fifth*.

From observing the *positions* of the triad we notice that in every one, the fundamental tone is doubled, while the third and the fifth are used only once. This does not always happen this way; however, in our present state, being required to mechanically move the inner voices close to the upper voice, we cannot obtain any other type of doubling. In fact, the doubling of the fundamental tone, as will be observed later, is the most natural and harmonious.

9. Prior to approaching the laws of triad connections, we shall observe that these connections might be *coherent* and *incoherent*.⁶ Coherent ones are those where two triads have one of the same or two of the same pitches: for example, connection of the triad *C* with the triad *G* will be considered *coherent* since the pitch *g* is present in one and in the other; connection of triads *F* and *d* is also coherent, since both contain the notes *f* and *a*. Incoherent connections are those where between the two chords there are no common tones, such as between the triads *C* and *d*, *F* and *e*, *a* and *G*, in short, between those chords that have their fundamentals placed next to each other in a scale.

10. For an absolutely accurate coherent connection it is required that the *common tone* or both *common tones remain in the same position and in the same voice*. Let us provide a table of all

the coherent connections within the *C-dur* mode. From it we shall observe that the choice of voicing for the second chord will depend upon observance of the basic rule introduced at this time. For further clarification, we will place a number above each chord that will correspond to its *position*.

Ex. 15

1) Ton[ic] tr[iad] 2) Dom[inant] tr[iad]

a) b) c) d) a) b) c)

3) Subd[ominant] tr[iad] 4) Tr[iad] on the 6th sc[ale] [degree]

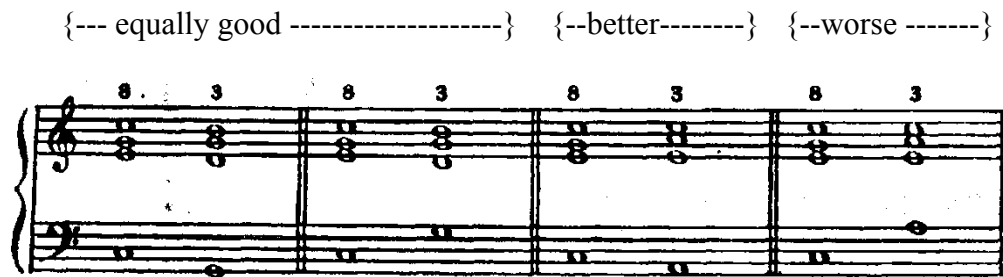
a) b) c) a) b) c)

5) Tr[iad] on the 3rd sc[ale] [degree] 6) Tr[iad] on the 2nd sc[ale] [degree]

a) b) c) a) b) c)

We can see that the activity of the top voices clearly depends on the *common tones*. The bass has the liberty to choose an upward or a downward motion; but in any case, the jump of a *third* is favored over the leap of a sixth:

Ex. 16



Chapter Three

INCOHERENT CONNECTIONS

11. In order to properly connect two incoherent triads, the three upper voices need to move contrary to the movement of the bass.

12. But what is the meaning of contrary motion? Let us explain.

The movement of the voices is of three types:

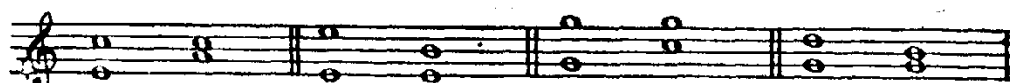
1) *Similar motion*⁷ (*motus rectus*) occurs when two voices move in the same direction, both upward, or both downward, for example:

Ex. 17



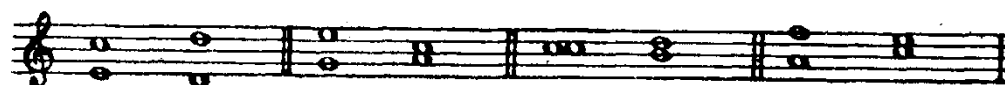
2) *Oblique motion (motus obliquus)* happens when one voice moves, and the other remains the same, such as:

Ex. 18



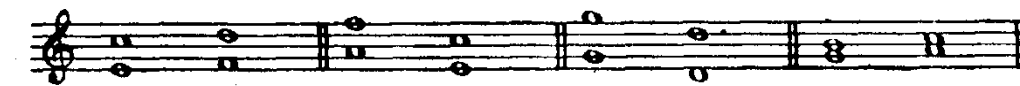
3) *Contrary motion (motus contrarius)* happens when one voice moves up and the other moves down, for instance:

Ex. 19



These different types of motion occur and are allowed in different types of harmonies. However, when it comes to *similar motion*, it is necessary to distinguish the so-called *parallel motion* that occurs when the voices not only move in the same direction, but using the same intervals, for example, both moving a second or a fourth up or down:

Ex. 20



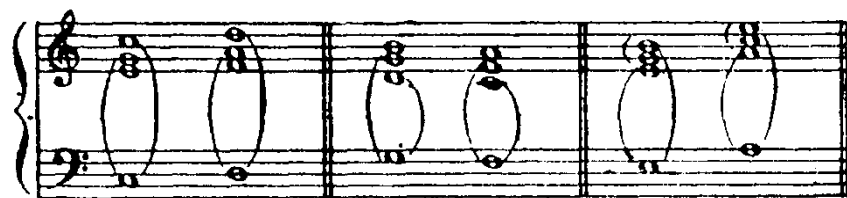
Of these *parallelisms*, some are marked by extreme softness and hence are equally allowed along with all the other motions; the others, whether by insulting the demands of the ear or by contradicting the requirements for independent movement of voices are *forbidden*. To this category pertain the progressions of voices in parallel *fifths* and *octaves*, such as:

Ex. 21



13. Above, in § 11, we have said that in order to properly connect two incoherent triads contrary motion becomes necessary. This is due to the fact that, by breaking the described rule, namely, by using *straight* [similar] motion in all the voices, we will end up with the forbidden progressions of *fifths* and *octaves*, such as:

Ex. 22



Comment. The doubling of the voices that occur in orchestral and pianoforte compositions is not considered forbidden octaves. Here, we are discussing four independent voices.

At this time, we have the opportunity to add, along with the previously identified connections of major mode triads with common tones, connections where – besides inner connectivity, as discussed in § 10 – no relationship is apparent:

Ex. 23



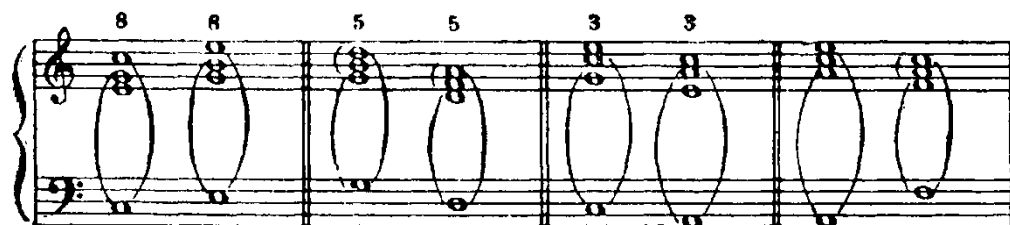
Chapter Four

EXCEPTIONS TO THE RULES OF CONNECTING COHERENT TRIADS

14. A substantial beauty of harmony depends upon independent and melodious beauty of voice leading. If we were to carry to an extreme the thorough observance of the rule discussed in § 10, independent progression of voice leading would suffer as a result, since it would always depend upon the necessity of leaving the *common tone* in the same place and in the same voice. This is why, in some cases, exceptions from the principal rule are allowed: but, in these cases, it is necessary to observe the following precautions.

1) Regardless of how closely connected (both internally and externally) two triads are, they may not remain in the same positions, since such connections would create subsequent fifths and octaves:

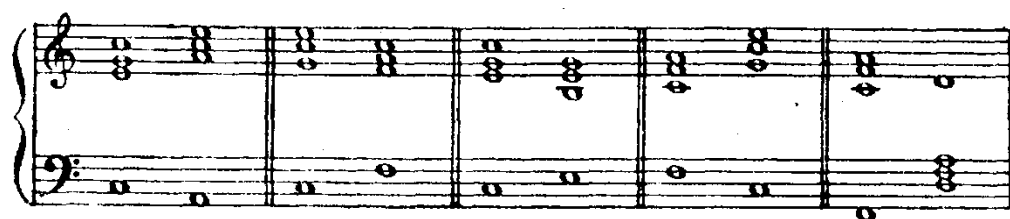
Ex. 24



2) The top voice may not leap by more than a fourth:

Ex. 25

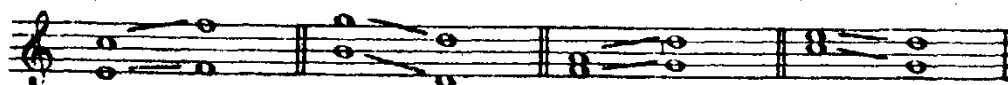
{-----Allowed-----} {-----not allowed-----}



3) In the event of deviation from the rule, the bass and the upper voices must move in opposite directions, otherwise the unattractive progressions of *hidden fifths* and *hidden octaves* would result.

Besides the parallel fifths and octaves, known as *obvious*, there also exist those fifths and octaves that are *hidden*, created in the event of a progression of two voices *towards the fifth* or *octave* in similar motion:

Ex. 26



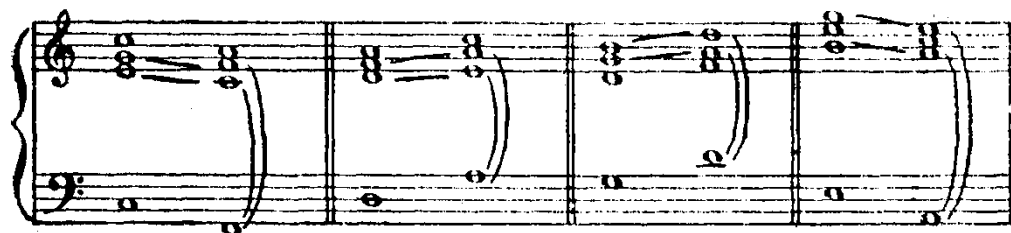
Such hidden successions in fact do not create an unpleasant impression if a common tone that remains in the same voice is present in both chords; for instance:

Ex. 27



If the rule of external connection is violated, then the hidden fifths and octaves become highly visible, such as:

Ex. 28



These same connections are made possible and are attractive if contrary motion preventing hidden progressions exists:

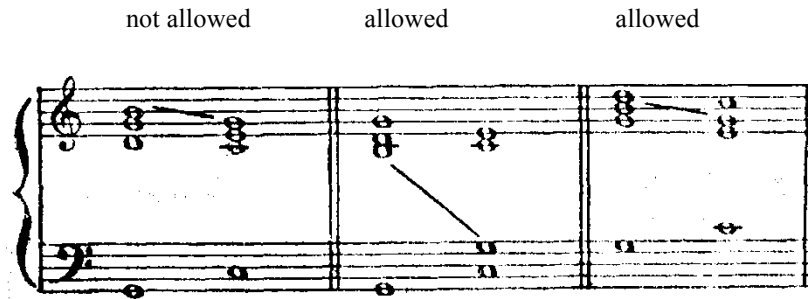
Ex. 29



Comment. While connecting the triads of the dominant and the tonic, the third of the former, laying in the top voice, as a *leading tone** must move up, and in this event, no exception is possible. On the other hand, if located in the middle voice, the leading tone may move down by a third:

* The leading tone is the seventh scale degree of a diatonic scale. It has a tendency to move a half step up into a tonic when located in the dominant triad.

Ex. 30



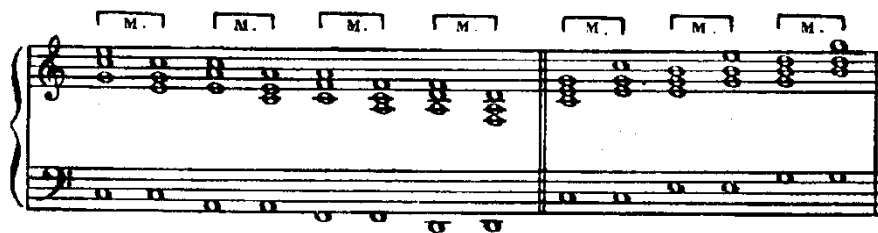
The same may be said about connecting triads on the tonic and on the subdominant.

Chapter Five

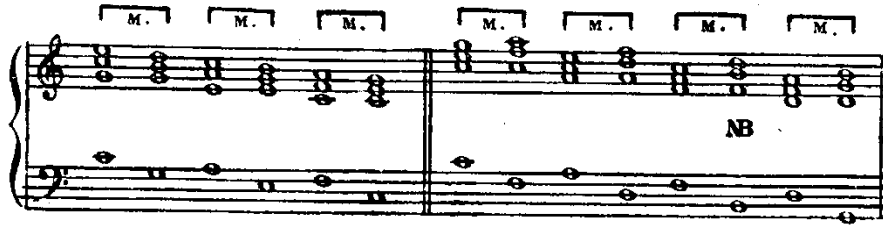
HARMONIC SEQUENCE. DIMINISHED TRIAD

15. Acknowledged as a harmonic sequence is a succession of chords where a motive, comprised of two or a greater number of chords, repeats a few times, but on different scale degrees, gradually descending or ascending. During repetition, the voices must be distributed exactly as in the motive. The motive is constructed either from different positions of one triad or from various triads in proper connection:

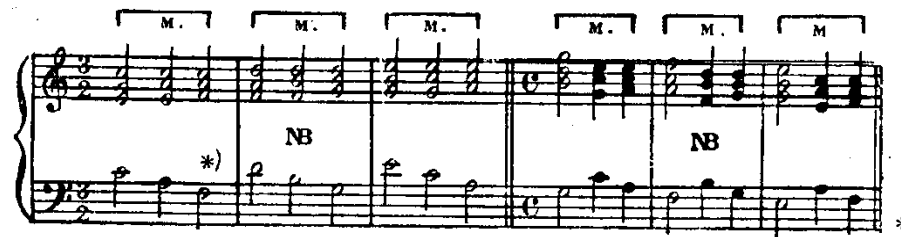
Ex. 31



Ex. 32



Ex. 33



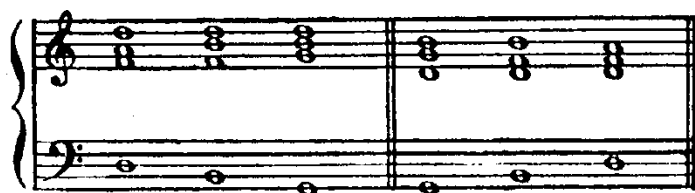
16. In places marked NB, we find a triad built on the VII scale degree. A diminished triad possesses a dissonant diminished fifth and hence, may not be used as freely as other triads of the mode. Furthermore, the utilization of this chord is generally accompanied by great difficulties and we will refer to it with exceeding caution. Its appearance in a sequence is sufficiently justified by the fact that the repetition of a motive and further development of a sequence would often become impossible should we avoid it entirely.

17. Here it comes in handy to mention that in extremely rare situations a diminished triad might also be found outside the sequence. This occurs when it is surrounded on both sides with

* Here, disagreeing with the rule presented at the end of § 10, the bass is moving up a sixth. It is allowed for the sake of exact repetition of a motive.

coherent [smoothly connected] triads, given that the common tones must necessarily remain in the same voices, such as:

Ex. 34



Chapter Six

HARMONY OF THE MINOR SCALE

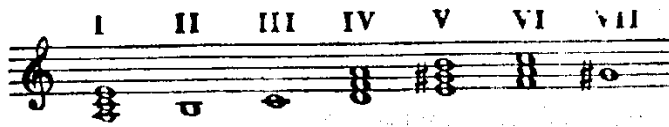
18. Minor mode harmony is built upon the so-called minor harmonic scale, having half steps between the second and the third, the fifth and the sixth, and the seventh and the eighth degrees of the scale, and a step and a half between the sixth and the seventh:

Ex. 35



19. Having built triads on the steps of a harmonic scale we find that it provides only four consonant triads, two of which (the tonic and the subdominant) are minor ones, and the other two (the dominant and the triad on the sixth scale degree) – are major.

Ex. 36



The remaining triads possess dissonant intervals of an augmented and a diminished fifth:

Ex. 37

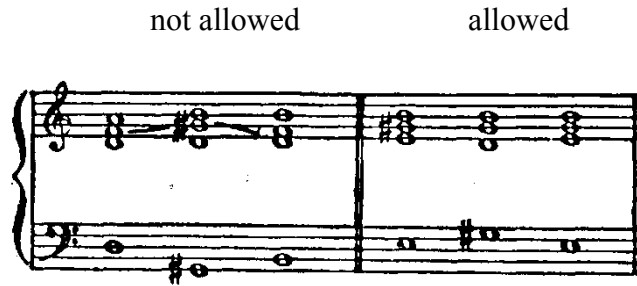


Since we already have had the chance to mention that the essence of harmony is comprised of independent, self-satisfied consonant triads, we shall not need to prove the fact that minor harmony is of poorer quality, more limited in resources than major.

20. For the proper treatment of dissonant minor mode triads, the following restrictions come into play.

I. *A diminished triad on the seventh scale degree* is quite rarely found, since it is very difficult to support it on both sides with consonant and coherent triads, especially since the progression by an augmented second is not allowed in any of the voices:

Ex. 38



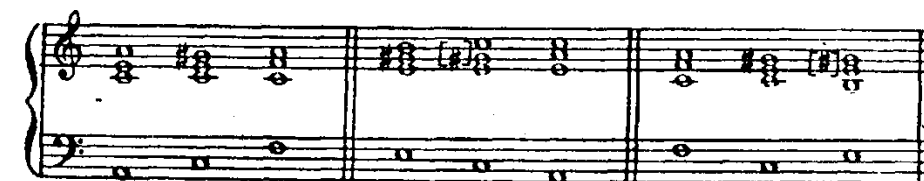
II. A *diminished triad on the second scale degree* may take place during connections of coherent triads, provided that an augmented second does not appear:

Ex. 39



III. An *augmented triad* may, without difficulty, be connected with the triads built on the first, fifth, and sixth degrees of the scale. Let us mention, however, that this chord, by way of a diatonic triad, is seldom found. We will encounter it later, as a chromatic, regularly applied chord:

Ex. 40



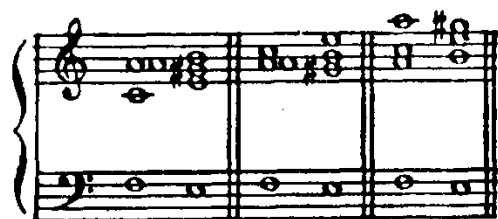
21. In the previous section it was stated that one should absolutely avoid the progression of an augmented second from the sixth to the seventh scale degree. Therefore, under the highly applicable progression of the triads on the fifth and sixth scale degrees, the leading tone (the third of the first chord) is led upwards, resulting in a triad on a sixth scale degree with a *doubled third* along with a divergence from the general rule regarding the arrangement of voices:

Ex. 41



During the atypically found opposite progression of these chords, the same action is carried through, meaning the doubling of the third in the first chord:

Ex. 42



Chapter Seven

INVERSIONS OF TRIADS

22. If a chord rests in the bass not on the fundamental tone but on one of the others, then the chord is said to be *inverted*, and the process of shifting the fundamental tone from the bass into one of the upper voices is called *an inversion*. A triad has two inversions: the first is placed onto a third and is called a *sixth chord* [*six-three chord*], the second is placed on a fifth and is called a *six-four chord*:

Ex. 43



23. In the sixth chords it is the fundamental tone that is normally doubled; less often the fifth, and in most atypical cases, the third:

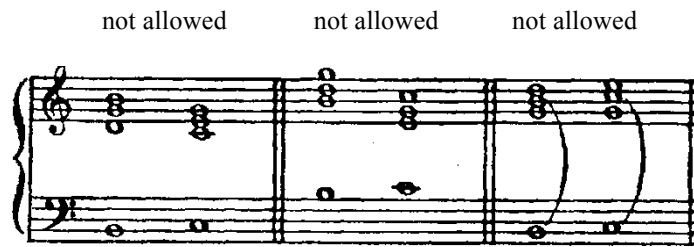
Ex. 44

very rare



The choice of one or the other type of doubling depends upon the distribution of voices in the previous chord, and also upon the connection with the chord that follows. In the sixth chord of a dominant triad, the third (leading tone) is never doubled when a tonic triad follows:

Ex. 45



24. In the six-four chord, the *fifth* is most often doubled:

Ex. 46



25. Proper treatment of inversions is dependent upon observance of the following guidelines:

I. A sixth chord is utilized the most frequently of the inverted chords. Its proper usage does not create any hardship; it is only required that, being a mobile chord, it should primarily be employed in places when the bass is moving. Places where the bass is stable are inappropriate for utilizing a sixth chord: in such cases, for example, it sounds extremely weak when, immobile, it is followed by a fundamental triad built on the same bass.

Ex. 47



II. A six-four chord is used successfully only in limited cases. These include the following:

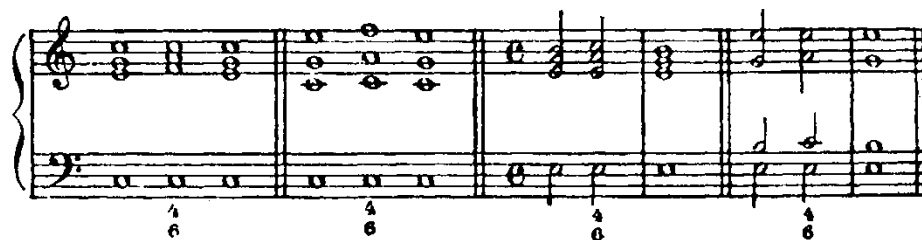
1) When the bass occupies the intervals of the triad in succession starting with the fundamental tone and, in addition, the upper voices remain in the same place:

Ex. 48



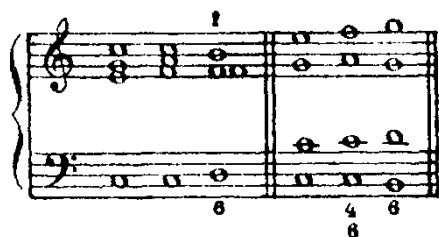
2) When a six-four chord of a major triad is located between two repetitions of one and the same major fundamental triad built on the same bass, or when a six-four chord of a minor triad is in the same way supported by two equivalent triads on the same bass:

Ex. 49



The uniqueness of this case is apparent given that the bass, after the six-four chord, moves a step up or down, and produces a coherent harmony:

Ex. 50



Particularly in such cases, a six-four chord appears for the most part in a weak metric position.

3) When the bass supports a six-four chord as it moves back and forth by step, given that its fourth comprises a common tone with the two neighboring chords. This commonly occurs when a six-four chord is located between a *sixth-chord* and a *fundamental triad*:

Ex. 51



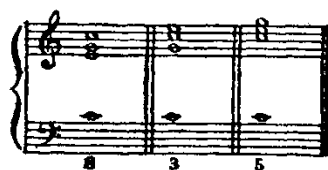
It is necessary that, at least on one side, the *fourth* be presented as a common tone in the adjacent chord. In such a case, on the other side it [the fourth] must be approached or left by step:

Ex. 52



Comment. *General-bass* or *figured bass* is a special way of notating chords by way of numbers and other symbols that attach to the bass. A triad, in reference to the intervals that comprise it, is symbolized by 8, 5, 3, $\frac{3}{5}$, $\frac{3}{5}$; quite often free-standing numbers 3 or 5, or 8 are also placed in order to represent the positions of a chord, such as:

Ex. 53



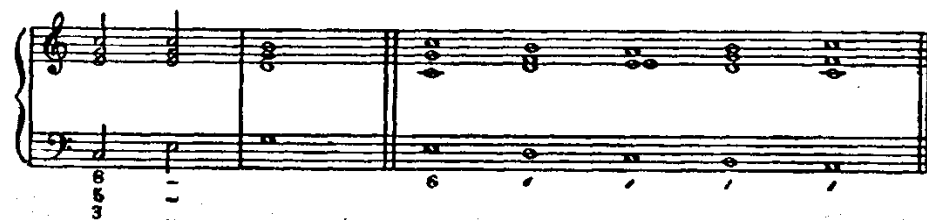
For the most part, the fundamental triad does not get numbered at all. A sixth chord is represented by the number 6; a six-four chord by the numbers $\overset{6}{4}$. The sharp and flat signs not present in the key signature must always be present in the figured bass. If the sign refers to the third of the chord, it is placed without a number; if it is attributed to another interval, then it is placed next to, for the most part on the left side of, the appropriate number, for example:

Ex. 54



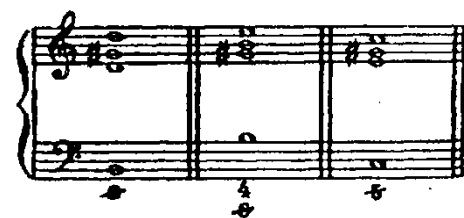
A horizontal line following a number means that the note expressed by the number continues to sound. Angled lines are placed when the same number repeats:

Ex. 55



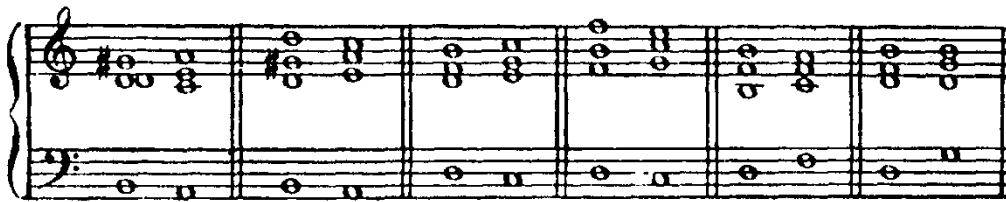
A crossed-out number is sometimes used instead of a sharp sign:

Ex. 56



26. Regarding the inversions of dissonant triads, it is desirable to pay special attention to the sixth chord of a diminished triad on the seventh scale degree. When it is placed before the tonic, which happens quite often, then, first of all, the fundamental (leading) tone may not be doubled, and second, this leading tone must certainly move up a half step. This chord is utilized more often than its root-position counterpart due to the fact that, when positioned as a sixth chord, it stops being a dissonant chord. Located in front of a chord other than the tonic, it is subjected to the general rules:

Ex. 57



The second inversion of this chord is not applicable in four-voice distribution. The same is applied to the inversion of an augmented triad of the third scale degree in minor mode. Due to the difficulty of supporting them with coherent triads on both sides, they are used quite rarely:

Ex. 58



Comment. When connecting the inversions with root-position triads, it is advisable that – given the opportunity – hidden fifths and octaves be avoided. An especially distasteful case is when hidden parallelisms occur as a result of the leap in one of the upper voices at the time when the bass moves a step up or down:

Ex. 59



Section Two

DISSONANT CHORDS

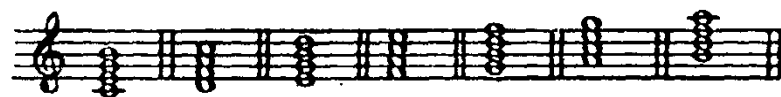
Chapter Eight

DOMINANT CHORD

27. If upon the scale degrees of a diatonic scale we were to build triads and then add a third above each of the triads, we would obtain a series of seventh chords:

Ex. 60

Major



Dominant chord

Tonic triad

The diagram illustrates the resolution of a dominant chord to a tonic triad. The dominant chord is shown on a treble clef staff with notes F#4, C#5, and G#5. The tonic triad is shown on a bass clef staff with notes C4, E4, and G4. Lines connect the notes of the dominant chord to the notes of the tonic triad, showing the voice leading: F#4 moves down to E4, C#5 moves down to B4, and G#5 moves down to F#4.

Ex. 62

{---position of the third---} {-position of the fifth-} {--position of the seventh--}



In order to obtain a dominant chord in the position of the fundamental tone, it becomes necessary to leave out one of the intervals of the chord, since the doubled fundamental tone takes away from us the possibility of utilizing a third, fifth and seventh in the other two voices. Almost always it is the fifth that is omitted, being the least significant interval. Out of the two fundamental tones, the top one, in this case, remains in the same place:

Ex. 63



In the same way, the fifth is omitted and the fundamental tone is doubled in the positions of the third and the seventh:



28. The dominant chord has three inversions, the first of which is known as a 5/6 chord, the second – as a 3/4 chord, and the third one – as a 2 chord:⁸

Ex. 65



Comment. The dominant chord in fundamental position is notated by the number 7, as are all the other seventh chords; the first inversion – by 5/6; the second – 3/4, the third – 2. In minor, a sharp sign for the raised seventh scale degree is included:

Ex. 66



The inversions resolve based upon the laws discussed in the previous paragraph, the difference being that the fundamental tone located in the middle voices or in the top one remains in the same place. As a result, a full triad with a fifth is always created:

Ex. 67

five-six chord three-four chord

two-chord

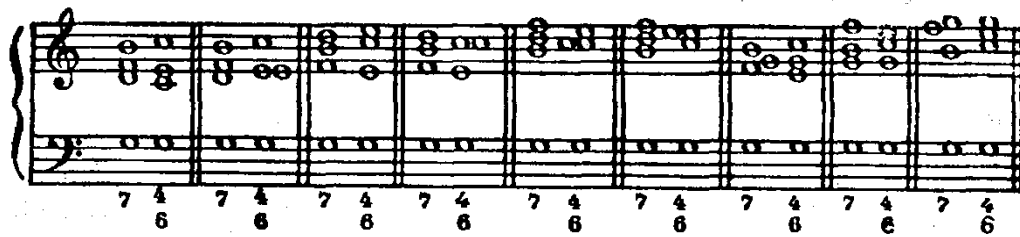
29. The rules of resolving the dominant chord are not always followed with absolute fidelity. Certain exceptions are allowed, such as:

1) The fundamental tone in the bass moves down a third, and the seventh – in order to avoid hidden octaves – moves up a step:

Ex. 68

2) The dominant chord may resolve into a six-four chord if the bass remains in the same place; in such cases where the fundamental tone is doubled, both remain in the same position:

Ex. 69



3) Resolving a seventh up a step and the third down two steps is allowed with the root-positioned dominant chord if these intervals are located in the inner voices. Specifically, it is the alto that undergoes this departure with ease. In this case, in order to avoid hidden fifths and octaves, contrary motion becomes necessary:

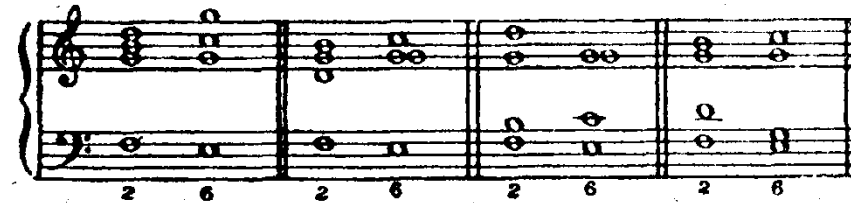
Ex. 70

not this way



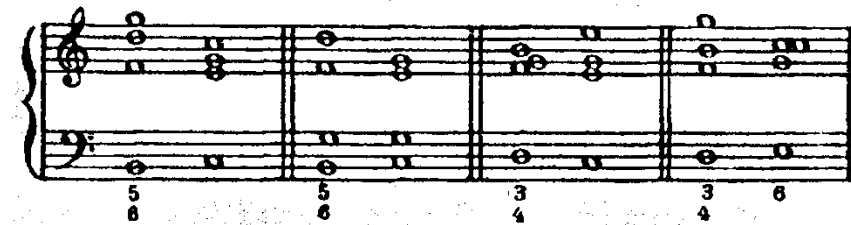
4) The fifth in the third inversion, being located in the soprano or the tenor, may move a fourth up or a fifth down into the fundamental tone, given that forbidden progressions – both obvious or hidden – do not occur as a result:

Ex. 71



5) In more rare cases, other exceptions occur when resolving the first and the second inversions; they are carried through due to the necessity of free voice leading unfamiliar to us thus far:

Ex. 72



Chapter Nine

SEQUENTIAL CHORDS

30. We stated above that the most significant of all seventh chords is the dominant chord. Other seventh chords, similar to the dominant chord, resolve into triads located a fifth below or a fourth above. Even though, like the dominant chord, they may stand alone, since they are under strict obligation to prepare the seventh* they are primarily found within a descending *sequence*, as a result of which they are referred to as “sequence chords.” Outside of sequences, the most commonly used seventh chord is the one built on the second scale degree since it resolves into a dominant:

Ex. 73



31. Sequence chords might also – for greater coherence and roundness – resolve one into another. In this case, the seventh and the fifth always move down by step, and the root and the third remain in place. In the sequence comprised of only fundamental seventh chords, the bass

* In order to prepare the seventh, it is required that in the prior chord the same exact note must be placed in the same voice.

moves either a fifth down or a fourth up and complete chords alternate with the chords with a missing fifth:

Ex. 74



32. In minor, the sequence of seventh chords encounters difficulty when moving the sixth scale degree to the seventh and vice versa. Such an unmelodic progression interferes with the smooth resolution of certain seventh chords. Nevertheless, segments of the sequence and independently positioned sequence chords, particularly the seventh chords on the second scale degree, are found quite often.

Chapter Ten

NINTH CHORDS and MINOR AND DIMINISHED SEVENTH CHORDS

33. Both in major and in minor on the fifth scale degree lies a five-note chord known as the *ninth chord*, since the interval of a *ninth* is formed between its fundamental pitch and the top one. This doubly dissonant chord contains a *major ninth* in major and therefore is named a *major ninth chord*; it contains a *minor ninth* in minor, so it is called *minor*. The ninth chord resolves into a tonic triad: the intervals that comprise the dominant chord resolve according to the already familiar rules, and the ninth – like the seventh – resolves down by step.

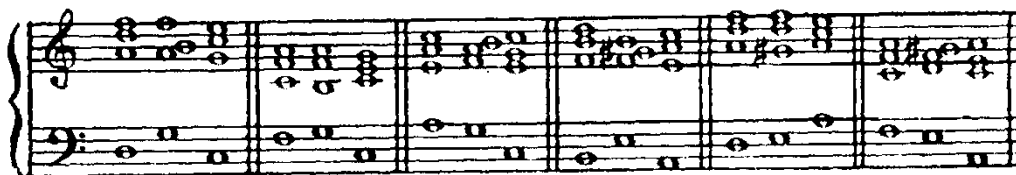
In four-part harmony, the fifth is omitted:

Ex. 75



34. As a highly dissonant chord, the ninth chord requires *preparation*; namely, its ninth must be established in the previous chord and in the same voice. The triads on the 2nd, 4th, and 6th degrees of the scale might serve as preparation:

Ex. 76



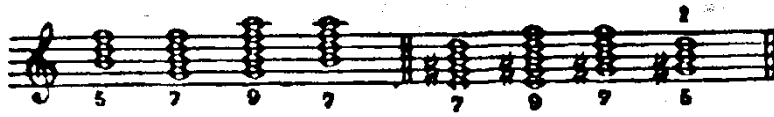
35. Removing the root from the ninth chord results in a *minor* seventh chord in major, and in minor – a *diminished* one. The latter one bears substantial significance in contemporary harmony. With regard to resolution, these chords comply with the rules established for the ninth chord and are considered as units of the latter. Preparation for these, while not required, is highly appropriate:

Ex. 77

36. From the whole series of dissonant chords examined thus far, it becomes necessary to differentiate as a more substantial and important determinant of tonality the so-called dominant group, consisting of the dominant chord, ninth chord, minor and diminished seventh chords,* as well as a diminished triad on the seventh scale degree:

* It is necessary to distinguish the minor and diminished seventh chord from the sequence chords on the seventh scale degree that are similar in appearance, but separate in their origin and resolution.

Ex. 78



Numerous connections of every kind between these chords in their numerous appearances and inversions are allowed, providing the prohibited progressions do not take place, along with the unmelodious movement of a step and a half in minor between the sixth and the seventh scale degrees. The seventh and the ninth in the progressions of the various chords of this group must at every opportunity remain in the same voice or in the same exact octave. When connecting the ninth and the seventh chords on the seventh scale degree with the dominant chord, it is required that the ninth or the seventh be lowered one step into the root of the dominant chord, and that the other three voices remain without any movement, such as:

Ex. 79



Chapter Eleven

VOICE LEADING

37. We already are familiar with the voice distribution technique consisting of the mechanical placement of the alto and the tenor closest to the top voice. This method is known as *close* spacing. A method that is opposite to this method but still does not provide completely independent voice leading is known as *open* spacing. With this distribution, the alto is separated from the soprano and the tenor from the alto by two intervals, such as:

Ex. 80



However, the genuine beauty of harmony relies upon the absolute independence of the middle voices, so that each voice creates an independent, melodious progression of tones. Given the opportunity, a flowing and smooth progression of voices should be maintained. Leaps are allowed, so long as (1) they do not cause forbidden visible or hidden intervallic progressions and (2) their excessive accumulation does not create awkward, harsh movements unsuited for intonation. The middle voices particularly suffer from excessive mobility. Having in mind the chorus of human voices, it is necessary to account for the tessitura of each voice, namely, to strictly keep within the limits specified for each voice by nature. These limitations are as follows: 1) the descant may descend until the d^* of the first octave and rise up until the g of the second octave; 2) the alto traverses the space between the a of the minor octave and the d of the

* See Kashkin's [Elementary Theory Guide](#) about the subdivision of the pitches upon octaves.

second octave; 3) the tenor resides between the minor octave *d* and the first octave *g*; 4) the bass is situated between the major octave *g* and the first octave *c*:

Ex. 81



We now introduce a few examples of harmony that utilize independent voice leading:

Ex. 82

Concerto No. 35 by Bortniansky

Концерт № 35 Бортнянского

Adagio **№**

Гос.поди,кто о.би. та. ет в жи.ли. ще тво. ем. Гос.поди,кто о би.

. та . ет в жи. ли ще, в жи. ли ще тво. ем.

*)

Comment. Places marked with the sign * are *suspensions* that will be discussed later.

Ex. 83

"We praise ye, the Lord" No. 3 by Bortniansky

«Тебе бога хвалим» № 3 Бортнянского

Allegro

Choir 1

1 хор

Ты одес. ну. ю бо га си - дя. шя

Choir 2

2 хор

Ты одес ну ю

во сла. ве от. чей, во сла. ве

бо. га си. дя. шя во сла. ве от. чей,

от-чей, во славе от-чей су-ди-я, су-ди-я ве.

во славе от-чей во славе от-чей су-ди-я ве.

ришися при-ти, ве-ри-ши-ся при-и-ти.

ришися при-ти, ве-ри-ши-ся при-и-ти.

Ex. 84

"Our Father" No. 2 by L'vov

«Отче наш» № 2 Львова

Умерен [Moderate] **NB**

Отче наш, иже еси на небесах, да святится имя твое.

2 6 4 4 5 5 3 6 6 6 3 4

Comment. In nos. 82 and 84, in places marked NB, we find progressions of a perfect fifth followed by a diminished fifth. This is permitted. The progression in the opposite direction should not appear – although for the sake of beauty of voice leading, composers sometimes allow themselves such deviations from the rules, as becomes apparent in the following excerpt in places marked NB:

Ex. 85

"Our Father" by Bortniansky

«Отче наш» Бортнянского

Moderato **NB**

Отче наш, иже еси на небесах,

да святится имя твое.

3 6 7 4 6 3 6 6 6 5 8 7

SECTION THREE

Chapter Twelve

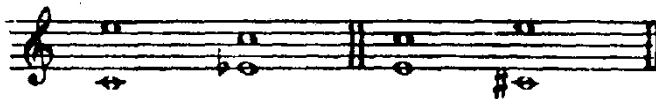
MODULATION

38. Harmony does not always remain within the borders of the main key center; it may gradually shift from the initial tonality into other more or less distant ones, provided that it later returns to the main mode. This harmonic shift from the tonality of one mode to another is called *modulation*.

39. Modulation is achieved by means of chords that have the ability to unmistakably determine a tonality. Belonging to such are all the chords that are built on the dominant and that belong to the dominant group,* but above all the *dominant chord*.

40. For proper modulation, the absolute smoothness of voice leading is required, along with coherence [smooth motion] between the modulating chord and the previous one. The two distinct counterparts of one and the same scale degree must remain in the same voice. Violation of this rule causes a contradictory correlation between two voices known as a *cross relation*.

Ex. 86



* We may also attach the sixth chord of the diminished triad [that is, the first-inversion vii°] to this category, since all its three pitches fit into the composition of the dominant chord.

If modulation is achieved by means of a ninth chord or from its derived seventh chords of the seventh scale degree, then the ninth of the former and the seventh of the following chords need to be prepared.

We present an example of modulations from the key of C into all others by means of a dominant chord.

Ex. 87

The example consists of three systems of musical notation, each showing a modulation from C major to another key using a dominant chord. The notation is in treble and bass clefs, with chords indicated by letter names and accidentals.

- System 1:**
 - C — Des*: C major to D minor (C major, D minor, E major, F minor, G major, A minor, B major, C major).
 - C — D*: C major to D major (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — Es*: C major to E major (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — E*: C major to E minor (C major, D major, E major, F major, G major, A major, B major, C major).
- System 2:**
 - C — F*: C major to F major (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — Ges*: C major to G major (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — G*: C major to G minor (C major, D major, E major, F major, G major, A major, B major, C major).
- System 3:**
 - C — As*: C major to A major (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — A*: C major to A minor (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — B*: C major to B major (C major, D major, E major, F major, G major, A major, B major, C major).
 - C — H*: C major to B minor (C major, D major, E major, F major, G major, A major, B major, C major).

41. In Russian liturgical singing the most widely applied modulation is a shift into parallel major from minor, and vice versa, such as:

Ex. 88

“Holy God, Holy Mighty...” (L’vov)

Свя . тый бо . же, свя . тый кре . ный (Л’вов)

In addition, such progressions are sometimes executed without a modulatory chord [that is, pivot chord], such as:

Ex. 89

Со свя . ты . ми у . по . кой Хри . сте и т . д.

42. Modulation might also be applied to the sequence, for instance:

Ex. 90

1

PART TWO

ACCIDENTAL HARMONIC FORMS

43. In addition to autonomous harmonic combinations of sounds that occur in music, we may find such conjunctions that do not form *chords*, meaning tones that are systematically constructed one on top of the other, but which occur as a result of a melodic movement of voices that leaves the essence of the harmony unchanged. Such melodic departure of voices from the chord tones occurs either as a result of voices entering at different times, bringing about *suspensions* or *anticipations*, or as a result of sounds distant to the chord that penetrate into the harmony so as to cause *passing* or *auxiliary* tones.

Chapter Thirteen

SUSPENSIONS

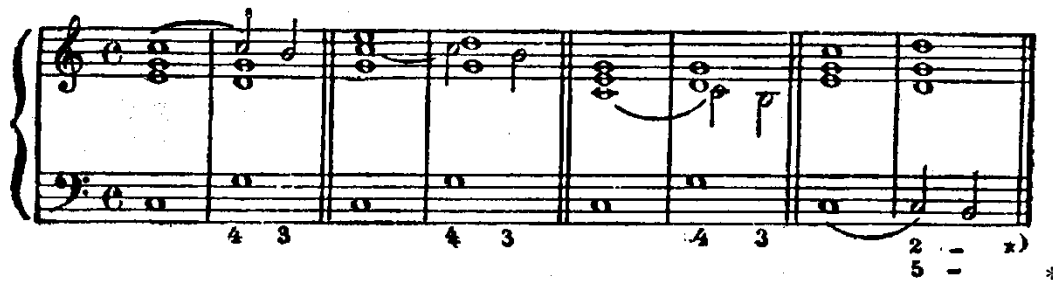
44. The process of a suspension is achieved when all the voices do not enter into the chord at the same exact time; one or a few voices enter late and cause a dissonant blend that resolves into a chord.

Suspensions may occur in all voices and precisely in those places where a voice moves a step up or a step down; accordingly, they subdivide into: (I) *suspensions downwards from above* and (II) *suspensions upwards from below*.

45. I. Suspensions [that resolve] downwards from above, as we have said, may appear any place a voice moves down a step, whether or not that step constitutes a *major* or a *minor second*. A suspension must be *prepared* and *resolved*. For proper preparation to occur, the note comprising a suspension must be located in the prior chord and in the same voice; the resolution – given that the suspension is characterized as a dissonance – is down by step.

As a result of observing both of these conditions, the suspension is always found in a comparatively strong metric position and the resolution in a weak one:

Ex. 92



In triple meter, the resolution must fall onto the second weak beat, except for when a new chord appears on the second weak beat:

* The same exact suspension might be figured the following way:
Ex. 93



Ex. 94



46. Including the note to which the suspension resolves in one of the other three voices is *forbidden*. This prohibition is rooted in the demands of musical sense, according to which the dissonant character of the suspension is pleasing only when it resolves into a pitch the need for which we already feel, but which is not yet present in a chord. The bass, on the other hand, comprises an exception, in the sense that it does not prevent the delay of one of the upper voices resolving into its pitch:

Ex. 95

{----- not allowed -----} {----- allowed -----}



In rare cases, an exception to the previous rule is eminent in the tenor; it tolerates a suspension of the top voice that resolves into its pitch if it occurs due to doubling of the fundamental tone or of the fifth in a sixth chord and if, in addition, the suspension produces its ninth, and not a second.

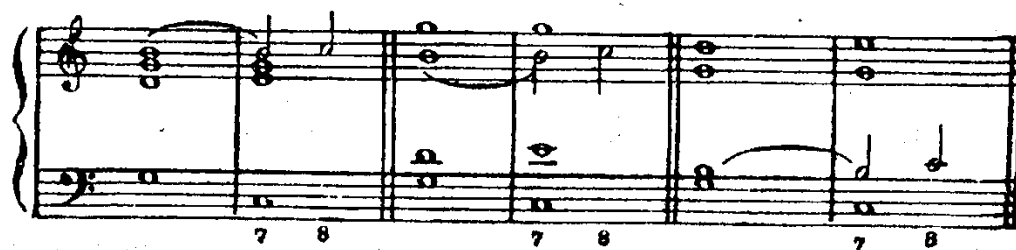
47. Suspensions may occur in two and even in three voices simultaneously:

Ex. 96

The image shows two systems of musical notation for piano accompaniment. Each system consists of a grand staff (treble and bass clefs) with a key signature of one flat (B-flat). The first system contains six measures of music, featuring various chords and suspensions. Below the first system, the figured bass notation is: 9 8 4 3 6 5 4 3 9 8 7 6 4 3. The second system contains five measures of music, also featuring chords and suspensions. Below the second system, the figured bass notation is: 7 9 6 5 4 3 4 6 3 7 6.

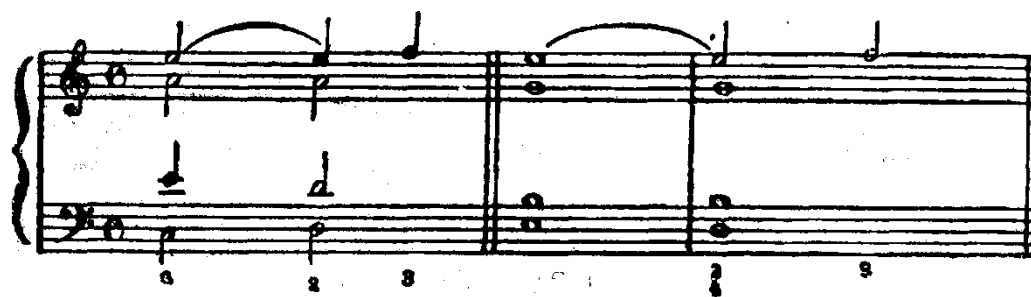
48. II. Suspension upwards from below (occurs infrequently). Most often, this suspension is utilized during the progression of the leading tone into the tonic:

Ex. 97



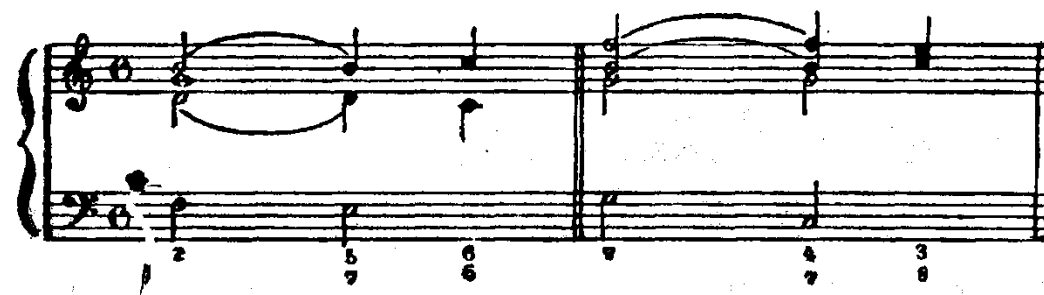
In addition, it sounds pleasing on all occasions in general, when the voice moves a half step up:

Ex. 98



49. Combining in one chord suspensions of both kinds sounds quite pleasant:

Ex. 99



Comment. In figured bass, a number must represent a suspension and its resolution.

Chapter Fourteen

ANTICIPATION

50. Anticipation is a method directly opposite to the suspension. It occurs when one or more voices attain the pitches belonging to them in the subsequent chord sooner than expected.

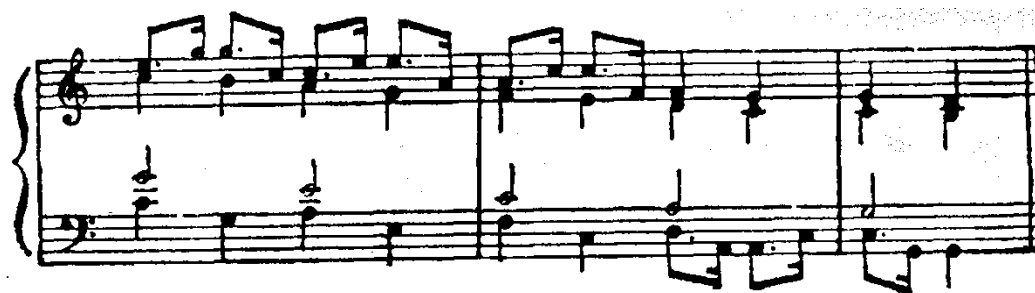
Anticipation is far from equivalent to the suspension in terms of harmonic meaning:

Ex. 100



In more unusual cases, anticipations are initiated by a leap:

Ex. 101



Chapter Fifteen

PASSING TONES

51. Passing notes are tones foreign to a chord that fill in an interval between two harmonic pitches. Depending upon the scale from which the passing tones are obtained, they may be: (I) *diatonic* or (II) *chromatic*.

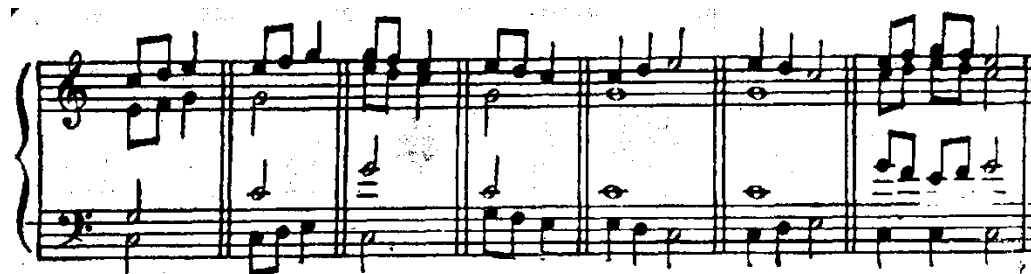
52. I. Diatonic passing notes fill the intervals of the third and of the fourth; in the first case, one passing note occurs between two chord tones, and in the second – two passing tones:

Ex. 102



By their fundamental nature, passing notes always occur on the weaker portion of a beat. They may appear simultaneously in two or more voices at once; as a result, they may move either in *parallel* (in sixths or thirds), or in *contrary* motion; the latter is favored since parallel progressions impair vocal independence, which, as may be acknowledged, is the most substantial condition for harmonic beauty. However, it is not advisable to completely neglect passing note progressions in thirds and sixths; being used modestly, they contribute to the flow and smoothness of voice leading:

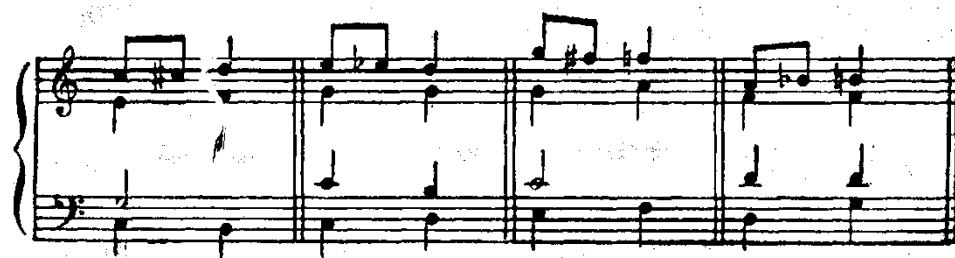
Ex. 103



Excessive parallelism in voice leading constitutes a substantial flaw in the music by all Russian liturgical-music composers. Particularly suffering in this respect are compositions by secondary authors, as, for instance, the arrangements of Archpriest Turchaninov.⁹

53. II. Chromatic passing tones that fill the space between two notes forming a major second are a very rare occurrence in Church music:

Ex. 104



Chapter Sixteen

NEIGHBOUR¹⁰ TONES

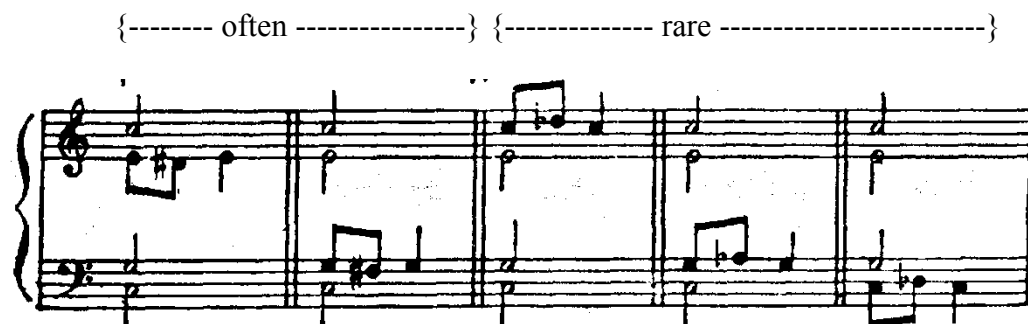
54. Auxiliary tones are those that, similar to the passing notes, occur on the weak beats of a measure and are located between two repetitions of one and the same harmonic pitch. Every note of a chord has two neighbor tones: one above and another below:

Ex. 105



By using sharp or flat signs, neighbor notes located at the interval of a major second may be moved a minor second closer to their harmonic counterpart. In such cases, it needs to be noted, that the lower auxiliary tones are commonly raised a half step; the upper auxiliary tones are normally used diatonically:

Ex. 106



55. With regard to neighbor tones in two voices, it needs to be realized that the information discussed about parallelism of sixths and thirds in § 52 is fully applicable to this case. Here is a harmonic example embellished by passing and neighbor tones mostly in parallel motion:

Ex. 107

*From Octoechos of the
Znamenny chant, arranged by L'vov* *стои́ха знаменно́го
и в переложении Льво́ва*

Вне-гда скор-бе ты мнѣ, ус-лы-ши мо-е

бо-лез-ни: Госпо-ди, те-бе во-зу.

Comment. As an exception, neighbor tones are sometimes approached by a leap, and may also occur on the strong beats of the measure and parts of the measure.

Chapter Seventeen

CHORDS WITH AN AUGMENTED FIFTH

56. We will now view a series of chords that are formed by combining chromatic passing tones with the harmonic ones. All of these chords, being quite usable for the musical reproduction of the highly sensitive passionate emotions of the human heart, rather weakly interrelate with the spirit of strong belief and hope in God that should penetrate the singing in the Orthodox Church. As a result of such inappropriateness for Church music, the chords viewed in this chapter – along with the chords with an augmented sixth that will be discussed in the next chapter – are a rather unusual occurrence in the works of our finest sacred music composers. For this reason we will make a brief outline of them, without going into details.

57. I. An *augmented triad*, also known as “excessive” [chrezmernoe], originates from a major triad, with its fifth raised a half step. The augmented fifth must invariably resolve up a half step:

Ex. 108



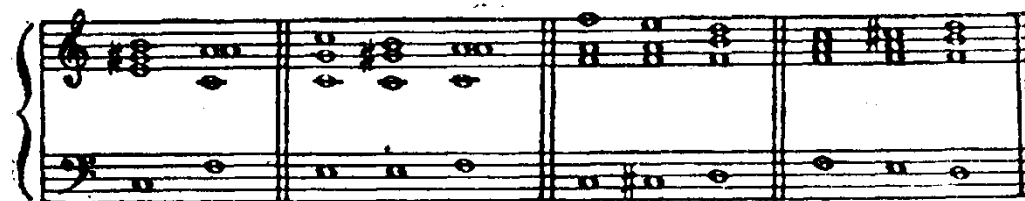
58. II. The *dominant chord with an augmented fifth* is utilized primarily in major keys and resolves according to the set rules in which the augmented fifth, a chromatic note of an ascending scale, necessarily moves upwards. The seventh, in any case, must lie below the fifth:

Ex. 109



59. III. Seventh chords with a major seventh and an augmented fifth occur on the first and fourth degrees of the scale in major and on the sixth scale degree in minor:

Ex. 110



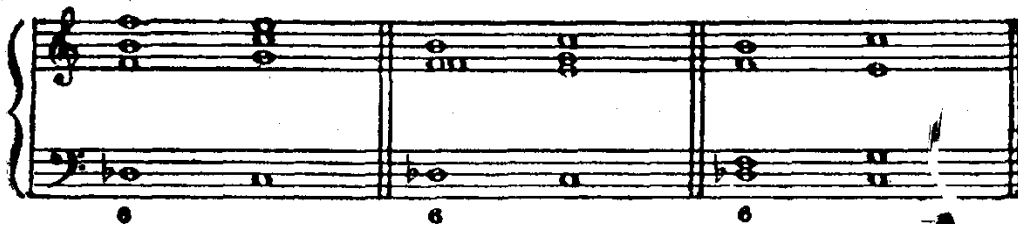
Chapter Eighteen

CHORDS WITH AN AUGMENTED SIXTH

60. IV. These are inversions of certain chords of the dominant group with a flattened second scale degree in the bass.

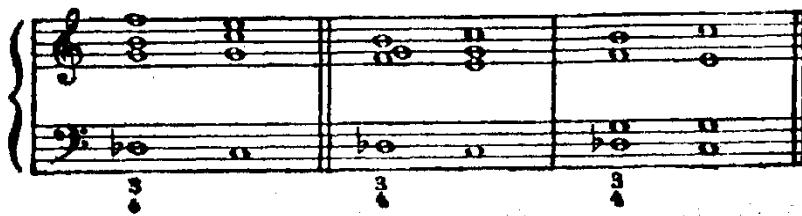
(a) An augmented *sixth chord* resolves into the tonic:

Ex. 111



(b) An augmented *three-four chord* is a dominant chord in second inversion with a flattened fifth in the bass:

Ex. 112



c) An augmented *five-six chord* is a first inversion of a diminished seventh chord. When resolving, it creates a progression of two perfect fifths; to avoid this, it is necessary (1) to utilize a double suspension, or (2) to lower the fifth into a fourth and by such means obtain the chord *b*:

Ex. 113

b



Chords with an augmented sixth are occasionally found in the compositions of Bortnyansky, such as:

Ex. 114



PART THREE

ADDITIONAL COMMENTS

61. We have completed an overview of all possible harmonic conjunctions of musical sounds. For the completeness of this study, we believe it not to be excessive to provide certain data necessary for analytical study of compositions of our national composers.

Chapter Nineteen

STUDY OF CADENCES AND OF THE PEDAL

62. A *cadence* is a final progression of two chords that possess the ability to define and confirm the harmony in a given tonality.

They subdivide into *full (authentic)*, *half*, and *interrupted*.

A full (authentic) cadence is comprised of the dominant and tonic harmonies; it is called *perfect* when both chords are *fundamental* [in root position] and the tonic triad is in the position of the octave; in other cases, it is called *imperfect*:

Ex. 115

{----- perfect -----} {----- imperfect -----}



If the bass of the dominant resolves into another degree of the scale, then the cadence is called interrupted*:

Ex. 116



A *half* cadence is the opposite of an authentic one; its first chord may be the tonic or one of the triads of the subdominant harmony; the second – a triad on the dominant**:

Ex. 117



Other than this, there also exists a church (plagal) cadence, comprised of a progression from the subdominant chord to the tonic. Additional study of cadences involves the science of *compositional forms*.

[63]. An *extended cadence* is a perfected final structure that presents – in a condensed form – the entire harmonic makeup of the mode. It may be one of two types:

* In a wider sense, an interrupted cadence is any type of incorrect – but melodically smooth – resolution of a chord.

** The final chords in example 114 also comprise a half cadence.

(a) In a first-type cadence, the chords progress in the following order: (1) chord of the subdominant group,*** (2) six-four chord of the tonic triad, (3) dominant chord or a triad on the dominant, and (4) fundamental tonic triad.

(b) A cadence of the second type includes: (1) a chord of the tonic group,**** (2) a chord of the subdominant group, (3) a dominant chord or a triad on the dominant, and (4) a fundamental tonic triad.

In both extended cadences, the chords marked by numbers 2 and 4 must be in a metrically strong position:

Ex. 118

"Bless the Lord" by Bortniansky

«Благословлю господа» Бортнянского

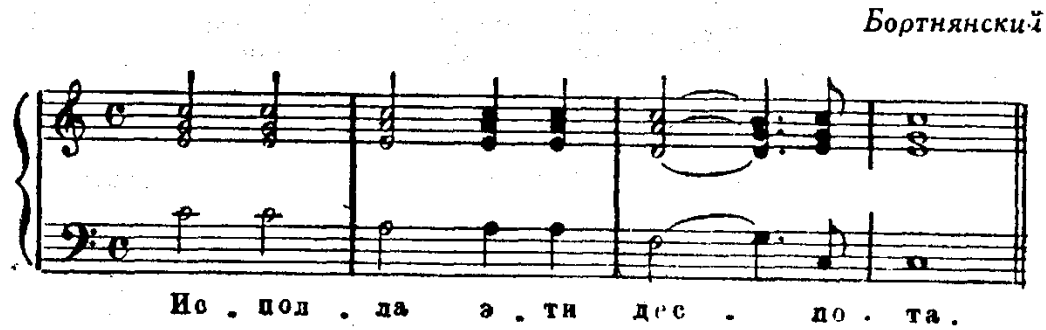


Ex. 119

Bortniansky

*** In this group, we are referring to the subdominant as well as to the triad and the seventh chord on the second scale degree.

**** A triad on the tonic or the sixth scale degree.



64. A further development of an extended cadence of the first type is the so-called *pedal* or *organ point*. It primarily occurs at the end of a composition that has substantially deviated from the main mode. In order to clearly define an initial pronouncement of the main mode, our senses demand that in an extended cadence the final two concluding notes of the bass be prolonged, but that on top of them constructions of harmonies that are even foreign to the main and the close secondary modes could be built. As such, it is reasonably implicit that the pedal is constructed: (1) on the dominant and (2) on the tonic:

Ex. 120

"Cherubic Hymn" No. 1 by Bortniansky



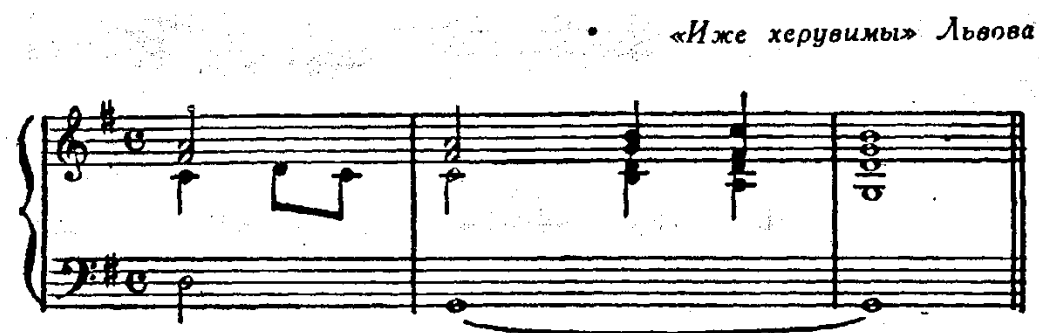
Ex. 121

"Having Fallen Asleep in the Flesh" by Galuppi



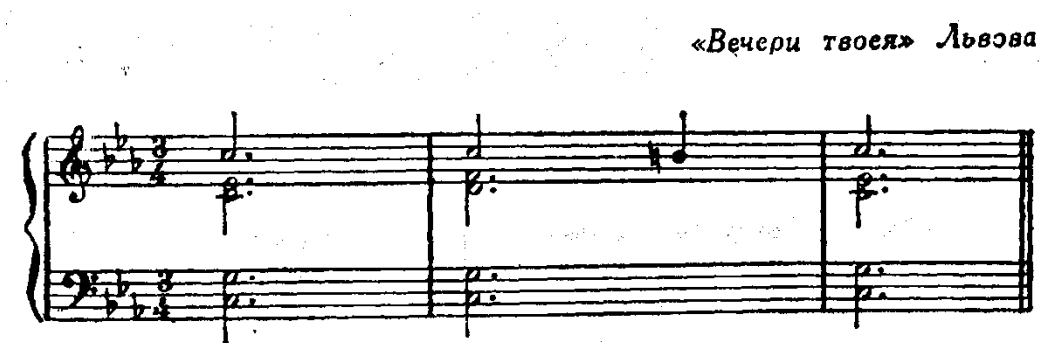
Ex. 122

"Cherubic Hymn" by L'vov



Ex. 123

"Thy Mystical Supper" by L'vov



The pedals are found more rarely at the beginning and in the middle of a composition.

Chapter Twenty

THREE-, TWO- AND MULTIPLE VOICE HARMONY

65. We have said in § 7 that normal harmonic structure is distributed among four voices in both secular and sacred music. However, harmonies may also be dispersed among fewer or a greater number of voices as well.

I. Three-part harmony, in comparison to normal voice distribution, presents only one special concern in that, with seventh chords, it is commonly necessary to omit the fifth; in addition, the diminished triad in root position and as a six-four chord, which here act as dominant chords, are utilized freely:

Ex. 124

“Cherubic Hymn” No. 7 by Bortniansky

«Иже херувимы» № 7 Бортнянского

Ан . гел . ски . ми . ле . ви . ди

мо . до . ри . по . ся . ма . чия . нь . ми .

II. Two-part harmony is founded more on contrapuntal technique, based more on the consonances than on the laws of chords. On strong beats, thirds, sixths, fifths and octaves (and even fourths) are placed; on weak beats, dissonances may occur as passing and auxiliary notes.

The latter also appear on strong beats as suspensions. Actually, a diminished fifth and its inversion are utilized in the manner of a consonance¹¹, and as a replacement for the seventh chords of the dominant group:

Ex. 125

Bortniansky

Бортнянский

Я . ко да ца . ря воех поды . мем .

Бортнянский

до же с . на бо тво . я пре стои вот . во . ри .

III. In five-part harmony, in most cases the root and the fifth are doubled. Such vocal distribution occurs very rarely, at least within an entire piece:

Ex. 126

"Cherubic Hymn" No. 5 by Bortniansky

«Иже херувимы» № 5 Бортнянского

И . же . хе . ру . ви . мы .

IV. Six-, seven- and eight-part harmony occurs rarely; when it does, not all the voices are independent. For the most part, they convey the sense of four-part harmony with a greater or smaller amount of doublings, such as:

Ex. 127

Bortniansky

Бортнянский

Да но . поднят . ся уо . та на . ша хва . де . ни . я

CONCLUSION

As we complete our concise, albeit – as best we could – complete study of the laws of harmonic conjunctions of sounds, we feel obligated to say that neither this nor any other manual could completely cover all the possible permissible and impermissible accidental conjunctions of tones among each other. Based on sheer empiricism, musical theory rests upon a very shaky foundation, since conclusions regarding the pleasant degree of some or other combinations of sounds inevitably is determined by the individual sense of the bystander, and the diversity of individuals is unlimited. This is why many things that are rejected by some theorists are

accepted and allowed by others. Only through a thorough analysis of existing compositions and by the verification of one's own musical sense of the appropriateness of offered rules is it possible for one to master the difficult science of harmonization. This is why it is far more useful to read and analyze the works of well-known composers than to memorize theoretical rules. The present guide is only a supporting resource towards the conscious, critical study of harmony within the existing and more commonly found compositional samples.

EDITORIAL NOTES

¹ Nikolay Kashkin (1839–1920) wrote this book, *Uchebnik èlementarnoy teorii muziki* [Textbook of elementary music theory], first published in Moscow in 1875.

² Although Tchaikovsky mentions chromatic intervals, he shows only diatonic intervals in Ex. 1.

³ Tchaikovsky actually uses the term “tone” [ton]. I am using the term “step” which is more idiomatic in English.

⁴ Curiously, Tchaikovsky uses the same word “subdominant” [subdominanta] to explain the word ‘subdominant’. Perhaps, he intended to say “from the word *sub-dominant*” or “from the word *under-dominant*” instead.

⁵ Bortnyansky, Dmitry Stepanovich (1751–1825); L’vov, Alexey Fyodorovich (1798–1870).

⁶ Tchaikovsky uses the terms “coherent” [sviazniye] and “incoherent” [nesviazniye], which might more idiomatically be translated as “smooth” and “unsmooth,” respectively.

⁷ Tchaikovsky’s actual term is [priamoye], which literally translates as “straightforward.”

⁸ In the original, Tchaikovsky spells out in Russian the first inversion seventh chord [kvintsekkord] as a “5/6 chord,” the second inversion seventh chord [tertzkvartakkord] as a “3/4 chord” and the third inversion [secundakkord] as a “2 chord.” These are of course analogous to what we would now describe as a “6/5 chord,” “4/3 chord” and “4/2 chord,” respectively.

⁹ Turchaninov, Piotr Ivanovich (1779–1856).

¹⁰ Tchaikovsky’s term [vspomogatel’nie], might more literally be translated as “auxiliary tone,” but I will translate it as “neighbor tone” throughout.

¹¹ The original editors (Asafiev and others) of the Russian version wrote the following footnote: [Probably in this place there is an editorial mistake: by the meaning, the word “consonance” should be replaced with the word “dissonance.”] However, I feel that the editors are mistaken and that Tchaikovsky’s original statement was correct.