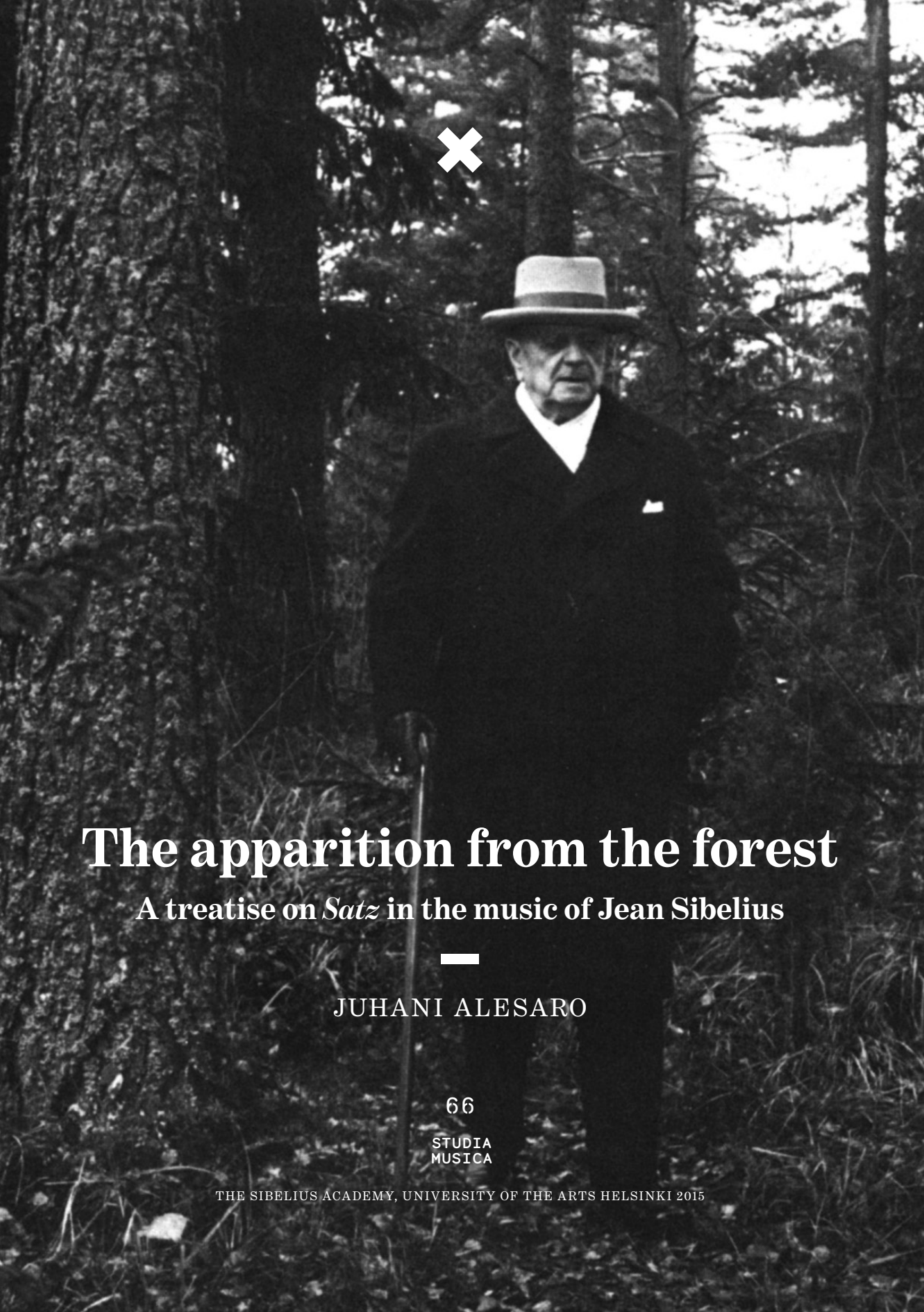

The apparition from the forest

A treatise on *Satz* in the music of Jean Sibelius

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STUDIA
MUSICA

THE SIBELIUS ACADEMY, UNIVERSITY OF THE ARTS HELSINKI 2015

University of the Arts Helsinki
Sibelius Academy

“THE APPARITION FROM THE FOREST “

A TREATISE ON *SATZ* IN THE MUSIC OF JEAN SIBELIUS

Juhani Alesaro

ACADEMIC DISSERTATION

“The intractible, inexorable power that is the God-given voice in my music is something ‘they’ can’t turn up their noses at” (Sibelius, diary 9 October 1911).

Studia Musica 66
Helsinki 2015

ISBN 978-952-329-015-0 (pbk.)
ISBN 978-952-329-016-7 (PDF)
ISSN 0788-3757

Unigrafia
Helsinki 2015

ABSTRACT

The purpose of this study is to examine the structure of the *Satz* of Sibelius. The study is based on the presumption that the "deliciously unclassifiable" (Hepokoski) style of Sibelius is based on two alternating and mixing compositional techniques: the traditional *Satz* and another Sibelian *Satz*-idea, hitherto little known. By means of the current musical terminology it is not possible to describe the Sibelian *Satz*-idea adequately. Therefore for this purpose some new terms had to be introduced.

The core of the Sibelian *Satz*-idea can be found in a fragment from the composer's audition lecture (1896). In this fragment Sibelius presents his view on the tonal system of the oldest type of Finnish folksong, rune melodies. This accounts for his modal approach – both melodic and harmonic – that originated long before the Sixth Symphony (1923). It may also account for Sibelian types of *Satz* where there is no polarity between the topmost and lowermost parts, as is the case in the traditional *Satz*. In this fragment Sibelius also presents his view on harmonization for rune melodies. This establishes the principle of additive harmony. In additive harmony there are smaller harmonic units that together add up to a larger one, a sum-chord. By using the principle of additive harmony all kinds of chord encountered in the music of Sibelius can be derived: ninth-, eleventh-, thirteenth-chords, other kinds of sum-chord, as well as polychords. The co-existence of modal and tonal systems in the music of Sibelius may be called neo-modality, a system where the long experience of major-minor tonality is taken into consideration, but where various modal scales are also utilized in a manner more profound than mere coloration. Some of the branches of neo-modality are polymodality, modal ambiguity and bitonality.

Though independently developed, the Sibelian *Satz*-idiom has near relatives in the solutions made by the contemporaries of Sibelius: Debussy, Ravel, the young Stravinsky and others. Without this new *Satz*-idea the genuine Sibelian musical language could not be carried out.

ACKNOWLEDGEMENTS

Firstly I would like to express gratitude to my first supervisor Ilkka Oramo, a professor in the Sibelius Academy, for his critical comments and advice.

I am grateful to Veijo Murtomäki, a professor in the Sibelius Academy, who throughout the completion of this study – in spite of the demands of his own research interests – was always ready to listen to my ideas, discuss them and propose valuable aspects. After the retirement of my first supervisor, Professor Oramo, Professor Murtomäki undertook the burden of supervising my work.

I am also grateful to Hannu Apajalahti, a senior lecturer in the Sibelius Academy, for his patient and unstinting help. His comments in our many hours of discussion were stimulating and opened new aspects.

I would like to thank composer and senior lecturer Andrew Bentley for his indefatigable advice on the English language in the 1990s. I also thank Inger Jakobsson-Wärn, amanuensis of the archives at the Sibelius Museum in Turku, composer Eero Hämeenniemi and IT-technicians Harri Niemelä and Ville Piekkari, as well as Online Service Designer Heikki Nurmi for their assistance, support and advice.

Finally I wish to thank Eibhlín Ní Ghríofa for proofreading the English text and Graphic Designer Tiina Laino for designing the cover and also for her invaluable advice on the problems of setting the text.

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NOTES

ON LITERARY SOURCES

In citing literary works in the notes, original titles or names of the authors have generally been used. However, some frequently cited works by Erik Tawaststjerna (1916–1993) have been identified by the following abbreviations where a roman numeral is followed by a capital letter referring to the language (F = Finnish edition, S = Swedish edition, E = English edition):
Tawaststjerna IF = *Jean Sibelius* I (1965)
Tawaststjerna IE = *Sibelius Volume I: 1865–1905* (1976)
Tawaststjerna IIE = *Sibelius Volume II: 1904–1914* (1986)
Tawaststjerna VF = *Jean Sibelius* V (1988)
Tawaststjerna IbF = *Jean Sibelius* I (1989a)
Tawaststjerna IIF = *Jean Sibelius* II (1989b)
Tawaststjerna IIIF = *Jean Sibelius* III (1989c)
Tawaststjerna IVF = *Jean Sibelius* IV (1989d)
Tawaststjerna IIIS = Jean Sibelius. Åren 1904–1914 (1991)
Tawaststjerna IS = Jean Sibelius. Åren 1865–1893 (1992)
Tawaststjerna IIS = Jean Sibelius. Åren 1893–1904 (1994)
Tawaststjerna IVS = Jean Sibelius. Åren 1914–1919 (1996)
Tawaststjerna VS = Jean Sibelius. Åren 1920–1957 (1997)
Tawaststjerna IIIE = *Sibelius Volume III: 1914–1957* (1997)

When referred to in footnotes, the pages of the Finnish edition of Tawaststjerna are given first, then those of the Swedish and English editions. If the citation in question is missing in a particular edition, this volume is nevertheless listed showing the corresponding page (or pages) for comparison with the marking “missing” (e.g. Tawaststjerna IF:250 missing, IbF:217, IS:198, IE:98 missing). A translation that does not present the whole thought, bears the marking “incomplete” (e.g. Tawaststjerna IIF:143, IIS:112, IE:210 incomplete).

I have enclosed the quoted words, phrases, and sentences in double quotation marks. I use single quotation marks for four reasons. Firstly they denote quotations within quotations. Secondly they are used when quoted thoughts are paraphrased. Thirdly they are for when I quote myself, and fourthly when I want an expression in my own text to be alienated.

Those Finnish texts that are lacking translation have been translated by me. These texts are conveyed by the sign [J. A.].

ON MUSICAL SOURCES

The names of the compositions of Sibelius are given in the form of Dahlström's index (see Bibliography). The principles in Dahlström (1987:5–6 and 2003: XXXVII, XXXIX, XLI) have also been followed in this study.

In the footnotes compositions are listed according to opus number. Everywhere in this study the last printed version of a reworked composition is under discussion, unless otherwise mentioned.

In Dahlström's index Sibelius's compositions are always supplied with a date. (Some of his dates were later corrected by Kilpeläinen and others.) Both these scholars have established that in the list of works made by Sibelius opus numbers do not always indicate the chronological order of composition.[1] This being the case, the year in which the work was composed is the most reliable way of putting the works in order, and getting an overview of the stylistic development of Sibelius (at least in one's mind) and estimating its progression.

In order to save space in the running text and in figures the titles of Sibelius' compositions, as well as movements and bars referred to in them are presented in abbreviated form. Thus "in bars 51–70 in the third movement of the Third Symphony op. 52" is abbreviated to "op. 52:III:51–70".

ON HARMONIC ANALYTIC NOTATION

Bar numbers that are included in the printed scores, are of course utilized. When there are no bar numbers in the score (a deplorable state of affairs that may often happen even nowadays), I have counted bar numbers and used them instead of page numbers. This requires some trouble also on behalf of the reader.

In abbreviating the names of the orchestral instruments the practice used in pocket scores by Boosey & Hawkes is followed.

In the running text and in notes the instruments are enumerated in two ways depending on their rhythmic position. If the instruments appear simultaneously, the score order from top to bottom (e.g. Vle., Vc., Cb.) is followed. If the instruments appear one after another, they are given in order of their appearance separated by an en dash (e.g. Vc.–Vle.–Cb). When instrument groups appear one after another, the groups are given in order of appearance so that the instruments in these groups are listed according to the score order.

Pitch names in relation to octave registers have been indicated in the following way: middle C is referred to as c1. Octaves below it are in

[1] Dahlström 1987:5, Dahlström 2003:680, Kilpeläinen 1991:159–160, 1991:200–215. There were actually several lists made by the composer; see Kilpeläinen 1991:160–166.

descending order: c, C, C1, and octaves above it in ascending order: c2, c3, c4 etc. These are used only when describing the position of tones in the acoustic space is deemed necessary.

In cases where elements are undetermined by octave-register, capital letters are used. Thus the sequence of capital letters G–B–D–F–A denotes a G-rooted dominant-type ninth chord allowing for octave differences, which in the case of this chord might be e.g. G–b–d1–f1–a1, or g–b–d1–f1–a1, or g1–b1–d2–f2–a2. The simultaneity of the chord factors is denoted by means of en dashes between capital letters. A horizontal succession of tones is denoted by capital letters without en dashes. Also, timeless collections of tones such as pentachords (e.g. D E F G A) and scales are denoted without en dashes.

The capital letters in connection with a chord-formation may be listed either from bottom to top (G–B–D–F–A), or from top to bottom (A–F–D–B–G). In either case the formations are similar, but the direction is chosen in order to reflect the direction of process (see the index of the terms below).

When chord factors are listed in connection with instruments listed according to score order from top to bottom, slashes are used. In this way the above chord might be listed as e.g. a1/f1/d1/b/G.

In string parts double-stops and *divisi* parts are both enumerated alike. If e.g. the violas perform a triple-stop g1/b/d, the marking "Vle. III" thus means the tone d. Divisions of already divided groups are marked by lowercase letters (e.g. Vl. IIa, Vl. IIb).

In the reductions the double-bass parts are written at their actual pitch (*suoni reali*), unless mentioned otherwise.

For analytic purposes intervals greater than octave (compound intervals) are subtracted (e.g. an interval b2 flat/c1 is called "seventh"), unless they belong to ninth, eleventh or thirteenth chords, or are connected to them. Thus there is the possibility that an interval such as d2/c1 (c1–d2) may be either a ninth or merely a compound second. This is decided according to harmonic context.

In the running text the major and minor keys are usually written in the English manner, i.e. in capital letters. In this study the same applies to modes and other scale-formations. However, in connection with the analytic text and in notes the German manner is followed. Here the major keys are marked by capital letters and minor keys by lowercase letters. In this study the same applies to major-like modes and minor-like modes. However, the German terms "H" for B and "B" for B flat are explained when necessary, but are not used in this study.

In the harmonic analysis, when the relations of keynotes – instead of scalic structures – are in focus, the terms "major" and "minor" have been used as general concepts. In this context they, as well as abbreviations of them, are marked in the German manner with the corresponding capital and lowercase letters.

In order to describe *Satz* as clearly as possible the harmonic analytic notation is kept simple. This means that chords are usually described in the key that prevails in the bars the example of the *Satz* is taken from, whether it is the principal key or otherwise. Sometimes the principal key of the passage or of the whole piece is also mentioned.

The pivot chord in a modulation is shown by means of an arrow (e.g. A Mixolydian: III7+V1 – III7/- → b: II7/- – V six-four/V1). The same chord is before and after the arrow. In analytic text the equation sign (=) is reserved for needs of additive harmony (see the index of the terms).

In a major key "VII7b" means a diminished seventh chord, while "VII7" means a half-diminished seventh chord. In a minor key "VII7" means a diminished seventh chord, while a half-diminished chord of that degree is shown by means of a raised seventh, i.e. VII#7. Correspondingly, in a major key a secondary dominant "VII7b of n" means a diminished seventh chord, while "VII7 of n" means a half-diminished seventh chord. In a minor key "VII7 of n" means a diminished seventh chord, while "VII#7 of n" means a half-diminished seventh chord.

The letter N is used for a Neapolitan triad, N6 for a Neapolitan sixth chord, etc. A major seventh chord on the lowered second degree is marked as N7 and its inversions accordingly.

In connection with augmented sixth chords, Piston (1978:415–416) has used geographical names (Italian, German, French) for three augmented sixth chords. In the Italian (VI It) there is no fifth, in the German (VI Ger) the fifth is perfect. In the French (VI Fr) there is an augmented fourth. Piston has left the fourth one (with a doubly augmented fourth) unnamed. In Finnish musical terminology this last-mentioned augmented sixth chord is called the "English sixth chord" (VI Eng).

The details concerning the harmonic analytic notation of three-voice framework (see the index of the terms) are presented in the running text.

INDEX OF SOME TERMS USED IN THIS DISSERTATION

Many terms are used in this study. I have tried as much as possible to use terms already in usage. In order to widen the scope I have also used some terms suggested by various scholars. Yet even these two groups of terms were not always sufficient to grasp the various facets of Sibelian *Satz* in detail. Therefore it was also necessary to introduce some new terms.

The terms in common use included in harmony books, say, from Walter Piston to Aldwell & Schachter are e.g. antecedent, ambitus, bass, bimodal, bimodality, bitonal, bitonality, block chord, cadence, chord, chorale, chromaticism, close position, closure, compound interval, conjunctive, consequent, consonance, counterpoint, diatonic scale, disjunctive, dissolution, dissolved chord, dissonance, dominant chords, double counterpoint, *fauxbourdon*, figuration, figured bass, four-part writing, half-diminished seventh chord, harmony, heptachord, heptatonic scale, hexachord, key, key-note, major-minor system of tonality, modal, modality, mode, modulation, non-harmonic tone, octatonic scale, open position, organ point, ostinato, parallel motion, part, pentachord, period, phrase, polychord, polydynamics, polymeter, polyphony, polytonality, pre-tonal, prolongation, resolving, root position, root-position writing, *Satz*, scale, semitone, seventh chord, sequence, shift, soprano, subtonic, tetrachord, texture, thorough bass, tonality, tonic, tonic chord, tonicization, triad, two-voice framework, voice-leading, whole-tone scale, etc.

The terms suggested by certain scholars are e.g. accumulation (Normet), actual root (Piston), added-note chord (Persichetti), added sixth chord (Piston), added sixth below the root of the triad (Piston), ambiguity (Piston), characteristic scale step (Persichetti), collateral part (Piston), dual root (Piston), factitious root (Piston), incise (H. C. Koch; originally *Einschnitt*), interchange (Piston), layer (Piston),[2] polymodality (Bartók), superposition (Piston), supposition (Rameau), thickening of line (Piston).

All of the above general and specific terms might be considered self-evident to the reader. Nevertheless some of them are explained below, both where they are central to this study and where they border on the terms designed for this study. The reader may decide, whether he or she wishes to familiarize themselves with the terms at the outset, or consult them only when reading through the text. In order to make the approach easier for the reader, the terms are firstly grouped thematically, and then alphabetically in each group.

[2] The term ”layer” in connection with harmony does not appear in the General Index of “Harmony” by Walter Piston, but in the text (see Piston 1978:500) it is used in the same meaning as in this study.

I TERMS CONCERNING COMPONENTS IN TRADITIONAL TEXTURES

Bass: in → four-part writing (II) the bass is the lowest part, the bearer of the harmony. See also → bass (IIIa).

Collateral part: a collateral part can already be found in Baroque music in connection with upper parts. It resembles a Sibelian → collateral line (IIIb), but it may be more independent.

Component: a component is a general term that includes all kinds of linear building-blocks of → *Satz* (II).

Organ point: an organ point is a sustained tone, usually the lowermost in an → organ point *Satz* (II). The length of an organ point is at least as long as the phrase. See also → stationary tone (IIIa).

Part; see → voice

Soprano; see → four-part writing (II).

Voice: a voice is a vocal or instrumental → part in any kind of → *Satz* (II). In general the terms part and voice are synonymous.

II TERMS CONCERNING TRADITIONAL TEXTURES

Four-part writing: vocal and instrumental music is often based on four parts that are termed according to their choir names (soprano, alto, tenor, bass). See also → *Satz*, → multipart *Satz*, → soprano-bass *Satz*.

Framing parts: the framing parts in a → two-voice framework are the topmost and lowermost parts. These framing parts alone are enough to establish a two-voice framework. See also → soprano-bass *Satz*.

Multipart *Satz*: in a → multipart *Satz* there are more than four real parts of a → four-part writing. Multipart *Satz* is not a synonym for a → three-voice framework (IV) where more than four real parts may occur.

Organ point *Satz*: an organ point *Satz* consists of a → two-voice framework and an → organ point (I) that is usually located below it. Immediately above the organ point is an → assisting bass (IIIa). Organ point *Satz* may be considered the earliest form of → three-voice framework (IV). See also → organ point-formation (VI).

Satz: a term of German origin. The term covers all aspects of harmony and counterpoint. The essence of the term is the interdependence between them. The nearest English equivalents of the term *Satz* are "composition" and "texture".

Soprano-bass *Satz* is a form of → two-voice framework. See also → four-part writing.

Texture; see → *Satz*

Traditional types of *Satz* are → soprano-bass *Satz* and → organ point *Satz*. In the music of Sibelius there are also → Sibelian types of *Satz* (IV) that differ from these.

Two-voice framework: in a two-voice framework containing any number of parts the most important of them are the topmost and the lowermost. See also → four-part writing, → multipart *Satz*, → soprano-bass *Satz*.

Three-voice framework: see → three-voice framework (IV)

IIIA TERMS CONCERNING COMPONENTS IN SIBELIAN *SATZ*

Assisting bass: an assisting bass is a → part (I) that proceeds immediately above the → bass in a → three-voice framework (IV). See also → organ point *Satz* (II), → three-voice framework (IV).

Assisting soprano: an assisting soprano is the topmost part of the lower → two-voice framework (IV) in → a four-voice framework (IV). Usually in analysis the → sum-bass (VIII) is sufficient and the assisting soprano may be dispensed with.

Bass: see → bass (I). In a → three-voice framework (IV) and in an → organ point *Satz* (II) the bass works with (and beneath) an → assisting bass.

Component; see → component (I)

Line: a line is one of the → components of → Sibelian types of *Satz* (IV). Usually a line is responsible for the melodic content.

Macro-component: a → line or → tardy line that is augmented to such proportions that one note may endure as long as a phrase. In analysis a macro-component is best perceived visually.

Mutual bass: a mutual bass is a situation where the → bass and the → assisting bass of a → three-voice framework (IV) sporadically meet in unison or in octave.

Pedal point: a pedal point is a sustained tone in a → line-pedal *Satz* (IV). The length of a pedal point is at least as long as the phrase. See also → stationary tone.

Stationary tone: a stationary tone is a sustained tone shorter than a phrase. Harmonically a stationary tone may function either in the manner of an → organ point (I), or in the manner of a → pedal point.

Subsidiary component: in → Sibelian types of *Satz* (IV) a subsidiary component is any component other than a → line, → pedal point or → tardy line, without being a → collateral component (IIIb)].

Tardy line: as a → component, a tardy line is melodically and rhythmically less active than a → line, but more active than a → pedal point.

IIIB TERMS CONCERNING THICKENED COMPONENTS IN SIBELIAN *SATZ*

Chordal thickening: in a chordal → thickening – that contains a → component (I) and at least two → collateral components – successive consonant chords proceed in parallel motion. See also → dissonant thickening.

Collateral component: a collateral component belongs to a → thickening. A collateral component shares the rhythmic and melodic qualities with the → component that is thickened. Cf. also → collateral part (I).

Collateral line; see → collateral component

Collateral organ point; see → collateral component

Collateral pedal point; see → collateral component

Collateral tardy line; see → collateral component

Dissonant thickening: in a dissonant thickening – that contains a → component (I) and at least three → collateral components – successive dissonant chords proceed in parallel motion. See also → chordal thickening.

Intervallic thickening: in an intervallic → thickening – that contains a → component (I) and only one → collateral component – successive intervals proceed in parallel motion. Cf. also → chordal thickening, → dissonant thickening.

Thickening: a thickening contains a → component (I) and its → collateral component that thickens it into intervallic parallel motion, or collateral components that thicken it into chordal parallel motion. See also → chordal thickening, → dissonant thickening.

IV TERMS CONCERNING TYPES OF SIBELIAN *SATZ*

Extended three-voice framework: in a → three-voice framework the most important parts are the → assisting bass (IIIa) and the → bass (IIIa). A three-voice framework is extended when an → organ point (I) is placed below the bass.

Four-voice framework: a four-voice framework is a species of → three-voice framework. A four-voice framework contains two → two-voice frameworks. It is quite rare in the music of Sibelius.

Latent three-voice framework: a joint between a → two-voice framework (II) and a → three-voice framework. This joint does not last longer than a single chord.

Line-tardy line Satz: consists of a → line (IIIa) or lines and a → tardy line (IIIa) or tardy lines. It may also contain → subsidiary components (IIIa).

Line-pedal *Satz*: consists of at least a → line (IIIa) and a → pedal point (IIIa). Often there is a → tardy line (IIIa) and → subsidiary components (IIIa) may also occur.

Macro-polyphony: polyphony of → macro-components (IIIa)

Sibelian types of *Satz* are e.g. → line-tardy line *Satz* and → line-pedal *Satz*. The difference between these types depends on the absence or presence of a → pedal point (IIIa).

Two-voice framework; see → two-voice framework (II). It is the most common type of framework in the → Sibelian types of *Satz*. It is also a segment in a → three-voice framework and a → four-voice framework.

Three-voice framework: a three-voice framework contains a → two-voice framework (II) plus something else. The most important components in a

three-voice framework are the → assisting bass (IIIa) of the upper two-voice framework, as well as the lowest part → bass (IIIa). In the course of music history the three-voice framework first cropped up in → organ point *Satz* (II).

V TERMS CONCERNING TONE-COLLECTIONS

Characteristic scale step: a characteristic scale step keeps a → mode from becoming a major scale or a minor scale.

Extended pentachord: an extended → pentachord (e.g. D E F G A + B C) and a → heptachord (D E F G A B C) contain an equal number of steps. In the former there is an inner structure that is lacking from the latter.

Heptachord: a collection of seven adjacent steps (e.g. D E F G A B C).

Heptatonic scales contain a → heptachord in the range of an octave (e.g. D E F G A B C D). See also → mode.

Mode: in this study a mode is considered as a → heptatonic scale that is melodically and harmonically different from major and minor keys. See also → characteristic progression in Ionian (VI), → characteristic scale step.

Pentachord: any collection of five adjacent steps (e.g. D E F G A). The harmonic i.e. the vertical dimension of a horizontal pentachord is a triad (here it is the minor triad D–F–A).

Polymodality: a situation where two simultaneous → heptatonic scales include different pitch-alternatives (e.g. F/F sharp), but share the same key-note (e.g. C). A polymodal situation may also include major or minor scales.

Polyscality: a situation where either or both of the simultaneous scales contain less or more degrees than a → heptatonic scale.

Scalar association: scalarly associated → heptatonic scales have different tonics, but share the same set of tones.

VI TERMS CONCERNING CHORDS IN TRADITIONAL TONAL CONTEXT

Dominant harmonies: chords in major or minor keys that include the leading-tone (V), or the leading-tone and the fourth degree (e.g. V7, VII, V9, VII7), belong to the group of dominant harmonies.

Dominant-type chord: a chord including a major third, a pure fifth and a minor seventh. This term is used in → modes (V) where dominant-type chords occur on other degrees than on the fifth.

Organ point-formation: a formation typical to an → organ point *Satz* (II). In the signatures of these the chord factors are enumerated from top to bottom. A typical organ point formation is a → seven-four-two chord. Cf. → Pedal point-formation (XI).

Seven-four-two chord: in close position a seven-four-two chord on organ point C includes the tones (from top to bottom) B–F–D and C. There are also wider → organ point-formations that contain the same intervals. Cf. → Sum-seven-four-two chord (XI).

VII TERMS CONCERNING HARMONIC SYNTAX

Accumulation is where successive chords – on behalf of harmonic syntax – are also partly presented simultaneously (i.e. "chords crashing into each other").

Ambiguity: in connection with a chord-formation (X), ambiguity means the possibility of a number of interpretations. An example of tonal ambiguity is the different enharmonic interpretations of a diminished seventh chord. See also → modal ambiguity.

Cadence: a formula used for phrase endings in major and minor keys. In tonal music a cadence is the point of intersection of melody, harmony and form. Cf. → closure.

Characteristic progression: a characteristic progression contains at least two chords in any order. These are the tonic chord and another chord that includes the → characteristic scale step (V). See also → mode (V).

Characteristic progression in Ionian: in Ionian mode the → characteristic progressions differ from those in a major key, although the scales are similar. See → characteristic progression in keys.

Characteristic progression in keys: in major or minor keys the → characteristic progressions are I – V7 and V7 – I.

Closure: a formula used for phrase endings in modes. In modal music closures are the point of intersection of melody, harmony and form. Cf. → cadence.

Modal ambiguity: in the music of Sibelius there is modal ambiguity where a → chord-formation (X) is open to more than one harmonic interpretation of which at least one is modal. See also → dual root (XI).

Neo-modality: in neo-modality the experience of the major-minor system is taken into consideration, but in neo-modality these two scales do not prevail over other kinds of → heptatonic scale (V).

VIII TERMS CONCERNING ANALYSIS

Deep level: the term deep level means the level of harmonic reduction. See also → level, → the level of scheme.

De-patternization: in de-patternization any kind of pattern is altered in some way.

Irregular: in an irregular → chord-formation (X), the chord factors do not form a → regular stack of thirds.

Level: in this study scrutiny is mainly conducted on two levels, the → surface level and the → deep level. See also → Schenkerian concepts.

Prolongation: harmonic prolongation is created by alternating harmonies, recurring chords, recurring harmonic combinations, recurring phrase-endings, as well as recurring → cadences and → closures. All these recurrences of the previously established harmony make it seem to prevail latently and in this way ensure its prolongation.

Regular: harmonic term. In a regular stack of thirds all the chord factors stand a third apart from each other.

Schenkerian concepts: in relation to Schenkerian concepts *Vordergrund–Mittelgrund–Hintergrund* (foreground–middleground–background) both the → surface level and the → deep level stand in the *Vordergrund*, whilst → the level of scheme beneath these two does not correspond to the Schenkerian *Mittelgrund* or *Hintergrund*.

Sum-bass: a sum-bass is the lowest part that analytically combines within itself the contents of an → assisting bass (IIIa) and → the bass (IIIa). It makes it possible to handle a → three-voice framework (IV) in terms of a → two-voice framework (II).

Surface level: the term is used to mean the written music. See also → level.

Texture modulation: in the domain of harmony, modulation is the opposite of contrast, i.e. a shift. In the domain of → *Satz* (II), texture modulation means gradual change instead of contrast.

The level of scheme: In the level of scheme the material of the → deep level can be summarized and shown as a plan.

IX TERMS CONCERNING DISSONANCE TREATMENT

Dissolution: in dissolution a dissonance does not resolve, but leaps downwards. e.g. a ninth may dissolute to a seventh (9–7), or a seventh to a triad (7–5). Cf. also → releasing, → resolving.

Filled dissolution: in a → dissolution (e.g. 9–7) the leap may be filled (9–8–7). The seeming resolution (i.e. 9–8) does not interrupt the 9–7 dissolution which only finds its goal after the → filling tone.

Filling tone; see → filled dissolution

Multiple treatment of dissonance: in a case of multiple treatment of dissonance, a dissonance is doubled and these doublings are resolved (or released) one after another, either in a similar way or in different ways. See → releasing, → resolving.

Releasing is a way of treating dissonances especially in → sum-seventh chords (XI). → Releasing motions differ from → resolving in traditional seventh chords and also from → dissolution.

Releasing motions: in releasing motions one part remains stationary, while another descends or ascends by step to unison or octave. These releasing motions are e.g. mi7–8, 7–8 descending, 7–6 ascending).

Resolving: in resolving, a dissonance descends by step to an imperfect consonance. Resolving may take place e.g. in seventh chords (7–6). See also → releasing.

X GENERAL TERMS CONCERNING ADDITIVE HARMONY

Additive harmony: harmony that includes → layers is considered additive. See also → non-additive harmony.

Chord-formation: a general term that covers chords in a → two-voice framework (II), as well as → sum-chords (XI) and → polychords (XI) in a → three-voice framework (IV).

Column: a column includes two or more successive chords that may be considered segments in the same stack of thirds.

Columnal progression: in a columnal progression the chords that are segments of a → column, are connected according to the traditional rules of voice-leading. See also → columnal succession.

Columnal succession: in a columnal succession the chords that are segments of a → column, are not connected according to the traditional rules of voice-leading, but in the manner of a → pentachord-succession.

Columnal technique: utilizes the devices of → columnal progression and → columnal succession.

Layer: a layer is a general term in → additive harmony. A layer contains successive segments of → sum-chords (XI). These segments may be either a → sub-tone (XI), a → sub-interval (XI), or a → sub-chord (XI). In this study the term "layer" is not a synonym for → level.

Layered technique: in the layered technique the → layers can → enter (XI) and → cease (XI) one after another, i.e. at different times. In this process they may add up to → sum-chords (XI), or break them into → sub-chords (XI).

Layered *Satz*: a layered *Satz* contains → layers. See also → additive harmony.

Non-additive: a non-additive harmony or chord originates from a → two-voice framework (II) and does not contain any → layers.

Pentachord-succession: in a melodic pentachord-succession → pentachords (V), mostly related by thirds, succeed one another (e.g. D E F G A – F G A B C).

Superposition: in superposition a → regular (VIII) stack of thirds is increased upwards (e.g. D–F–A+C). See also → supposition.

Supposition: in supposition a → regular (VIII) stack of thirds is increased downwards (e.g. A–F–D+B). See also → superposition.

XI PARTICULAR TERMS CONCERNING ADDITIVE HARMONY

Actual root; see → dual root

Added-dissonance: an added-dissonance is a harmonic dissonance that is added to any chord (added-seventh, added-ninth, etc.). Added-dissonance follows the principle of → superposition (X). See also → sum-chord.

Added-note: an added-note is a non-harmonic dissonance that is added to any kind of chord (e.g. sixth chord: c2/a1/e1/c1, added-note sixth chord: c2/a1/e1/d1 sharp/c1).

Added-root: an added-root is a tone that is added beneath the lowest factor of a → regular (VIII) chord. Added-root follows the principle of → supposition (X). See also → sum-chord.

Added-root seventh chord; see → sum-seventh chords

Added-seventh triad; see → sum-seventh chords

Added-sixth triad; see → dual root, → sum-seventh chords

Ceasing layer; see → layered technique (X)

Chordal layer: a chordal layer is a segment in → additive harmony (X). A chordal layer, i.e. a → sub-chord is mostly a → sub-triad, or → a sub-seventh chord.

Degree-combination: two simultaneous → sub-chords form a degree-combination (e.g. II+V) in a → sum-chord.

Dual root: in an → added-sixth triad two roots can be discerned. In an added-sixth triad F–A–C+D the → *actual root* is F, while the → *factitious root* of it is D. See also → modal ambiguity (VII).

Entering layer; see → layered technique (X)

Factitious root; → see dual root

Intervallic layer: an intervallic layer is a → sub-interval in a → sum-chord. See also → layer (X).

Pedal point-formation; see → sum-seven-four-two chord.

Polychord: a polychord is a combination of two → sub-chords that may be remotely related. A polychord is different from a → sum-chord.

Sub-chord: a sub-chord is a → chordal layer in a → sum-chord. Mostly a sub-chord is a → sub-triad, or a → sub-seventh chord.

Sub-interval: a sub-interval is a → layer (X) in a → sum-chord.

Sub-root: a sub-root is the root of a → sub-chord. Cf. also → sum-root.

Sub-seventh chord; see → sub-chord

Sub-tone: a sub-tone is a → layer (X) in a → sum-chord.

Sub-triad; see → sub-chord

Sum-chord: a sum-chord is a sum of at least two → layers (X). A sum-chord is either an → added-dissonance chord, or an → added-root chord. When the layers are → sub-chords, they form a → degree-combination (e.g. II+V) in the sum-chord. The range of sum-chords varies from → sum-seventh chords to → wider chord-formations.

Sum-eleventh chords; see → sum-chord, → wider chord-formations

Sum-ninth chords; see → sum-chord, → wider chord-formations

Sum-seven-four-two chord: the interval content of this → pedal point-formation is similar to a → seven-four-two chord (VI), but the seventh is minor (mi7). Wider sum-seven-four-two chords contain the same intervals. Cf. → organ point-formation (VI), → seven-four-two chord (VI).

Sum-seventh chords are an → added-seventh triad, an → added-sixth triad and an → added-root seventh chord. All of these were already (marginally) used in the music of 18th century, though only the added-sixth triad had been theoretically defined at that time (by Rameau).

Sum-root: a sum-root is the root of the whole → sum-chord.

Sum-thirteenth chords; see → sum-chord, → wider chord-formations

Wider chord-formations are ninth chords, eleventh chords and thirteenth chords. Usually the wider chords are → sum-chords.

PART ONE: INTRODUCTION

1. "THE APPARITION FROM THE FOREST"[3]

Although the music of Sibelius is widely performed and admired all over the world, in the 'public opinion' of many connoisseurs it has not yet won its place alongside other phenomena in western musical culture. Though several decades have passed since the composer's death, there is little unanimity concerning the value, historical position and significance of Sibelius's output.

One critic relegates Sibelius to the role of "opposite of innovator", whose arrow points backwards,[4] whereas another holds the opinion that Sibelius "seems to point forward most surely to the future".[5] Some maintain that Sibelius lacked the necessary compositional skills;[6] yet others say that "Sibelius all his life has been a superb technician…".[7] There is an opinion that Sibelius mainly reflects contemporary European tendencies,[8] while others state that he was a completely independent artist, free of external influences.[9]

If all observers shared a common basis of estimation, this wide spectrum of opinions would signify that the music of Sibelius is an eclectic *complexio oppositorum*. One could deem it – according to long-established aesthetic norms – incoherent.[10] But it may be that observers do not share a common basis of estimation. This would explain why each has uncovered aspects which reinforce his or her particular viewpoint and suppositions. To my mind, leaving different aesthetic standpoints aside, this lack of common ground is mostly a result of neglecting to explore very basic features, i.e. the *Satz*, of Sibelius's music.

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[3] The name of this treatise is based on a translation of the expression "eine Erscheinung aus den Wäldern" (an apparition from the forest) by Sibelius. It stems from a diary entry of 13 May 1910 (*Dagbok 1909–1944*:44, Tawaststjerna IIIF:191, IIIS:181–182, IIE:140).

[4] See Searle & Layton 1972:xi (introduction written by Nicolas Nabokov).

[5] Lambert 1966:276, 277. See also Downes 1945:86.

[6] Adorno 1980, Leibowitz 1955, and their followers.

[7] R.W. Wood 1975:88. Also Downes (1945:147) and Lambert (1966:258) shared the same opinion.

[8] See the anonymous Postface (Wiesbaden, Fall 1985) in the score of *Luonnotar* op. 70 (B&H PB 5076).

[9] Lambert 1966:257 and 269, Newman 1958:118 and 128, Downes 1945:147.

[10] Only recently has the idea of unity been challenged by some writers; see Murtomäki 1993:vii. But in the case of Sibelius – as Murtomäki has established (ibid.) – an approach from the angle of unity is justified.

1.1 TWO TRADITIONS OF *SATZ*

In the context of the long history of music theory the word *Satz* is relatively new. According to Paavo Soinne, it first appears in 1762 and has held several meanings from the outset.[11] Soinne lists those given by F. W. Marpurg (1718–1795) in his book *Handbuch bey dem Generalbasse* (second edition, Berlin 1762, foreword):

1a Musical thought [*Gedanke*]; one- or many-voiced
1b Piece [*Tonstück*]
2 A word used in place of "composition" [*anstatt Composition*]
3 The entire domain of harmony [die alleinige Lehre von der Harmonie]

Marpurg gives the following definition of case 2: "Connection and knowledge of the rules of Harmony, Melody and Rhythm" [*Zusammenhang und die Wissenschaft der Regeln von der Harmonie, Melodie und Rhytmik*].

In my opinion, this definition of *Satz* is still valid and acceptable, including for analytical purposes. I find the English equivalent, i.e. 'composition', too general, not precise enough to denote the meaning of *Satz* in its narrower sense. For this reason I shall use the original German term *Satz* (and also the term 'texture' where appropriate).

The word "connection" has a key place in Marpurg's definition. The connection of these various branches of the musical art – harmony, melody and rhythm – was felt to be so close that these terms could be regarded as interchangeable. Christoph Bernhard (1628–1692), a pupil of Heinrich Schütz, refers (c. 1650) to "Harmony, or sonorousness [*Wohl-Laut*] of many different voices, which is called counterpoint by the musicians".[12] Friedrich Erhard Niedt (1674–1708), whose book *Musicalische Handleitung I – III* was known by J. S. Bach, says: "perfect [*völlige*] harmony, that is counterpoint".[13] One the last representatives of this line of thought was Augustus F. C. Kollmann (1756–1829), who in 1812 says that fugue is "the surest proof of a composer's being a perfect harmonist".[14]

This perspective reached its height during the days of J. S. Bach. By and by it was supplanted by another standpoint, which laid emphasis on separate branches. In accordance with this point of view, harmony and counterpoint

[11] Soinne 1984–85:58 and note 93 in pp. 110–111.

[12] Soinne 1984–85:64 and 113 (note 121).

[13] Soinne 1984–85:65 and 113 (note 126).

[14] Soinne 1984–85:67. See also Baker 1983:xviii.

grew apart from each other into two different disciplines [*Zwei Disziplinen*].[15]

In spite of these newer segregative tendencies the older unity-orientated thinking never totally disappeared. As late as the nineteenth century there were composers whose working-methods were 'old-fashioned'.[16] Still Paul Hindemith (1895–1963) lamented: "One thing that makes instruction in this field more difficult is the unfortunate fact of its division into two separate parts".[17]

When I use the expression 'traditional *Satz*' or 'traditional compositional technique' below, I always mean this older Central European – especially German – tradition extending from the Baroque into the Romantic era, in contrast to the more recent segregative 'conservatory tradition'. Yet it should be kept in mind that the 'conservatory tradition' did not necessarily block the urge for the unity-orientated way of thinking of conservatory-trained composers, or others working in that era.[18] Also it should be kept in mind that neither unity-orientated nor segregative thinking in terms of *Satz* compels a composer towards 'conservatism' or 'progressivism', or to any other current aesthetic labels.

Both these different traditions of *Satz* have their relevance to the way critics have reacted to the music of Sibelius.

1.2 TWO ATTITUDES ON SIBELIUS

In spite of the lack of classification criteria, for many years there have been attempts to classify this "deliciously unclassifiable" composer.[19] If invective is excluded, one is left with two principal standpoints. The most widely accepted one regards Sibelius as a (late-)romantic composer,[20] deep-rooted in the nineteenth-century heritage, who nevertheless has some peculiarities of his own and who has made a number of innovations, particularly with regard to musical form. Representatives of this standpoint include, amongst others, Simon Parmet, Erik Tawaststjerna, Erkki Salmenhaara, Teuvo Ryynänen, Tim Howell, Tristan Murail and James Hepokoski, and more

[15] Cf. Jeppesen 1965:1–2.

[16] See Jonas 1980:xiii.

[17] Hindemith 1970:5.

[18] See Jonas 1980:xiii–xiv (on Brahms). See Hindemith 1970:5–6.

[19] Hepokoski 1993:x. Lambert (1966:257) and Johnson (1960:189) already faced the same problem.

[20] Late-romantic in the sense of the term that was used of some pre-World War I composers since the 1920s (cf. Johnson 1960:186 and Wörner 1973:678–679).

often than not those who have used Schenkerian methods when analyzing Sibelius's music (e.g. earlier Murtomäki).[21]

The ultimate conclusion of this standpoint is to try to solve the classification problem by splitting the music of Sibelius into two halves, the 'conservative' and the 'progressive'. This kind of splitting is an application of the idea of splitting musical *Satz* into separate branches, although it is no accident that the idea of different types of process applied to various simultaneous parameters appears in the post-serialist period. Salmenhaara states:

"As a developer of symphonic form and symphonic art Sibelius was – contrary to the composer he would appear to be – one of the great revolutionary figures of musical history. He developed a unique symphonic technique of his own that was not based on any direct model in the past. *These two conflicting factors – the conservatism of his style and the radical nature of his symphonic technique* – also provide one possible reason for Sibelius' fading into silence as a composer. *Tapiola* is the synthesis of his late symphonic technique. In it *expression – content – and structural thinking – form – are an integral part of one another."* (italics mine)[22]

According to Murail Sibelius' "vocabulary is a bit old-fashioned, I mean the whole harmonic and melodic content, but the importance of Sibelius lies in the work he made with the other musical parameters".[23]

There is another standpoint that regards Sibelius as being not at all a romantic but rather the founder of a totally new style. This point of view was expressed in a nutshell by the German conductor Otto Klemperer (1885–1973): "His achievement was to create an altogether new music with completely classical means".[24] In terms of *Satz* this standpoint represents unity-orientated thinking in which "completely classical means" do not prevent the composer from creating "an altogether new music". As far as I can see, Erik Furuhjelm, Georg Göhler, Constant Lambert, Olin Downes, R. W. Wood, Charles Wilson, Jouko Tolonen, Philip Coad and later Murtomäki should be regarded as representatives of this standpoint.[25]

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[21] Murtomäki stated: "… this study does not centre on the most progressive features of Sibelius' music – textural counterpoint, orchestral thinking and colouring – but instead on formal and tonal features and the thematic-melodic technique …" (Murtomäki 1993:vii). When applying Schenkerian methods in his analysis, Murtomäki admitted: "it must be done creatively" (Murtomäki 1993:9)).

[22] Salmenhaara 1970:121–122; from the English summary.

[23] In an interview made by Kaija Saariaho in a Finnish music magazine *Rondo* 1981/4–5, p. 34.

[24] Tawaststjerna VF:288, VS:273, IIIE:292.

[25] See e.g. Murtomäki 2008.

1.3 SIBELIUS AND *SATZ*

What was Sibelius's own attitude to these questions? How did he view the problems of *Satz* and can we find support from him for either of the above-mentioned standpoints?

It is noteworthy that in spite of the *Zwei Disziplinen* -type of musical instruction that was given to Sibelius,[26] the idea of simultaneous separated parameters does not get his support. In his audition lecture (1896) at the University of Helsinki Sibelius stated: "Anyone who has occupied himself with composing at least a bit knows that melody and harmony arise simultaneously".[27] In his diary Sibelius wrote (9 June 1910): "The sonority depends to a great extent on purely-musical *Satz*,[28] its polyphony, etc. This is especially true as far as dynamics are concerned".[29] In the light of these quotations Sibelius appears to be a real heir to the idea of unity-orientated textural thinking.

Though Sibelius's way of thinking was unified, his compositional technique cannot be considered "completely classical", or similar to that of romantic composers in general. This is upheld by some of the composer's statements. In a letter to Aino Sibelius 13 November 1907 Sibelius writes: "It is strange just how difficult it is for artists to throw off the 'good deeds' of their forefathers. They don't realize that so rich and self-renewing an art as music performs other functions than merely beguiling the ear".[30] During his third trip to England in 1909, Sibelius told the English composer Walford Davies that "Haydn builds up his harmony from the bass with the melody as its crown. Now I think of my melody first and of the harmony depending from it".[31] On 20 September 1910, when Sibelius sketched his outline of the Fourth Symphony for the second time, one finds a diary entry as follows: "Do not ever let go of the sublime in your art in favour of 'das herkömmlich meisterhafte'" ('the traditional mastery').[32] After completing op. 63, Sibelius wrote in his diary on 18 July 1911: "I am worried about my capacity to come

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[26] Tawaststjerna IF:101–102, IbF:85, IS:78, IE:32. See also Tawaststjerna IF:160–161, IbF:139, IS:125–126, IE:56.

[27] ed. Grimley 2011:322. See also Tawaststjerna IIF:102, IE:191. The Swedish original of this lecture is in *Musiikki* 1980:2, pp. 86–105. For the translation I have used one by Margareta Martin; see ed. Grimley 2011:318–325.

[28] The Swedish form of this term is "sats", the Finnish derivative of it is "satsi".

[29] *Dagbok 1909–1944*:45, Tawaststjerna IIIF:193, IIIS:183, IIE:141. I have retranslated these sentences because Layton has left out the sentence that includes the word "Särskildt" (especially). The word "satsen" has been translated with its closest English equivalent *Satz* instead of Layton's "substance".

[30] Talas 2007:84, Tawaststjerna IIIF:102, IIIS:96, IIE:79. The words used by Sibelius are "att smeka örat", i.e. "delighting the ear".

[31] H. C. Colles 1942:102–103.

[32] *Dagbok 1909–1944*:55, Tawaststjerna IIIF:196, IIIS:186, IIE:143.

with something really new. I even doubt my way of working – [this "*plein air*" manner] – so far removed from the kind of thinking of the German school! As far as I can see, they have made the art of composition into a science".[33]

Considering this *plein air* manner of working, it may not be coincidental that Sibelius, a violinist by training, usually worked at the piano, especially when the first ideas were germinating.[34] Exceptions from this practice were rare,[35] although the composer sometimes felt it necessary to work more at his desk,[36] without the aid of an instrument.

Still, the problem remains: the casual listener may be left with the impression that Sibelius has two faces; sometimes his music sounds traditional, at other times not at all. Is there another solution to this problem other than the questionable parameter idea, where simultaneous different ways of thinking are assumed: a solution where unity-orientated textural thinking is incorporated?

1.4 A POSSIBLE SOLUTION

A solution to the problem can be outlined: one which explains stylistic diversity without endangering the principle of unity. This solution is based on the assumption that in place of segregation one has an intermingling of two styles, two ways of unity-orientated thinking (one traditional and the other original, this "*plein air* manner"). This would mean a combination of two different compositional techniques, which at times may follow each other in pure form and at others mix together, forming different kinds of blends.

Such a hybrid would not be a completely new phenomenon in the history of western music. In his own time Joseph Haydn (1732–1809) created a new style based both on his own innovations and the constituents of the present and past. A corresponding earlier case is Claudio Monteverdi (1567–1643) who had knowledge of both the *prima prattica* (Renaissance polyphony) and the *seconda prattica* (early Baroque monody). If this kind of assumption provides an explanation, it would also help to classify Sibelius "deliciously";

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[33] *Dagbok 1909–1944*:84. The diary reads: "detta 'plein air'-sätt", i.e. this outdoor-manner. See also Tawaststjerna IIIF:274, IIIS:268, IIE:206–207. In the English version the characterization "this '*plein air*' manner" is missing and I have added it afterwards.

[34] See Tawaststjerna IIIF:179, IIIS:170, IIE:132.

[35] According to Tawaststjerna in Summer 1895 in Vaania (near Lahti) Sibelius "had no access to his usual piano" (Tawaststjerna IIF:57–58, IIS:45, IE:164). In a letter to Aino from Berlin on 31 January 1905 Sibelius reports that "It has been difficult to work entirely in one's head without the aid of keyboard, but I shall make a success of it (Talas 2007:30–31, Tawaststjerna IIIF:24, IIIS:24, IIE:27).

[36] Talas 2003:288, Tawaststjerna IIF:231, IIS:180–181, IE:258. In the English edition the sentence "More at desk – less at piano" from a letter to Aino Sibelius in 10 September 1902 is replaced by reported speech. See also Tawaststjerna VF:233, VS:223, IIIE:269 (in 29 April 1926).

the composer could then be seen as a mediatory figure in the history of music.[37] Then – and only then – other bones of contention, such as Sibelius's technical competence, the influences to which he submitted and the development of his style may also be resolved.

Is there any reason to believe that, in addition to traditional textural thinking, there could be a hitherto relatively unknown but original way of thinking, an original *Satz*-idea in the music of Sibelius? In order to answer this question it is advisable to cast a glance at what has already been said about *Satz* in his music.

[37] Cf. Les Black 2010:184 "… standing astride the centuries".

2. SURVEY OF THE LITERATURE

There are not many proper studies or articles concerning the *Satz* of Sibelius. Excluding the most important source, Sibelius's own audition lecture at Helsinki University from 1896 (which remained unpublished during the composer's lifetime),[38] I have found only two which comfortably fit into this category: "The audition lecture of Sibelius and the harmonization of the minor pentachord" by Jouko Tolonen and "Some characteristic features of the music of Sibelius" by Charles Wilson.[39]

Mostly observations about *Satz* – usually brief – appear here and there in writings and articles concerning other aspects of Sibelius's music (e.g. form) and therefore have not come under scholarly scrutiny. In most cases observations concerning *Satz* are merely simple acknowledgements of its existence without any effort to explain it as an example of any kind of theory or system. In some instances (e.g. Furuhjelm, Tolonen, Luyken, Murtomäki) the investigator has explained the phenomenon in the light of a new theoretical paradigm.

2.1 ON THE OBSERVATIONS

In the following review I have concentrated on observations which throw light on the innovative procedures of Sibelius's *Satz*. Most of these comments seldom deal with the *Satz* in detail. Nevertheless they are indications of a "new" phenomenon which cannot be identified with – or connected to – the usual procedures of (romantic) tradition. Yet this "new" in terms of *Satz* is by no means to be identified with the newer segregated thinking (cf. chapter 1.1). In order to avoid tautology I have chosen only the most representative observations and tried to group them according to common factors, even when the observations deal with the interdependence of various musical factors.

2.1.1 HARMONIC STRUCTURES

Ralph W. Wood has found Sibelius's harmonic methods "deceptive".[40] Notwithstanding the harmonic idiom and structure, which in those days

[38] Sibelius wrote to Georg Boldemann on the 20th October 1943: "At the beginning of my creative career I firmly decided not to publish under my name anything else but music" [J. A.] (Tawaststjerna VF:355, VS:338, IIIE:328–329 missing).

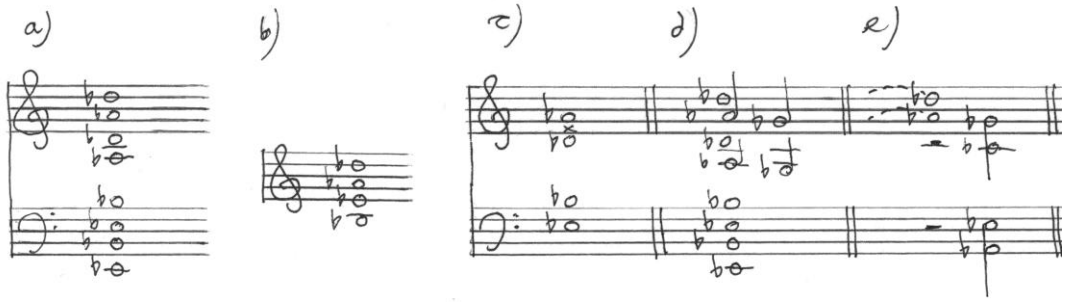
[39] Tolonen 1976:79–92, Wilson 1949:47; this article is only one page in length.

[40] R. W. Wood 1975:44

(1947) already sounded "thoroughly conservative" in Wood's opinion (excluding the Fourth Symphony), Wood found "extremely startling" procedures that would be codified only in centuries to come. In connection with *Tapiola* op. 112 he mentions "pedal-points, passing-notes, extremely close intervals in the bottom register" and a "canonic passage in which both 'voices', a major third apart, are themselves doubled in major thirds".

Some investigators have found chordal structures which do not sound "thoroughly conservative": Kai Maasalo points out a passage at the end of *The Bard* op. 64, in bars 97–100 (p. 18:2–5) wherein there is a climax that lasts four bars, with which the trumpets and trombones join in forte-fortissimo, comprising the "chord" E flat–B flat–A flat–D flat.[41]

Fig. 2.1.1–1 a–e. A "chord" pointed out by Maasalo.



This chord (Fig. 2.1.1–1a) sounds like a chord made up of fourths (Fig. 2.1.1–1b),[42] a phenomenon quite unusual in the romantic repertoire. The arrangement of this "fourth-chord" (Fig. 2.1.1–1a) is similar to an eleventh-chord rooted on E flat (Fig. 2.1.1–1c).

It is possible to interpret Fig. 2.1.1–1a as a suspension: the third of a minor seventh-chord is held in suspension at the fourth (Fig. 2.1.1–1d). Indeed in bar 101 (p. 18:6) the A flat is followed by G flat in the second violins, while the bass changes (and the whole harmony with it). However, the D flat that continues to sound in the flutes (against the next chord A flat–C flat–E flat–G flat of the strings) differs from the traditional practice of suspensions (Fig. 2.1.1–1e).

In the Overture to *The Tempest* op. 109 no. 1 and *Ariel's Song* op. 109 no.2/VIII Maasalo has found "altered inverted ninth chords" (Fig. 2.1.1–2a).[43] In connection with the Overture Maasalo speaks about "inversions of

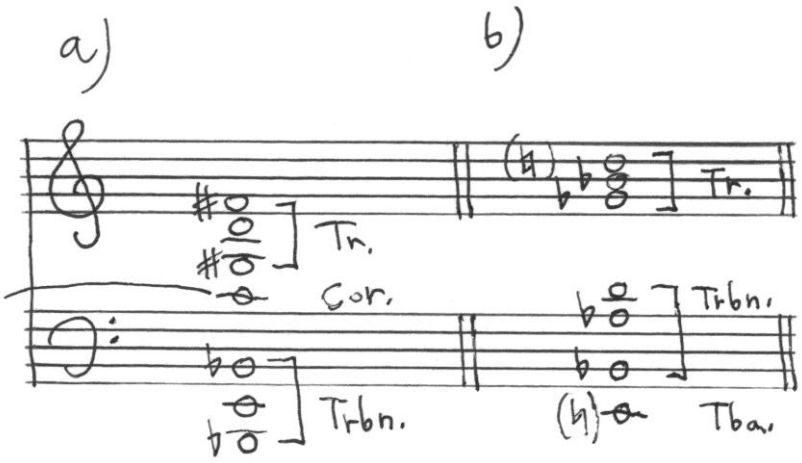
[41] Maasalo 1964:171.

[42] Ringbom 1956:32 (Ex. 15) and 1956:34 found quartal constructions based on a dominant ninth chord in the first version of *En saga* (1892): pp. 46–49, 50.

[43] Maasalo 1964:201–202. Murtomäki (2001:128) already found inversions of ninth chords in the early version of *En saga* (1892), bars 420–422, in which the 3rd inversion of the A flat-rooted ninth

rare altered seven-six chords" (Fig. 2.1.1–2b),[44] but both these types can be viewed as basically similar harmonic combinations based on the whole-tone scale.

Fig. 2.1.1–2 a–b. "Altered inverted ninth chords" found by Maasalo.



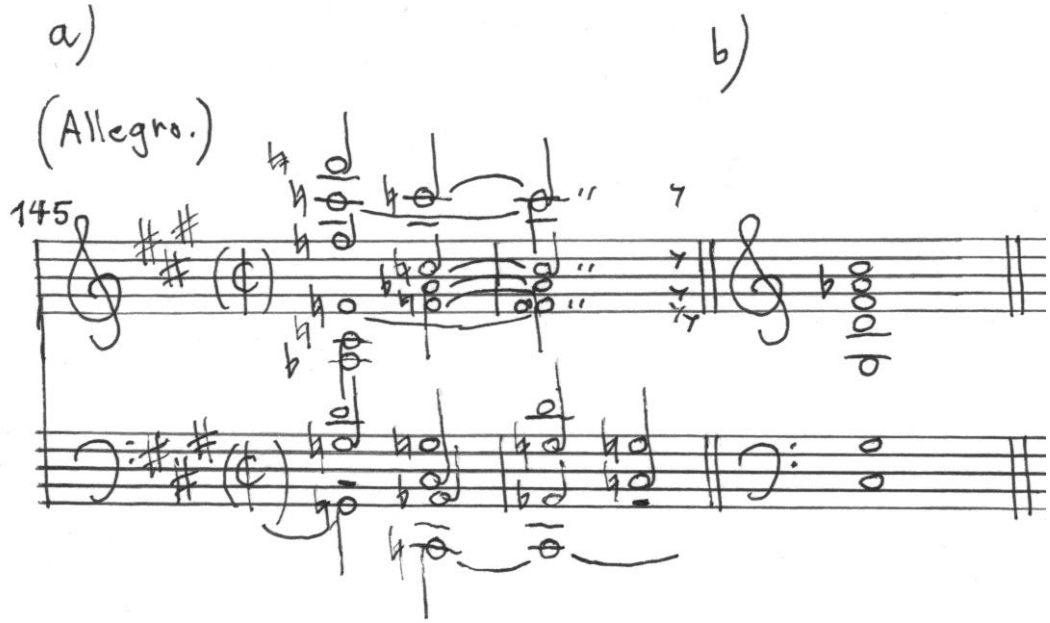
Erik Tawaststjerna found a complicated harmonic phenomenon (Fig. 2.1.1–3a) in the fourth movement (p. 47 onwards, or from bar 145) of Sibelius's Fourth Symphony, which he regards as "an eleventh chord on the fifth degree over a pedal point on the tonic" (Fig. 2.1.1–3b).[45]

chord is followed by the 1st inversion of the D flat-rooted ninth chord and the 3rd inversion of the F sharp-rooted ninth chord.

[44] Maasalo 1964:199.

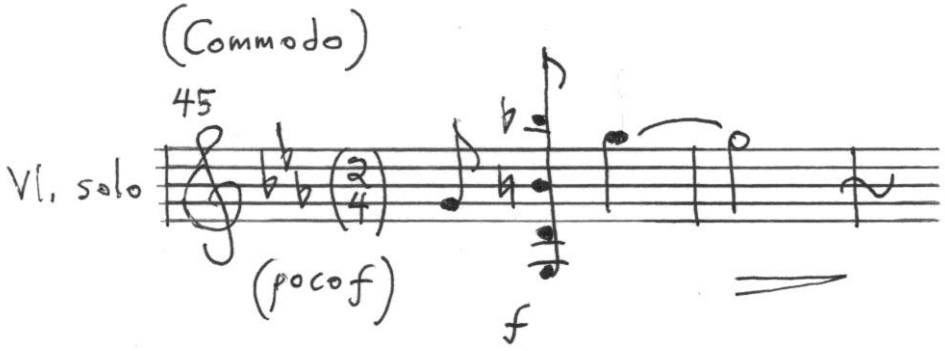
[45] Tawaststjerna IIIF:261, 387 note 60. These remarks are eliminated in IIIS:251–252, 375 (notes) and in IIE:195–196.

Fig. 2.1.1–3 a–b. A dominant eleventh chord combined with tonic pedal point found by Tawaststjerna.



Erik Tawaststjerna has found a "major-minor chord with its simultaneous tones B flat and B natural" (Fig. 2.1.1–4) from the Humoresque V op. 89 no. 3 (1917).[46]

Fig. 2.1.1–4. A "major-minor chord" found by Tawaststjerna.



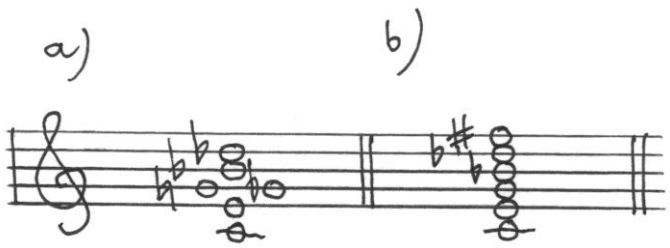
Leo Normet says that Sibelius not only used tritone-related chords alternately,[47] but also simultaneously: "The simultaneous F sharp major and

[46] Tawaststjerna IVF:257, IVS:243, IIIE:113–114 missing. Wood 1975:197 includes the same phenomnenon as his Ex. 47, but in the running text Wood only notes that "... very soon we find ourselves in the midst of experiment again, and presently arrive at Ex. 47" (Wood 1975:50).

[47] Attention to alternating harmonies have earlier been paid by G. Abraham 1975:16 and later by Collins 1973:302, 435, 446, 452, Coad 1985:302 and Hepokoski 1993:63.

C major chords [in the Fourth Symphony] will produce a ninth chord with a minor ninth in which there are both a perfect and flattened fifth". Here Normet has applied enharmonic equivalency (Fig. 2.1.1–5a).[48] If the G flat is read as an F sharp, this simultaneous combination of tritone-related triads can be collected into an eleventh chord with an augmented eleventh and a minor ninth (Fig. 2.1.1–5b).

Fig. 2.1.1–5 a–b. Simultaneous F# and C major chords as ingredients of a minor ninth chord with a natural and a flat according to Normet.



Normet relates this phenomenon – "a typical procedure of his time" – to Scriabin's "combinations originated from ninth chords" and Stravinsky's procedure in the *Petrushka* theme. Normet also reminds us that Stravinsky's ballet and Sibelius's symphony both appeared in 1911.[49]

Olin Downes presents a more general remark concerning the overall harmonic structure of the Fourth Symphony.[50] He also maintains that the harmonic direction in this symphony is new. Downes recalls that the bass has formed the foundation of the texture in the period up to and including the Wagnerian era. But he points out that in the Fourth Symphony another kind of harmonic principle also exists: "In some pages of the Sibelius symphony the harmony flows freely as if on air. One could really say that sometimes the basses seem to hang under the chordal mass which floats above them."

Finnish composer Erik Furuhjelm proposed a theoretical model for explaining Sibelius's harmonic language.[51] He describes the *Pastorale* of *Pelléas et Mélisande* Suite op. 46 no. 5 (1905), which in his opinion is "perhaps the most interesting of all" the movements in this suite.

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[48] Normet 1970:29, note 4 (all Normet's articles were originally written in Estonian; I have translated the text from Finnish translations in *SMusVk*).

[49] Normet 1970:42, 45. Piston 1978:499 mentions that Ravel had already used the so-called "Petrushka chord" in *Jeux d'eau* (1901).

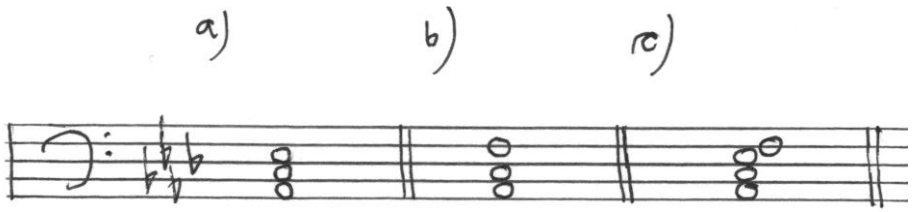
[50] Olin Downes 1945:100–101 (This book, a collection of Downes's critiques and other articles by a Finnish editor and translator, exists in the Finnish language only; I have not been able to trace the original, undated English article).

[51] Furuhjelm 1905:149.

The “floating tonality” of this composition originates from “peculiar blends” of A flat major and F minor, which together with “melodic motives” in [F] Aeolian mode give *Pastorale* its “captivating character”.[52]

According to Furuhjelm, the composition is wholly built on harmonies consisting of the notes A flat–C–E flat (Fig. 2.1.1–6a) and A flat–C–F (Fig. 2.1.1–6b). Sometimes the harmony is heard as A flat–C–E flat–F (Fig. 2.1.1–6c) which is due to the repetition of E flat in the arpeggiated double organ point A flat–E flat.

Fig. 2.1.1–6 a–c. The dominating harmonies of Sibelius’s op. 46 no. 5 according to Furuhjelm.



“In fact it is precisely this harmony which dominates throughout, even though it need not be explained in that way”.[53] This quotation is interesting; it seems that Furuhjelm himself hesitates to accept his own paradigm, perhaps precisely because it differs fundamentally from earlier harmonic theories.

Furuhjelm’s idea (which he proposed during the very same year that Sibelius finished the work in question) disappeared into oblivion and stayed there,[54] but in my opinion it represents a true key to the harmonic thinking of Sibelian *Satz*.

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[52] The term “floating tonality”, “sväfvande tonaliteten” (Swedish) is used by Furuhjelm himself (ibid.:149). The German term used by Schoenberg: “schwebende Tonalität” – fluctuating tonality – (Schönberg 1966:460–461) resembles Furuhjelm’s term, but Schoenberg meant a succession where one key changes to another (e.g. C major to E minor in Beethoven’s op. 59 no. 2/IV, which Schoenberg presents as a classic example). Furuhjelm’s idea, on the contrary, is simultaneity, corresponding to the modern concept of ambiguity.

[53] Furuhjelm 1905:149.

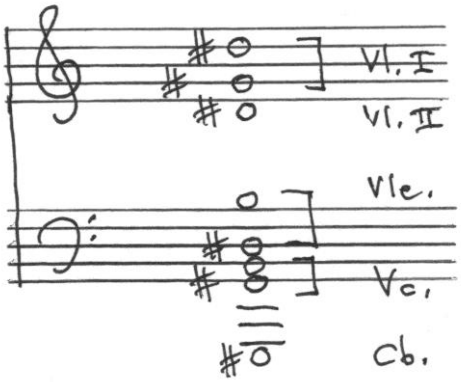
[54] Murtomäki 1993:199–201 has expressed an idea: that of thematic material derived from structures based on superimposed thirds forming a seventh chord, sometimes even a ninth chord, which belongs to the same “family” of columnal harmonic models as Furuhjelm’s, if (to paraphrase Furuhjelm) the ‘harmony dominating throughout’ is understood as an inverted chord (or as an octave-displaced column) F–A flat–C–E flat.

2.1.2 MUSICAL SPACE: VERTICAL, HORIZONTAL AND THREE-DIMENSIONAL

Constant Lambert fixes his attention on the vertical spacing of instruments in the orchestration of Sibelius's symphonies, which he finds "more remarkable than anything to be found in the impressionistic school". However, these coloristic effects are not merely vertical in origin, but are also the result of logical linear development "as in the case of polyphonic writers".[55]

Here we shall recall R. W. Wood's remark about "extremely close intervals in the bottom register",[56] which is another instance of spacing. Wood ascertains that close intervals in the low register are typical: not only do they appear in *Tapiola* op. 112 (1926) but Sibelius applies similar solutions in other compositions. In connection with *Serenade* op. 69 no. 1 Wood is astonished at "an odd fact" whereby a great portion of the orchestral accompaniment is pitched so low that "one would have guessed the solo instrument to be a 'cello or bassoon rather than violin".[57] Later Wood describes (referring to Ex. 59 of the book in question) "...the particular effect of the sombre low final thirds" of the *Canzonetta* op. 62 a (see reduction in Fig. 2.1.2–1).[58]

Fig. 2.1.2–1. Dense low register noticed by R. W. Wood.



Sibelius deliberately planned his instrumentation to complement this device. He wrote to his publisher Lienau, on the 11th of October 1907: "The following string body would be the most appropriate for the Third Symphony: 12 first

[55] Lambert 1966:262–263.

[56] R. W. Wood 1975:44, see also Heiniö 1977:75–76,81.

[57] R. W. Wood 1975:58.

[58] Ibid.:60, 201 (Ex. 59). In Ex. 59 the double-basses are not written as *suoni reali*.

violins, 10 second violins, 8 violas, 8 'cellos, 8 double-basses. As you see, my low voice-parts again" [J. A.] (see section 2.1.7).[59]

The interrelation of sound and polyphony is also reflected in the following remark by Lambert: "Like the colour in a Cezanne landscape, Sibelius's orchestration is an integral part of the form. One might almost describe it having a kind of aural perspective, supplying a contrapuntal element that is sometimes lacking in the music itself".[60]

In my opinion this profound point of view adequately reflects the nature of Sibelius's textural thinking,[61] though Lambert's remark of "sometimes lacking" counterpoint is true only when the expression "contrapuntal element" is understood according to the traditional norms of polyphony (see section 2.1.5).[62]

An essential factor, which contributes to the above-mentioned three-dimensional aural perspective is dynamics. Normet considers "polydynamism and ability to create the sense of spaciousness" one of the top achievements of modern orchestral technique,[63] and that Sibelius's skill in using those means "puts him among the orchestral virtuosos from Mahler to Webern".[64]

The unconventional nature of the *Satz* of Sibelius is also discussed by Georg Göhler.[65] This German conductor presumes that the symphonies of Sibelius are so little known (1909) because their performance calls for conductors of an independent strain. "These compositions demand work. They don't play themselves as modern German symphonies do." Göhler says that he had come across cases where, even with good orchestras, connoisseurs had beaten their breasts in amazement at the ineptness of the interpretations. "One of the most famous German conductors once told me that it is extremely difficult, but also inestimably gratifying, to immerse oneself in scholarly way in the symphonies of Sibelius, finding ways to fuse

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[59] Tawaststjerna IIIF:84, IIIS:79, IIE:67. I have retranslated this passage because in the English edition only the last sentence is cited and the rest is reported indirectly. I have also translated the expression "jälleen matalat stemmani" ('stemma' is a Finnish derivative – of Swedish origin – from the German 'Stimme') with its closest English equivalent "my low voice-parts again" instead of Layton's "my dark strains reappear".

[60] Lambert 1966:262. Simpson 1965:37 asks: "Yet is not Sibelius's wonderfully consistent and homogeneous treatment of the orchestra a kind of polyphony?"

[61] Ernest Newman represents the opposite point of view: "Music like this [Fourth Symphony] seems to have no softening atmosphere about it, no aerial perspective; ... and everything seems to be in the foreground, all in the one plane" (Newman 1958:115).

[62] Cf. Salmenhaara 1970:34–35.

[63] There are polydynamic structures already in Bruckner's music; see III Symphony in D minor (1873/1878/1889), 1. mvt. (third version), bars 101–118, 119–120.

[64] Normet 1965:63.

[65] Göhler 1909:71. According to Hans F. Redlich, Göhler was a correspondent of Mahler (Foreword to Mahler's First Symphony, Edition Eulenburg No. 570, E. E. 6347, p. XI).

the instrumental groupings and parts, and thereby ultimately achieve a suitably coherent interpretation" [J. A.].[66]

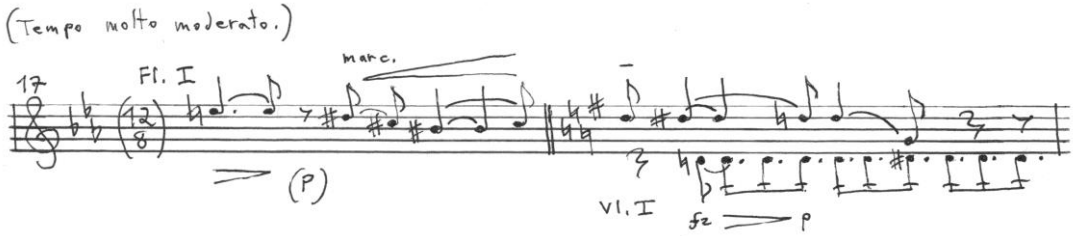
In my opinion these statements follow the same lines as Lambert's idea of "a kind of aural perspective"; the conductor's aim is to discover this perspective and then, through hard work, bring it out in the performance.

2.1.3 TREATMENT OF DISSONANCE

It follows that the kind of textural thinking described above leads to – if it does not originate from – a somewhat different concept (and treatment) of dissonance from that of the classical-romantic tradition.[67]

When D. F. Tovey discusses features of Sibelius's style and notices "collisions", he emphasizes their contrapuntal nature, as they are "severely logical in origin and consequence"; he refers to bars 17–18 of the first movement of Sibelius's Fifth Symphony op. 82 (Fig. 2.1.3–1).[68]

Fig. 2.1.3–1. A "collision" noticed by Tovey.



In the case of Sibelius, even harshly dissonant appoggiaturas may be quite emphatic, as Maasalo has remarked.[69]

Normet has found further unusual procedures in the Fourth Symphony, the first of which he calls "harmonic accumulation".[70] He gives two examples:

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[66] Göhler's reflections, in substantially shortened form, are presented in Tawaststjerna IIIF:130–131, IIIS:123–124, IIE:98.

[67] In this study C. P. E. Bach's *Essay on the True Art of Playing Keyboard Instruments* is used as a referential norm of traditional dissonance treatment. This book of his, as is usual in treatises written in pre-romantic era, does not represent merely the personal opinions of its writer, but reflects commonly accepted practice. C. P. E. Bach's teaching and book have also had a great influence upon later composers including J. C. Bach, J. L. Dussek, Haydn, Mozart, Clementi and Beethoven (see Mitchell 1949:1–5).

[68] Tovey 1981:497, Ex. 4.

[69] Maasalo 1964:224; a musical example from *Humoresque* op. 108 no. 1 for male chorus a cappella (1925).

in the first movement (page 3, bar 6), "where from the background of prolonged six-four chord of C major" a low C sharp begins to sound, and in the second movement (page 18, bars 6–8) a corresponding place where "the A minor chord of the previous section has not yet had time to die down when the tone B flat in the double-basses already starts a new section" (see section 2.1.7).

Normet has something more to add to these discoveries: he has traced a passage (page 3, bars 3–6), where there are "analogous, though not simultaneous" resolutions of suspensions in different voices. According to Normet this phenomenon is "already familiar from heterophony" and it can also be found in the works of younger contemporaries of Sibelius, "especially Prokofiev". He gives the following description: "The beginning that was moving diatonically in Lydian C major is followed by a brief rest on F sharp (3:3) ... and removal to tremulating fifth G [in the first violins]. But at that very moment the horns hold back the F sharp a bit longer and finally they also resolve to G".[71] (Normet fails to mention the F sharp in the 'celli which starts *after* the horns – still before the resolution of the first violins – and resolves to G *before* the horns do; the process is thus three-fold.)

2.1.4 TONAL PROCEDURES

D. F. Tovey has said that "There is plenty of unorthodoxy in Sibelius's harmony, and it has many *strange modes*..."[72]

According to Tawaststjerna the "archaic-Nordic" style of Sibelius is a synthesis of modal (mainly Dorian) and tonal (major and minor) elements.[73] In addition to these, Tawaststjerna has found one of those "strange modes" mentioned by Tovey (Fig. 2.1.4–1), in bars 1–7 of the song op. 13 no. 1 "Under strandens granar" (1892), which he calls the "darkened" major scale,[74] "next to the character of the Mixolydian mode..." (see section 2.1.7).[75]

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[70] Normet 1970:36; see also Abraham 1975:31, Collins 1973:452 and Coad 1985:283. It seems that Newman has described the same phenomenon even earlier (1920), but rather vaguely; see Newman 1958:114 (this, or similar statement is also in Tawaststjerna VF:9, VS:11, IIIE:167–168 missing).

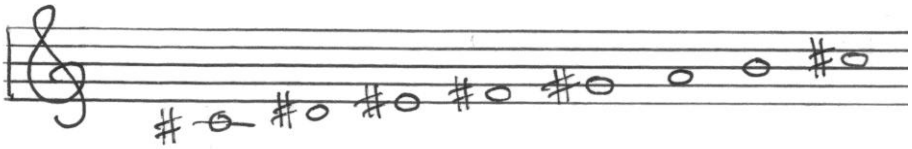
[71] Normet 1970:32.

[72] Tovey 1981:504.

[73] Tawaststjerna IF:250 missing, IbF:217, IS:198, IE:98 missing. Tawaststjerna also considers modal scales in the music of Sibelius as "coloristic" variations of major and minor scales (Tawaststjerna IbF:314 Appendix 2. In the Swedish edition there is only Appendix 1. In the English edition there are no appendices but some ideas expressed therein, although nothing directly under current discussion, are referred to in IE:108–109).

[74] Tawaststjerna IF:300, IbF:263, IS:240–241, IE:126–127 (the musical passage in question has been retained in the Swedish and the English edition – Ex. 69 – but Tawaststjerna's remarks concerning the unfamiliar mode have been eliminated). See also Tawaststjerna IF:283–284, IbF:244–

Fig. 2.1.4–1. Tawaststjerna's "darkened" major scale.

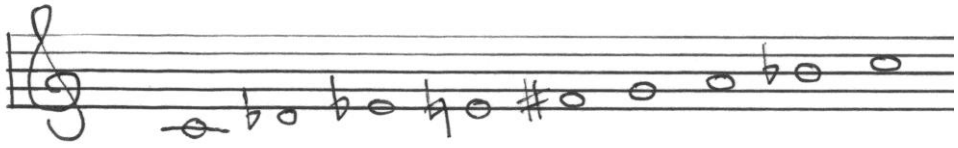


Tawaststjerna admits: "the key can be interpreted as F sharp minor, but actually the listener has the experience that the C sharp lying in the bass is the tonic." This experience is further confirmed by I–V–I harmonies in C sharp major in bar 13. Nevertheless Sibelius concluded this song with an F sharp-rooted major triad, as if the song had begun in the dominant.

Are we here witnessing a conflict between the old, conscious practice and a new, perhaps yet unconscious one? With the passing of time, hybrids like these – symptoms of competing tonal concepts – disappear and make way for a new concept where a major triad with an added minor seventh can also be understood as a representative of the tonic, as in the end of Chopin's Prelude in F major op. 28 no. 23 (cf. chapter 4.4).

Tawaststjerna has also noticed that Sibelius has used the so called symmetric octatonic scale (half-step constantly alternating with whole-step; Fig. 2.1.4–2, see section 2.1.7).[76]

Fig. 2.1.4–2. Symmetric octatonic scale.



R. W. Wood fixes his attention upon incommensurability between melody and harmony: "As the main theme of the allegro [of *All'Overtura* op. 25 no.1] progresses we get the melodic C sharp clashing against the C natural of the

245, IS:223–224, IE:117–118; Tawaststjerna IIF:70, IIS:55, IE:171 Ex. 118 and Tawaststjerna IVF:104, IVS:102, IIIE:50 missing.

[75] Tolonen 1976:84 calls this scale the "major-minor scale" by virtue of its lower pentachord (like in the major) and upper tetrachord (like in the natural minor). Tolonen 1976:83–84 has arrived at this scale from the ambiguous combination. Besides the "major-minor scale", he has also found two other "strange" scales. As explained later in chapter 4.2.1, these two other scales can be regarded as modes of the "major-minor scale".

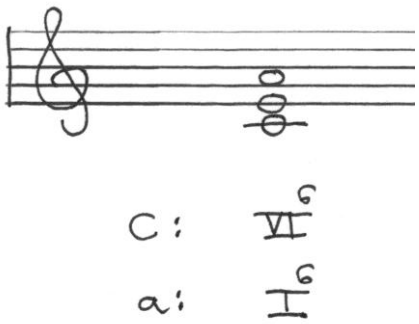
[76] Tawaststjerna IIIF:251, IIIS:240, IIE:187. See also Tawaststjerna VF:8, 217, VS:10, 209, IIIE:167 missing, 263.

subdominant six-four chord (Ex. 69).[77] Wood considers this C sharp "the sharpened fourth in the major scale".[78] He does not question the fact that there is no sixth in this "six-four" chord on the bass tone G. This passage can be explained as polymodality, the simultaneous use of different scales – usually two – having the same keynote (see section 2.1.7). Here there is the simultaneous use of G Lydian and G Ionian (see chapter 4.2.2).[79]

Besides polymodality, there are other out-of-the-ordinary procedures such as ambiguity (see section 2.1.7). This is the same phenomenon, which Furuhjelm – in connection with the *Pastorale* op. 46 no. 5 – called "floating tonality".[80] One of the reasons for the "floating" is that there is discrepancy between the root of a chord and the lowest tone of the chord, its bass (see chapter 11.2).

Tawaststjerna notes that "Special colour is given to Sibelius's music by sixth chords – especially the sixth chord on the sixth degree in major which coincides with the first degree in parallel minor" (Fig. 2.1.4–3).[81]

Fig. 2.1.4–3. Sibelian minor six-three chord.



More weight is given to this phenomenon by textural and temporal means; it often appears over a tonic pedal in major. "In minor the organ point is usually the mediant, the tonic of parallel major ... the 'Sibelian minor sixth-chord' thus hesitates; it is swaying between major and minor".[82] Tawaststjerna remarks that this minor sixth chord is approached by a "dominant ninth chord without its root",[83] i.e. a diminished seventh chord

[77] R. W. Wood 1975:81 and Ex. 69 in p. 203; see also ibid.:50 and Ex. 47 in p. 197.

[78] R. W. Wood 1975:81.

[79] Cf. Tawaststjerna 1955:63 where he suggests the simultaneity of F sharp major and "Phrygian F sharp minor".

[80] See also Normet 1965:54–55.

[81] Tawaststjerna 1960:111.

[82] Tawaststjerna IF:145–147, IbF:122–123, IS:110, IE:50. I have retranslated the passage because the translation of the English edition is somewhat shortened.

[83] In the Finnish edition (Tawaststjerna IIF:142) there reads "perussäveltä" (tonic) instead of the appropriate term "pohjasäveltä" (root). This has lead in the English edition to: "In the minor, the chord

(VII7–I over mediant organ point in minor, or diminished VII7 of VI–VI over tonic organ point in major).[84] Tawaststjerna has traced some Russian forerunners of this procedure.[85]

Tawaststjerna states that this chord is "one of the most typically mood and colour creating factors from youthful works to *Tapiola*".[86]

Tolonen in his essay has proved that the previously described procedure is only a part of much more wider tonal concept.[87] He quotes the audition lecture of Sibelius (1896):[88]

"Our oldest type of Finnish folksong presents a tonal system that lacks both *tonic* and *dominant*, as we understand them, as well as a final tone as in the old Greek keys, but contains just five notes – D E F G A – joined by two further tones B and C,[89] when the melody assumes an intensified character.[90] The tuning method for our five-string *kantele* supports this view.

Of course, learned theoreticians might – in many cases though not always – express this tone sequence D E F G A [B] as an upper pentachord resting on a similar lower one, with G as its point of departure. Hence we are dealing with a non-chordal series [sic!] as the harmonic basis for melodies of this type".[91]

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of the dominant ninth appears often without its tonic…" (IE:209). The Swedish edition with its "grundton" is in accordance with the Finnish edition (IIS:111).

[84] This practice is recalled in Tawaststjerna IIF:142–143, IIS:111–112, IE:210–211 and VF:193, VS:186, IIIE:255 missing. Cf. also Tolonen 1976:86; Ex. 6.

[85] Tawaststjerna IIF:143, IIS:112, IE:210 incomplete. Murtomäki (1993:38–45 and further 2001:127–129) is discussing this phenomenon based on Taruskin's writings.

[86] Tawaststjerna IF:146, IbF:122, IS:110, IE:50; I have retranslated the passage, because the Swedish and English editions are shortened here.

[87] Tolonen 1976:79–92.

[88] Tolonen 1976:79–81 writes in Finnish. The translation I have used here is by Margareta Martin; see Sibelius, Jean (1980 [1896]). The Swedish original of the audition lecture can be seen in *Musiikki* 1980/2 in pp. 86–105. The citation used here is in Tawaststjerna IIF:103, IIS:81–82, IE:190–191 missing.

[89] In the Swedish original Sibelius does not use two nouns (notes, tones) but one. He writes "en finalton" (a final tone), "helt enkelt fem toner" (just five tones), as well as "ännu två toner" (two further tones). Therefore in the continuation in connection with this citation in the running text I will always replace "just five notes" by "just five tones". In the Swedish original Sibelius writes "h" instead of B natural according to the German (and Swedish as well as Finnish) practice.

[90] From this sentence it can be seen that Sibelius considers structural factors as the outcome of emotional and expressive intentions – structure and expression are interdependent. In this context the explanation that Cherniavsky found regarding plurality of means in the music of Sibelius: "when the needs of his expression so demand" (Cherniavsky 1975:173), is convincing (see also Downes 1945:76–77).

[91] In her translation Margareta Martin adds a footnote immediately after the words "a non-chordal series" (number eleven): "In Swedish: *non Akord*" (ed. Grimley 2011:325). Sibelius wrote "ett non

Tolonen finds that the result of this concept is that "D changes from the tonic of minor to the dominant of a [G] major pentachord and the latent scale of the whole changes [from D Dorian] to G Mixolydian".[92]

Tolonen discovers several realizations of the tonal concept of this lecture from op. 7 (1892), op. 12 (1895), op. 13 no. 5 (1891), op. 39 (1899/1900) and in the arrangements of folk-tunes per year 1903.[93] In some of these, under the melody, based on Aeolian, Dorian or some other mode including minor third, one finds a pedal point on the fourth degree of the mode in question; i.e. the same situation that Sibelius described in his audition lecture. In some instances the composer may interpret the ninth chord enclosing the minor pentachord tonally, as a dominant ninth chord of major. In a folk-song arrangement *Tuopa tyttö*...(1903), in which a G minor pentachord is accompanied by harmonies derived from C Lydian-Mixolydian mode (see Fig. 4.2.1–2g), Sibelius ends the piece on an F major chord.[94]

Tolonen, when exploring other ways of producing ambiguity (he uses the term 'many-sidedness'),[95] looks over other relations between the pentachord and sustained tone and discovers from Sibelius's output of the 1890s and the first decade of the twentieth century (excluding the traditional solutions based on tonic and dominant) more cases where the sustained tone utilizes the third degree of the pentachord itself (mediant organ point in minor key),[96] as well as situations where the root of the accompanying chord sounds a third below the root of the pentachord.[97]

Tolonen notes that "many-sidedness" can be momentary.[98] He also finds that "many-sidedness and bitonality in principle are not very far from each other [...] nevertheless there is good reason to restrict the concept of many-sidedness to circumstances where the tones of melody do not presuppose

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akord". The translator has left out an article "ett" (in English: "a") before the noun "akord" (chord) that in the manuscript does not begin with a capital letter. Secondly Sibelius does not use the French where the word "non" is negation, as is the case also in English. In Swedish "non" means "ninth". Thus "ett non akord" is in English "a ninth chord". From this point in connection with this citation in the running text I will always use "a ninth chord" instead of "a non-chordal series".

[92] Tolonen 1976:81.

[93] Tolonen 1976:85, 87, 88, 89 and 90 (cf. Murtomäki 1993:265).

[94] This Tolonen (1976:88) finds "surprising". Reasons for this surprise may be that a) the end of the arrangement seems to imply that in 1903 Sibelius already understood his ambiguous solution as belonging to the domain of the dominant in F major, not to the tonic in C Lydian-Mixolydian and b) that the listener – in this case Tolonen – has perceived the ambiguous passage as representing the tonic and at the end of the song is suddenly obliged to reinterpret his experience.

[95] Tolonen 1976:83–84; literally translated: "many-facedness".

[96] Ibid.:86 and 90. The pedal on the third degree of the pentachord was the case mentioned by Tawaststjerna above; see also Ringbom 1956:15.

[97] Ibid.:91.

[98] Tolonen 1976:91.

actual interpretation as alterations. Only when the tones are connected with a sphere clearly foreign to them is true bitonality in question".[99]

In the end of his article Tolonen asks if the experiments with the minor pentachord had also led Sibelius to irregularities in the harmonization of melodies in major, as well as melodies having a wider range than a pentachord,[100] and poses a question: "Is the polytonality of the second period of Sibelius only a straight and consistent consequence of accepting those compositional procedures which he thought and examined in the nineties?".[101]

Roiha and Maasalo pay attention to devices that seem related to the procedures examined above by Tolonen. According to Roiha in the song *Fågelfängarn* op. 90 no. 4 (1917) "The voice moves some dozen measures from the beginning in F major, while the accompaniment remains in B [flat] major (this is repeated later)".[102] Although there is no leading-tone of F major anywhere in the song part, detached from its accompaniment in B flat major it easily may be considered to be in F major. According to Maasalo,

"The low strings and harps [in *Luonnotar* op. 70, pp. 8–10] form a harmonic background of which there is first inversion of major seventh chord on sixth degree [in B flat minor]. While B flat is continuing as a pedal bass a dominant ninth chord of E flat minor muddles [sic!] the tonal image; it does not namely lead to E flat minor but re-enters to the original chord [the 1st inversion of VI7] of B flat minor, while the voice glides from it to follow its own course or in Lydian A major (written in B double-flat major)…".[103]

Maasalo does not take into account the tone A played by the first harp below the pedal B flat of the 'celli, which gives room for another kind of bitonal explanation (see Fig. 11.6.2–2 [op. 70:54–81]).

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[99] Tolonen 1976:82.

[100] The 'extended pentachord' D E F G A + B C mentioned by Sibelius indicates that melodies within the range of an octave (and even wider) can also be treated in the same way as pentachord-melodies (see Fig. 11.3.1–5 [op. 7:II:92–97]).

[101] Tolonen 1976:91–92, 92. I am not sure what kind of periodization Tolonen stands for, the nowadays widely accepted 'Beethovenian' division into three periods, or some other proposition (see chapter 12.3).

[102] Solanterä (ed.) 1945:51 (text by Eino Roiha). In the text there reads "B major", which is a remnant from corresponding texts in Finnish and Swedish in the same page. In these languages the music terminology follows the German practice where – instead of B and B flat – there is H and B.

[103] Maasalo 1964:172. Maasalo 1964:196 also presents a three-bar bitonal example from *Jokamies* op. 83 (1916) and describes a bitonal combination of *Scène de danse* op. 116 no. 1 (1929); Maasalo 1964:214. Besides Maasalo 1964:200 also speaks about bitonality in connection with *Intrada* op. 109 no. 2/VII, but I regard this as a misinterpretation. Normet 1970:44 recognizes "the creation of polytonal layers" in the last movement of the Fourth Symphony op. 63 (1911). "Simultaneously with the E flat major ostinato in the strings the wood winds [*sic*] go their way in A major" (ibid.:45).

2.1.5 VOICE-LEADING AND COUNTERPOINT

It is – or at least was – a rather common belief (even among the most ardent admirers of Sibelius; cf. section 2.1.2, Lambert) that his music is sometimes (if not totally) lacking in polyphony.[104]

Since then many complex polyphonic structures have been found by analysts.[105] Sibelius employed devices such as *cantus firmus* technique, where a previously heard theme is heard as a counterpoint,[106] canon,[107] double canon,[108] as well as augmentation imitation where the theme appears simultaneously in different rhythmic forms (original and augmented, original and diminished).[109]

Still, the immediate aural impression, even in those complex places, is very different from traditional contrapuntal *Satz* (see chapter 12.9).[110]

Tanzberger has noticed that the relationship between main and accompanying voices in the *Satz* may differ from traditional sharp distinction. When analyzing *Lemminkäinen's Return* op. 22 no. 4 (1895/1897/1900) he gives a reduction of two bars (bars 269–270/p. 40:1–2) as an example from a section where the accompanying ostinato of the double-basses is a heterophonic version of the theme played in the upper strings (bars 263–314/pp. 39:2–46:3).[111]

Normet found a very interesting imitative structure when dealing with the main theme of the first part of the First Symphony (from bar 33). There the violas and 'celli "it is true, imitate the melos of the energetic main theme, but they give a quite different character to it. There is balance, two vigorous downward leaps by fourths are missing. So, there are two simultaneous contrasting traits".[112]

Normet fails to mention that the last tone of the phrase, B, is also treated differently: there is a reiteration of B in the form of a new rhythmic figure (bar 37). Besides, when the theme begins over again (bars 37–40), the lower strings leave out the up-beat-like figure E–F sharp which occurs on the down-beat in the violin part (bar 37).

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[104] See Tawaststjerna IIIF:18, IIIS:19, IIE:24 (1905), Johnson 1960:96 (P. Kovalev 1910), Leibowitz 1955:5. However, the polyphonic nature of the Fourth Symphony was already recognized by a critic of *The Times* in 1912 (Tawaststjerna IIIF:292, IIIS:284, IIE:220).

[105] According to Maasalo 1964:196 the style in the as yet unpublished music for the play *Jokamies* (*Jedermann*) by Hugo von Hofmannsthal op. 83 (1916) "is very restrained and more contrapuntal than perhaps ever with Sibelius".

[106] Parmet 1959:116–117.

[107] Heiniö 1977:24, Coad 1985:286.

[108] Parmet 1959:111–112, Maasalo 1964:154, Coad 1985:289.

[109] Tanzberger 1943:55, Parmet 1959:83–85, Maasalo 1964:150, 1964:153, Coad 1985:287.

[110] Coad 1985:286 characterizes Sibelius's polyphony as "self-effacing".

[111] Tanzberger 1943:26.

[112] Normet 1965:54.

In Salmenhaara's opinion "Sibelius has not, to any degree worth mentioning, indicated interest in writing true contrapuntal '*Satz*'". Instead he sees the structural thinking of Sibelius as being "often contrapuntal in nature. He does not use the means of polyphony in proper polyphonic texture, *but the inner way of construction of apparently homophonic music is polyphonic"* (italics mine).[113]

The following remarks make the above-mentioned principle more clear: "The units [of Sibelius's polyphonic thinking] are not different lines, but different *planes*. About this there are excellent examples in *Tapiola*. In bars 51–105 there appears three-*layered* structure: the bottom *element* is the organ point of basses; above it there proceeds the motive in parallel thirds by bassoons and 'celli, and the third *plane* consists of the fragments of the opening motive" (italics mine).[114] Salmenhaara notes: "In connection with formal structures it is especially important, that these different planes by no means always proceed simultaneously".[115] As an example he mentions bars 106–182 from *Tapiola* where the form of 'accompaniment' differs from that of "musical incidents", to which it forms a background.[116]

Tawaststjerna also has something to say concerning the last-mentioned feature: "Usually Sibelius allows his thematic material to disappear into the background to form a fund of new melodic substance. But here [op. 52:III:51–70] the procedure is reversed: from this fund he takes an idea, which is subtly transformed into foreground".[117]

To my mind these words "background" and "foreground" should not be understood as Schenkerian terms based on abstraction, but from the listener's point of view; metaphorically, colloquially.

The point of view of Lorenz Luyken is fundamentally novel, although from a historical perspective it may be considered a culmination of some of Göhler's (cf. section 2.1.2) and Tanzberger's ideas. The work of Luyken embraces all aspects dealt with in this chapter, but here they are restricted to some basic ideas only. Luyken sees the *Satz* of Sibelius as being inseparably

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[113] Salmenhaara 1970:64.

[114] Salmenhaara 1970:35; see also Collins 1973:455–456. Salmenhaara uses three terms of near relation (plane, layer, element) in his description. Out of these I have chosen the term "layer" as the general term in this study. In his English Summary (Salmenhaara 1970:121–126) the author does not deal with Sibelian *Satz*.

[115] Salmenhaara 1970:35. R. W. Wood 1975:72, 203 (Ex. 67) – in connection with bars 207–213 (pages 30–31) and its later variants in *En saga* op. 9 (1892/1902) – already speaks about Sibelius's "own special game of dovetailing themes and textures". (This dovetailing, though orchestrated in lesser form, occurs in – page 24 of – 1892 version.)

[116] Salmenhaara 1970:35; see also Salmenhaara 1970:109–110, R. W. Wood 1975:43–44 and Coad 1985:283, 284.

[117] Tawaststjerna IIIF:92, IIIS:87, IIE:73. See also Tawaststjerna IIIF:136, IIIS:129, IIE:102 and Coad 1985:287–288.

connected with musical space and instrumentation.[118] Not unlike Salmenhaara, Luyken divides the *Satz* (in the three last Symphonies and in *Tapiola*) into levels (*Ebene*),[119] or into orchestral planes (*Orchesterschicht*).[120] The combinations of these levels defy the traditional categories; they may equally well be explained either as melody-accompaniment, or as counterpoint.[121] The levels are not synchronized; they proceed as if according to their own time-span.[122] The content of levels may diversify; it may vary from contrast to likeness. In this process both heterophony,[123] as well as lines fusing together are utilized.[124]

2.1.6 CONNECTIONS BETWEEN *SATZ* AND FORM

When discussing a passage in the first movement of Third Symphony (pp. 17–18), where a pedal on B firstly is treated as a dominant of E minor but then suddenly is reinterpreted as the leading-tone of C major, Normet remarks that the pedal points in Sibelius's music differ essentially from those of classical and romantic styles: "the pedal points [in the Third Symphony] do not 'change their colour' only sonorously (as in the beginning of the first and third movements) but also with regard to their harmonic function (we shall come across this phenomenon again in the third movement)".[125]

With regard to the interrelation of harmony and form Cherniavsky has noticed in connection with *The Bard*, the Fourth and Sixth symphonies that within them the "sense of tonality usually becomes established by entirely

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[118] Luyken 1995:140.

[119] Luyken 1995:42.

[120] Luyken 1995:45. Weidberg proposed an idea quite similar to Luyken. According to Weidberg "… the overall sonority consists of a number of sonic layers or levels. Each of these layers has its own structure and growth procedures, which proceed independently of one another. Such a layer or level is called 'sonic group'" Weidberg 2003:217. Although Weidberg concentrates mainly in sonic structure (in dealing with *The Oceanides* op. 73), he also refers to some aspects of *Satz* ("sonic group 4 – pedal" ibid:218), "One seldom finds an independent bass line in the late Sibelian style" ibid:221) and of form ("sonic phrase" ibid:219). The indisputable merits of Weidberg's approach notwithstanding, it suffers from identifying a component of *Satz* (pedal) with certain instruments (brass, bassoons, bass clarinet; sonic group 4), although a pedal can be orchestrated in any way, e.g. by Timpani that belongs to Weidberg's sonic group 5 (ibid:218). *Satz* and colour are thus not differentiated, but confused.

[121] Luyken 1995:42.

[122] "Jede Satzschicht bewegt sich virtuell in einer eigenen Zeit." Luyken 1995:45.

[123] Luyken 1995:66 (reference to *Notenbeispiel 6* in p. 65), 82 (reference to *Notenbeispiel 10* in p. 81).

[124] Luyken 1995:80–81 (reference to *Notenbeispiel 10* in p. 81), 106, 133.

[125] Normet 1967:80–81. See also Tawaststjerna IIIF:92, IIE:73–74.

free and natural means, rather than by being obliged to resort to traditional resources of modulation, or to accepted cadences".[126]

Cherniavsky thus does not deny the share of above-mentioned means; he then gives a list of those "free and natural" ways to establish a sense of tonality:

1. "by ... allusions to the triad based on the new tonal centre";
2. "... by stressing this centre as an important and elongated pedal point (which at times is elaborated into an ostinato figure)";
3. "... by concentrating solely on new tonic triad for innumerable bars (a practice that partly contributes towards the vast spaciousness of his style in general)".[127]

The second and third items are closely related: the second item deals with pedal point,[128] the third one with pedal chords. As a matter of fact, the first item: "allusions to the triad" – depending, it is true, on the frequency and emphasis of those allusions – also creates a kind of 'hidden' pedal chord (which may be regarded as a prolongation of a chord as well).

2.1.7 CONCLUSIONS

In every aspect reviewed – harmonic structures, musical space, treatment of dissonance, tonal procedures, contrapuntal devices, *Satz* and form – some interesting phenomena cropped up.

Thickened lines (see section 2.1.1, Wood) have also been used earlier on occasions.[129] In the music of Sibelius doubling voices in thirds or some other appropriate interval is a very common feature. He shares this characteristic with several composers from the turn of the century.[130] Also "close intervals in the bottom register" (see section 2.1.2, Wood) was a marginal phenomenon earlier,[131] not a common one even in the music of the Romantic

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[126] Cherniavsky 1975:173.

[127] Ibid.

[128] The term "pedal point" is used by Cherniavsky.

[129] See W.A. Mozart: Symphony in E flat KV 543 (no. 39), 2. mvt., bars 39–44 and 76–82; F. Chopin: Etudes op. 25 no. 6 and op. 25 no. 8.

[130] See Mahler: Symphony No. 1 (1888), 1. mvt. between numbers 18 and 19;

Debussy: *La Mer* (1905), 2. mvt. between numbers 35 and 37;

Schoenberg: *Fünf Orchesterstücke* (1909), 1. mvt. between numbers 4 and 10;

Stravinsky: *Le Sacre du printemps* (1913), 1. Part between numbers 50 and 54.

(See also Piston 1978: Chapter 30; sub-headings "The Re-evaluation of Counterpoint" pp. 470–472, "The Independent Vertical Sonority" pp. 472–475 and Chapter 31; sub-heading "Block Chords" pp. 487–488.)

[131] See J. Haydn: Symphony no. 101 in D major (1794) 4. mvt., bar 155.

Era or the contemporary composers,[132] but with Sibelius it is an ingredient of his "northern orchestration".[133]

Some phenomena encountered before Sibelius, such as harmonic accumulation (see section 2.1.3, Normet),[134] or multiple treatment of dissonance (see section 2.1.3, Normet),[135] were innovations of some geniuses, which after them did not become part of the standard practice of Romanticism. In these respects Sibelius also parallels his contemporaries.[136]

Some devices in the music of Sibelius do not differ from the previous music in terms of quantity, but rather of quality. The octatonic symmetric scale already makes appearances in Romantic harmony,[137] but Sibelius uses it in a personal way (see Fig. 2.1.4–2, Tawaststjerna).

It seems that Sibelius found a new approach to some age-old devices, which fell into oblivion at the dawn of the Classic Era. These are polymodality (see section 2.1.4, Wood),[138] as well as ambiguity (see section 2.1.4, Furuhjelm).[139] These devices were also re-discovered by some of Sibelius' contemporaries.[140]

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[132] See Berlioz: *Fantastic Symphony* (1830) 4. mvt. bars 1–16, Tchaikovsky: VI Symphony (1893) 1. mvt., bars 39–41 (this passage – a wide gap between thickened lines – sounds quite 'Sibelian'), R. Strauss: *Till Eulenspiegel* op. 28 (1895), bar 199.

[133] See Törne 1937:97, Downes 1945:22, 181. Salmenhaara 1970:33 finds the expression "northern orchestration" a cliché. His urge to "deromanticize" (ibid.:11) may have led to this notion. Still, the expression may have been used superficially, but it describes the vague observation that the Sibelian sound differs very distinctly from the traditional one. However, the idea remained undeveloped by Törne and Downes.

[134] Earlier examples of harmonic accumulation: Berlioz: *Fantastic Symphony* (1830) 3. mvt. bars 188–190 (the dissonance formed by Timp. II – columnally interpreted as a root of a ninth chord – evaporates), Chopin: Etude in C minor op. 25 no. 12 (1837), bars 57–58 and 61–62.

[135] Earlier examples of a multiple treatment of a dissonance: Chopin: Etude in E minor op. 25 no. 5 (1837) bar 60, *Barcarolle* op. 60 (1846) bars 42 and 46.

[136] Contemporary examples of harmonic accumulation: Debussy: *Estampes*, *La soirée dans Grenade* (1903) bars 35–38, Ravel: *Gaspard de la nuit*, *Scarbo* (1908) bars 178–182.

[137] Octatonic symmetric scale: Liszt: Sonata in B minor (1853), bars 309–310 and 312–313. These cases however raise a question: is the octatonic scale (formed by parallel diminished 7th chords) only a result of chordal motion, or is the parallel chordal motion instead guided by the octatonic scale?

[138] Polymodality can be observed in the modal era. According to Bartók 1976:364–365 (Harvard Lectures [1943]) its last remnant in the tonal era was the simultaneous using of different forms of minor scale. One well-known occurrence of this practice is in J. S. Bach's Prelude in C sharp minor (*WKL* I), bars 29–30; simultaneous harmonic and melodic minor scales in C sharp.

[139] Ambiguity was an exceptional phenomenon in the tonal era, but it was common in the modal era: see O. Strunk 1981 II:19, note 6.

[140] The phenomenon as such, though not its name, was proposed by F. Busoni in 1907 in the sixth chapter of his *Sketch of a New Esthetic of Music*, [*Entwurf einer neuen Ästhetik der Tonkunst*] when Busoni suggests the scale C–D flat–E flat–F flat–G flat–A flat–B flat–C to be accompanied by C major triad; see Busoni 1962:92. The concept of polymodality and the term is used by Bartók in his Harvard

Finally there is a group of composers – previous and contemporary – with whom Sibelius shares many features. We already saw that Tawaststjerna has traced some Russian forerunners of ambiguity (see section 2.1.4). Another trace that connects Sibelius with them is the modal approach. Leaning on scales other than major or minor (cf. Fig. 2.1.4–1, Tawaststjerna) was then a contemporary trend.[141]

In my opinion the above survey agrees more with the standpoint of Klemperer than with the opposite one (see chapter 1.2). At least it may question the accepted image of Sibelius as a late-romantic composer.

The above observations, especially those of Furuhjelm, Normet, Tolonen and Luyken, may easily lead one to think that there may be a totally new, original world, a new idea of *Satz*, concerning which the various authors' remarks – while not providing a comprehensive explanation – at least offer us certain points of view.

Is it possible to trace – on the basis of these hints – the structure of this 'new world'? In the following, systematic part of this study I will attempt to bind together the various aspects of Sibelian *Satz* described above.

lectures (1943); see Bartók 1976:364–365 and 367–371. The sharp definition used by Bartók is: "bimodality or polymodality" (ibid.: 370, 376).

[141] Bartók says (in 1928): "Rumanian and Slovak folk songs show a highly interesting treatment of the tritone (the first [Ex. 7] in a sort of Mixolydian mode with minor 6th, the others, in a Lydian mode…" (Bartók 1976:336–337). Later (ibid.:363) he offers another unusual scale that may be regarded as the second mode of the "darkened major" (see chapter 4.2.1).

PART TWO: THE STRUCTURE OF SIBELIAN *SATZ*

3. PRELIMINARY NOTIONS

Upon being convinced that the observations – discussed in the survey on the literature (see chapter 2) – can be taken as symptoms of a new *Satz*-idea (see chapter 2.1.7), the first step in my method was to search for similar and corresponding specimens and then compare their structure with the norms of traditional *Satz* (see chapter 1.1) and record similarities and differences between them.

The second step, when the number of dissimilarities at the level of the minutest details of phrase and period turned out to be significant, was to search for reasons for them. Are the dissimilarities in Sibelian *Satz* really signs of technical incompetence (as Adorno and his adherents thought; see chapter 1.), or are they the result of as yet unexplored textural principles? As the investigation progressed, the latter alternative proved to be the case.

The third step was to trace this new *Satz*-idea. This resembled the work of a detective: on the basis of known facts one has to imagine a series of events which explains those facts: their existence, relationships and causal pattern.

In this search for tracing the new *Satz*-idea, the first move was to find out what Sibelius said about compositional technique. Unlike some composers before and after him, Sibelius felt it unnecessary to publicise his reflections in written form.[142] He had firmly decided not to publish under his name anything else but music.[143] Yet this did not prevent him from reflecting on music privately. In his biography Erik Tawaststjerna (1916–1993) cited numerous entries on composing from the composer's diary (published only in 2005) as well as citations from the correspondence of Sibelius, especially with his wife and Axel Carpelan. The most extensive source in this respect is the audition lecture (1896) of the composer that long remained a manuscript (see chapter 2.). Even before its publication in 1980 by Ilkka Oramo with Finnish translation, Tawaststjerna and Tolonen had commented on the handwritten version of this lecture.[144]

Both Tawaststjerna and Tolonen (see chapter 2.1.4) have discussed a fragment of the audition lecture (below: the lecture fragment) where Sibelius explains the "tonal system" of the oldest type of Finnish folksong and

[142] Cf. Mäkelä 2011:91.

[143] See chapter 2, footnote 38 (Sibelius to Georg Boldemann in 1943).

[144] In original Swedish: "Några synpunkter beträffande folkmusiken och dess inflytande på tonkonsten".

suggests a possible harmonization for them.[145] We have already seen that Tolonen had found several correspondences between the lecture fragment and the music of Sibelius.

3.1 ON THE LECTURE AND THE LECTURE FRAGMENT

In his audition lecture whose title is "Some Viewpoints Concerning Folk Music and Its Influence on the Musical Arts", Sibelius did not use any sub-headings in the text. Yet regarding the contents and grouping of the paragraphs, the lecture can be divided into five major sections. After the outspoken rubric the lecturer immediately presents his main thesis on the importance of folk music. Then the first section (paragraphs I:1–9) begins with the words: "The origin of folksong has been the topic of numerous …". This section is a historical overview. At the end of it Sibelius sees proof of his main thesis "why Germans have played such a great part in the realm of music" (I:9). The first paragraph of the second section (paragraphs II:1–12) begins with the words: "To prove this I want to point to a few things …". After a varied repetition of his main thesis, the historical overview is then selectively reviewed. The first paragraph of the third section (paragraphs III:1–10) begins with the words: "If I am asked how folksongs may have influenced a composer …". Now the lecturer has left the vestibule and enters the *atrium*. After some general remarks (paragraphs III:1–4), the lecturer takes up "the Finnish folk tune" (paragraphs III:5–10). The lecture fragment (III:7–8) belongs to the culmination of the third section (paragraphs III:5–8). Interestingly enough, right before the lecture fragment, between paragraphs III:6 and III:7 there is a cross-line.[146] The first paragraph of the fourth section (paragraphs IV:1–5) begins with the words: "When we compare Finnish folksongs to those of other countries …". In this comparison the "uniqueness" of "the Finnish folk tune system" is recognized (IV:4).[147] Perhaps for this reason the last paragraph of the fourth section (IV:5) harks back to the topic of the third section. The first paragraph of the fifth section (paragraphs V:1–6) begins with the words: "Time does not permit a detailed discussion …". The fifth section is a short peroration. In it (V:1) Sibelius sees

[145] In *Musiikki* 1980/2 the fragment discussed here covers pages 98–99 (Swedish–Finnish). In ed. Grimley 2011 it is on page 322.

[146] This typographical detail occurs only in *Musiikki* 1980/2:98–99, not in ed. Grimley 2011:322. In the manuscript this cross-line seems to be an emphatic extended dash, yet is the only one of its kind in the whole document.

[147] Ed. Grimley 2011:323.

that “the peculiarities of Finnish folk tunes” have a “great importance for our future music”.[148]

The lecture was well received: “… according to the examining body his paper was ‘full of original ideas …’”.[149] Yet in his tendency Sibelius was not alone. It had its roots in the European ideology of nationalism. Sibelius does ground the lecture fragment (III:7–8) with a recollection on Mihail Glinka (1804–1857) who had “tried to set down rules for his harmonizing” of his homeland’s folk music (III:6).[150] During the same decade as Sibelius a Spaniard Felipe Pedrell (1841–1922) in his pamphlet *Por Nuestra Música* (1891) shared the view that “Every people should construct its system on the basis of its folk-songs”.[151] Sibelius may not have been aware of the efforts of his elder contemporary, but in Russia Pedrell’s affinity was recognized.[152] The later decades witnessed the culmination of this tendency in the endeavours and achievements of Bela Bartók (1881–1945).

Most probably the lecture fragment was among those ideas that the listeners considered “original”. It is practically the only place in the lecture where the craft of music is dealt with. In this lecture fragment both the explanation of the tonal system of the oldest Finnish folk-tunes as well as the possible harmonization that Sibelius suggests for them, are highly original. In the last decade of the nineteenth century a ninth chord (such as G–B–D–F–A) was neither a novelty, nor a worn-out device, but the originality lies in connecting principles (melodic & harmonic) that were worlds apart.[153] Furthermore this ninth chord in the lecture fragment is achieved by combining consonant chords (G–B–D+D–F–A; see chapter 2.1.4), a practice alien to 19th century music.[154]

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[148] The reader may compare this report with a characterization in Mäkelä 2011:97: “His opportunistic ideas on the fruitful influence of folk music (1896 …) begin with some conventional remarks about the development of Western music (Ars antiqua and Ars nova) and end up in chaos.”

[149] Tawaststjerna IIF:100, 306–307, IIS:80, 241, IE:190.

[150] Ed. Grimley 2011:322.

[151] “For Our Music”; see Istel 1925:172. See also ibidem:175–178.

[152] “In connection with the passage from Pedrell’s pamphlet cited above, [in 1893 a Russian composer César] Cui [(1835–1918)] corroborates the statement that Pedrell is in close touch with the principles of the Russian school, concerning which he is very well informed.” (Istel 1925:175–176).

[153] A harmonic phenomenon close to that of the lecture fragment appears in Edvard Grieg’s song op. 67 no. 8 *Ved Gjaetle-Bekken* (written in 1895, published three years later) bars 43–48 (An F sharp-rooted minor triad in the song part is now and then accompanied by the lower open fifth B–F# in the piano left hand part). See Taylor 2014:1, ibid.:ex. 2.

[154] An interesting possibility is left ajar in the reasoning of H. Schenker. He explained the dominant ninth chord (C: V9) as a combination of VII, VII7 and V7 degrees (Schenker 1980:190–191). He however did not take the concept of *additive harmony* (see section 3.5) into consideration, but denied the existence of ninth chords instead: “We explain the so-called ‘dominant’ ninth chord not as a real, hence not as an independent, chord formation but as a mere reflex of a kinship, sensed unconsciously, among all the univalent chords rising on the fifth (and only on the fifth!) scale-step” (ibidem:192). Yet a

Someone – reluctant to accept the importance of the lecture fragment – could claim that it is 'a brief and highly generalized remark about Finnish folk-modal practice'. Firstly, the brevity of a remark is not necessarily proportional to its significance. Perusal of the whole lecture shows, that this fragment is not an accidental, but an essential part of it. Secondly, the general character of the lecture fragment gives it the force of example and excludes the possibility that merely a local trifle is under discussion. Thirdly, the lecture fragment includes more than a description of Finnish folk-modal practice. It is a demonstration of interaction between folk and art music; the latter as Sibelius understood it. Thus this fragment is connected with the very heading of the lecture ("Some Viewpoints Concerning Folk Music and Its Influence on the Musical Arts").

One can complain that 'Sibelius's remarks are not as clear as they should be'. How clear is clear enough? To me the lecture fragment is clear enough for testing the idea presented in it.

It can be argued that 'Sibelius never expanded upon them [i.e. the remarks] later'. Yet uniqueness does not necessarily lessen the importance. Furthermore, "never later" is correct only if merely literary execution is taken into consideration. In a case where the lecturer was also a composer at the same time, for this dominating *alter ego* a musical device described in the lecture fragment was to be best expanded upon in the realm of music. If this was already cogently accomplished – as I wish to prove – before and after the audition lecture till the end of his career, there was no necessity for literary execution, even more so the composer being reluctant to publish under his name "anything else but music".[155]

It can also be claimed that 'they [i.e. the remarks] were delivered in an artificial, academic context in which such fleeting displays of scalar theory might simply have been the expected thing to do'.[156] Firstly, an "artificial" academic context does not make the thoughts presented in that context artificial as well, or be secluded from the 'natural' context of the composer. Secondly, the "fleeting" comment can be answered in a similar way to the "brief" above. Even the typographical detail (a cross-line before the lecture fragment) underlines the importance of it and prevents us from considering

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multitude of dominant ninth chords in the music of the 19th century can be explained as simultaneous combinations of VII7 and V7. Anyway, in these cases an additive ninth chord contains only dissonant chords, not consonant ones, as is the case in the lecture fragment.

[155] See chapter 2, footnote 38.

[156] Cf. Mäkelä 2008:65 according to whom the lecture is "(a problematic, thoroughly functional source, similar to the report on the study trip to Karelia in the summer 1892 …)". Mäkelä neither explicates what is "problematic" nor the criteria of similarity between the documents. Yet what is "functional" becomes clear from Mäkelä 2008:69: "The reasons for sometimes emphasising the Finnish folk music … was most likely his political correctness – particularly as he was applying for a job in the University of Helsinki". Cf. also "His opportunistic ideas on the fruitful influence of folk music …" in Mäkelä 2011:97.

it as merely "fleeting". Thirdly, the matter under consideration is not merely "scalar theory", as it was also explained above. Fourthly, "the expected thing to do" in an academic context does not mean that the lecture fragment must otherwise be meaningless or immaterial for the lecturer.

It is true that nowhere in his lecture does Sibelius exclaim: "that is what I am doing in my compositions". However, this does not mean that the opposite is true. In an academic context a personal acknowledgement would have offered no benefit to the argument. From the point of view of posterity, the lack of personal acknowledgement does not prove that the theory in the lecture fragment is not applied in the compositional practice of the lecturer. The only thing that is needed in confirming the importance of the lecture fragment in the thinking of Sibelius is to find applications and analogies of it in his compositions. If these can be found (cf. Tolonen, section 3.), all the doubts and reservations may be disregarded.[157] Contrariwise, all the doubts and reservations will be confirmed, if one succeeds in proving that nowhere in Sibelius's scores can be found a device put forward in the lecture fragment.

3.2 THE PARADIGM

In my research this lecture fragment proved invaluable. It seemed, that it was possible to connect some of the dissimilarities mentioned above (see section 3.) to this fragment and that the lines of direction that Tolonen had posed (see chapter 2.1.4) proved fruitful. The more I perused the *Satz* of Sibelius, the more convinced I became that this lecture fragment contains some basic principles that governed Sibelius' thinking. In my research I have tried to connect and explain unconventional phenomena that appear in Sibelius's music in the most economical way in order to arrive at a theoretical model, a paradigm, which would encompass all the untraditional traits encountered in the survey of the literature (chapter 2).[158]

Due to the centrality of the lecture fragment, it seemed appropriate to me that in order to establish a firm foundation for this study, the examination

[157] On the grounds of Glinka's failure in standardizing his approach to folksong harmonization (mentioned by Sibelius in III:6), Daniel M. Grimley interprets this failure as a precedent: "So Sibelius's 1896 lecture cannot provide a prescriptive model for analyzing his own music" (ed. Grimley 2011:317). This kind of reasoning is connected with a rhetoric trick. Grimley namely puts a crucial word "similarly" in Sibelius's mouth: "Glinka, he [i.e. Sibelius] notes, has similarly failed to standardize his approach to folksong harmonization" (ibidem:317). Sibelius had never "similarly" tried to standardize his approach to folksong harmonization. Neither Sibelius did compare himself with Glinka in his lecture – positively or negatively.

[158] Indeed the simplest explanation for departures from tradition would be to assume they are "manipulated Classicism" as did Adorno ("manipulierte Klassizität", Adorno 1980:461). However, he did not explain the mechanism behind this "manipulation". Thus Adorno's characterization came to an over-simplification (see also chapter 12.9).

should begin with this nucleus of Sibelian *Satz*-technique. The fourth chapter is reserved for the detailed treatment of the lecture fragment. Here it is dealt with in a more general manner. Below, these melodic and harmonic principles are discussed separately and some connections between them and other features of Sibelian *Satz* are suggested.

3.3 ON THE FINNISH TONAL SYSTEM

One of the points of the lecture is to search for a "tonal system" in "our oldest type of Finnish folksong".[159] In the peroration of the lecture (V:4–5) Sibelius states: "We see clearly now that our modern tonality is shaky. But we must not tear down the old without being able to replace it with something new. It cannot be done by building a tonal system – it must be found living within the folk tune".[160] It is worth noticing that in explaining "the Finnish folk tune system" Sibelius keeps it apart from "our present tonal system" that "as we know" rests upon tonic and dominant.[161]

At the peroration of his lecture (V:2) Sibelius shows that in his search he is not a folklorist. He says that "Folk tunes as such do not have any direct importance for art music.[162] Their great significance lies in their educational qualities".[163] A composer must not limit himself to national heritage, since "In his works he must liberate himself from the local as much as possible – especially as far as the means of expression are concerned. He will succeed in this to the extent that he has a distinguished personality" (V:2–3).[164]

For Sibelius the educational qualities of the oldest type of Finnish folksong meant the modal approach. This was not merely a passing fascination for the young composer. It turned out to be a lifelong project. On the 26th of January 1914 Sibelius wrote in his diary: "It is amazing how few contemporary composers are able to create something vital based on church modes. I who stand closer to them on the grounds of 'birth and manner without let or hindrance' am somehow made for them" [J. A.].[165] Thus the first example of Sibelius's modal approach is by no means the Sixth Symphony (1923).

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[159] Ed. Grimley 2011:322.

[160] Ed. Grimley 2011:324.

[161] Ed. Grimley 2011:319.

[162] In this respect Sibelius differs from Bartók. For him "folk tunes as such" did have also "direct importance for art music".

[163] Ed. Grimley 2011:324.

[164] Ed. Grimley 2011:324.

[165] *Dagbok 1909-1944*:183. According to the editor Fabian Dahlström, the citation in this diary entry is taken from Anna Maria Lenngren's poem "Fröken Juliana" (Miss J.) from the year 1819 (ibid.:421). Cf. Alesaro 2008:8 note 6.

Yet in the peroration of the audition lecture (V:4) Sibelius says: "The church keys could not be retained because they were constructed, and hence lacked a firm foundation".[166] This opinion seems to be at odds with the intimacy with church modes in 1914. There are two explanations for this seeming incompatibility.

According to Ilkka Oramo, in his lecture Sibelius prefers harmonic tonality to church modes when these two systems are considered in contrast, but in his music there is nothing that prevents Sibelius from interpreting modal scales in a way that is not in contradiction with tonal concepts.[167]

It can also be said that in the lecture Sibelius discerns "the Finnish folk tune system" from "our present tonal system", but also from "the church keys". There were thus three different systems, one of which may have been unaware of the concept of "scale".[168] Sibelius opposes harmonizing the "tone sequence – D E F G A B C" as "D minor with a modulation to the dominant's minor key".[169] Yet Sibelius does not call this tone sequence the D Dorian mode either.[170] His point is that "the Finnish tonal system lacks the final note in the same sense as the church modes" (IV:5).[171]

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[166] Ed. Grimley 2011:324. In his original text in Swedish Sibelius consistently uses the term "kyrkotonarterna" (pl.) and its derivative "kyrkotonartsystemet" or "kyrkotonartssystemet". The Finnish translation by Ilkka Oramo is equally consistent. However, in the English translation there appear the terms "church modes" (318, 319, 323, 324), "church keys" (320, 324), and as the derivative "church tonal system" (319) or "the principles of church music" (320).

[167] See Oramo 1980:113–114.

[168] In connection with the chansons of the troubadours and trouvères, Hendrik van der Werf ponders: "It seems to me more realistic to assume that there was a time in the early history of music when people sang songs without having clearly defined scales, and that perhaps the scales we know were developed gradually" (van der Werf 1972:46).

[169] Ed. Grimley 2011:322. In the introduction to the English translation of Sibelius's lecture (1896) by Margareta Martin, the editor depicts how Sibelius "… then proceeds to discuss the harmonic basis of Finnish folk music in terms of an extended Dorian-Aeolian modal collection (a minor scale with variable sixth and seventh degrees) …" (ed. Grimley 2011:316–317). In the lecture fragment (III:7–8) Sibelius does not use any of the terms by Grimley. Also, Grimley does not mention the importance of the tone G as a point of departure of this "harmonic basis". More than Sibelius's modal harmonization, Grimley's text brings to mind the tonal harmonization of folk melodies that Sibelius describes afterwards (III:8): "This tone sequence – D E F G A B C – has been harmonized in such a way that has been explained as D minor with a modulation to the dominant's minor key" (ed. Grimley 2011:322).

[170] Tawaststjerna remarks that "There is no getting away from the fact that Sibelius announces Dorian scale as the fundamental tone selection for Finnish folk music" [J. A.] (Tawaststjerna IIF:103, IIS:82, IE:191 missing). Also, elsewhere he states: "actually he mentions Dorian scale from D to tones B and C" (Tawaststjerna IbF:305). Nowhere in his lecture does Sibelius use the term "Dorian". However, according to Sibelius "Yet many [Nordic] folksongs follow church modes, especially in Sweden. There has been much talk about a Nordic scale similar to the old Aeolian one …" (ed. Grimley 2011:323).

[171] Ed. Grimley 2011:324.

Yet there is a practical reason to call Sibelius' approach "modal". When Sibelius does use the tone sequence D E F G A B C, he may use it melodically without the upper octave like the rune singers did, but the interval of octave was unavoidable for harmonic treatment. In this Sibelius – unlike the rune singers – utilized the tone sequence D E F G A B C (D). In the compositions of Sibelius this heptatonic scale happens to contain – if not the same stylistic qualities – at least the same properties: *finalis*, range and essential tones as in the D Dorian mode.[172] The same also applies to other modes utilized by Sibelius. He may have considered his harmonic employment of the church mode system as done, not according to something "constructed", but in accordance with something "living", that he in his youth searched for "within the folk tune" (V:5). In this sense for Sibelius in 1914 it was no more necessary to separate the "church modes" from the "Finnish tonal system" that he lectured on in 1896.

This modal approach had several dimensions. Melodies as well as accompanying parts could be based on different kinds of modal scales, either alongside major or minor scales, or instead of them. Melodic phrases could be based on pentachords (e.g. D E F G A) that were peculiar to these folk tunes. Melodic building could be based on connecting different pentachords in various ways. The "tonal system … found living within the folk tune" reached from melodic details to modulations. "I go so far as to contend that all these so-called interesting turns, modulations, etc. are only of passing value except when their seed is found within the folk music" (V:6).[173]

In pondering the "tonal system … found living within the folk tune" (V:5), not everything in it was strange. Sibelius also found something familiar in "our rune melodies". They "… are comparable to what we call a theme with variations" (III:9).[174] In this respect the educational qualities of folk tunes were not different from those that Sibelius received from his educators.

Sibelius stated: "If one calls a piece of music stylish when it says all that it wants to convey – which is a creative original idea above all but also a unified harmonic development of it – then the folksong in all its simplicity and modesty has a style so pure that one seldom finds it in art music" (III:2).[175] In this statement Sibelius derived criteria for "stylish music" from art music. He seems to be aware of the fact that in folksongs – especially in rune melodies – there was no such thing as "unified harmonic development".[176]

It may be assumed, that the future task – now open for an innovative composer – was to give "unified harmonic development" to Sibelius' own melodies that were based on the educational values of folksong. This was

[172] See Kirnberger 1982[1776]:316–319 and Verba 1978:467.

[173] Ed. Grimley 2011:324. This is the last sentence of the lecture.

[174] Ed. Grimley 2011:323.

[175] Ed. Grimley 2011:321.

[176] Cf. ed. Grimley 2011:322 "If these melodies originated in a far distant time – a time when perhaps no conception of harmony existed …" (III:6).

possible for a composer who already had command of “our present tonal system”.

3.4 LINE-PEDAL *SATZ*

In the domain of voice-leading the educational qualities of the oldest Finnish folk music may also have meant something to Sibelius, though only in a negative way. In monophonic folk music there was no *Satz* and therefore no polarity between the melody and the bass – a feature that is typical to tonal types of *Satz* since the Baroque era.

In connection with Sibelian melodies a type of *Satz* may occur where a single line is accompanied by a sustained tone (see e.g. op. 39:I:1–16). This *line-pedal Satz* is not based on polarity between the topmost and lowermost voices that on paper may seem like the melody and bass. This barest form of *line-pedal Satz* may be enriched by means of other components, but the difference from soprano-bass *Satz* remains the same.

The lack of polarity in Sibelian line-pedal *Satz* is even more likely, because it fundamentally differs from traditional soprano-bass *Satz* with regard to spatial quality. In the traditional two-voice framework the spatial order of the components is fixed. The very names of the components denote their fixed spatial location: soprano (latin: *superius* = the topmost), bass (greek: *basis* = foundation, monastic latin: *bassus* = low). Middle parts, or inner parts, are those that proceed in the middle of the framing parts. On the other hand, in line-pedal *Satz* the components have no fixed spatial order. Any or all of them may be octave-doubled and located topmost, lowermost or in the middle of others. In this kind of spatial handling the components are often located in the same register, which causes them to cross over each other (see section 3.7, on chapter 8.4).

In cases of line-pedal *Satz* it often seems as if the other components therein were thought of separately in relation to the pedal point and without measuring these components against each other. At least this would be the most straightforward way to explain procedures, which are normally forbidden in traditional music theory, such as numerous parallel motions (octaves, fifths) between various components (see section 3.7, on chapter 8.2).

The spatial manner described above may have even affected Sibelius’ handling of soprano-bass *Satz*. One of its symptoms is that Sibelius does not often resort to bass themes. Those melodies that technically match the definition “bass theme” do not lie in the deep, but mostly occur in the tenor register (op. 82:I:81–90, op. 82:III:6–21). On the other hand, those themes that are located in the lowest register usually contain a rising curve that leads to upper registers (op. 63:III:39–42). This upward surge is also typical to those above-mentioned tenor themes (op. 67 no. 2:II:2–9; ambitus B–b1).

3.5 ADDITIVE HARMONY IN THE HARMONIZATION OF RUNE MELODIES

Again, the concept of "unified harmonic development" (see section 3.3) that was derived from "our present tonal system" had its effect on the possible harmonization that Sibelius suggests for an imaginary folk melody.

In this harmonization, a simultaneous combination of two triads emerges, a D minor triad (D–F–A in the melody from which this harmony can be extracted) and a G major triad (G–B–D in the accompaniment) below the melody. In the lecture fragment (see chapter 2.1.4) the "ninth chord" G–B–D+D–F–A evolves from them. In his lecture Sibelius avoids connecting this ninth chord with "tonics and dominants upon which our present tonal system rests".[177] Sibelius was well aware of the fact that in tonal syntax this kind of ninth chord has its own place. Here the most obvious context for the ninth chord G–B–D–F–A would be the dominant ninth chord in C major.

Yet the crucial thing is that although Sibelius does connect those two triads into a dominant-type ninth chord (G–B–D+D–F–A), he also keeps them apart from each other as independent units. This treatment differs from traditional five- or six-part *Satz* (i.e. multipart *Satz*) where there are three or four middle parts between the framing parts; soprano and bass. In Sibelian harmonization the two triads (G–B–D and D–F–A) add up to a chord-formation. This kind of harmonic principle may be called *additive harmony*. Therefore their sum (i.e. G–B–D+D–F–A) may be called a *sum-chord*. Respectively the segments of this sum-chord may be called *sub-chords*. A sum-chord also contains the soprano (A) and bass (G), but one of the parts between them usurps a rank more important than that of a mere middle part. This part that establishes the upper sub-chord and therefore is more important than any of the middle parts may be called an *assisting bass*. Thus in the sum-chord of the lecture fragment (i.e. G–B–D+D–F–A) the assisting bass is the tone D. Since the assisting bass is added to the framing parts (soprano and bass) of the two-voice framework (see section 3.4), the combination of these three most important components (i.e. soprano, assisting bass and bass) consequently is called a *three-voice framework*. Aside from in a single chord, as is the case in the lecture fragment, in the music of Sibelius a three-voice framework may also operate in connection with harmonic progressions.

Additive harmony involving a three-voice framework, though, is not an invention made solely by Sibelius. It had already evolved in the works of Liszt, Wagner and Bruckner. Most likely they all developed it by leaning on the traditional organ point *Satz* (see section 3.7, on chapter 4.6). Additive

[177] Ed. Grimley 2011:319.

harmony involving three-voice framework may also be found in the music of Sibelius' contemporaries (e.g. Debussy).[178]

Besides, it is also conceivable that without Sibelius' explicit term "ninth chord" the recognition of ninth chords in the music of Sibelius would perhaps have remained undetected (see see chapter 4.5.2). This danger lurks if one leans e.g. on analytic ideologies that deny the existence of ninth chords, as well as eleventh and thirteenth chords.[179] Also, the last-mentioned chords, as additive harmonies, can be found in the music of Sibelius.

3.6 NEO-MODALITY

In Sibelius' music we find the co-existence of the "Finnish folk tune system", "that lacks both tonic and dominant, as we understand them",[180] modal approach and "our present tonal system". These three (or two; see section 3.3) contrasting systems produce various kinds of combination. All these can be defined as *neo-modality* (chapter 4.2.2). In the history of music in Western Christendom tonality follows modality; likewise neo-modality follows tonality. The trend to enlarge tonality by modal scales gained in strength towards the end of the 19th century. Neo-modality may be considered the full blossom of this trend in the 20th century (cf. Bartók, section 3.1). In this century Sibelius is by no means the only composer whose approach can be considered neo-modal (cf. chapter 12.7).

Neo-modality thus does not mean resuscitation of the modal era in any of its monodic or polyphonic appearances. In neo-modality the long experience of the major-minor system is taken into consideration. The major and minor scales alone do not prevail over modal scales, as was the case in the Romantic era, but merely appear as two scales among the rest. Thus neo-modality is more than merely tonality that is now and then enlarged by modal scales.[181] Neo-modality utilizes harmonic progressions derived from various modes (chapter 5.4.1) that are needed in "unified harmonic development" of creative

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[178] Walter Piston does not use the term "three-voice framework", but does recognize inner segments in a ninth chord: "We will meet the dominant major ninth again … in connection with impressionistic harmony, in which it is of great importance both as an independent quasi-consonant sonority and as an adjunct to the triad in modal harmony. In the latter case the dominant major ninth owes the flexibility of its use to the dual dominant–nondominant nature of its structure, wherein its lower three factors support a dominant feeling but its upper three coincide with the supertonic triad" (Piston 1978:338).

[179] See Schenker 1980 [1906]:190–202. The denial of ninth chords (as well as eleventh and thirteenth chords in ibidem:203–208) made H. Schenker's system perfect, but at the same time even more detached from the musical practice than was the case in those text-books that he criticized.

[180] Ed. Grimley 2011:322.

[181] This opinion held e.g. by Tawaststjerna (see chapter 2.1.4, note 37) is still maintained by Tomi Mäkelä (see Mäkelä 2008:68–69).

original ideas.[182] Aside from tonal cadences there are thus also modal closures (chapter 5.4.2). Neo-modality also contains branches like polymodality (chapter 4.2.2), modal ambiguity and bitonality. The chord-formation that emerged in the possible harmonization that Sibelius suggested for folk tunes (see section 3.5) is also used as a vehicle in establishing modal ambiguity (chapter 11.2). Bitonality may be derived from it as well (chapter 11.6).

3.7 THE CHAPTERS OF PART TWO IN OUTLINE

In the music of Sibelius the Sibelian and traditional types of *Satz* may occur independently, or they may be used side by side, either simultaneously or successively. In this study the Sibelian types of *Satz* are the focus. The traditional *Satz* in the music of Sibelius is not dealt with, unless it borders with the Sibelian one. Otherwise traditional *Satz* (see chapter 1.1) is used as reference material when needed in comparing it with Sibelian features.

Part Two (chapters 4–11) is the systematic part of this study. It gathers around the paradigm evoked by the lecture fragment. Not only in the lecture fragment, but in several respects in the *Satz* of Sibelius something is put below something else. As the search of the paradigm began from the minutest details (see section 3.), in elucidating the paradigm the details are also irreplaceable. The principles of the *Satz* manifest themselves only through the details, which is why they are taken care of in this study. As it was already mentioned, the fourth chapter is reserved for detailed treatment of the fragment (see section 3.2). The contents of chapters 4–11 are discussed briefly below in light of the thread of the study as a whole. More detailed descriptions of the contents of these chapters are offered in their opening sections.

In the fourth chapter, "The basics of layered technique", the basic terms are introduced. The re-visited lecture fragment (chapter 4.1) offers an opportunity to define the concept of additive harmony (see section 3.5) more specifically. A detailed description and analysis of additive harmony thus involves several new terms and concepts – like the assisting bass and three-voice framework presented above – all of which emanate from the lecture fragment. Besides these the additive harmony deserves a particular type of harmonic analytic notation. The origin of three-voice framework (see section

[182] The treatment of modes as sources for harmonies and harmonic progressions was typical for the composers of the nineteenth and twentieth centuries. The assumption that harmony possesses priority over all melody was also held by Carl von Winterfeld, who in the former half of the nineteenth century researched Renaissance polyphony (see Meier 1988:16). According to scholar Bernhard Meier "the basic error of eighteenth- and nineteenth-century efforts" in examining sixteenth century modal music was to assume that it rested on relationships of triads (Meier 1988:422–423). It is this harmonic consideration of modes that basically separates neo-modality from modality.

3.5) may be detected in the domain of traditional organ point *Satz* where the co-existence of two bass parts was established long before Sibelius (chapter 4.6).

In the fifth chapter, "Line-pedal *Satz* established", the various sides of the Sibelian *Satz*-technique presented in the fourth chapter are deepened. Additive harmony also paves the way for dissonance treatment that before Sibelius was marginal, but which in his music plays a significant role. This *releasing* is used either as such, or in connection with traditional *resolving* (chapter 5.3). Thus in this study a separate chapter is not reserved for dissonance treatment, but this is appropriately encountered in connection with other devices. The modal side is expanded upon with descriptions of harmonic progressions that are *characteristic*, either to one mode, or to a group of modes. As in tonality familiar to all of us, in modality horizontal and vertical dimensions are combined. This takes place especially in tonal cadences and modal closures (chapter 5.4).

In the sixth chapter, "Vertical and horizontal harmonic phenomena", some new devices typical to Sibelian *Satz* are introduced, firstly the device of entering and ceasing bass (chapter 6.1). In this layered technique poly-dynamism may emerge (chapter 6.1.7). Entering bass may result in *polychords* (chapter 6.3) that are also possible to describe in terms of a three-voice framework.

In the seventh chapter "On Sibelian voice-leading" the emphasis is on the linear dimension of Sibelian *Satz*. Firstly simple (chapter 7.1) and florid counterpoint (chapter 7.2) that utilizes thickened lines is perused. This phenomenon of thickening was already discussed in an earlier chapter (5.1) but it is seized upon only now. Thickening is again a phenomenon where something is put below something else (cf. section 3.7 above). In Sibelian counterpoint a type of dissonance treatment, *stationary dissonances*, appears (chapter 7.3). Besides the device of parallel motion, Sibelius utilizes the opposite of it, namely systematic contrary motion (section 7.4) and derives harmonic consequences from it (section 7.5). Heterophony also plays an important role in Sibelian voice-leading (section 7.6).

In the eighth chapter, "On some aspects of Sibelian voice-leading", the discussion on the horizontal dimension begun in the previous chapter is continued. Due to textural modulations (section 8.1) between different successive components of *Satz* there is no clear border (section 8.1.1). A peculiarity of Sibelian voice-leading is consecutive octaves and fifths (section 8.2), as well as heterophony (chapter 8.3). These are connected with the spatial quality of *Satz* (section 8.4). Another peculiarity is macro-components (section 8.5), that present the properties of the components of line-pedal *Satz* on a large scale.

In the ninth chapter, "Structures concerning harmonic basis", the focus is moved to the levels used in the analysis of Sibelius' music. Thus far there were two structural levels in analytic use, the surface level and the deep level i.e. the level of harmonic basis. Here a new analytic concept, the level of

scheme is launched. In the level of scheme the deep level can be summarized and shown as a plan. Some of the materials and techniques dealt with in earlier chapters are now scrutinized in the deep level and in the level of scheme.

In the tenth chapter, "De-patternization", a term already encountered earlier is specifically defined. In earlier chapters different kinds of pattern were searched for according to which the proceedings of musical material and thought could be explained. Yet the actual music rarely seems to match any simple pattern. In this chapter the solution to this problem is assumed to be that a pattern as a simpler version of thought is conceived firstly and then, if necessary, it is de-patternized to a more complex one. Whether true or not, this assumption nevertheless enables one to present the Sibelian idiom in a systematic way.

In the eleventh chapter, "Tonal dimensions of Sibelian *Satz*", the starting-point of this study, Sibelian harmonization (see section 3.5, chapter 4.1), is re-visited. This far voice-leading in its horizontal and vertical dimensions has been the focus. Now the modal and tonal dimensions of the lecture fragment – modal ambiguity and bitonality – are considered deeply (see section 3.6). Finally, the formal dimension of these tonal techniques is touched on, although in general this study restricts itself to *Satz*, not to problems of musical form.

3.7.1 CRUCIAL NOTES FOR THE READER

When there are bracketed references to the same chapter in the running text, the numbering with merely a dot (e.g. see section 2.) means the section before section 2.1. When there is a bracketed reference to another chapter, the numbering with merely a dot (e.g. see chapter 3.) means the section of this chapter before section 3.1, while the numbering without a dot (e.g. see chapter 3) means the whole chapter.

A bracketed reference to another (earlier or later) chapter in the running text is always connected with the preceding word or term. For example, in the fourth paragraph above Fig. 5.7–1 there reads "(see chapter 8.5)". In this case the preceding term is *macro-component*. This means that the term or word referred to is there either established, discussed, or focused on. A willing reader may thus consult the referred section, but in order to follow the argumentation at hand this is not necessary. By no means is the reader obliged to skip about in the thesis. On the other hand, a reference to a matter that is included in the discussion of the whole sentence, or in the whole paragraph (e.g. a necessary postponement) is separately announced.

The matter regarding bracketed references to another (earlier or later) Figure is similar. A Figure is always chosen to illuminate the *Satz*-technique under discussion. Yet seldom in the domain of Sibelian *Satz* (or in any *Satz*, for that matter) does a musical fragment illustrate only one technique, but

often several of them. Therefore many Figures are serviceable in more than one respect. This is apparent when a Figure in a previous or forthcoming chapter is referred to, i.e. in order to offer additional examples of the matter in hand.

4. THE BASICS OF LAYERED TECHNIQUE

In the lecture fragment the composer briefly describes peculiar textural thinking, which also crops up in his compositions (see chapter 3.). In this study the Sibelian way of harmonization in the lecture fragment is called *layered technique*. For the purposes of the lecture it was sufficient to present his technique in a nutshell. The content and disposition of this fourth chapter follow the unravelling of this Sibelian harmonization. After discussing its different facets (section 4.1), various properties of pentachords as well as scales are scrutinized (section 4.2). The harmonic dimension is dealt with firstly (section 4.3), before the pentachordal melodic dimension is connected with it (section 4.4). This connection also brings about kinds of harmony other than the ninth chord encountered in the lecture fragment, as well as the device of dissolution, typical to layered *Satz*. Then the structure of Sibelian harmonization is discussed from the point of view of music analysis (section 4.5). Finally some of its possible seeds are touched on (section 4.6).

4.1 SIBELIUS THE THEORIST

Sibelius states in his lecture fragment (1896):

"Our oldest type of Finnish folksong presents a tonal system that lacks both *tonic* and *dominant*, as we understand them, as well as a final tone as in the old Greek keys, but contains just five tones – D E F G A – joined by two further tones B and C, when the melody assumes an intensified character. The tuning method for our five-string *kantele* supports this view.

Of course, learned theoreticians might – in many cases though not always – express this tone sequence D E F G A [B] as an upper pentachord resting on a similar lower one, with G as its point of departure. Hence we are dealing with a ninth chord as the harmonic basis for melodies of this type."[183]

In this lecture fragment there are three points. Firstly Sibelius presents his view on the "tonal system" of the oldest Finnish folk-tunes and its instrumental resources.

Secondly Sibelius describes the melodic organization of the old folk-tunes. Besides "just five tones", i.e. a *pentachord* (D E F G A), there is also a wider formation with the tones of "an intensified character" (D E F G A + B C). In this study this kind of *heptachord* where there is an inner hierarchy is placed into the category of an *extended pentachord* (see section 4.2.3).

[183] See chapter 2.1.4, Tolonen and footnotes 89 and 91.

Thirdly Sibelius suggests a harmonization for "an upper pentachord" – whether extended or not. In this harmonization, besides the upper pentachord (D E F G A), there is "a similar lower one" (G A B C D).[184] With regard to Sibelius' term "ninth chord" it may be assumed that the composer at the same time considered the melodic pentachord harmonically as a *dissolved* D-rooted minor triad (Fig. 4.1–1a) and the lower pentachord as either a dissolved or sustained G-rooted major triad (Fig. 4.1–1b).[185]

Accordingly, in this study the melodic term "pentachord" is considered to be a horizontal dimension of the vertical or harmonic term "triad". The pentachord D E F G A operates in the melodic surface (i.e. in the surface level), while the triad D–F–A operates in the level of harmonic basis, or harmonic reduction (i.e. in the deep level). In the Figures below, these two levels of scrutiny are usually shown one below the other.[186] If the accompanying triad (G–B–D) is sustained in the surface level, its appearance is similar in the deep level.

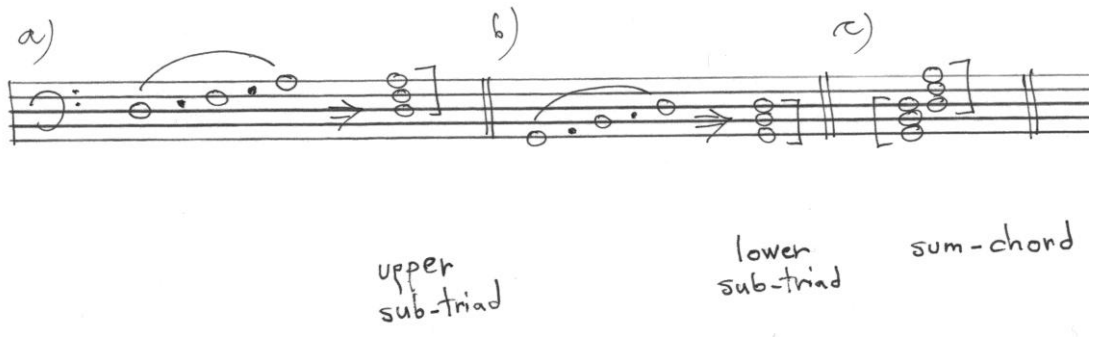
These triads add up to a "ninth chord" G–B–D+D–F–A (Fig. 4.1–1c). It may be called *regular*, because it stands in root-position as a regular stack of thirds. The sum of them may be called a *sum-chord*, here a G-rooted sum-ninth chord that has a *dominant-type* structure, including a minor seventh and major third. The postfix "-type" is used in connection with dominant-type chords standing on degrees other than the dominant of a key (see Fig. 4.3–3). In connection with dominant-rooted chords this postfix is unnecessary. Non-dominant type sum-chords on any degree are specifically mentioned.

[184] "Similar" does not necessarily mean "identical". Therefore instead of the minor pentachord G A B flat C D, the lower pentachord may also be considered the major pentachord G A B C D. In it the pitch B natural is in accordance with the B natural in the extended pentachord.

[185] I have used Hindemith's term. In connection with melodic construction Hindemith 1969:112 speaks about the "concept of melodically dissolved harmony". Kirnberger 1982[1771]:210 Ex. 11.9 uses the term "arpeggiation" for this phenomenon.

[186] In relation to Schenkerian concepts *Vordergrund–Mittelgrund–Hintergrund* ("foreground–middleground–background") both the surface and the deep level stand in the *Vordergrund*, i.e. in the immediate level of musical structure. In this study the term "layer" is not used as a synonym for the term "level".

Fig. 4.1–1 a–c. Music-examples derived from Sibelius's lecture fragment.



4.1.1 THE LECTURE FRAGMENT'S POTENTIAL

Concerning the first point where Sibelius presents his view on the "tonal system" of the oldest Finnish folk-tunes, according to Sibelius the old Kalevala-tunes lack "both tonic and dominant, as we understand them, as well as a final tone as in the old Greek keys" (see section 4.1). In connection with the *runo* melodies Sibelius did not call the "five tones – D E F G A – joined by two further tones, B and C" D Dorian church mode (see chapter 3.3). Near the end of his audition lecture Sibelius states: "As I noted above, the Finnish tonal system lacks the final note in the same sense as the church modes. Rune melodies end either on one tone or the other – a clear sign that there is no basic tone [tonality]".[187]

Although this may be the case in ancient *runo* melodies, the melodies by Sibelius based on a pentachord do not conclude randomly. In these – in my opinion – the lowest of those "just five tones" (e.g. D E F G A) functions as the tonic (see chapter 3.3). Therefore from now on the lecture fragment is also handled in terms of D Dorian. Since in his compositions Sibelius often uses so-called "Gregorian" or "church" modes in a manner different from the composers of Medieval and Renaissance periods, those prefixes may be left out.

As a result of his viewpoint on the tonal structure of folk melodies Sibelius did not consider the tone D of the pentachord D E F G A to be its tonic or the tone A its dominant. He also shrank from using these terms in connection with the lower pentachord. Thus Sibelius did not declare this dominant-type "ninth chord" as a dominant chord in C major. Yet it is also possible to associate this tonal possibility with the fifth-related combination of pentachords (see section 4.3). This aspect is seized upon later (see chapter 11.3).

[187] Ed. Grimley 2011:324.

Concerning the second point, earlier in his audition lecture Sibelius had defined the diatonic system as "seven tones within an octave".[188] Since the extended pentachord (see section 4.1) does not reach the ambitus of the octave from its lowest tone, it is not identical with the D Dorian mode. As such, an extended pentachord (i.e. heptachord in which there is an inner hierarchy) stands between a pentachord and a heptatonic scale that also includes the octave of the tonic. Heptatonic scales will be scrutinized below (see section 4.2.1).

Concerning the third point, Sibelius' suggestion for harmonizing old folk-tunes implies *additive harmony* (see chapter 3.5). Sibelius reflected: "If these melodies originated in a far distant time – a time when perhaps no conception of harmony existed – harmonization assumes a quite different character. In that case the composer must clarify for himself the basic mood of the folksong and then allow harmonies to pour out accordingly – to create, so to speak, the milieu in which one imagines the [melody] folksong to have arisen".[189]

In his lecture fragment Sibelius implies a pentachordal melody that is not notated, but in which the pitch-content is defined. Harmonically this is a dissolved D-rooted minor triad (Fig. 4.1–1a). In additive harmony this functions as a *layer* (i.e. a *sub-chord* that in this case is a *sub-triad*) in the "milieu" that also contains a lower layer G-rooted sub-triad (Fig. 4.1–1b). In additive harmony the *components* of *Satz* that are here an assumed pentachordal melodic line (or simply: *line*) and its accompaniment are based on different *sub-chords* (see chapter 3.5), not on one and the same chord, as would be the case in *non-additive harmony* (see section 4.5.2, chapter 5.3.1). In Sibelian *Satz* both additive and non-additive harmony are encountered. Of these the latter type is the more common.

The properties of this sum-ninth chord from the point of view of dissonance treatment are dealt with later (see section 4.4.1).

4.2 PENTACHORDS CONNECTED

Hitherto the sum-chord (Fig. 4.1–1c) and its layers (see section 4.1.1) were scrutinized irrespective of time, chronological or musical. Yet in the citation by Sibelius the "just five tones" are "joined by two further tones, B and C, when the melody assumes an intensified character". Expressive qualities aside, the temporal dimension of the pitch-content is also taken into consideration. In this section some timeless conceptions such as scales (section 4.2.1), neo-modality (section 4.2.2) and the ambitus of pentachords (section 4.2.3) are dealt with, and also some temporal devices such as pentachord-successions (section 4.2.4 and 4.2.5).

[188] Ed. Grimley 2011:318.

[189] Ed. Grimley 2011:322.

4.2.1 PENTACHORDS AND HEPTATONIC SCALES

The terms “tonic” and “dominant” come from major and minor scales that were familiar to all the audience present at Sibelius’ audition lecture. These terms rejected by Sibelius are used here as general terms concerning both the melodic surface and harmonic basis of the pentachord (see section 4.1). In figures below the *brevis* signifies the tonic.

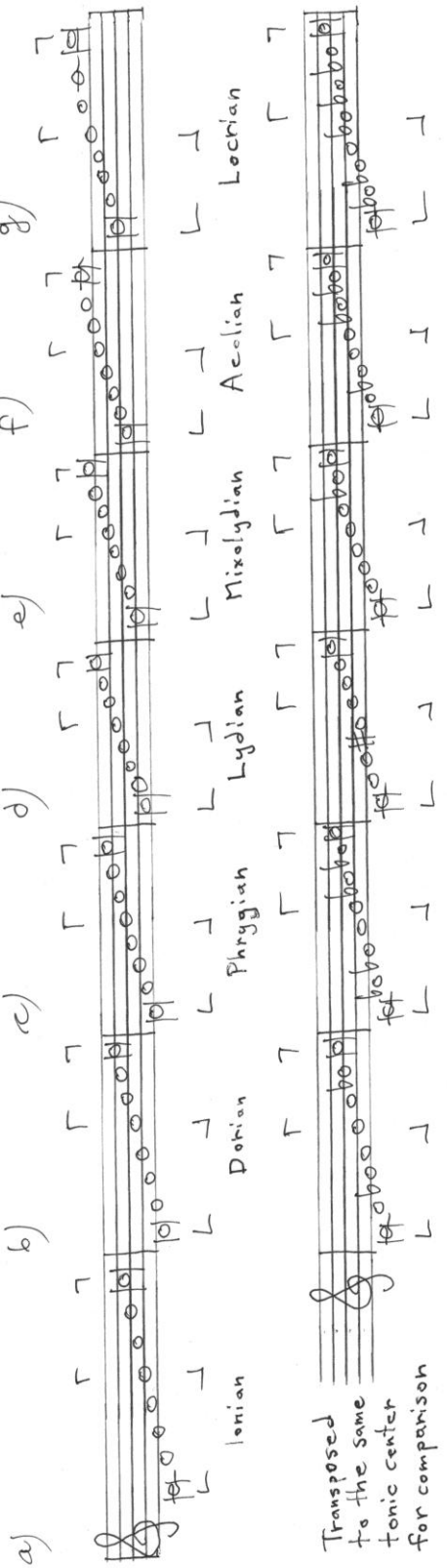
Besides major and minor, the terms tonic and dominant in a pentachord are also applicable in those heptatonic scales where the interval between tonic and dominant is a perfect fifth. The term dominant still needs some additional definitions in heptatonic scales where the fifth is diminished (see Fig. 4.2.1–1g, Figs. 4.2.1–2b, –2c) or augmented (Fig. 4.2.1–2f). Any heptatonic scale may be considered a conjunctive connection of a tonic pentachord and a *dominant tetrachord*.[190]

Below are listed two families of heptatonic scales used by Sibelius. These are modes and mixed modes. The term mixed modes is used in order to discern them from the modes. In mixed modes the tonic pentachords and dominant tetrachords are mostly similar to those in the modes, but they are combined differently. Anyhow they are termed as much as possible according to similar ones found in various modes. Thus “mixing” in mixed modes is only a matter of terminology.

The first family of heptatonic scales, namely modes, contains Ionian (Fig. 4.2.1–1a), Dorian (Fig. 4.2.1–1b), Phrygian (Fig. 4.2.1–1c), Lydian (Fig. 4.2.1–1d), Mixolydian (Fig. 4.2.1–1e), Aeolian (Fig. 4.2.1–1f) and Locrian (Fig. 4.2.1–1g).

[190] This kind of connection produces so-called authentic scales. The division into authentic and plagal scales was fundamental to the modal era (see Meier 1988:29, 31, 47–88, 422–423), but in the neo-modality (see chapter 3.6), as in the major-minor system, the scales are also sources for harmonies and this harmonic approach overpowers the authentic-plagal division. Therefore there is no need to present the corresponding plagal scales as well. This omission is not meant as a denial the existence of plagal scales in Sibelius’s melodies (e.g. in Vl. I part in op. 43:II:187–190 D Ionian-Aeolian mixed mode as plagal appears; cf. Fig. 4.2.3–6b). Even in the domain of the major-minor system plagal scales may be traced (see e.g. Beethoven: op. 13:III:1–8 upper staff; plagal C minor).

Fig. 4.2.1–1 a–g. The 1st family of heptatonic scales; modes.



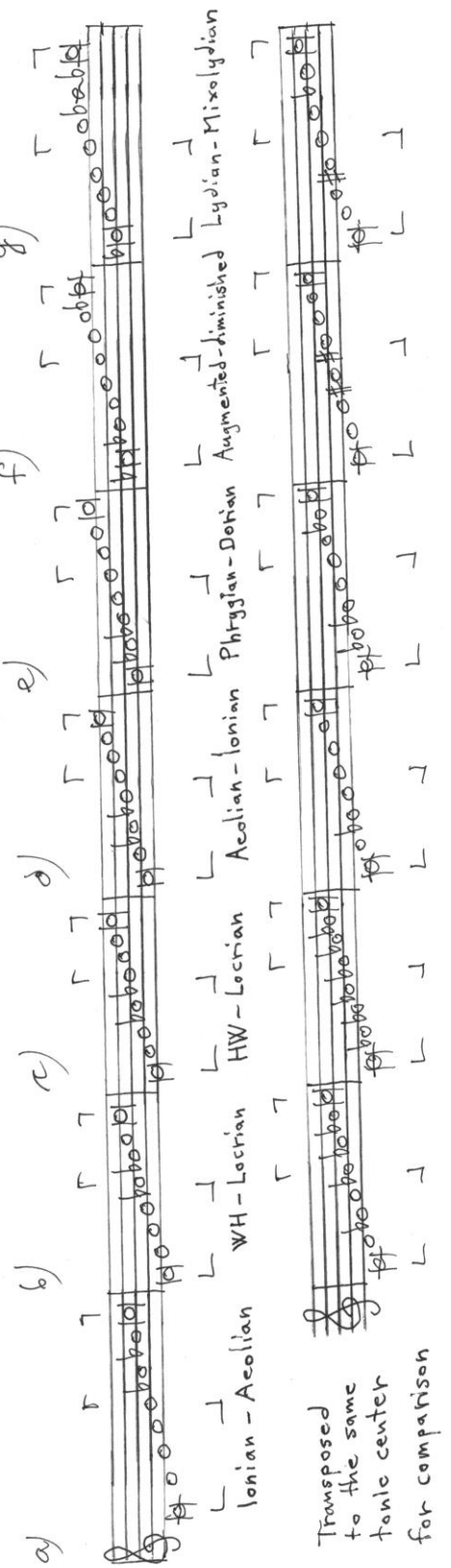
The second family of heptatonic scales, namely mixed modes, contains Ionian-Aeolian (Fig. 4.2.1–2a), WH-Locrian (Fig. 4.2.1–2b), HW-Locrian (Fig. 4.2.1–2c), Aeolian-Ionian (Fig. 4.2.1–2d), Phrygian-Dorian (Fig. 4.2.1–2e), Augmented pentachord-diminished tetrachord (Fig. 4.2.1–2f) and Lydian-Mixolydian (Fig. 4.2.1–2g).[191]

Aeolian-Ionian is similar to ascending melodic minor,[192] but unlike it, Aeolian-Ionian also utilizes the same degrees in descending motion. Therefore in this study the former name is preferred. Furthermore the term "ascending melodic minor" hints at a preponderance of keys and is thus inclined to conceal the modal approach. In the music-analytic literature Lydian-Mixolydian is known as "Acoustic". In this study the former name is preferred, because it indicates the pentachordal-tetrachordal structure of the seventh mixed mode and thus connects it with the family of mixed modes. In the second mixed mode (Fig. 4.2.1–2b) WH is the symbol for the whole-step and half-step order in the lower pentachord. In the third mixed mode (Fig. 4.2.1–2c) HW is the symbol for the half-step and whole-step order in the lower pentachord. Thus in two cases in mixed modes the tonic pentachord (Fig. 4.2.1–2b and –2c) and in one case the dominant tetrachord (Fig. 4.2.1–2f) have a structure similar to those found in the segments of octatonic symmetric scales.

[191] A scrupulous reader will find that in Fig. 4.2.1–2e (Phrygian-Dorian) and in Fig. 4.2.1–2g (Lydian-Mixolydian) a similar dominant-tetrachord (WHW or TST) bears a different name. This inconsistency from the combinatorial point of view was done in order to describe the general character of those mixed modes. The mixed mode in Fig. 4.2.1–2e is minor-like and the one in Fig. 4.2.1–2g is major-like, so the names of the dominant-tetrachords were chosen accordingly from respective minor- and major-like modes.

[192] According to Howell 2001:46, the pitch organization of Tapiola "revolves around a single collection (the ascending melodic minor scale on B)…".

Fig. 4.2.1–2 a–g. The 2nd family of heptatonic scales; mixed modes.



4.2.2 NEO-MODALITY

The above scales, aside from major and minor scales, contain the bulk of the scalar resources in the music of Sibelius. The tonal system on which they are based may be coined *neo-modality* (cf. chapter 3.6). In the upper staves of Figs. 4.2.1–1 and 4.2.1–2 the modes differ in tonic, but share the same set of tones. This relation between modes may be called *scalar association*. Proceeding from one of them to another is *modulation between scalarly associated modes*. In the lower staves of Figs. 4.2.1–1 and 4.2.1–2 the modes contain different sets of tone, but share the same tonic. Proceeding from one to another is *interchange*. Both these devices are utilized in neo-modality.

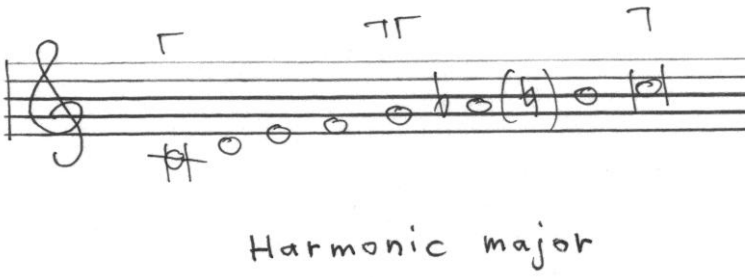
The vehicle that seamlessly conducted modality to tonality (i.e. the major-minor system of tonality) was *musica ficta,* which firstly introduced a leading-tone in order to form cadences, until this alternative gradually became the norm. A feature peculiar to neo-modality is that there is no need for *musica ficta*, because major and minor scales also belong in Sibelius' scalar resources and they may be reached by means of interchange. Therefore in neo-modality the modal scales usually occur without any alterations. If non-scalic tones appear in modes that can be related to the same tonic, these can be also explained by means of interchange.

Before Sibelius, interchange between major and minor scales that share the same keynote was a common device. In Sibelius' music this larger number of scales makes sequences possible wherein several scales that share the same tonic may appear and re-appear as densely as needed (e.g. C Ionian – C Mixolydian – C Ionian-Aeolian – C Aeolian – C Phrygian). In his music interchange between major and minor, or between a major-like mode and a minor-like mode, is not encountered often (see Fig. 7.1.3–1 [op. 109 no. 2/I:1–4]). Mostly interchange leads from a major-like mode to another major-like mode or from a minor-like mode to another minor-like mode.

In this study, the situation in which a major third occurs in the tonic pentachord with a minor sixth in the dominant tetrachord is not considered interchange between major and minor scales, but a separate mixed mode termed as *harmonic major* (Fig. 4.2.2–1).[193]

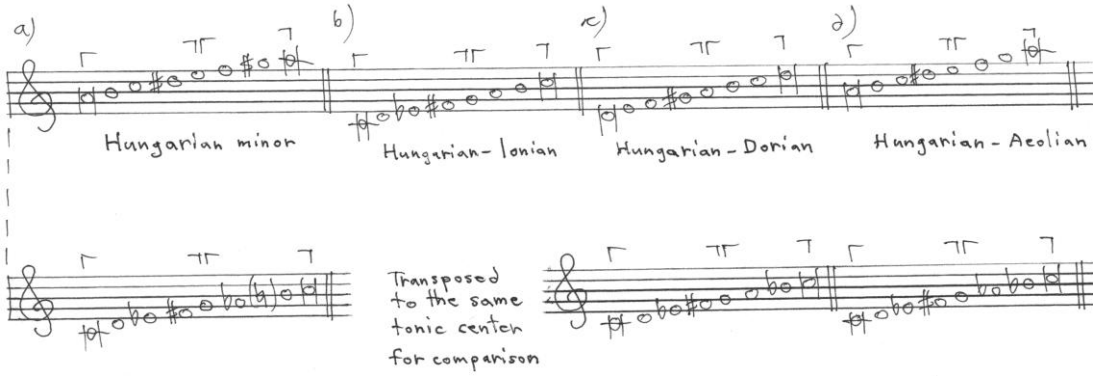
[193] The term "harmonic major" – in connection with a scale C D E F G A flat B C – was already launched by N. Rimsky-Korsakov 1930 [1886]:6. "As foundation for analysis of chords" in the fifth paragraph "Natural and altered modes" he offers four scales: 5. a) Natural major mode (C-rooted), 5. b) Harmonic major mode (C-rooted), 5. c) Natural minor mode (A-rooted), 5. d) Harmonic minor mode (A-rooted).

Fig. 4.2.2–1. A separate mixed mode.



There are cases where raising the fourth degree in connection with a scale is so consistent that it is no longer considered interchange, but instead is a scale transformed from minor, from a mode, or from a mixed mode. Thus there are Hungarian minor (Fig. 4.2.2–2a), Hungarian-Ionian (from Aeolian-Ionian; Fig. 4.2.2–2b), Hungarian-Dorian (Fig. 4.2.2–2c), and Hungarian-Aeolian (Fig. 4.2.2–2d).

Fig. 4.2.2–2 a–d. Modes transformed to mixed modes by raising the 4th degree.

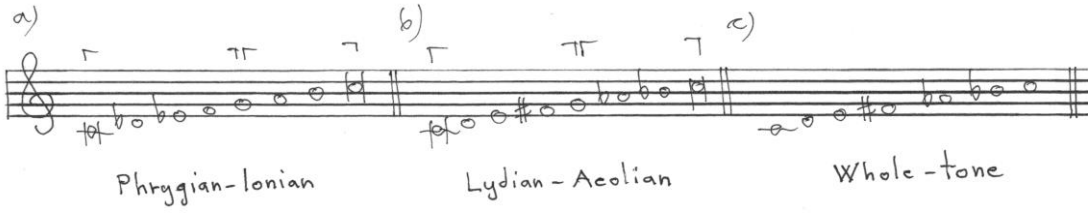


Consistent lowering of the second degree transforms Aeolian-Ionian to Phrygian-Ionian (Fig. 4.2.2–3a). In this scale there are five successive whole-tones that reach tonics by semitones (cf. also Fig. 6.2–1d [op. 109 no. 2/VIII:19–24]). In this respect Phrygian-Ionian resembles Lydian-Aeolian (Fig. 4.2.2–3b), a separate mixed mode where the dominant and its neighbouring degrees form the only semitones.

In analyzing the music of Sibelius it is important not to mix these heptatonic mixed modes with a hexatonic whole-tone scale (Fig. 4.2.2–3c). Therefore in this study, short of a compelling reason (cf. Fig. 4.2.2–4 [op. 63:I:72–74]), terms such as “whole-tone tetrachord” and “whole-tone pentachord” are avoided, whereas the term “whole-tone scale” is mainly reserved for collections of six successive whole-tones. In a whole-tone scale one of the major seconds is written as a diminished third in order to keep the

orthography simple.[194] In this study the term interchange is reserved for heptatonic scales. In connection with scales that contain different number of degrees (hexa-, hepta- and octatonic), the criteria necessary for interchange (see above) become incommensurable.

Fig. 4.2.2–3 a–c. Mixed modes that resemble whole-tone scale.



Sibelian interchange mostly involves *pitch-alternatives* for only one degree. This kind of interchange takes place either in the tonic pentachord or in the dominant tetrachord. For example, in the former case C Ionian may be followed by C Aeolian-Ionian. In the latter case C Ionian may be followed by C Mixolydian. There is one exception to this rule. In interchange concerning the fifth degree (e.g. G# WH-Locrian followed by G# Aeolian; the pitch-alternatives for the fifth degree being D natural and D sharp), both the tonic pentachord as well as the dominant tetrachord change (see Fig. 5.1.3–3 [op. 112:1–5]). Sibelian interchange involving more than two degrees at the same time is rare. In this case these may separately involve both the tonic pentachord and the dominant tetrachord. Even in interchange that involves three degrees at the same time, a major-like or minor-like scale quality may be preserved, even when interchange is dense and there are several modes in succession.

As an analytic tool interchange may offer a simple explanation for alterations that do not – even temporarily – lead to the domain of a different tonic (see Fig. 5.1.3–3 [op. 112:1–7], Fig. 7.1.1–1 [op. 49:159–161], Fig. 7.1.3–1 [op. 109 no. 2/I:1–4]).[195] Thus interchange offers pitch-alternatives for e.g. the seventh degree of the scale (i.e. leading-tone and subtonic; see Fig. 4.2.4–3 [op. 63:I:6–12], Fig. 8.2.1–1 [op. 39:I:108–109]). Interchange may turn out to be the basic scalar device even in connection with abundant surface level chromaticism (see Fig. 7.2–1i [op. 112:143–152]).

In neo-modality major and minor scales may occur in the melodic surface level (see chapter 3.6). They also may occur as reference scales concerning the level of harmonic basis on which the formal structure depends. In this sense they operate as major and minor *keys*. Modes may also utilize both these levels. From point of view of the major-minor system the different

[194] In this respect the whole-scale is similar to other cases of equal division of the octave (by major thirds, by minor thirds, or by tritones) wherein "Either the divisions are unequal, or they are not divisions of an octave" (see Cohn:1996:9–10).

[195] A traditional example of this kind of chromaticism is the Picardy third.

relations with respect to the modes can be presented in the form of the following table.

	major or minor in the surface level	mode A in the surface level
major or minor in the deep level	1. major or minor in both levels	2. mode A in the surface level, major or minor in the deep level
mode B in the deep level	3. major or minor in the surface level, mode B in the deep level	4. mode A in the surface level, mode B in the deep level

In the simplest case 1. the same scale rules both melodic surface and harmonic basis, i.e. the deep level. If "mode A" is in both margins in the table, the situation in case 4. would be similar to case 1., with only the ruling scale in both levels being a mode. In case 2. where major or minor scales operate in the deep level and in the surface level there is a mode that shares the same tonic, it is justified to speak about "coloristic" employment of this mode (see Fig. 5.1.1–1 [op. 25:I:13–20], cf. chapter 2.1.4; Wood). Yet in the opposite case 3. where a mode operates in the deep level and in the surface level there is a major or minor scale that shares the same tonic, it is equally justified to speak about "coloristic" employment of major or minor scales. Finally, in case 4. different modes may operate both in the surface and deep levels that share the same tonic (see Fig. 4.2.4–3 [op. 63:I:6–12]).

In the last three cases above, there are at least two simultaneous heptatonic scales that include different pitch-alternatives and share the same tonic. This situation – even including major or minor scales – in this study is termed *polymodality*. Besides between different levels as shown in the above table, polymodality may also occur in the surface level itself (see Fig. 4.2.2–4 [op. 63:I:72–74]). In polymodality, dominant tetrachords of the scales may differ (e.g. C Ionian/C Mixolydian), or tonic pentachords (C Ionian/C Lydian), or both (C Ionian/C Phrygian). In general, the more pitch-alternatives there are between the scales, the more notable the polymodal contrast.

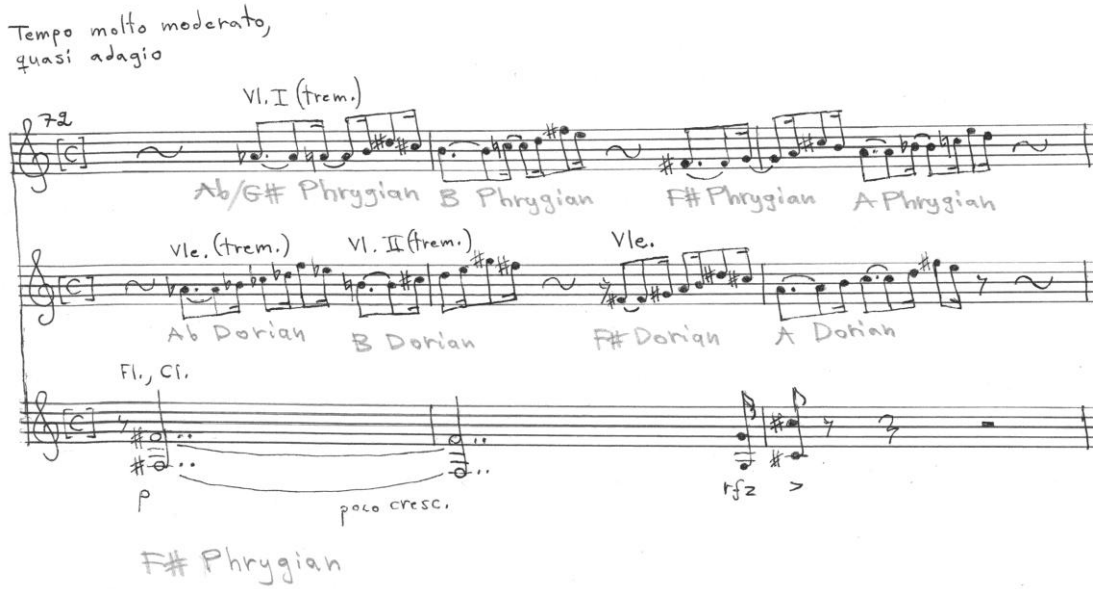
In the tonal tradition polymodality was a marginal phenomenon of a temporary nature, while in the music of Sibelius it is an important compositional resource that may rule even during a section of form. This resource is given weight by the fact that in Sibelius' music there are many heptatonic scales and therefore the possibilities for numerous polymodal combinations – hitherto unheard – are open.

In Fig. 4.2.2–4 there are two stretto successions of two-part adjustments each of which covers three crotchets. In these a Dorian hexachord-motive (roots: A flat and B, F sharp and A) is always followed by a Phrygian pentachord-motive (roots: A flat/G sharp and B, F sharp and A) that shares the same tonic. These motives in stretto quasi-imitation are built by adding

one or two additional tones before the motive that opens the symphony. In order to concentrate on the polymodal template on which bars 72–87 are built,[196] only the two-part adjustments have been taken into consideration, whereas other contrapuntal parts, such as whole-tone pentachords (in bars 71–72 and 74–75), as well as tetrachords and trichords, are left out.

It is worthwhile noticing that the rising motive (Fl., Cl.) covering bars 72–74 – that may be considered a gapped F sharp-rooted Phrygian pentachord (see section 4.2.3) – in bars 73–74 modally coincides with the Phrygian pentachord of the F sharp-rooted polymodal adjustment. This kind of relation also takes place three times later (in bars 77, 83, 85–86) when the rising motive appears (roots: F sharp – G – A flat – A natural), mainly in the low register.

Fig. 4.2.2–4. Polymodality in chromatic context. Fourth Symphony op. 63 (1911) 1. mvt. bars 72–74.



[196] During bars 72–87 the polymodal two-part adjustment appears nineteen times. The one that stands in A flat or G sharp appears four times. The adjustments in B, in F sharp, in D sharp, in F and in D appear twice. Those in C, in G and in B flat occur once. The levels C sharp/D flat and E are not used. Thus quantitatively in this passage the most densely shifting tonics containing 19 adjustments utilize 10 pitches out of the 12 possible. Bars 72–87 can be grouped into four phases of which phase I (bars 72–75) is opened in A flat, phase II (bars 75–79) in D sharp, phase III (bars 80–85) in D sharp, phase IV (bars 85–87) again in A flat. The four two-part adjustments in A flat/G sharp are twice followed by ones in B (in stretto), twice by ones in D sharp (immediately, but not in stretto). Qualitatively there is the relation A flat/G sharp–D sharp (i.e. fourth or fifth) twice between the adjustments, as well as once between B–F sharp (in bar 73) and F–C (in bars 81–82). To my mind these quantitative and qualitative features make spurious the assumptions about '12-tone system' and 'atonality' in the first movement of op. 63 (cf. Downes, chapter 12.8 footnote 366).

In this study the term polymodality is reserved for heptatonic scales. The simultaneity of different scales either or both of which contain more or fewer degrees than a heptatonic scale (e.g. hepta- and octatonic, heptatonic and whole-tone, or different kinds of octatonic scales) is called *polyscality* (see Fig. 10.5.2–1 [op. 82:I:18–24], see Fig. 10.3.1–1 [op. 82:I:274–290]). In polyscality it is possible that the scales involved produce all twelve pitch-classes of the chromatic scale. Yet characterizing this kind of polyscality as "twelve-tone music" is hardly adequate.

4.2.3 PENTACHORDS IN MELODIES

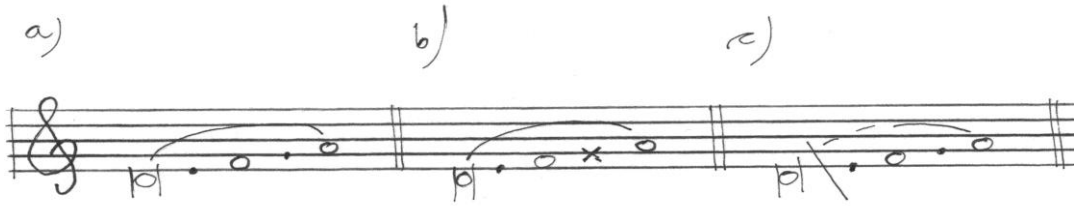
A tonic pentachord may reveal itself both spatially and temporally. Spatially, tonic (formerly: finalis) and dominant (formerly: tenor) act as the tones from which the leaps begin and on which they end, and as turning-points of scalic motion. Temporally, tonic and dominant in a pentachord act as beginning and/or terminating tones, as temporally dominating tones, and as rhythmically stressed tones.[197]

In any heptatonic scale, pentachordal modal melodies may be divided into five classes according to their ambitus. As much as possible the D Dorian pentachord is used in illuminating these classes.

In the first class there are melodies that are based on the tonic pentachord (D E F G A; Fig. 4.2.3–1a). In this first class there are three groups. In *the first group* there are melodies that utilize the *complete* pentachord. In *the second group* of the first class fall those melodies where between tonic and dominant there is some degree that is not utilized at all (e.g. D E F _ A; Fig. 4.2.1–1b) [op. 73:5–10]. These kinds of tonic pentachord may be termed *gapped* (in the figures the gap is shown by a marker). In *the third group* of the first class lie those melodies where the tonic of the pentachord is not utilized (e.g. _ E F G A; Fig. 4.2.1–1c) in the line, but it is presented in accompaniment (D\E F G A). This kind of tonic pentachord is termed *shared* [cf. op. 114:II:1–3]. Yet a *rootless tonic pentachord* is never completed by another component. In order to differentiate it from a tetrachord, or from a *short* pentachord that always includes a tonic and thus is not rootless, the tonal context must be taken into consideration.

[197] Cf. Roiha 1956:41–42.

Fig. 4.2.3–1 a–c. Complete, gapped and shared tonic pentachord.

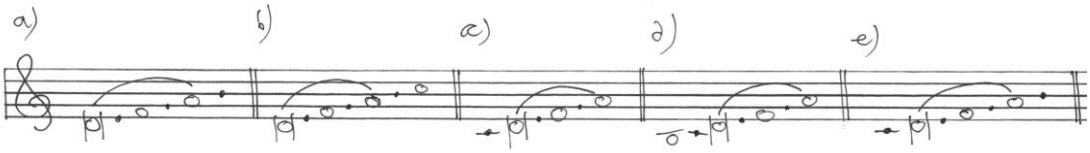


In the second class are those melodies that are based on *short pentachords*. The tonic tetrachord (D E F G; Fig. 4.2.3–2a), as well as the tonic trichord (D E F; Fig. 4.2.3–2b) may be considered short pentachords. The missing degree or degrees do not prevent the tonic from ruling a short pentachord. Besides a minor (or Dorian or Aeolian) tonic tetrachord there may also be a major (or Ionian or Mixolydian) tonic tetrachord (Fig. 4.2.3–2c) as well as Phrygian (Fig. 4.2.3–2d) and Lydian (Fig. 4.2.3–2e) tonic tetrachords. Also, aside from a minor (or Dorian or Aeolian) tonic trichord there may be a major (or Ionian or Lydian or Mixolydian) tonic trichord (Fig. 4.2.3–2f), as well as the Phrygian tonic trichord (Fig. 4.2.3–2g).

Fig. 4.2.3–2 a–g. Tonic tetra- and trichords as short pentachords.

In the third class there are melodies where the tonic pentachord is extended by additional tones. In these *extended pentachords* the ambitus does not reach the octave (cf. section 4.1.1). This third class may be divided into two groups. *The first group* of the third class includes extended complete pentachords. A tone above the pentachord extends it to a hexachord (D E F G A + B; Fig. 4.2.3–3a). Two additional tones above the pentachord extend it to a heptachord (D E F G A + B C; Fig. 4.2.3–3b). This was the case that Sibelius presented in the lecture fragment (see section 4.1). Below the pentachord an extending tone is a subtonic (C + D E F G A; Fig. 4.2.3–3c; cf. Fig. 5.1.3–5 [op. 34:VIII:1–3]), or a leading-tone (i.e. C#) depending on the scale. Below the subtonic a submediant may be added further (B C + D E F G A; Fig. 4.2.3–3d; cf. Fig. 11.5–2 [op. 52:II:93–98]). The subtonic may also be located below a hexachord (C + D E F G A + B; Fig. 4.2.3–3e).

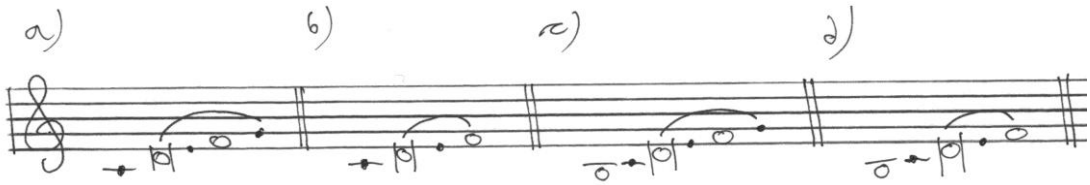
Fig. 4.2.3–3 a–e. Extended tonic pentachords.



The extension of a gapped pentachord to a gapped hexachord, or the extension of a shared pentachord to a shared hexachord (cf. Fig. 7.3–4 [op. 114:II:8–11]) are rare.

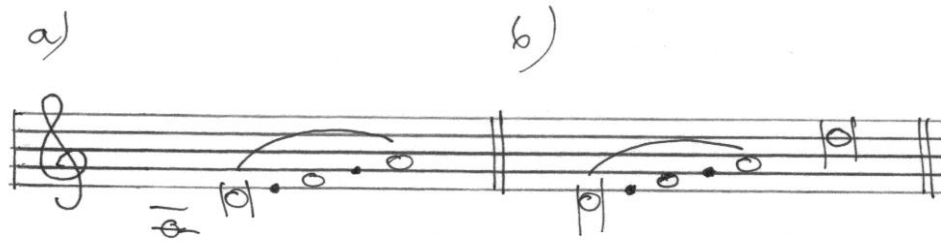
In *the second group* of the third class are *short pentachords* that are extended. In the music of Sibelius there are numerous extended tonic tetra-, as well as trichords. In an extended tetrachord, or extended trichord either a subtonic (C + D E F G; Fig. 4.2.3–4a, C + D E F; Fig. 4.2.3–4b) is added, or both a subtonic and a submediant are added (B C + D E F G; Fig. 4.2.3–4c; see Fig. 5.3.3–1 [op. 18:IV:1–5], B C + D E F; Fig. 4.2.3–4d).

Fig. 4.2.3–4 a–d. Extended short tonic pentachords.



In the fourth class there are complete extended pentachords where extensions are made by means of octave-doublings. In this fourth class the ambitus does reach the octave. A pentachord may be extended by adding octave-doubling of its dominant below it (Fig. 4.2.3–5a; see Fig 8.4–1 [op. 70:1–5]), or adding octave-doubling of its tonic above it (Fig. 4.2.3–5b).

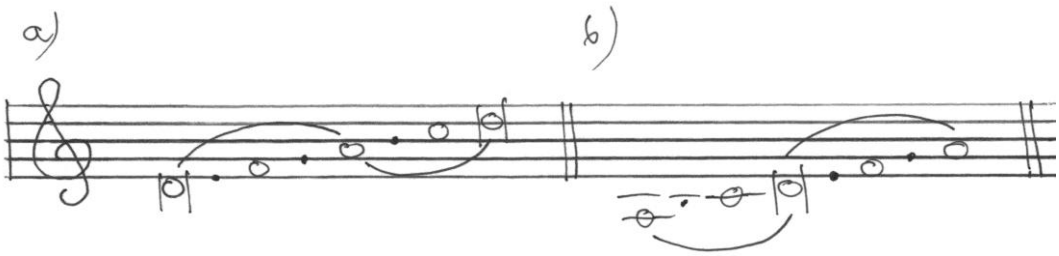
Fig. 4.2.3–5 a–b. Complete tonic pentachords extended by octave-doublings.



The fifth class contains melodies where there are “seven tones within an octave” (as Sibelius put it in his audition lecture; see section 4.1.1). Since in these melodies the tonic pentachord still rules, they may be viewed as combinations of both ways of extension dealt with above. An authentic mode

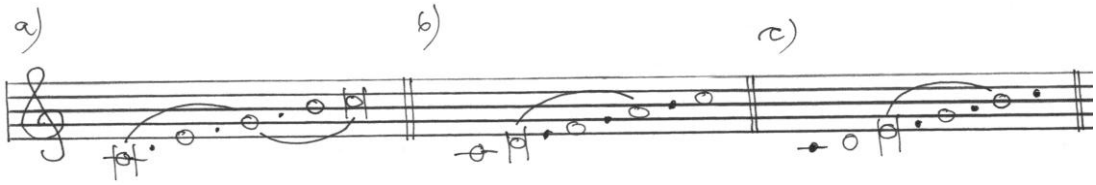
contains conjunctively a tonic pentachord and a dominant tetrachord (Fig. 4.2.3–6a), while a plagal mode conjunctively contains a dominant tetrachord and a tonic pentachord (Fig. 4.2.3–6b).

Fig. 4.2.3–6 a–b. Tonic pentachords extended to authentic and plagal modes.



Recognizing the tonic pentachord is helpful in defining any heptatonic mode in the music of Sibelius. The ambitus as such will not suffice. There is the possibility that an authentic scale (Fig. 4.2.3–7a) and e.g. a heptachord extended by the subtonic (Fig. 4.2.3–7b; cf. Fig. 8.2.1–1 [op. 39:I:108–111; the collateral line), or a hexachord extended by the subtonic and submediant (Fig. 4.2.3–7c) share the same ambitus.

Fig. 4.2.3–7 a–c. Extended tonic pentachords that fill up the same ambitus.



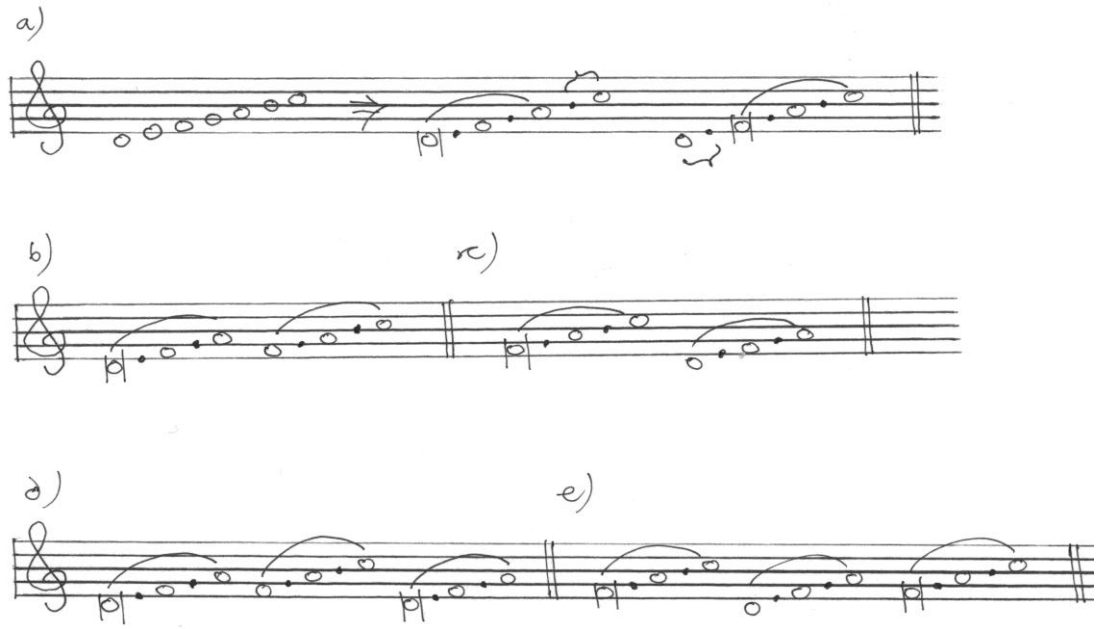
Melodies where an authentic or plagal scale is extended beyond the octave in one way or another are not separately classified (see Fig. 11.3.1–5 [op. 7:II:93–96]).

4.2.4 PENTACHORD-SUCCESSIONS

Some collections, such as a heptachord or submediant-subtonic below a pentachord may offer platforms for overlapping complete pentachords. Thus it is possible to consider a heptachord D E F G A B C as an extended D Dorian pentachord (D E F G A + B C; see Fig. 4.2.3–3b), but also as an extended F-Lydian pentachord (D E + F G A B C) where the extension stands below this pentachord (Fig. 4.2.4–1a). In this figure both the pentachords are shown as tonic in order to illuminate the extensions. Under certain temporal and spatial conditions both pentachords are traceable in a melodic curve (see the beginning of section 4.2.3). If this is the case, a *pentachord-succession*

emerges. In this the order of pentachords may be lower – upper (Fig. 4.2.4–1b), or upper – lower (Fig. 4.2.4–1c), or combinations of these (Fig. 4.2.4–1d, –1e). In the two latter successions the pentachords do alternate. In each of these figures (4.2.4–1b, –1c, –1d and –1e) only one of the pentachords is considered the tonic one (cf. Fig. 4.2.4–3 [op. 63:I:6–12]), yet the term pentachord is used for both of them. In these figures the changing tonic in the sense of Fig. 4.2.4–1a would mean modulation between scalarly associated modes (see section 4.2.2). It is also possible that none of the pentachords in a succession is the tonic in a prevailing mode (see Fig. 4.2.4–4 [op. 9:118–119], see Fig. 4.2.5–2 [op. 52:I:61–63]).

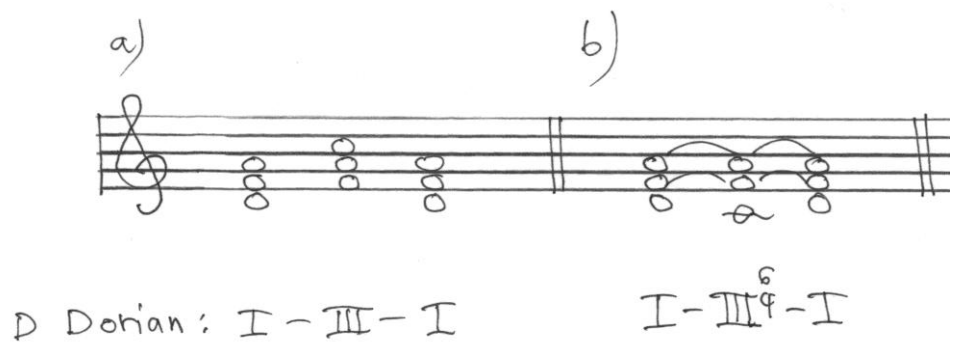
Fig. 4.2.4–1 a–e. Pentachord-successions.



In the level of harmonic reduction a pentachord-succession (e.g. Fig. 4.2.4–1d) may be shown as a succession of third-related triads (e.g. D Dorian: I–III–I; Fig. 4.2.4–2a). With regard to voice-leading, any reduction of a pentachord-succession differs from a traditional harmonic *progression* where voice-leading is parsimonious and consecutive fifths are avoided (Fig. 4.2.4–2b).[198]

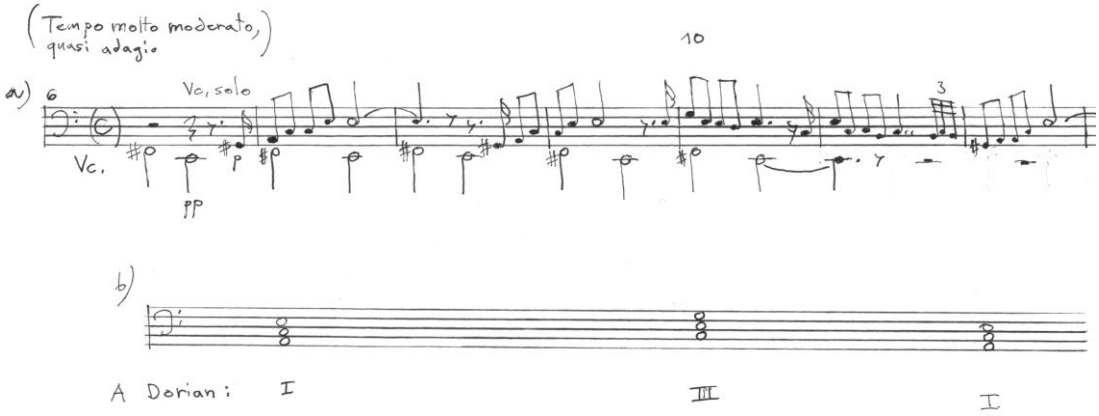
[198] This kind of progression opens *Pohjola's* Daughter op. 49 (bars 1–9) and practically closes the Romance in C major op. 42 (bars 62–65).

Fig. 4.2.4–2 a–b. Harmonic reductions of a succession and a progression.



In Fig. 4.2.4–3a a line carries out a pentachord-succession involving the tonic and mediant triads (A Dorian: I–III–I; Fig. 4.2.4–3b). An undulating *tardy line* (see chapter 5.1.1) below the melody ceases on the dominant of the mode that is included in both the triads. In the line in the surface level there is an interchange A Aeolian-Ionian – A Dorian – A Aeolian-Ionian (see section 4.2.2). If both the surface and the deep levels are taken into consideration, there is the fourth polymodal situation (see section 4.2.2). In the melodic surface the leading-tone G sharp of A Aeolian-Ionian appears, while in the level of the harmonic basis the subtonic G natural of A Dorian rules.

Fig. 4.2.4–3 a–b. A theme based on a pentachord-succession. Fourth Symphony op. 63 (1911) 1. mvt. bars 6–12.

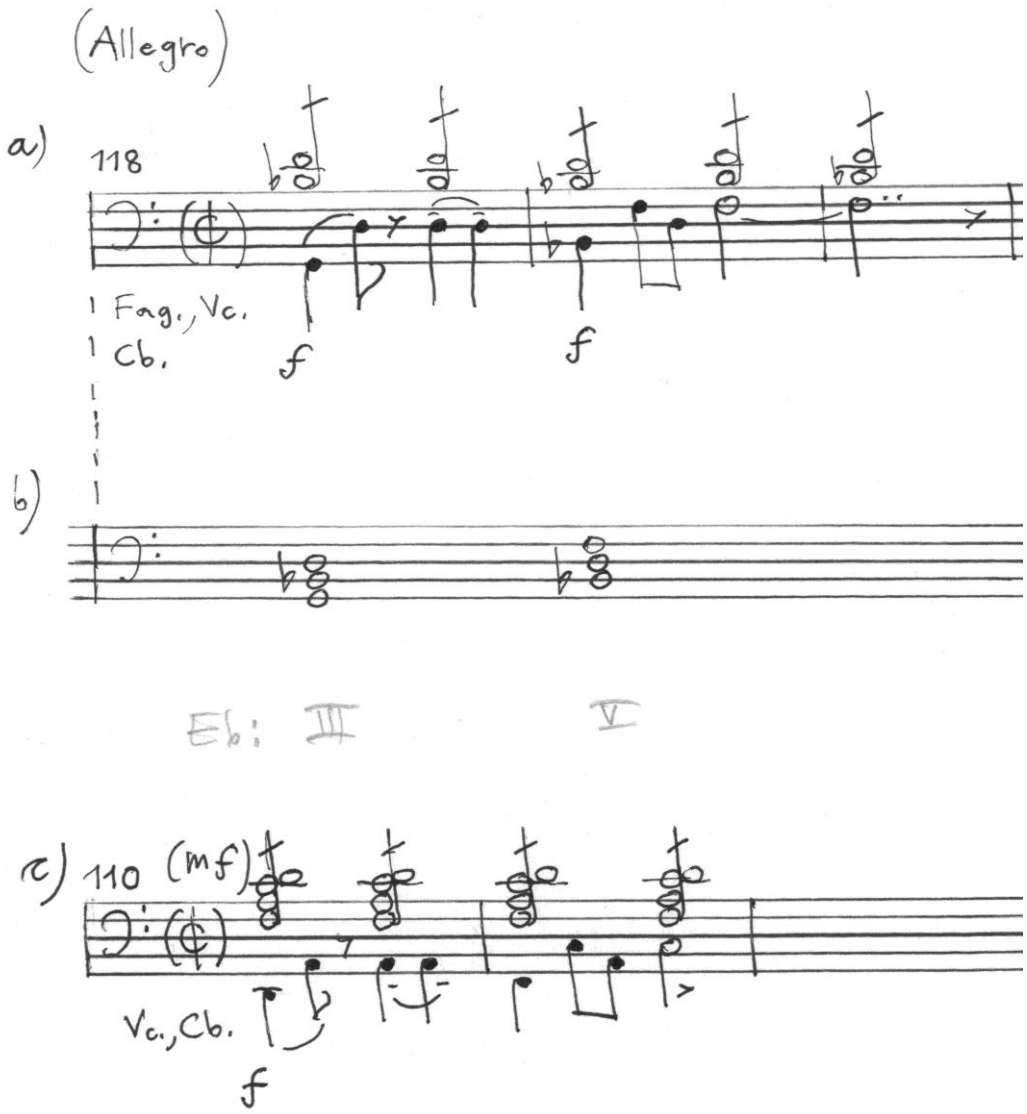


In polymodality the pitch-alternatives of the same degree (in Fig. 4.2.4–3 they were G sharp, G natural) may occur at different times. They may also occur simultaneously, in which case the augmented unison between the pitch-alternatives manifests itself as a *polymodal clash*. Irrespective of the temporal relation of the pitch-alternatives, in polymodality neither of them should be considered an altered tone.

In Fig. 4.2.4–4a there is a pentachord-succession in the bass part. The sustained upper parts are included in the mediant and dominant triads (E

flat: III–V; Fig. 4.2.4–4b). Here the key is decided according to the following section, which reaches its harmonic destination in bars 141–151. Unlike in bars 110–111 where a D-rooted minor seventh chord is dissolved (Fig. 4.2.4–4c), in bars 118–119 a repeated dynamic marking (*f*) by Sibelius – under the dominant triad – may be needed. It underlines the pentachord-succession**.** Here it means that the root changes in it, thus the B flat-rooted major triad does not function as an upper sub-triad of a dissolved formation G–Bb–D–F (see section 4.4).

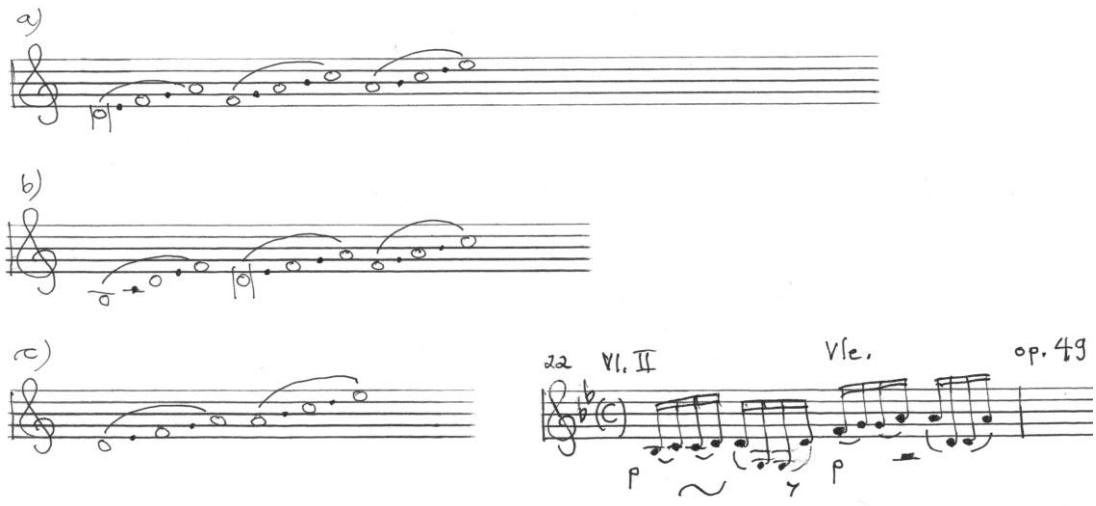
Fig. 4.2.4–4 a–b. A bass theme based on a pentachord-succession. *En saga* op. 9 (1892/1902) bars 118–119.



4.2.5 WIDER PENTACHORD-SUCCESSIONS

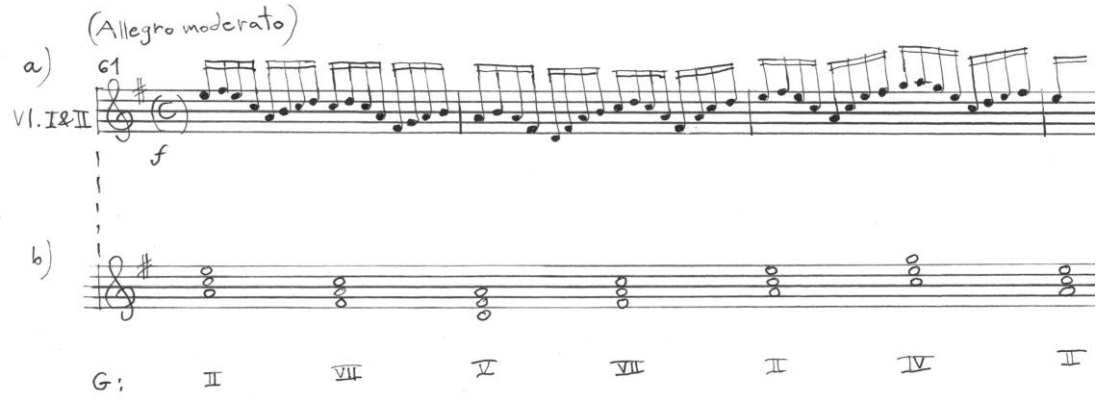
In the music of Sibelius there are melodic formations where more than two third-related pentachords succeed each other. In this kind of chain every other pentachord is related by a fifth (Figs. 4.2.5–1a, –1b). In a pentachord-succession the interval of a fifth results from skipping over a link in a third-related chain (Fig. 4.2.5–1c).

Fig. 4.2.5–1 a–c. Wider pentachord-successions.



In Fig. 4.2.5–2a there is a pentachord-succession including four third-related pentachords. Two of them are major (D- and C- rooted), one is minor (a-rooted) and one is diminished (f sharp-rooted). In bars 61–66 the descending and ascending succession a–f sharp–D–f sharp–a–C (Fig. 4.2.5–1b) occurs twice. The rest of the *Satz* is eliminated here (see Fig. 5.7–1 [op. 52:I:60–67]).

Fig. 4.2.5–2 a–b. A descending and ascending pentachord-succession.Third Symphony op. 52 (1907) 1. mvt. bars 61–63.

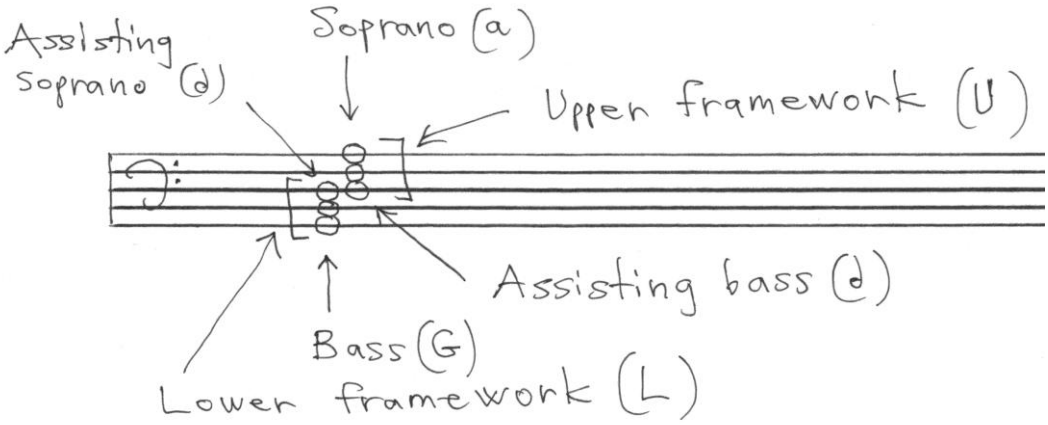


4.3 LAYERS AS A THREE-VOICE FRAMEWORK

In a sum-ninth chord (G–B–D+D–F–A) that is the sum of two sub-triads (D–F–A and G–B–D), it may be reasoned that each of these layers implies a separate *two-voice framework* (see chapter 3.4)*, the upper framework* (A and D) and *the lower framework* (D and G). In these a triad, as in any other chord-formation, results from several parts. The most important of them are bass and soprano, the *framing parts*. In a sum-chord the two frameworks pose a question concerning terminology. The terms such as “soprano I” and “bass I” for the topmost and lowermost tones of the upper D-rooted minor sub-triad (A and D), as well as “soprano II” and “bass II” respectively for the lower G-rooted major sub-triad (D and G) could do, but these terms are already used in choral music and there they have specific meanings in the domain of two-voice frameworks with more than four parts.

Therefore it is appropriate to suggest some new terms. In terms of voice-leading the lowermost tone of the G-rooted major sub-triad may be called *bass* (Fig. 4.3–1) and the lowermost tone of the D-rooted minor sub-triad may be called *assisting bass* (cf. section 4.6.1). The topmost tone of the upper sub-triad (A) may be called *soprano*. The topmost tone of the lower sub-triad (D) may be called *assisting soprano*.

Fig. 4.3–1. The basic terms in describing three-voice framework.



In this case the assisting soprano may be dispensed with, because it and the assisting bass *coincide*, i.e. meet in unison (G–B–D+D–F–A). Thus instead of four framing parts, there are three to be taken into consideration, namely – from top to bottom – soprano (A), assisting bass (D) and bass (G). Their combination may be coined a *three-voice framework* that in the music of Sibelius is far more common than a *four-voice framework* (in which two two-voice frameworks are combined). In describing sum-chords the harmonic content of a three-voice framework (as well as a four-voice framework) may be seized by only two parts, the assisting bass (D) and the bass (G). These terms thus have narrower and wider meanings. In the narrower meaning assisting bass and bass mean the parts themselves. In the wider meaning assisting bass and bass bear the harmonic content of the upper and lower frameworks in the manner of figured bass.

Thus a three-voice framework with e.g. six parts (as is the case in the lecture fragment) differs from a traditional six-part *Satz* where the framing parts are still soprano and bass, with four inner parts.[199] In a three-voice framework with five parts (a case different from that in the lecture fragment) the three topmost parts that lean on the assisting bass below them may together form a statutory four-part writing that proceeds above the bass.

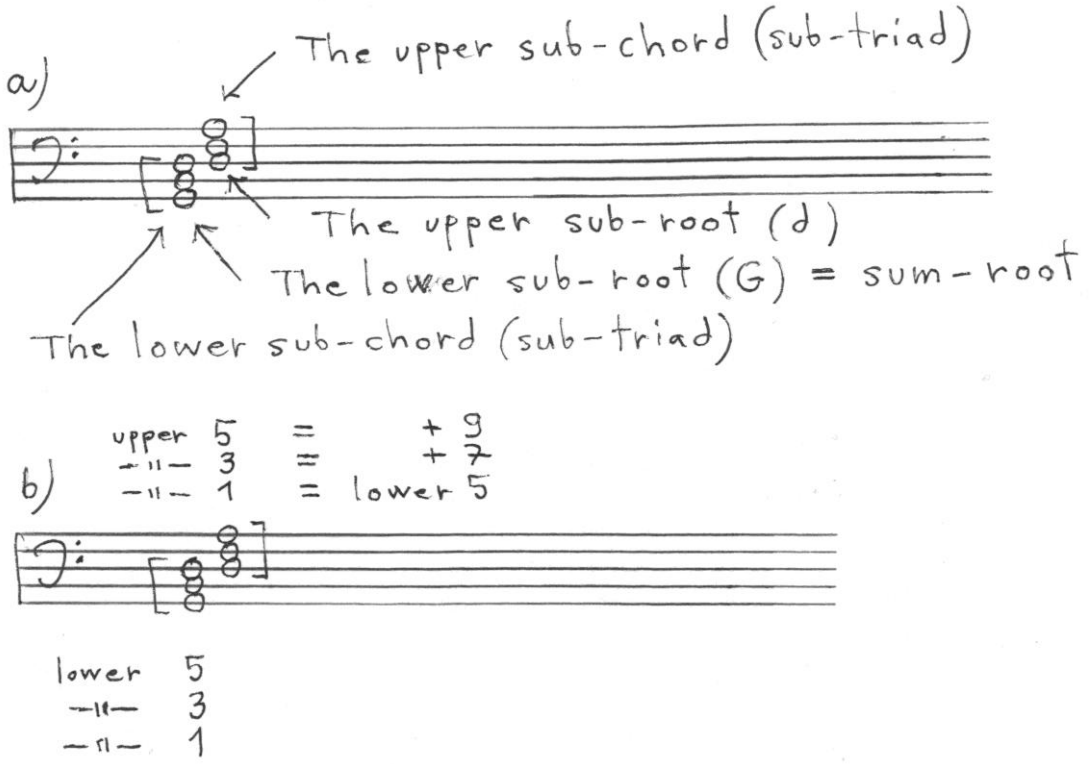
Besides the coinciding of assisting soprano with assisting bass, other framing parts may also coincide. The most important of these is the coinciding of assisting bass and bass into *mutual bass*. This is examined later (see chapters 5.6, 6.1.6).

From the point of view of harmony the roots of the upper and lower sub-chords may be called the *upper sub-root and lower sub-root*. The lower sub-root is perforce also the *sum-root*, i.e. the root of the whole sum-chord (Fig. 4.3–2a). In the sum-chord the factors of the upper sub-chord have a *twofold intervallic quality* (Fig. 4.3–2b). At the same time the upper root (u-1) is also

[199] See Kirnberger 1982 [1771, 1776]:189–190, 190–192, 192.

a lower fifth (l-5), the upper third (u-3) is also an added-seventh (+7), and the upper fifth (u-5) is also an added-ninth (+9). When twofold intervallic quality is under discussion, the term "upper" always refers to the position of a sub-chord in a regular (see section 4.1) chord-formation.

Fig. 4.3–2 a–b. The basic terms in describing additive harmony.



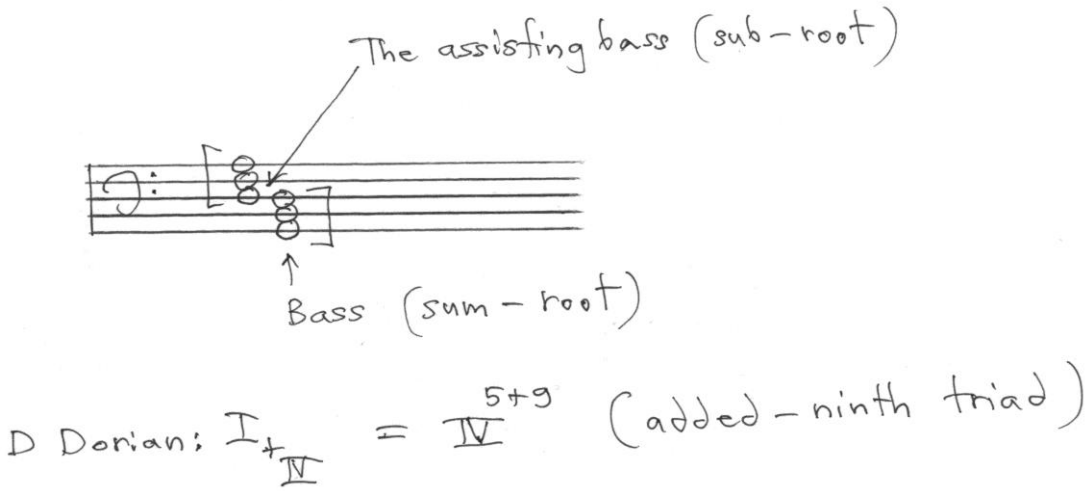
In this regular sum-chord (G–B–D+D–F–A) the sum-root (G) is also the bass and the upper root (D) is the assisting bass. The terms concerning harmony and voice-leading do match (Fig. 4.3–3). This theoretically clear situation seldom appears in the music of Sibelius where sum-chords more often than not deviate from regularity (see chapter 5.2). In this study all the sum-chords that are *irregular* (see chapter 5.2) are usually arranged into regular ones in the level of harmonic reduction in order to clarify their vertical layered structure, as well as the horizontal harmonic logic in them.

In describing sum-chords of a three-voice framework in terms of a two-voice framework (see the beginning of this section) the term *sum-bass* may be coined. A sum-bass combines within itself the content of the assisting bass (D Dorian: I) and the bass (D Dorian: IV). According to the conventional harmonic analytic notation, a plain Roman numeral denotes a triad.[200] In the harmonic analytic notation designed for this study, the sum-bass comes after

[200] Apart from major and minor scales, Roman numerals from I to VII suit any heptatonic scale equally well. It only remains to be noted that Roman numerals as such do not imply functional harmony.

an equals sign (D Dorian: I+IV = IV5+9).[201] The sum-bass contains the sum-root (D Dorian: IV) with two Arabic numerals that are separated by a plus-mark. The first Arabic numeral shows the size of the lower sub-chord. The number five specifies a triad. The second number shows the size of the sum-chord, in this case the added-ninth triad. The number nine also includes the seventh, unless otherwise mentioned.

Fig. 4.3–3. The terms concerning voice-leading and harmony do match in a regular sum-chord.



Earlier it was said (see section 4.1.1), that Sibelius did not declare this dominant-type "ninth chord" as a dominant chord in C major. In that case the sum-bass of these two simultaneous sub-triads in the same key would be C: II+V = V5+9 (see chapter 11.2).

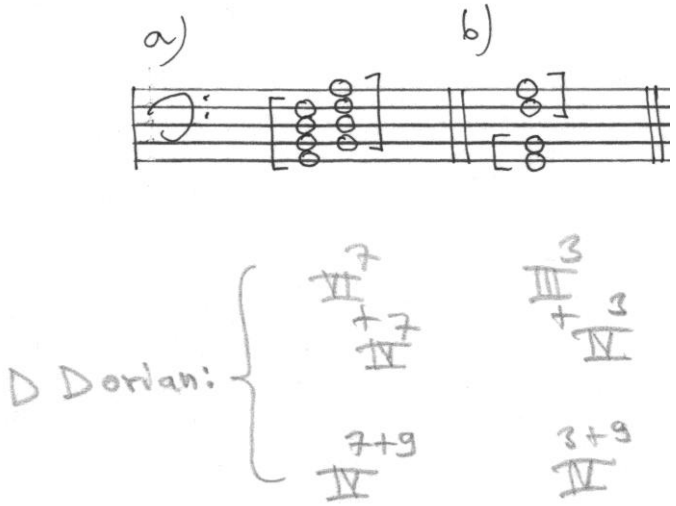
4.3.1 LAYERS ADDING UP TO A SUM-CHORD

In his lecture fragment Sibelius proposed two layers of the same width (see Fig. 4.1–1c). In this adjustment the sub-triads shared a common tone (D) and the assisting bass stood a fifth above the bass. The same sum-chord may also be achieved with other layer type. These may either be of the same or different width. The distance between the upper and lower roots may also be different. In the case of *sub-seventh chords* (i.e. chordal layers) the interval between the assisting bass and bass is a major third, while the sub-seventh chords overlap (D Dorian: VI7+IV7 = IV7+9; Fig. 4.3.1–1a). In the case of

[201] This harmonic analytic notation C: II+V = V5+9 is to be discerned from a partly similar marking II+V that Schenker used. In his theory the combination II+V (without the sum-bass) appeared in connection with altered chords. Schenker sees *the same* augmented sixth chord either as an altered supertonic chord in one key (e.g. II in F minor), or as an altered dominant seventh chord in another key (e.g. V in C major; see Schenker [1954]1980:279–281, 281–283, 283–287).

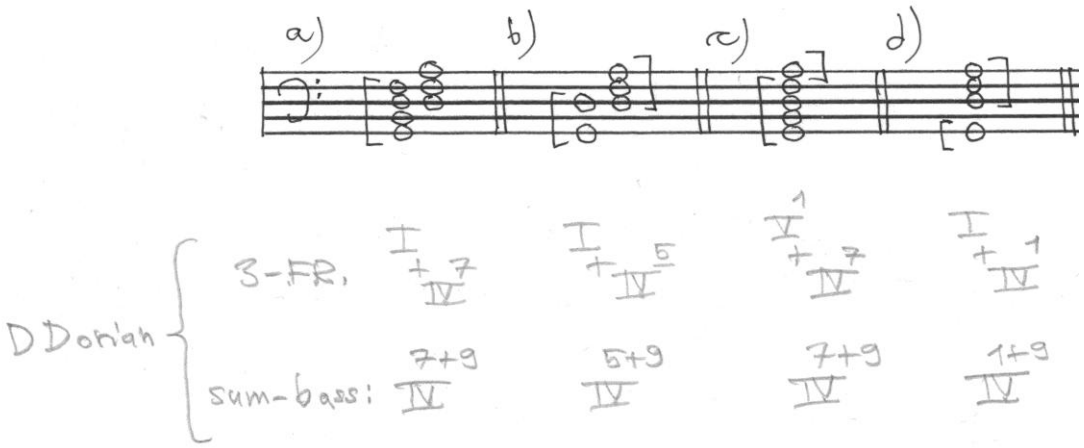
sub-dyads (i.e. intervallic layers) the interval between the assisting bass and bass is a minor seventh, while there is a gap between the *sub-intervals* (D Dorian: III3+IV3 = IV3+9 without a fifth; Fig. 4.3.1–1b). In a sum-chord an absent chord factor may be separately mentioned. The factors of a sub-interval may function as framing parts in a framework. In order not to mix sub-intervals with sub-chords of equal width, the dyads larger than a third will be marked by underlined Arabian numerals (D Dorian: IV5 = interval of a fifth, IV7 = interval of a seventh, IV9 = interval of a ninth). In all these sub-intervals there is a gap inside a layer. The first of them in particular may be considered a gapped triad, while the latter ones allow more than one harmonic interpretation. If there is a reason to pay attention to a gap in the analysis, in the running text the tone not sounding is marked by a lowercase letter in parentheses, e.g. G–B–(d)–F–A.

Fig. 4.3.1–1 a–b. The sum-ninth chord achieved by the layers of same width.



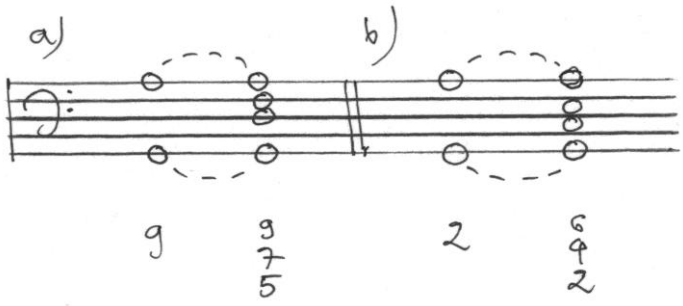
There are several possibilities when combining layers of different width (i.e. a sub-chord, a sub-interval, or a sub-tone). These combinations are different types of sub-chord (D Dorian: I+IV7 = IV7+9; Fig. 4.3.1–2a), a sub-chord and a sub-interval (D Dorian: I+IV5 = IV5+9; Fig. 4.3.1–2b), or a sub-chord and a single sub-tone (D Dorian: V1+IV7 = IV7+9; Fig. 4.3.1–2c, cf. Fig. 10.4–1 [op. 74:II:35–37]). In the case of sub-tones there are no frameworks, unless a hypothetic sub-chord is assumed (see Fig. 5.6–3 [op. 12:III:203]). Yet in harmonic analytic notation they are placed accordingly. In any case, a lower sub-tone can represent a sub-triad in a sum-chord (D Dorian: I+IV1 = IV1+9; Fig. 4.3.1–2d).

Fig. 4.3.1–2 a–d. The sum-ninth chord achieved by the layers of different width.



Besides sum-ninth chords, in Sibelius' music there are also sum-eleventh chords and sum-thirteenth chords. These often include sub-seventh chords (see Figs. 4.3.1–4a and –4c). According to Rameau "The interval of the ninth is the same as the interval of the second, but its chord is different. It is accompanied by the third, the fifth, and the seventh; thus 1, 3, 5, 7, 9. It is figured with a 9 alone".[202] Thus the signature 9 discerns the interval of the ninth (Fig. 4.3.1–3a) from the (compound) interval of a second of which the signature is six-four-two (Fig. 4.3.1–3b).

Fig. 4.3.1–3 a–b. The intervals of ninth and compound second.

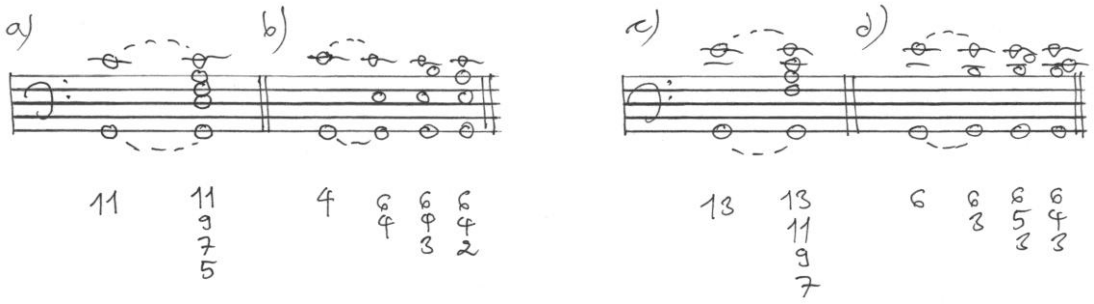


This criterion for differentiating the basic intervals from the compound ones holds good with sum-eleventh chords as well. In connection with a sum-eleventh chord (e.g. D Dorian: I7+IV1 = IV1+11; Fig. 4.3.1–4a) Rameau's quote could be adapted: the interval of eleventh is the same as the fourth, only its chord is different. It is accompanied by the fifth, seventh and ninth; thus 1, 5, 7, 9, 11. It is figured with an 11 alone, while the signatures in connection with the (compound) interval of a fourth are six-four, six-four-three and six-four–two (Fig. 4.3.1–4b). In the same way in connection with a

[202] Rameau 1722/1971:419 (Article I; On the Ninth).

sum-thirteenth chord (e.g. D Dorian: III7+IV1 = IV1+13; Fig. 4.3.1–4c) the intervals (1, 7, 9, 11, 13) discern it from the (compound) interval of a sixth (cf. chapter 7.3) that takes part in signatures six-three, six-five-three and six-four-three (Fig. 4.3.1–4d). In the harmonic analytic notation of this study the number 11 may include 9 and 7 (or either of them), whereas the number 13 includes various selections of 11, 9 and 7. In the wider chord-formations the missing chord factors are also indicated (e.g. D Dorian: IV11 without the third and fifth).

Fig. 4.3.1–4 a–d. The intervals of eleventh and thirteenth different from compound fourth and sixth.



In wider chord-formations seventh chords may function as sub-chords, but there may also be sum-seventh chords that consist of sub-triads. There are three types of sum-seventh chords. These are added-seventh chords (see section 4.4), added-root seventh chords (see chapter 5.3.2), and added-sixth chords (see chapter 5.3.2).

4.4 ADDED-SEVENTH TRIAD AND DISSOLUTION

Above pentachord-succession (section 4.2.4) and three-voice framework (section 4.3) have been separately discussed. In this section their interrelation is scrutinized. A pentachord-succession may *increase* and *decrease* a sum-chord. Increasing a regular stack of thirds upwards results in an *added-dissonance chord* (added-seventh, added-ninth, etc.). Increasing a regular stack of thirds downwards results in an *added-root chord* (added-root seventh, added-root ninth etc.). The device of *dissolution* occurs in connection with decreasing.

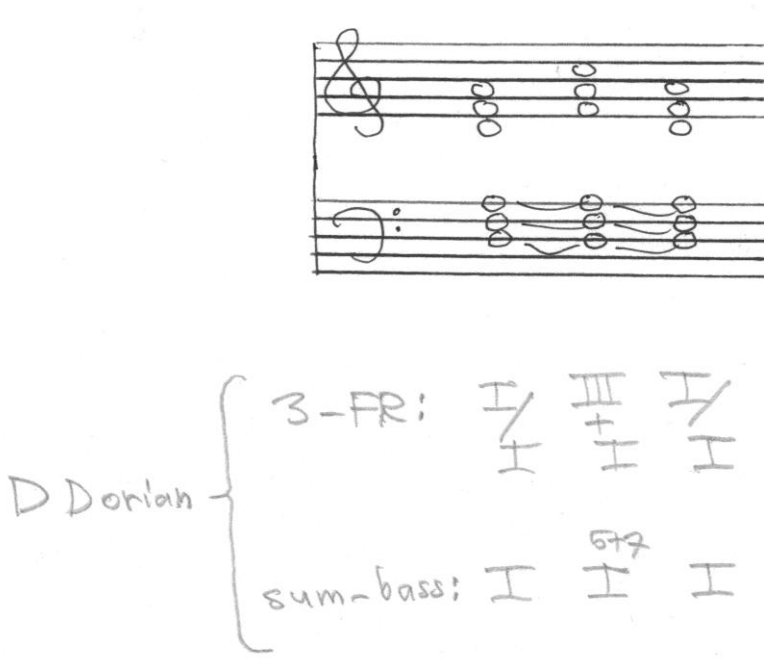
In the text above, voice-leading in a succession was discerned from voice-leading in a progression (see Fig. 4.2.4–2). Likewise the devices of increasing and decreasing are to be discerned from a harmonic progression in the traditional sense. Increasing and decreasing are merely changes in a stack of thirds (either regular or irregular) that, if the temporal dimension of these changes is included, may be called a *harmonic column*. Therefore increasing

and decreasing are the means of *columnal* process. At first the simplest combination of these is offered.

A pentachord-succession including two pentachords may be put against an accompanying layer that contains only the lower one of these pentachords. In Fig. 4.4–1 the previous pentachord-succession D Dorian: I–III–I (see Fig. 4.2.3–2a) proceeds during the tonic triad. In the reduction the roots of the sub-triads of the succession (d1–f1–d1) function as the assisting bass (see section 4.3). The sum of the layers is D Dorian: I/I – III+I – I/I = I – I5+7 – I.

Due to the sustained lower framework, in the sum-bass (i.e. D Dorian: I – I5+7 – I) the sum-root (D) does not change. As a result of the pentachord-succession the tonic minor triad is *increased upwards* into an added-dissonance chord, in this case a tonic added-seventh chord D–F–A + F–A–C, and this is then *decreased downwards* to the original minor triad. The content of the layers does not exceed the sum-chord. The increasing and decreasing that leads to and from a sum-chord, including the sum-chord itself, forms a harmonic *column* (see also section 4.5.3). Thus this pentachord-succession is a *columnal succession* at the same time.

Fig. 4.4–1. A harmonic column increasing and decreasing.



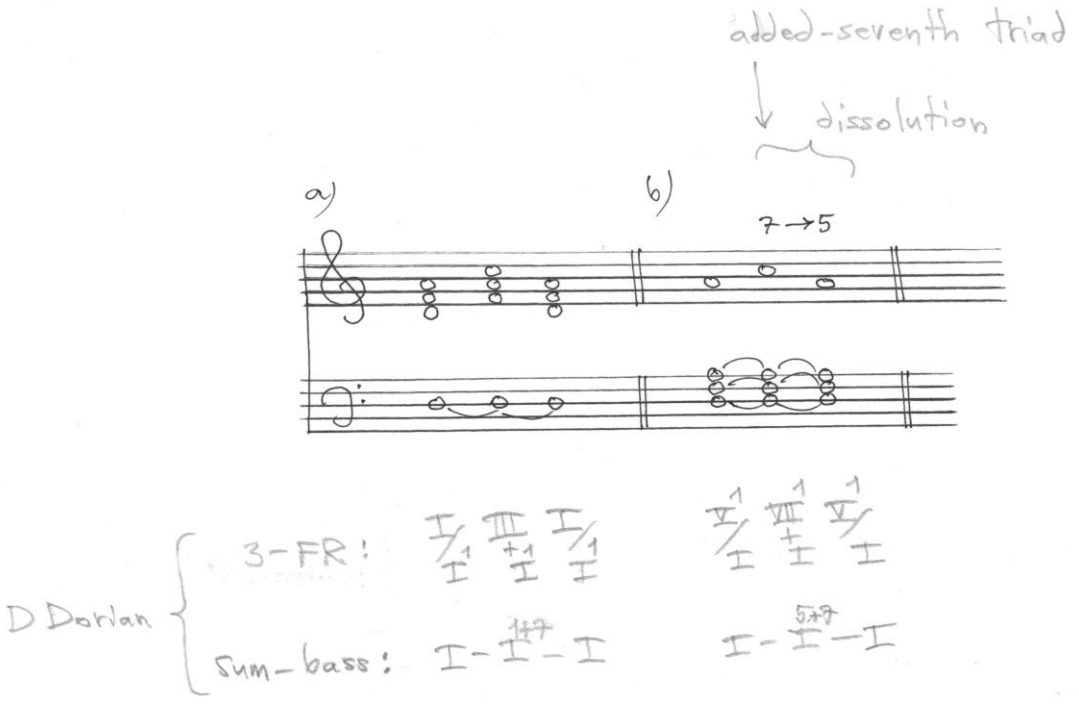
In Fig. 4.4–1 only the middle chord is a sum-chord, while the rest of the harmony, where the assisting bass and bass coincide, is non-additive**.** Yet these triads (doubling each other in octaves) may also be considered layered. It may be reasoned that immediately before and after the sum-chord there is *latent three-voice framework*. In the harmonic analytic notation the segments of it are separated by a slash (/). A latent three-voice framework is easy to indicate in terms of a two-voice framework (see section 4.3). It may

be imagined at the joints between a three-voice framework and a two-voice framework (see Fig. 7.4.1–1 [op. 106:IV:8–12]).

At the moment of decreasing a device occurs that has been called *dissolution*.[203] From the angle of a two-voice framework a harmonic dissonance, i.e. a minor seventh, descends by a leap of third to a consonance on the fifth. From the angle of a three-voice framework *the twofold quality of intervals* is utilized. The sum-seventh (C), as the fifth of the upper sub-triad, leaps to the fifth (A) of the lower sub-triad – that is also the third of the F-rooted upper sub-triad (see chapter 5.3.4). Yet in the harmonic analytic notation dissolution may be numbered in relation to the sum-root (mi7–5).

The column and the dissolution (though not the actual *Satz*) will be the same in the following alternatives. In Fig. 4.4–2a this pentachord-succession proceeds over a sustained tonic sub-tone (D Dorian: I/I1 – III+I1 – I/I1). The sum-bass of this is D Dorian: I – I1+7 – I. In Fig. 4.4–2b only the topmost tones of the reduction proceed above a tonic sub-triad (D Dorian: V1/I – VII1+I – V1/I). The sum-bass of this is D Dorian: I – I5+7 – I (cf. Fig. 4.2.4–3 [op. 63:I:6–12]). In this last alternative the sum-seventh chord is termed an *added-seventh triad*.

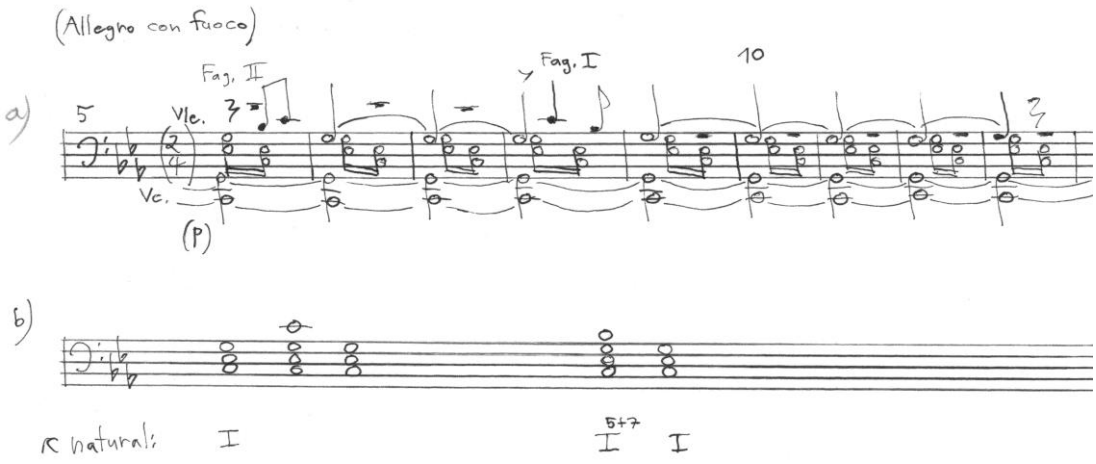
Fig. 4.4–2 a–b. The same columnal succession by layers of different width.



[203] Piston 1978:335–336 quotes the term dissolution; "... the resolution through arpeggiation of a dissonant factor [the ninth], a principle applied in common practice to no other dissonant chord (it is also called *dissolution* by some theorists)". Yet Piston also notices "rarely found" dissolutions of sevenths in dominant seventh chords (1978:235 Ex. 15–12a).

Dissolution may also occur irrespective of pentachord-successions (Fig. 4.4–3a). Bars 5–6 may be considered an embellished (mi7–8–5) dissolution, although the motion mi7–8 (see chapter 5.3) that releases the added-seventh triad into a minor triad, nullifies the dissolution as a harmonic device at the same time (Fig. 4.4–3b). This reduction concerning the subtonic B flat of C natural minor in Fig. 4.4–3b is done according to C minor, where there would be the leading-tone B natural as an incomplete neighbour note. Yet it may be asked – and this is not the only time in connection with Sibelian *Satz* – how far the ways of thinking applicable to the analysis of keys are applicable to modes. In bars 5–6 the subtonic B flat has more harmonic weight than B natural would have had. Thus also in case of embellished dissolution in bars 5–6 the subtonic may be heard as an added-seventh of c natural: I5+7.

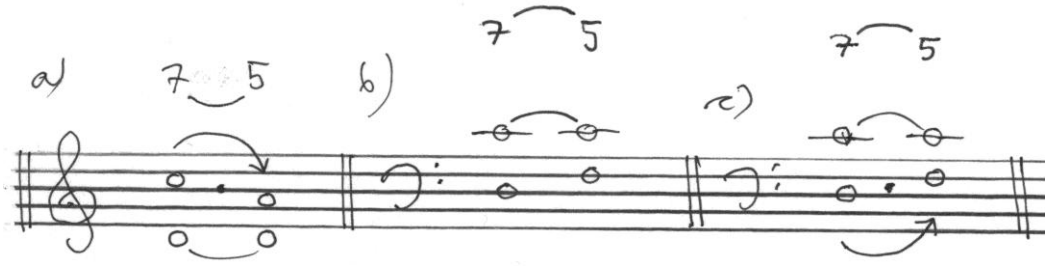
Fig. 4.4–3 a–b. Dissolution irrespective of a pentachord-succession. *Lemminkäinen's Return* op. 22 no. 4 (1895/1897/1900) bars 7–10.



Other kinds of embellishment are also possible (e.g. mi7–#4–5). In decreasing by step (which may also be coined *filled dissolution*) a passing tone fills the leap of a third (mi7–6–5; Fig. 4.4–4a). Since the goal of dissolution is only found after the embellishing or *filling tone* (i.e. 7–x–5), this 7–6 in the whole 7–6–5 pattern is not to be considered a resolution of a dissonance, even when the embellishing or filling tone is harmonically a consonance.

The corresponding leaping as well as filled motions may also be encountered as textural inversions. In their regular forms 7–5 ascending (Fig. 4.4–4b) and 7–x–5 ascending (Fig. 4.4–4c) they take place between the bass and an upper part (see chapter 5.3.4, chapter 7.3).

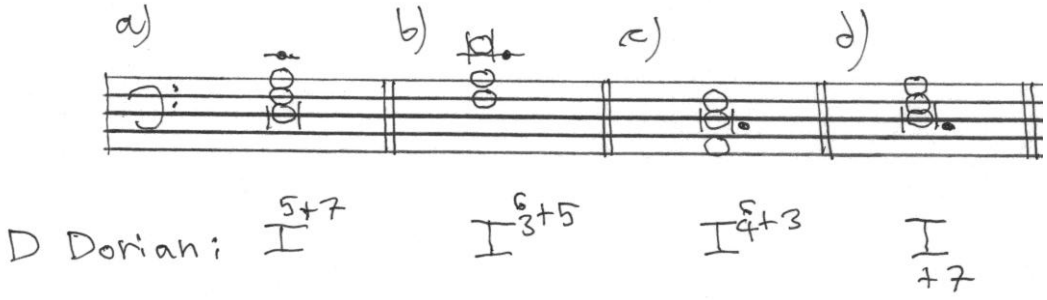
Fig. 4.4–4 a–c. Filled dissolution and its textural inversion.



Akin to the traditional seventh chord, an added-seventh triad (Fig. 4.4–5a) may also be inverted. In each figure the root is indicated by the breve and the added-seventh by a blackened note-head. In close position in the first inversion, in an added-fifth sixth chord (Fig. 4.4–5b), the added-seventh is located below the sixth of a six-three chord. An added-fifth sixth chord is a common sonority in the music of Sibelius, e.g. in dissonant thickenings (see Fig. 7.1.2–1a, see Fig. 8.1.2–4c [op. 82:II:209–210]). In the second inversion, in an added-third six-four chord (Fig. 4.4–5c), the added-seventh is located below the fourth of a six-four chord. In the third inversion, in an added-seventh below the root of the triad (Fig. 4.4–5d), the added-seventh functions as the bass tone.

In an added-seventh triad the seventh behaves in a manner different from a traditional seventh chord (cf. chapter 5.3). In order to illuminate this it is appropriate to discern it from the latter by means of nomenclature.

Fig. 4.4–5 a–d. Added-seventh triad and its inversions.

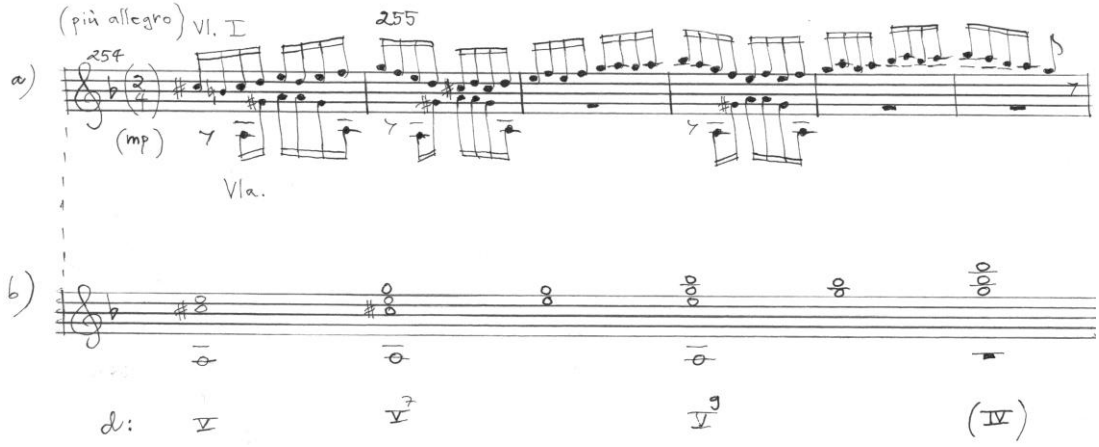


4.4.1 WIDER PENTACHORD-SUCCESSIONS AND MANIFOLD DISSOLUTION

A manifold ascending pentachord-succession that proceeds above a sustained lower sum-root (Fig. 4.4.1–1a) increases a sum-chord upwards to wider chord-formations than a sum-seventh chord. In Fig. 4.4.1–1b the three-voice framework d: VII+V1 – II+V1 – IV/- results in a sum-bass d:

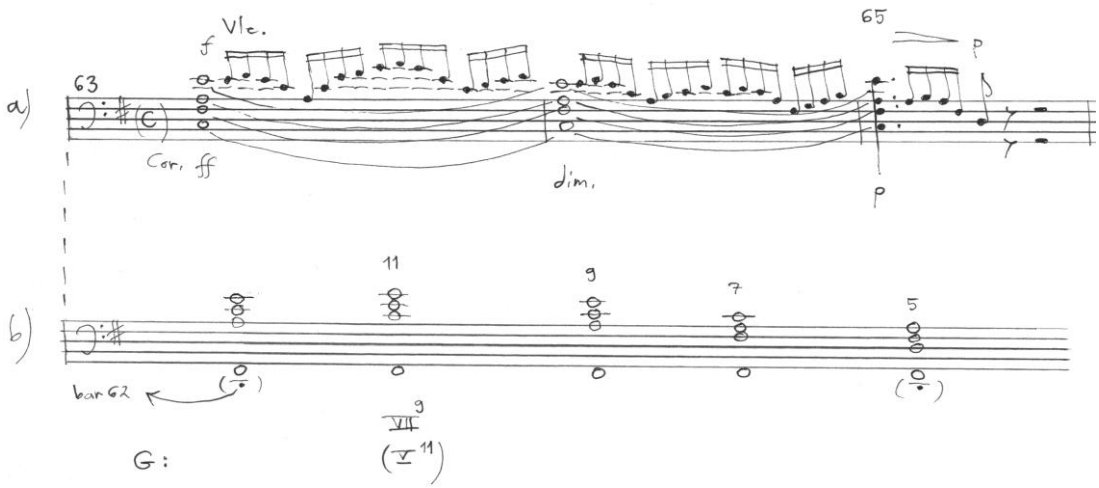
V1+7 – V1+9 – IV. The device of ceasing bass (Fig. 4.4.1–1b) is dealt with later (see chapter 6.1.3).

Fig. 4.4.1–1 a–b. An ascending manifold pentachord-succession. *Voces intimae* op. 56 (1909) 5. mvt. bars 254–259.



A reduction of the manifold succession in Fig. 4.2.5–2 [op. 52:I:61–63] may serve in illuminating a manifold dissolution. Locally this occurs over a sustained half-diminished seventh chord (9–7–5 over G: VII four-three), but in the context of bars 61–67 this may be viewed as a dissolution 11–9–7–5 over G: V11 in the 3rd inversion (Fig. 4.4.1–2 a–b; see Fig. 5.7–1 [op. 52:I:61–67]).

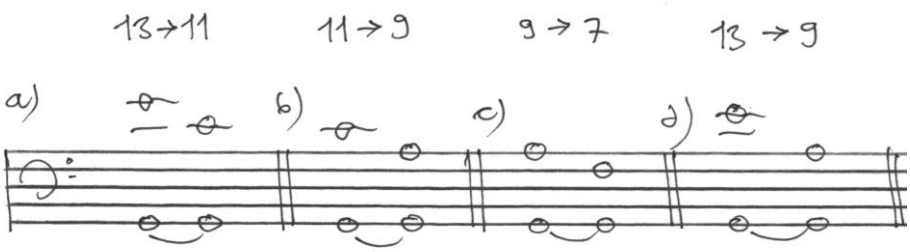
Fig. 4.4.1–2 a–b Manifold dissolution in a descending pentachord-succession. Third Symphony op. 52 (1907) 1. mvt. bars 63–65.



In a line the numbers 13–11 shows the dissolution of the thirteenth (Fig. 4.4.1–3a), numbers 11–9 the dissolution of the eleventh (Fig. 4.4.1–3b) and numbers 9–7 the dissolution of the ninth (Fig. 4.4.1–3c). All these may of course be filled (13–x–11, 11–x–9, 9–x–7; see Fig. 5.7–1 [op. 52:I:61–67]).

Dissolution needs not necessarily proceed to the nearest dissonance: one member of the dissonant chain may also be skipped over (e.g. 13–9; Fig. 4.4.1–3d).

Fig. 4.4.1–3 a–d. Different kinds of dissolution.



4.5 CHORD-FORMATIONS IN REFLECTION

All the various concepts and devices above are in some way related to the lecture fragment. This perusal offers us some points to be reflected upon. Firstly a glance is cast on how ninth, eleventh and thirteenth chords were explained in traditional harmonic theory. Then these explanations are weighed in connection with the lecture fragment (section 4.5.1). Secondly the analysis of layered *Satz* is discussed (section 4.5.2). Here the difference between the concepts of chord and column is also touched on (section 4.5.3).

4.5.1 NINTH, ELEVENTH AND THIRTEENTH CHORDS EXPLAINED

In the course of the history of music theory, ninth, eleventh and thirteenth chords have been either rejected or accepted as independent chords. In the eighteenth century suspension-formations, i.e. non-tertian harmonies were explained as inverted ninth, eleventh or thirteenth chords.[204] Yet already in the eighteenth century acceptance of the dominant ninth chord (e.g. G–B–D–F–A) emerged as a fundamental harmonic entity.

Ninth, eleventh and thirteenth chords were explained as *supposition* and *superposition*. In supposition a third (or fifth) is added below a seventh chord. In supposition the bass spatially above the added tone is still considered to be the root of the chord.[205] In principle – though not in

[204] Cf. Sheldon 1982:61.

[205] Rameau in his *Treatise* on *Harmony* (1971 [1722]) explained ninth and eleventh chords as resulting from a supposition where the root of a seventh chord is called "the fundamental of this chord", or "fundamental sound" and the interval of a third or a fifth that as a fifth part is added below

terminology – this resembles a three-voice framework (see section 4.3) that includes an assisting bass and bass.[206] Supposition was the older way of explanation and originated in the eighteenth century.[207] In the Romantic era chord-formations wider than seventh chords (i.e. wider chords) were often introduced.[208] Explaining these as superposition where thirds are stacked on top of a seventh chord began to gain more and more acceptance in the nineteenth century.[209] An interesting transition stage was the moment when different simultaneous suspensions over the sustained root and the seventh were regarded as independent eleventh chords (9–8 and 4–3 during 7/1), as well as thirteenth chords (9–8, 4–3 and 6–5 during 7/1).[210] According to the earlier practice in connection with the seventh chord the independent status for the eleventh and thirteenth chords should only have been allowed when the bass proceeds during the resolutions. In the twentieth century the (dominant-type) ninth chord – along with the triad and the (dominant-type) seventh chord – could be included among the "chords of nature" (*Naturklänge*).[211]

The description by Sibelius in the lecture fragment (cf. chapter 2.1.4, Tolonen) concerning "a ninth chord" G–B–D+D–F–A as "an upper

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this root is called an "added sound" (Rameau 1971[1722]:292, Ex. III.81, ibid:294, Ex. III.85, ibid:299, Ex. III.91).

[206] Before one of his examples Rameau even writes the signatures 7/5/3/1 and 9/7/5/3/1 in succession. The topmost numbers of these signatures (7 and 9) are located in the same space in order to show how they (as well as the lower factors of the seventh chord) relate to the factors of the supposition-formation (Rameau 1971 [1722]:292, Ex. III.81). Rameau thus describes the twofold intervallic quality in the sum-chord (see section 4.3).

[207] Besides Rameau (1722) supposition was represented by Marpurg who added the thirteenth chord to Rameau's chords constructed by supposition (Wason 1985:9, 165 note 36) and also by Türk (Wason 1985:63).

[208] According to the Introduction of N. Rimsky-Korsakov 1930 [1886]:1–2 "Three chords are considered fundamental chords: a triad, a seventh chord[,] a ninth chord". The author offers three note-examples, the last of which is the same – though not layered – as that in the lecture fragment of Sibelius. This ninth chord is supplied with a footnote that refers to the note 1) on page 2. In this further note there reads: "At present more than five notes can be used to build up a chord. The eleventh and thirteenth chords are accepted and widely used …".

[209] Superposition was represented by Bruckner, who – unlike his teacher Sechter – considered the ninth chord (also the non-dominant ninth chord) a "fundamental harmony". Bruckner moreover conceived inversions of dominant eleventh and dominant thirteenth chords (Wason 1985:71–74, 165 note 36). Piston 1978 explains wider chords only by superposition.

[210] See Rimsky-Korsakov 1930 [1886]:86. In the note to the paragraph 71 Rimsky-Korsakov says: "The compound suspensions … are at present regarded as independent chords and are respectively described as eleventh-chords … and thirteenth-chords … with the third and fifth omitted".

[211] According to Georg Capellen 1903:15 these three chords "are the only true copies (objectivations) of the Nature" [J. A.] (*Da der Durdreiklang, Durseptimen- und Nonenakkord allein getreue Copieen (Objektivationen) der Natur sind …*).

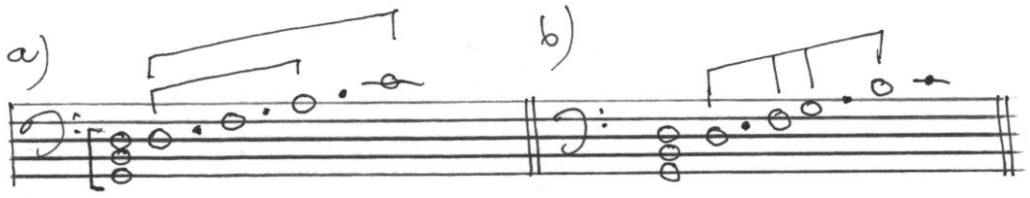
pentachord resting upon a lower one" (see section 4.1), may be understood either as superposition (i.e. added-ninth chord), or as supposition (i.e. added-root ninth chord). Sibelius began his text quoted above with the melodic (upper) pentachord and only then introduced the harmonic (lower) pentachord. This order of presentation may reflect which of these sub-triads was the starting-point in his layered technique (cf. chapter 1.3). Be that as it may, in the music of Sibelius sum-chords can be encountered that may be explained by means of supposition (see Fig. 5.2.3–2 [op. 9:30–35], Fig. 5.5–2c [op. 49:16–17], 5.6–3 [op. 12:III:203], Fig. 6.1.3–4 [op. 66:I:27–30]), as well as others that may be explained by means of superposition (see Fig. 5.5–3 [op. 82:III:195–200], 5.6–4 [op. 82:I:31], Fig. 6.1.6–1 [op. 112:612–614], Fig. 7.3–2 [op. 112:593–597], Fig. 10.4–1 [op. 74:II:35, 36, 37], Fig. 11.3.3–1 [op. 18:III:1–5]).

4.5.2 ON ANALYSING LAYERED *SATZ*

The conventional harmonic analytic notation was developed in order to analyse *Satz* mostly based on non-additive harmony. In the case of sum-chords the conventional analytic notation – even when it technically can be used – will only give an external, if not false, description (cf. Fig. 6.1.5–1 [op. 5:V:73–77]).

It is probable that without the guidance of the composer the conceptual division of the melody as well as the accompaniment into sub-triads (Fig. 4.5.2–1a) would not have been recognized (cf. chapter 3.1). Without this recognition the line in the lecture fragment would have been analysed in terms of a two-voice framework (see section 4.3), as a single part that dissolves a G-rooted dominant-type seventh chord (Fig. 4.5.2–1b).

Fig. 4.5.2–1 a–b. The same phenomenon understood as a three-voice framework a), or as a two-voice framework b).



In Sibelius' music the situation where a dissolving line is a layer (a sub-chord or a sub-interval) is quite common (cf. Figs. 4.2.5–2 [op. 52:I:61–63] and 4.4.1–2 [op. 52:I:63–65]; see also Fig. 10.5.3–1 [op. 82:II:182–185], Fig. 11.5–1 [op. 46:III:1–15], Fig. 11.7–1 [op. 114:IV:11–17, 19–23]). Therefore in analysing the music of Sibelius it is always useful to begin with the melody (cf. Sibelius to W. Davies, chapter 1.3) and clear up its ambitus and harmonic content, in order to find out whether it is a layer, or merely a part in a non-

additive harmony. This problem is also touched on later in connection with irregular sum-chords (see Fig. 10.5.3–1 [op. 82:II:182–185]).

With conventional analytic tools the additive harmony (see section 4.1.1) of the *Satz* of Sibelius can easily fail to be taken into consideration (cf. Fig. 4.5.2–1b), it is more likely to be rejected *a priori*. In analysis this distorts the overall picture. Harmonic reduction into sub-chords does not necessarily produce less or more complicated analyses than other analytic methods, but in this method economy of thought can also be strived for.

4.5.3 CHORD VERSUS COLUMN

There are some differences between the concepts of chord, sum-chord and column. A chord is either consonant or dissonant, while a sum-chord is always – in traditional terms – a dissonant formation (the term chord-formation covers both of these). Yet a sum-chord may contain a consonant layer, or be a sum of merely consonant layers (cf. Fig. 4.1–1c). To my mind it is exaggerated to consider a dominant-type sum-ninth chord a "quasi-consonant sonority".[212] As far as I know, Sibelius never expressed such an opinion.

A chord may be described as a product of voice-leading in a two-voice framework (see section 4.3) ruled by the most important voices soprano and bass, while a sum-chord – being a sum of its sub-chords – establishes a three-voice framework (see section 4.3). Thus in connection with sum-chords the twofold intervallic quality (see section 4.3) of those components that lean on the assisting bass is always to be taken into consideration.

A column is a concept wider than a chord or even a sum-chord. Besides the sum-chord, a column as a stack of thirds also includes the temporal process that by means of increasing or decreasing, or both, leads to and from the sum-chord (see section 4.4). Thus there can be a sum-chord without it being a column (i.e. a sum-chord that is preceded and followed by chord-formations that do not increase the stack of thirds of the sum-chord). On the other hand, without a sum-chord there is no material for a column. With regard to *Satz* during a column there often is a pentachord-succession in the domain of an assisting bass, while the bass holds a sustained sub-tone (see Fig. 4.4.1–1 [op. 56:V:254–259]), sub-interval, or sub-chord (cf. Fig. 4.4–1, see Fig. 4.4.1–2 [op. 52:I:63–65]). As we shall later see, in the domain of an assisting bass increasing or decreasing a column may also be achieved by means of voice-leading typical to traditional figured bass (see Fig. 5.5–1 [op. 63:IV:158–162]). This may be called a *columnal progression*. Both it and columnal succession encountered earlier (see section 4.4) are the two main aspects of *columnal technique*.

[212] See Piston 1978:338, 474.

A chord is located on a certain degree. A sum-chord (e.g. the one in the lecture fragment) includes two different simultaneous degrees in terms of a three-voice framework, but only one in terms of sum-bass (see section 4.3). In a column an assisting bass may produce two or more successive degrees. Yet these degrees as sub-roots (see section 4.3) may lean on one sum-root (see section 4.3) held by the sustained bass (see Fig. 4.4.1–2 [op. 52:I:63–65], Fig. 7.2.1–1 [op. 63:IV:178–182]). A column in its course may also embrace more than one sum-root, or degree. This will happen, if the sustained bass ceases (see Fig. 4.4.1–1 [op. 56:V:254–259]). The technique of entering and ceasing layers will be discussed later (see chapter 6.1). More than one sum-root, or degree, during a column will inevitably follow, if there is a motion in the domain of bass (cf. Fig. 5.2.3–2 [op. 9:34–37], Fig. 6.1.6–1 [op. 112:612–634]).

4.6 THE POSSIBLE SEEDS OF A THREE-VOICE FRAMEWORK

Several phenomena typical to the lecture fragment can already be found before 1896. The three-voice framework (see section 4.3) may be viewed as having derived its origin from organ point *Satz* (section 4.6.1). Some harmonic phenomena such as sum-chords and dissolution in the music of Sibelius' predecessors are also examined (sections 4.6.2, 4.6.3).

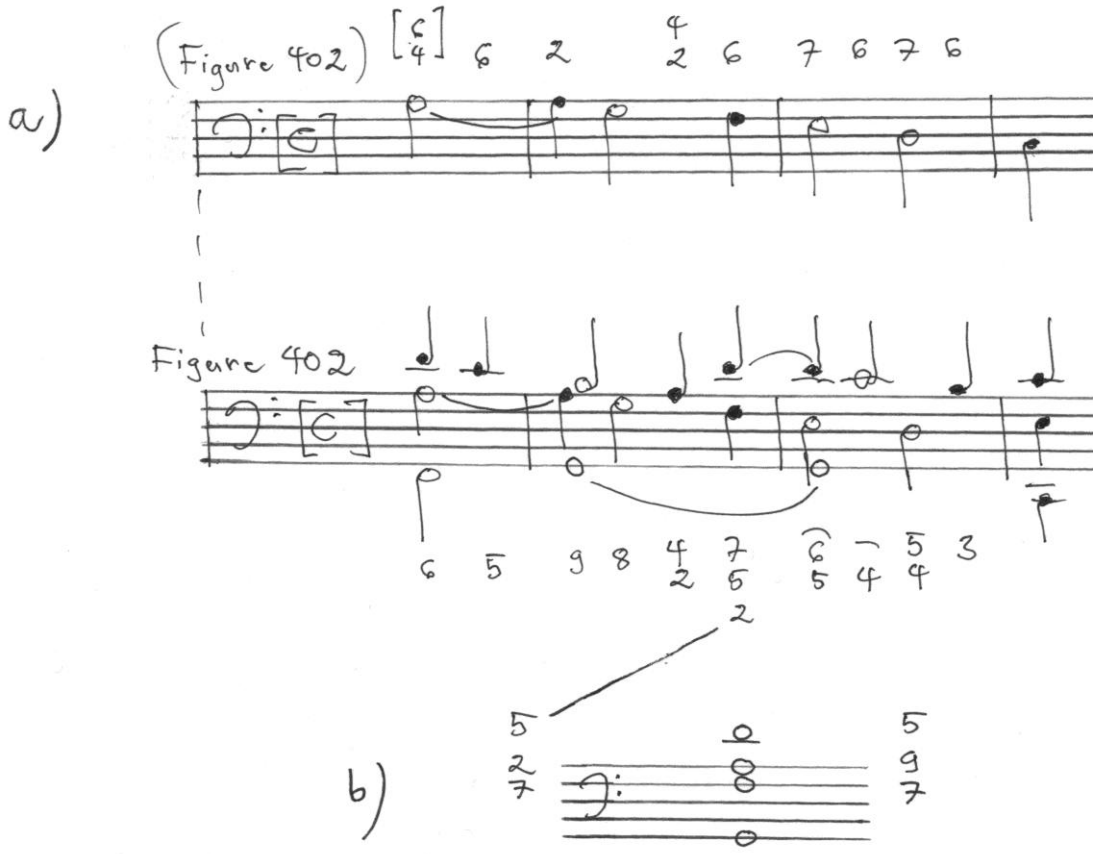
4.6.1 ORGAN POINT *SATZ*

In his *Essay on the True Art of Playing Keyboard Instruments* C. P. E. Bach presents four examples of organ point *Satz* (3-voiced, 4-voiced, 5-voiced and another kind of 4-voiced) with signatures. Every one of these is then supplied with a separate figured bass part where the organ point is put aside.[213] The 2-part (Fig. 4.6.1–1a), 3-part, 4-part and 3-part harmonies above the organ point are derived from the part next above it that functions as the bass, i.e. as the *assisting bass* in terms of this study.[214] In the examples by C. P. E. Bach there are mostly two harmonic situations: either the organ point belongs to the harmonies over it, or it does not. In the latter case the result is not a sum-chord, but an *organ point-formation*. Various organ point-formations fall under the heading "seven-four-two chord" (see chapter 5.2.1).

[213] "In order to comprehend or explain the chords and the unusual combinations of intervals the bass [i.e. organ point] should be disregarded. When this is done, the strange signatures turn out to be indications of nothing more than the ordinary progressions of thorough bass" C. P. E. Bach 1985:319.

[214] According to Hindemith the organ point is not part of a two-voice framework (cf. section 4.3). "If the bass voice contains an organ point, then the next higher moving voice constitutes the lower half of the framework" (Hindemith 1942:113).

Fig. 4.6.1–1 a–b. An example of organ point *Satz* by C. P. E. Bach.

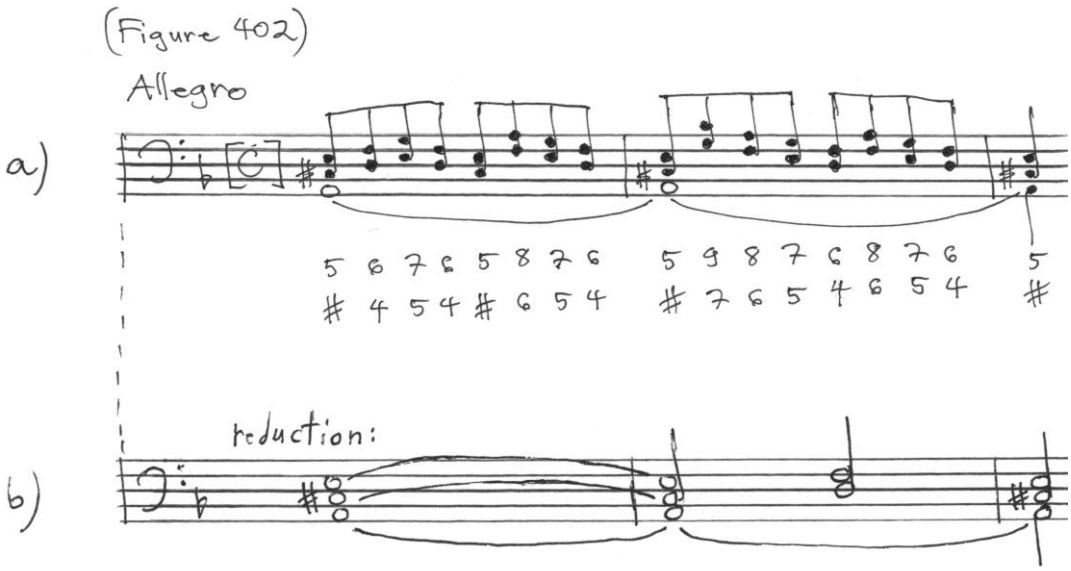


Finally C. P. E. Bach presents a fifth (3-voiced) example of organ-point *Satz,* which is the only one bearing a tempo indication (*Allegro*).[215] Unlike in the previous examples, in this last example the organ point (the dominant of D minor) is a factor of the alternating harmonies and thus also functions as the bass (Fig. 4.6.1–2a). The voice-leading of this fifth example also differs from the preceding ones. The two upper voices move consistently in parallel thirds. However, C. P. E. Bach does not comment the different nature of this last example. He obviously considers it an example of "various harmonic changes … made over a held or repeated bass note",[216] along with all the previous ones.

[215] C. P. E. Bach 1985:320-321 (Fig. 402). See also Fig. 362a. in p. 285.

[216] C. P. E. Bach 1985:319.

Fig. 4.6.1–2 a–b. The last example of organ point *Satz* by C. P. E. Bach.



After the time of C. P. E. Bach only the former type of organ point (e.g. Fig. 4.6.1–1a) was considered the proper organ point. Even some distinguished writers excluded the latter type of organ point (Fig. 4.6.1–2a) and therefore it could be called non-proper organ point.[217] Yet instead of this negative title the term *pedal point* is used in this study (see chapter 5.1). Thus the prefix "proper" before "organ point" is no longer necessary.

4.6.2 A SUM-CHORD WITH A SUSTAINED TONE BEFORE SIBELIUS

Even in the first example of organ points given by C. P. E. Bach, at the end of the second bar a transient minor sixth chord (d1/a/f) occurs over a sustained tone G (see Fig. 4.6.1–1b). These happen to be the very same ingredients as those in Sibelian harmonization! Yet the signature seven-five-two by C. P. E. Bach does not indicate a seventh chord, even less a (sum-)ninth chord. Instead this signature seems to be an organ point-formation (see section 4.6.1, see chapter 5.2.1). In terms of the context of the casual sum-chord it may be reasoned that the organ point is the dominant of C major (in terms of this study C: II6+V1 = V1+9).

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[217] "For when organ point becomes a constituent of the harmony (even though only in passing), *it loses its organ-point function* and is reckoned as part of the harmony" [italics mine] Hindemith 1970:113.

"... for so long as the parts, in their motion, unfold the content of only that same scale-step, e.g. in figurations, etc., we still do not have a pedal point" [i.e. organ point] (Schenker 1980:313). In the fifth example by C. P. E. Bach – as Schenker would have put it – "the parts, in their motion, unfold the content of only that same scale-step".

This third kind of harmonic situation where the sustained tone neither belongs to the chord above it, nor takes part in an organ point-formation became less accidental in the music of Classic and Romantic Eras. Over sustained dominant emphatic sum-ninth chords emerged in progressions – in the domain of an assisting bass – such as II–V, or II–VII6, or V–VII7. Sum-eleventh chords emerged in progressions such as IV–V over a sustained dominant.

4.6.3 DISSOLUTION BEFORE SIBELIUS

The device of dissolution (see section 4.4) can be traced as far back as the Baroque and Classic eras. There were incidents where against a dominant bass an ornamental major or minor ninth proceeded by leap to the seventh (9–7), or even via the fifth to the seventh (9–5–7).[218] Even then dissolution was also applied to the dominant seventh chord (7–5). In cases of 7–5 the fifth in the melody was not supplied with a seventh in a middle part. Often there was no third above the following tonic bass that would constitute the resolution of the dominant seventh.

In the Romantic era the dissolution of a seventh (7–5) was also applied to a tonic added-seventh triad (cf. Fig. 4.4–3) and a manifold dissolution could emerge when third-related chords (e.g. in form of *fauxbourdon*) proceeded over a sustained dominant bass).[219]

4.7 CONCLUSIONS

The compositional technique of Sibelius, including three-voice framework (see section 4.3), sum-chords and columns can be seen as a continuation of those phenomena that can be found in the works of the older composers, especially in Liszt and Wagner (see chapter 3.5). These same phenomena can also be traced in the compositions of some Russian composers, e.g. Borodin

[218] The dissolution of an ornamental ninth 9–5–7 in a secondary dominant chord (in the Baroque era): J.S. Bach: *WKL* I Prelude in F minor bar 13 (f: V7 of IV – IV; an ornamental ninth in 7–9–5–7).

[219] The dissolution 7–5 over a tonic triad (in the Romantic era): Chopin: Prelude in B minor op. 28 no. 6 (1839) bars 22–23 (b: I8–mi7–5; the minor seventh in a tonic added-seventh triad leaps to the fifth of the lower sub-triad).

Manifold dissolution: Liszt: Bénédiction *de Dieu dans la solitude* (*Harmonies poétiques et religieuses* 1834/1842–1852 no. 3) bars 179–181, 183–185, 191–193 (*fauxbourdon* D: I6/- – VI6/- – IV6+V1, – VI6/- – IV6/- – II6+V1, – II6/- – I6/- – VII6+V1. Out of these chords the third, the sixth and the ninth ones are more directly connected with the sporadic dominant and therefore are more emphatic than the others. These add up to D: V11+1 – V9+1 – V7+1. The series of these added-root chords (see section 4.4, chapter 6.1.3) resembles a decreasing column; cf. bars 187–189 where the sixth chords of the upper layer are replaced by six-four chords).

and Mussorgsky.[220] From the point of view of compositional technique there is no reason to see Sibelius as an antipode of so-called New German School.[221]

Sibelius was already familiar with Wagner's scores before his audition lecture in 1896.[222] "I have been studying Wagner; everything seems familiar and clear (in the passages I have studied)".[223] Quite soon afterwards in the same year (1894) he felt that "Liszt's view of music is the one to which I am closest".[224] It is not possible to know how deep the influences that Sibelius absorbed from them were. If "everything" really was familiar to Sibelius, it seems that he had invented his way of harmonization irrespective of Wagner.[225] Anyway the "ninth chord" in his lecture fragment (see section 4.1) most likely would strike the mind of an innovative composer, not only the mind of Sibelius.[226] In connection with impressionistic harmony, Piston has detected a layered technique that may be considered similar to that in the lecture fragment.[227]

Columnal technique is an important harmonic resource for Sibelius, but cases where the harmony is treated exclusively columnally even in the major part of a composition are quite rare (as in *Forest Lake* Op. 114 no. 3).

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[220] See Servière 2008:118 (Exemple 25; Moussorgski).

[221] Cf. Tawaststjerna IIF:43–45, IIS:35–36, IE:159–160.

[222] See Tawaststjerna IIF:34, IIS:29, IE:154–155.

[223] See Tawaststjerna IIF:35, IIS:29, IE:155.

[224] Tawaststjerna IIF:42, IIS:34, IE:158.

[225] Four-part writing in the assisting bass over a sustained tone that together form a three-voice framework (4+1): Wagner: Parsifal (1877–1882) II Act bars 154–157; bars 6–8 after the rehearsal number 137 (Vl. I, II, Vle/Vc. Cb.; due to chromatic content and context the possible keys are not taken into consideration here. Over a sustained bass tone E we find a progression: a G sharp-rooted diminished seventh chord in the 2nd inversion – a G sharp-rooted half-diminished seventh chord in the 2nd inversion – a G-rooted minor six-four chord. Together with the sustained bass these two seventh chords and minor triad make the progression in terms of the sum-bass: an E-rooted dominant-type minor ninth chord – an E-rooted dominant-type major ninth chord – an E-rooted half-diminished seventh chord. Cf. I Act bars 755–757; from the sixth bar before the rehearsal number 67 and III Act bars 665–667; at the rehearsal number 258).

[226] Taylor 2014:1 cites a late autobiographical sketch of Grieg ("My First Success"), where the composer at the age of five at the piano brought forth a ninth chord.

[227] Piston 1978:338 (see chapter 3.5, footnote 37).

5. LINE-PEDAL *SATZ* ESTABLISHED

In this fifth chapter some points of Sibelian *Satz*-technique as laid out in the previous chapter are deepened. In order to complete the vehicles of voice-leading and by this means to widen the harmonic scope the first issue discussed is line-pedal *Satz* (section 5.1). In Sibelian *Satz* – besides line and pedal point – the most important component is the tardy line (section 5.1.1). After introducing it, it is time for the comparison of traditional and Sibelian types of *Satz* (section 5.1.2) as well as for examining the properties of the tardy line (section 5.1.3).

In the fourth chapter various sum-chords were presented as regular; in this chapter irregularity of the sum-chords is discussed (section 5.2). In order to describe this irregularity a glance is cast on traditional seven-four-two chords (section 5.2.1) that occur in organ point *Satz* (see chapter 4.6.1). The corresponding environment for Sibelian sum-seven-four-two chords (section 5.2.2) is line-pedal *Satz*. A three-voice framework (see chapter 4.3) may be extended by combining it with an organ point (section 5.2.3).

Between traditional and Sibelian types of *Satz* (cf. chapter 3.7) there are differences not only in terms of components, but also in relation to dissonance treatment. The most common traditional way to treat dissonances is by resolving, whereas releasing (section 5.3) is a necessary condition for Sibelian types of *Satz* (section 5.3.1). These different ways to treat dissonance may also be used side by side, even simultaneously. The releasing motions also establish some sum-seventh chords, added-root seventh chords and added-sixth triads (section 5.3.2). Releasing in columns is scrutinized (section 5.3.3), before dealing with leaping dissonances (section 5.3.4).

In the fifth chapter the scalic basis of *Satz* (section 5.4) is also deepened by describing modal characteristic harmonic progressions (section 5.4.1), as well as modal closures (section 5.4.2). All the above matters are necessary in order to present sum-seven-four-two chords in their harmonic context (section 5.5). After describing other inversions of sum-ninth chords (section 5.6) irregular three-voice frameworks are scrutinized (section 5.7).

5.1 COMPONENTS IN LINE-PEDAL *SATZ*

At least two components, line and pedal point, are needed for line-pedal *Satz*. In the lecture fragment an imaginary melody dissolved the upper sub-triad of the sum-ninth chord (see chapter 4.1). Earlier this was *a priori* viewed as a monodic line that a singer or a player can perform (see chapter 4.1.1).

As already noted, in a sum-ninth chord the lower sub-triad may be represented only by its root (see Fig. 4.3.1–2d). If this lower root is also a

sustained tone that lasts for at least a whole phrase in terms of the melody, the sustained tone may be considered a *pedal point* (in this study a sustained tone shorter than a phrase is called a *stationary tone*). If a pedal point is not in any way rhythmically animated or melodically embellished, its appearance is similar both in the surface and deep levels (cf. chapter 4.1).

However, in the music of Sibelius a component is often *thickened*. A thickening of line is achieved by combining a line with a *collateral line*. A collateral line synchronously follows the melodic curve at the distance of a particular interval, mostly a third lower (see Fig. 5.1.4–2 [op. 82:III:105–107], Fig. 5.6–4 [op. 82:I:31–34]).

A line and a collateral line together present an *intervallic thickening*. As well as a line, a thickened line may dissolve the harmonic foundation of *Satz*. In order to accommodate itself with the underlying harmony (or harmonies), a dissolving collateral line in the thickening that mainly proceeds in parallel motion sometimes has to proceed in similar motion (see Fig. 5.5–3 [op. 82:III:192–195], Fig. 11.3.1–2 [op. 112:69, 70], Fig. 11.5–2 [op. 52:II:97], Fig. 11.7–1 [op. 114:IV:12]), in oblique motion (see Fig. 11.3.1–2 [op. 112:70–71], Fig. 11.5–2 [op. 52:II:97, 97–98, 100–101]), or even in contrary motion (see Fig. 5.5–3 [op. 82:III:198–210], Fig. 11.5–2 [op. 52:II:95, 99, 101]) in relation to the line. Yet in dissolving thickenings the collateral lines in general maintain the rhythm and contour of the line.

A line with two or more collateral lines below it will make a *chordal thickening*. In Sibelius's music perhaps the most common chordal thickening is *fauxbourdon*, a parallel of sixth chords (see Fig. 7.1.1–1 [op. 49:159–161, Fig. 10.3–1 [op. 104:II:78–81]). Parallels of root-position triads (see chapter 8.2.1) and parallels of six-four-chords (see chapter 7.1.2) are not so common. A line with at least three collateral lines below it will make a *dissonant (chordal) thickening* (see Fig. 10.3.2–1 [op. 106:IV:23–28], Fig. 10.4–1 [op. 74:II:35–38]).

As a line, a pedal point may also be thickened either intervallically or chordally by one or more *collateral pedal points*.

Harmonic and spatial context decides which tone in a thickened pedal point should be considered the proper pedal point. In the Sibelian harmonization – if it is considered line-pedal *Satz* – the lowest tone (G) may be considered the pedal point proper. In this case in Fig. 4.5.2–1a the sustained tones B and D are collateral pedal points. From a harmonic point of view a sustained component derives benefit from its thickness. The more collateral components a thickening carries, the more harmonic weight it carries.

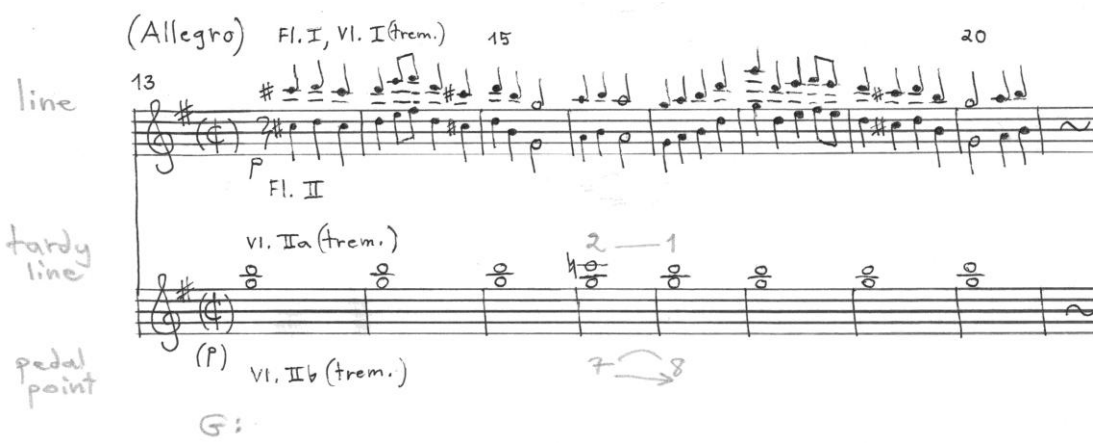
In line-pedal *Satz* thus either one or both of the main components may be thickened or not. In connection with thickened components a non-thickened one is called *plain*. The lecture fragment may be considered an item of line-pedal *Satz* where the line is plain and the pedal point is chordally thickened (cf. Fig. 4.5.2–1a). A common type of line-pedal *Satz* is where there is a *fauxbourdon* that is put against a plain pedal point (see Fig. 5.3.3–1 [op.

18:IV:1–5]). In this situation the lowest collateral line of the chordal thickening functions as the assisting bass over the bass i.e. the pedal point (cf. chapter 4.6.1) in a three-voice framework (see chapter 4.3).

5.1.1 TARDY LINE

In line-pedal *Satz* (see section 5.1) a third kind of component may also occur that proceeds at a more moderate pace than the line. It moves parsimoniously, mainly by stepwise motion that may alternately ascend and descend. Due to these properties this component, *tardy line*, remains in the background of the aural perspective ruled by the line (Fig. 5.1.1–1; see also Fig. 8.4–1 [op. 70:1–5]). If a tardy line is not in any way rhythmically animated or melodically embellished, its appearance is similar both in the surface and deep levels (see section 5.1.3).

Fig. 5.1.1–1. Line, pedal point and tardy line. *All'Overtura* op. 25 no. 1 (1899/1911) bars 13–20.



Also, a tardy line may be intervallically (see Fig. 11.3.1–2 [op. 112:68–72]), or chordally thickened by one or more *collateral tardy lines* (see Fig. 7.6.1–1 [op. 82:III:439–442]).

A tardy line may be connected to a line with or without any pedal point. The type of *Satz* leaning on merely a line and a tardy line may be called *line-tardy line Satz* (see Fig. 4.2.4–3 [op. 63:I:6–12], see also section 5.1.2).

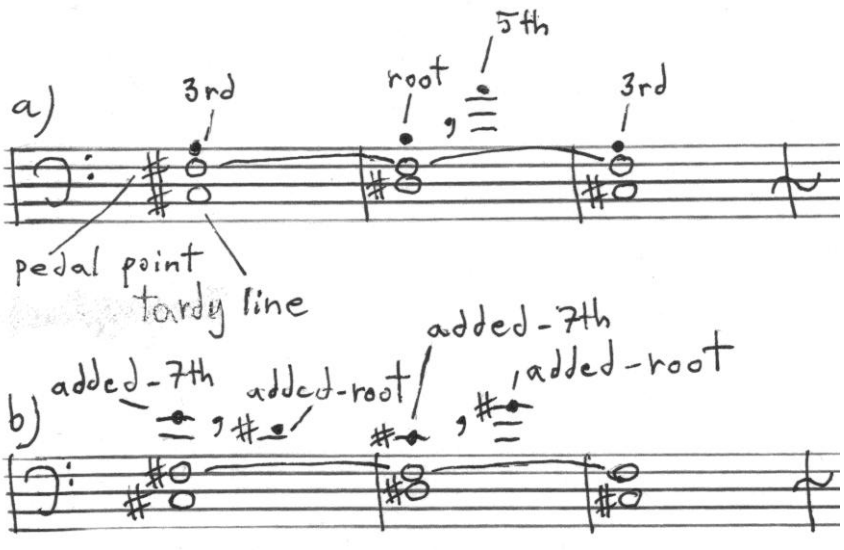
Depending on the application and the number of collateral components *the mass* of line–pedal *Satz* may vary from two plain main components (l, p) to three thickened ones (L, P, TL).

These masses have their effect on the harmonic conditions of line-pedal *Satz*. If all the three components are plain (l, tl, p), the tardy line and pedal point, through the intervals that they form, lay the conditions for harmonies fulfilled by the line (Fig. 5.1.1–2a, cf. Fig. 8.4–1 [op. 70:1–5], also compare Fig. 5.5–2a with –2b [op. 49:15]). There still remains some room for a melodic line to increase the harmonies suggested by the pedal point and

tardy line (Fig. 5.1.1–2b, see Fig. 5.5–1 [op. 63:IV:161], Fig. 5.5–3 [op. 82:III:195, 198]).

In case of a plain line, a plain pedal point and a chordally thickened tardy line (l, p, TL), the thickening works as the harmonic foundation for the line (cf. section 5.1.3). Thus for a dissolving line one component, a thickened tardy line fulfills the function of the former thorough bass, a network of parts (see Fig. 5.5–4 [op. 104:III:13–16], Fig. 8.2.2–2 [op. 104:III:13–16]).

Fig. 5.1.1–2 a–b. Harmonic conditions for the line settled by the pedal point and tardy line.



The number of the components in line-pedal *Satz* is not fixed. A line-pedal *Satz* may contain more than one line besides a pedal point, but no tardy line (see Fig. 11.9.2–1 [op. 63:IV:379–385]). Out of several lines one of them is usually more important than the rest.

Moreover, besides a line and pedal point there may occur two (see Fig. 11.4.2–3 [op. 46:7–10]) or more tardy lines (e.g. l, p, tl, tl, tl). If one of these is thickened (e.g. l, p, tl, tl, TL), the plain tardy lines may utilize the harmonic basis established by the thickening (see Fig. 8.2.1–1 [op. 39:I:108–111]), or they may increase it. Thus a thickened tardy line may function as the harmonic foundation for the plain tardy lines in the same way as for the dissolving lines (see above). In the case of several plain tardy lines the chord-formations formed by them may not differ from those used in traditional harmony based on the rules of figured bass. In this case the non-traditional quality of the *Satz* can only be decided on the grounds of dissonance treatment and voice-leading (see Fig. 6.4.1–1 [op. 52:III:77–90]).

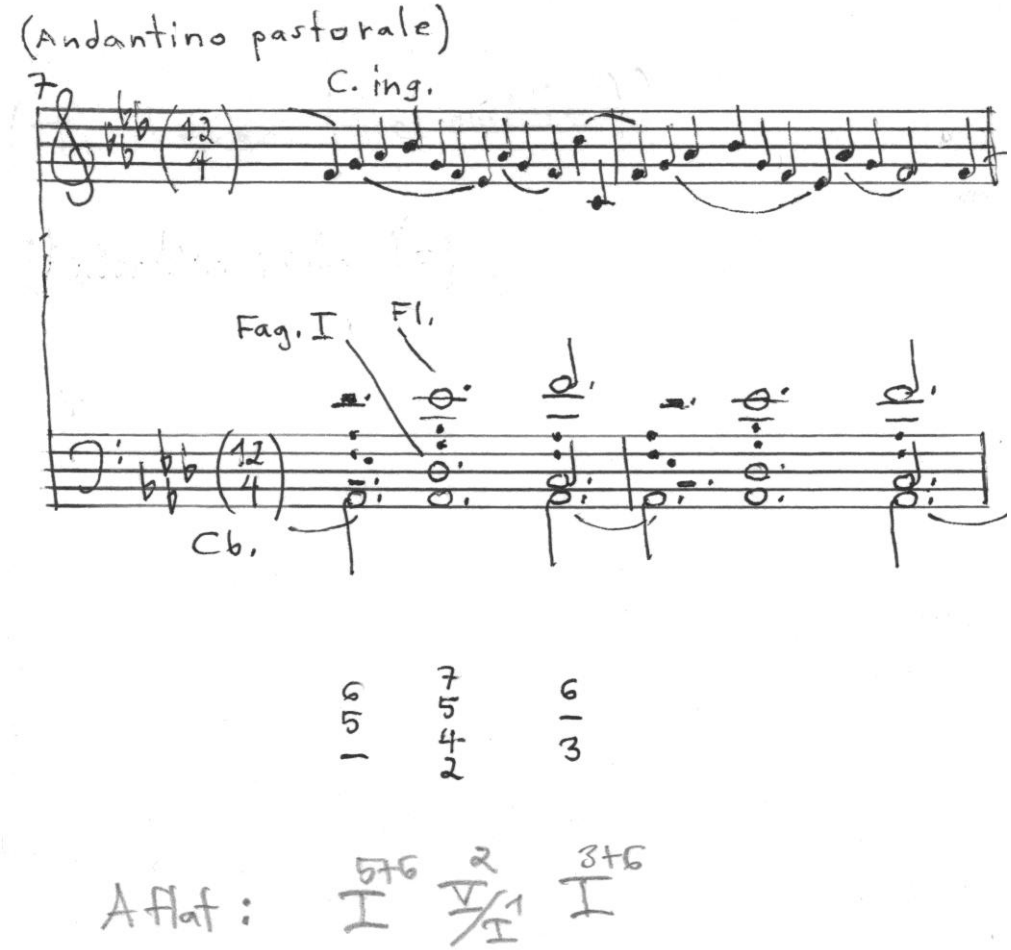
Furthermore to line-pedal *Satz* or to line-tardy line *Satz* subsidiary components may be added that may be either plain or thickened.

5.1.2 THE TYPES OF *SATZ* IN COMPARISON

In the domain of Sibelian types of *Satz* the presence or absence of a pedal point decides its types; the components themselves are similar. Line-tardy line *Satz* (see section 5.1.1) may be considered a Sibelian variation of traditional soprano-bass *Satz* (i.e. a two-voice framework; see chapter 4.3), as line-pedal *Satz* (see section 5.1) may be considered a Sibelian variation of traditional organ point *Satz* (see section 4.6.1). The difference between the older and the Sibelian types of *Satz* above all depends on voice-leading (including the quality of the components) and the treatment of dissonance (see section 5.3).

Yet the traditional and Sibelian types are not antagonistic. We saw that in the domain of traditional organ point *Satz* sum-chords could already emerge (see chapter 4.6.2). Reversely, with Sibelian types of component organ point-formations (see section 5.2.1) may also appear. In these kinds of case there is no longer a pedal point as a factor of sum-chords (cf. section 5.2.2). Therefore a *Satz* that includes traditional seven-four-two chords may be called *line-organ point Satz* (Fig. 5.1.2–1; cf. Fig. 11.4.2–3 [op. 46:V:7–10], see also Fig. 6.4.1–1 [op. 52:III:77–90]). Line-pedal *Satz* and line-organ point *Satz* may succeed each other (see Fig. 8.3.2–1 [op. 52:III:94–100]). Furthermore, in a three-voice framework (see chapter 4.3) it is possible that the same sustained tone may simultaneously function as an organ point to one layer and as a pedal point to another (see Fig. 10.5.3–1 [op. 82:II:182–185]).

Fig. 5.1.2–1. Line-organ point *Satz. Pastorale* op. 46 no. 5 (1905) bars 7–8.



5.1.3 TARDY LINE IN THE SURFACE AND DEEP LEVELS

There are cases when a tardy line (or -lines) occur only in the deep level, while in the surface level there seems to be no tardy lines at all. Yet they may be traced as an accompaniment (see Fig. 5.1.3–1 [op. 63:IV:179–209]), or as the dissolving line (see Fig. 5.1.3–2 [op. 82:III:105–165]). In the simplest case the number of the components is the same in the surface and deep levels and the dissolving motions in the surface level follow the contour of the deep level structure (see Fig. 5.1.3–1 [op. 63:IV:179–209]). Finally, a component that in the deep level appears to be a tardy line, in the surface level functions as a collateral line (see Fig. 5.1.3–3 [op. 112:1–3]). There is also the possibility that a thickened tardy line may exist both in the surface and deep levels. In this case only a collateral tardy line from the thickening may appear as such in the surface level, while the rest of the thickening (that is dissolved by the line) may only be traced through harmonic reduction (see Fig. 5.1.3–4 [op. 56:II:1–9], cf. Fig. 5.1.3–5 [op. 34:VIII:1–3]).

Above the accompaniment in Fig. 5.1.3–1b one finds a line (Vl. I, II) that is sometimes thickened (cf. Fig. 7.2.1–1 [op. 63:IV:178–182], see Fig. 8.4–3 [op. 63:IV:178–182]) and sometimes plain. This is omitted here in order to concentrate on the rhythmically regular accompaniment figuration (Vle., Vc. and Cb.).[228] In the level of harmonic reduction (Fig. 5.1.3–1a) it can be seen that this figuration is based on the combination of a pedal point and a thickened tardy line. The pedal point B is located in the middle of the thickening (cf. chapter 8.4). Between this and the first collateral tardy line a releasing motion 2–3 takes place in bars 192–209 (cf. Fig. 5.3–5a). The sixth chords in the thickened tardy line are not in the close position typical to *fauxbourdon*, but occur in the open position instead (see chapter 8.2.1). In the surface level the figuration follows the contour of the deep level components exactly.

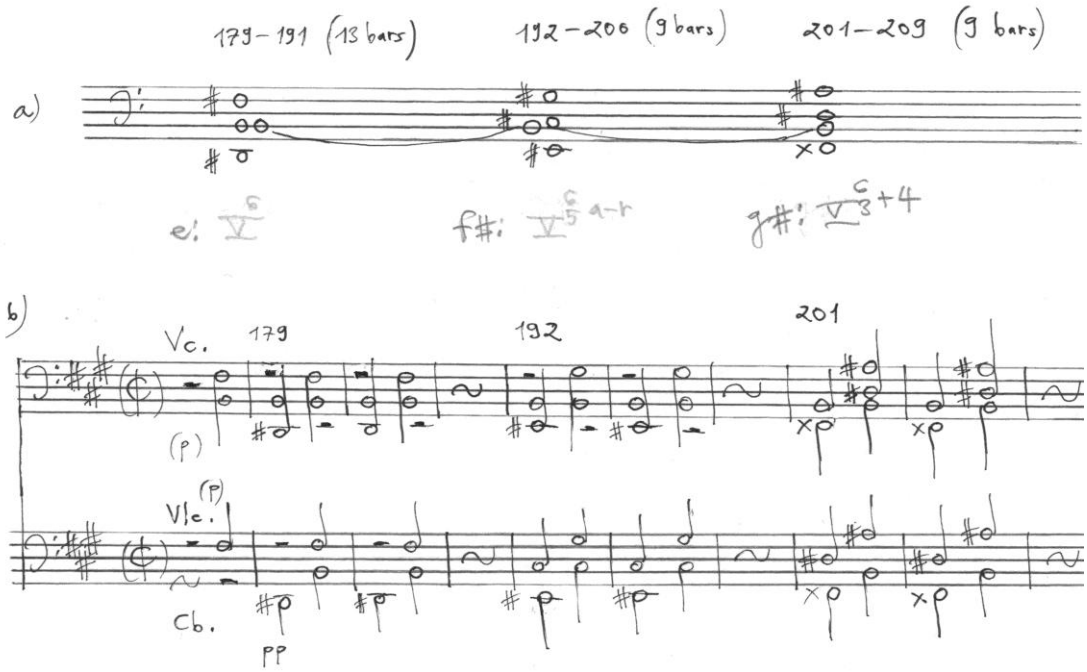
At first sight the surface level *Satz* is easily mistaken for an ordinary soprano-bass *Satz* when the pedal point occurs only in the level of reduction.

In the surface level besides the line there are no components other than figuration. In a textural situation in which there is figuration in the surface level aside from the tardy line and pedal point, the figuration may be considered a *subsidiary component* (see section 5.2).

In relation to the accompaniment the line in this *Satz* forms a layer. Some chords in the thickened line increase the accompanying harmonies into wider sum-chords (cf. section 5.2, see Fig. 7.2.1–1 [op. 63:IV:178–182]). In the realm of the line each accompanying chord is treated as a one-chord initial pattern of a modulating sequence (e: V6 – f sharp: V added-root six-five – g sharp: V six-three+4, i.e. V5+6 in the 1st inversion).

[228] "The term *figuration* is used to denote a repeated melodic pattern that is accompanimental or subsidiary to a principal melody" (Piston 1978:92, cf. Piston 1978:88).

Fig. 5.1.3–1 a–b. Accompaniment figuration based on thickened tardy line and pedal point. Fourth Symphony op. 63 (1911) 4. mvt. bars 179–209.



If the line merely dissolves the harmonic foundation established by a thickened tardy line, or by several tardy lines with a pedal point, then in the deep level there is no line, but only the aforementioned components. It may also be, that in the surface level there are no tardy lines at all, but they may be traced only in terms of the dissolving line.

In the surface level of Fig. 5.1.3–2 in bars 105–116 there is an angular theme in E flat Ionian that proceeds by minims (Cor. I, III). The ambitus of the theme is the tonic pentachord extended by the subtonic and submediant (cf. Fig. 4.2.3–3d). A collateral line a third lower does thicken this line (Cor. II, IV). For the horn theme the upper strings form an artificial orchestral pedal (cf. chapter 8.3.2). In bar 117 in the bass register (Fag., Cb.) an augmented version of this theme also enters. The augmentation is presented in bars 117–152; the second incomplete rotation of it lasts only from bars 153–164. After the entrance of the augmented theme (risposta) the original horn theme (proposta) keeps repeating (in bars 117–128, 129–140, 141–152). The last appearance of it is varied (in bars 153–164). In Fig. 5.1.3–2 there is a reduction where the angular three-bar pattern in the surface level is presented as a single semibreve, i.e. a sustained chord in the deep level.

This seemingly contrapuntal *Satz* appears to be line-pedal *Satz* (see section 5.1.3) in the level of reduction (see chapter 9.1). The components in the deep level are a dominant pedal point B flat thickened a third lower. Below this component an ostinato-like tardy line proceeds and is thickened

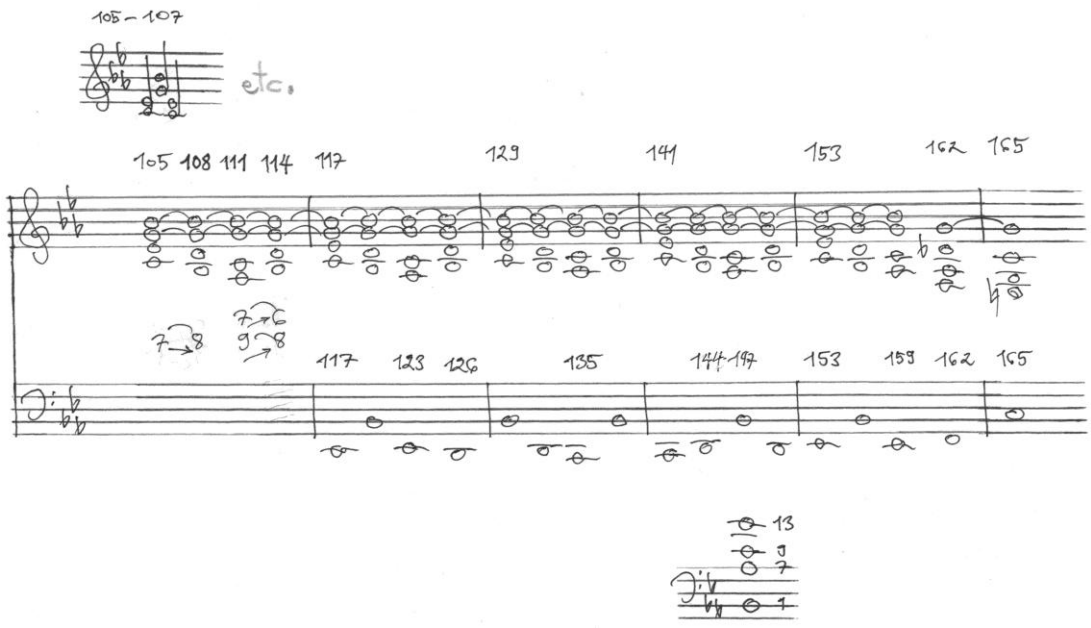
by thirds. Against the thickened pedal point the collateral tardy line – that from bar 117 on functions as the assisting bass – in relation to the dominant pedal point it forms the releasing motions 7–8 descending (cf. Fig. 5.3–2b) and 9–8 ascending (cf. Fig. 5.3–3d), while the tardy line along with the last-mentioned motion makes a releasing motion 7–6 ascending (cf. Fig. 5.3–5d).

In the progression E flat Ionian: I+6 below root – III6 – IV9+3 without fifth – III6 (bars 105–116) is repeated several times, a seeming C-rooted minor seventh chord increases downwards to an A flat-rooted non-dominant sum-ninth chord that again decreases to the seeming C-rooted minor seventh chord. For tonal reasons it should be considered the third inversion of the tonic added-sixth triad (E flat Ionian: I+6 below root; see section 5.3.2). In this columnal process (see chapter 4.4) the E flat: III6 chords function as passing chords.

The woodwind counterpoint (in bars 129–137, 140–148 and 152–161) in the surface level is left out here. However, in the deep level it functions as the melodic line that is based on the C-rooted minor seventh chord (the upper sub-seventh chord) and dissolves it without taking the passing sixth chords into consideration.

Against the deep level tardy line the augmented theme in the bass register forms a simple counterpoint. It mostly doubles the tones in the domain of the assisting bass. The bass part twice presents the commencing chord of the horn pattern as I5+6 (in bars 117–119 and 153–155), once as I+6 below the root (in bars 141–143) and also once as I six-four+2 (in bars 129–131). The bass line also twice adds the missing fifth E flat into the IV degree added-root ninth chord (in bars 123–125 and 159–161). Only once in the bass part (in bars 147–149) one of the doublings of the dominant pedal tone B flat (in bars 147–149) as the lower root increases the added-root sum-ninth chord (in the assisting bass) into a dominant added-root thirteenth chord (E flat Ionian: IV9+3 without fifth + V1 = V13+1; cf. Fig: 5.6–3 [op. 12:III:203]). The result of this is major-inflected Ionian (see section 5.4.1).

Fig. 5.1.3–2. A thickened line dissolving line-pedal *Satz*. Fifth Symphony op. 82 (1915/1916/1919) 3. mvt. bars 105–165.

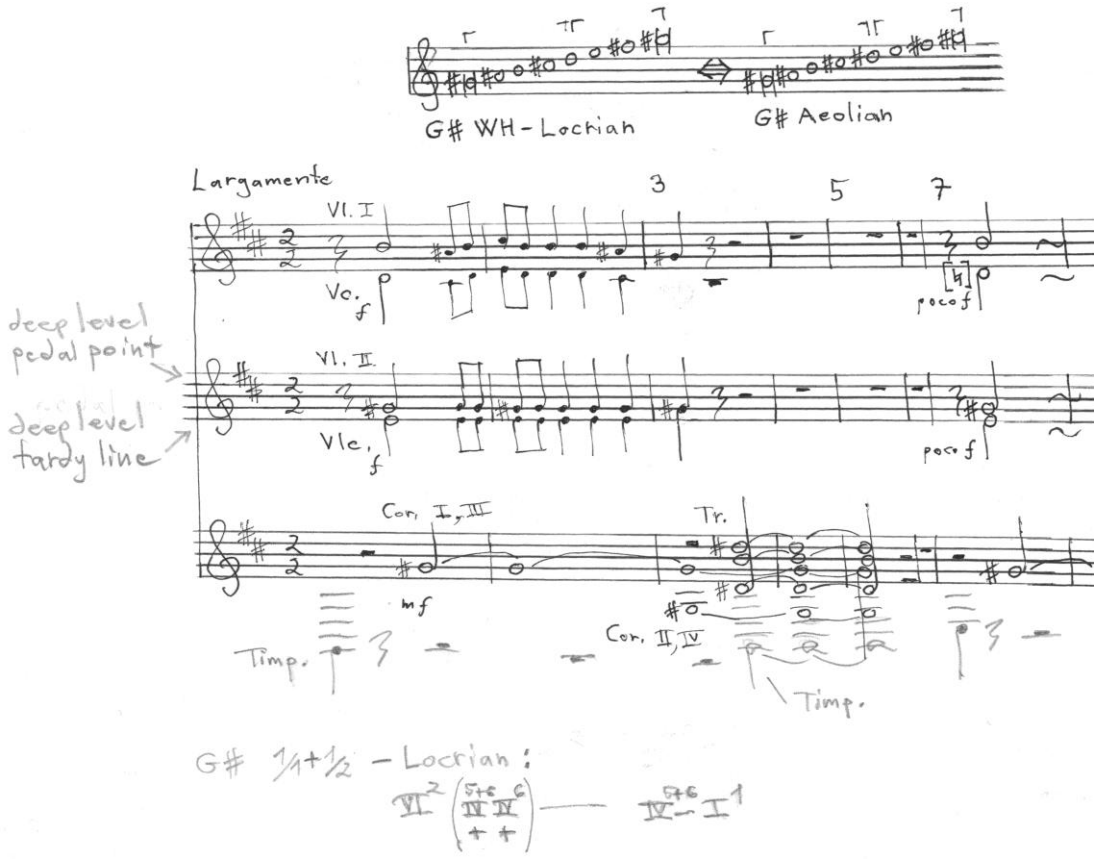


Components that in the level of reduction have the qualities of a pedal point or tardy line may fulfil the task of the collateral lines in the surface level for a melodic line. These differences in appearance are effected by rhythmic divisions, spacing, and orchestral colour.

In Fig. 5.1.3–3 in bars 1–3 and 7–9 after a bass tone B (Timp.) in the surface level there is no more than a thickened line in the strings and a pedal point g1 sharp (Cor.). This enters a crotchet later than the thickening. The lowest part (Vc.) is a proper collateral line (see section 5.1.3) that follows the line (Vl. I) a sixth lower.

The first seemingly collateral line (Vl. II) that exactly follows the rhythmic divisions of the line (Vl. I), in the level of reduction (cf. Cor. I, III) appears to be the pedal point g1 sharp (that it doubles in bars 1–3). The second seemingly collateral line (Vle.) in the level of reduction appears to be the tardy line e1 – g1 sharp. Together these components establish a *closure* (3.–2.–1.) in the second mixed mode (G sharp WH-Locrian: VI2 – IV5+6 – I1; cf. Fig. 4.2.1–2b). As the trumpets enter in bar 3–5, an interchange from this mixed mode to G sharp Aeolian takes place. In bars 5–7 an opposite interchange re-establishes the mixed mode (see chapter 4.2.2).

Fig. 5.1.3–3. Deep level pedal point and tardy line as sub-lines in the surface level. *Tapiola* op. 112 (1926) bars 1–7.



There is also the possibility that a thickened tardy line may exist both in the surface and deep levels. This is due to the fact that some of the thickening has been used as a basis for a dissolving line, while e.g. the lowermost collateral tardy line has remained intact. Therefore it retains the shape of a tardy line both in the surface and deep levels (see Fig. 5.1.3–4 [op. 56:II:1–9]). The only difference is that the deep level collateral tardy line in the surface level functions as the plain tardy line.

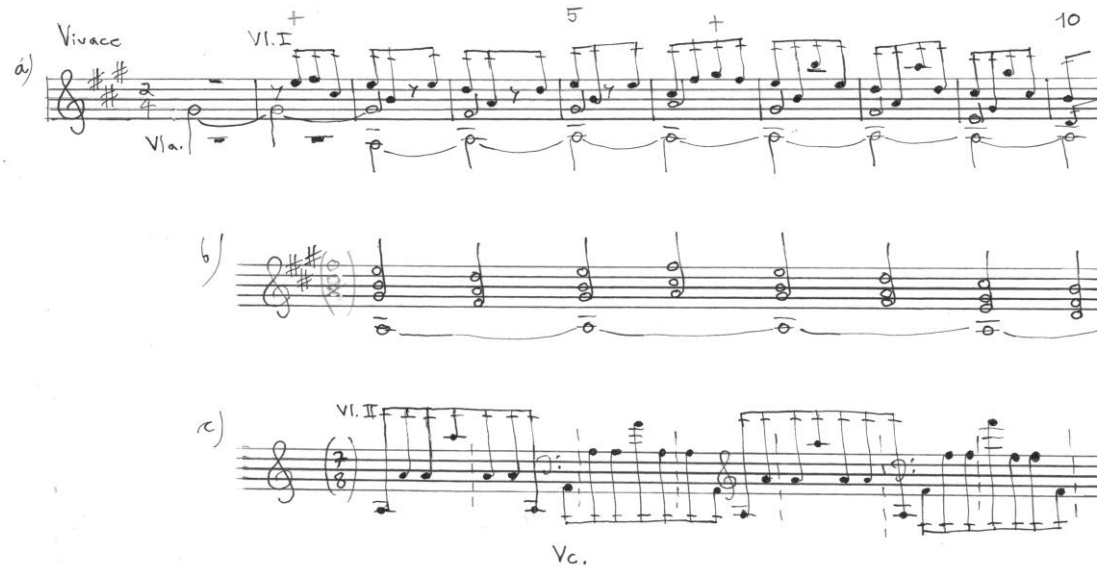
In line-tardy line *Satz* (see section 5.2) there may be the corresponding relation between the surface and deep levels. In this kind of *Satz* the surface level line and tardy line are based on a thickening in the deep level (see Fig. 5.1.3–5 [op. 34:VIII:1–3]).

In Fig. 5.1.3–4a there is *surface level reduction* of *Satz* that in the surface level consists of a plain line, plain tardy line and plain organ point (see section 5.2). Yet in the deep level (Fig. 5.1.3–4b) it only contains a thickening, which in bars 3–9 proceeds against a tonic organ point in A Ionian. The line and the upper collateral line of the deep level *fauxbourdon* form the basis for the dissolving melody (Vl. I) of the surface level reduction (Fig. 5.1.3–4a), while the lower collateral line of the deep level *fauxbourdon* acts as the surface level tardy line (Vla.), which is ornamented by upper

neighbour notes. These components proceed according to the written 2/4 meter.

The deep level organ point A in the surface level (Vl. II, Vc.) appears in the form of an ostinato-pattern that proceeds in 7/8 meter (Fig. 5.1.3–4c). This *Satz* is thus *polymetric*. Between the second violin and 'cello a seven-tone pattern alternates that is spatially and rhythmically symmetric: the lowest octave once – medium octave twice – the highest octave once – medium octave twice – the lowest octave once. The origin of this ostinating pattern may be explained in two ways: either separate notes of a rhythmically divided organ point are octave-displaced into an ostinato, or the ostinato picks out tones from an assumed octave-doubled organ point (from A to a2) that spatially encloses the whole *Satz* (cf. chapter 8.4). The only exception from this is in bar 7 where the melody crosses the octave-displaced organ point (cf. chapter 3.4).

Fig. 5.1.3–4. Deep level thickening as line and tardy line in the surface level. *Voces intimae* op. 56 (1909) 2. mvt. bars 1–9.



The above Fig. 5.1.3–4 is an example of *polymetrics* where simultaneous metres of different length appear. In polymetrics several metres of the same length may operate only beginning and ending at different points. These two principles may also be combined.

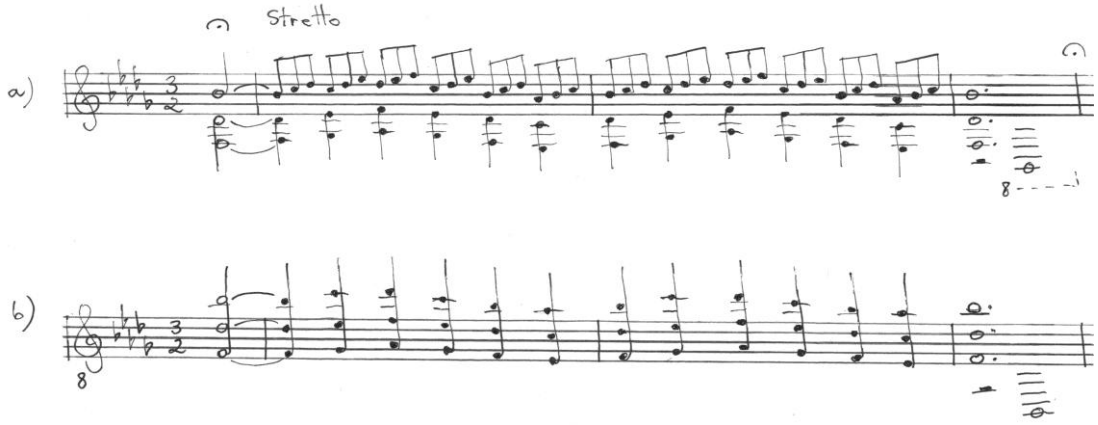
For the proper execution of this passage it would be of vital importance that all the players be aware of the polymetric structure.

In Fig. 5.1.3–5b in the level of reduction there is a parallel of six-four chords (cf. chapter 7.1.2) in open position before the entering bass tone in the third bar (cf. Fig. 6.1.2–2c). This parallel proceeds according to plagal B flat Aeolian scale. The line of this deep level thickening covers the tonic trichord extended by the subtonic (A flat + B flat C D flat; cf. Fig. 4.2.3–4b).

This deep level parallel offers the harmonic basis for a surface level dissolving plain line and a tardy line thickened by sixths (Fig. 5.1.3–5a). The dissolving line covers the B flat Aeolian tonic pentachord extended by the subtonic (A flat + B flat C D flat E flat F; cf. Fig. 4.2.1–1h). The topmost tones of the triplets are derived from the surface level tardy line doubled into an upper octave-register.

Thus the deep level thickened line occurs only in *ornamented* form in the surface level.[229] The deep level collateral line both offers material for ornamentation and functions as a surface level tardy line.

Fig. 5.1.3–5 a–b. Line-tardy line *Satz* based on a chordal thickening. *The Harper* op. 34 no. 8 (1916) bars 1–3.



5.2 IRREGULAR SUM-CHORDS

In an earlier chapter regular sum-chords were discussed (see chapter 4.1). However, in the music of Sibelius this theoretically clear situation is not often attained. We have seen that even in regular sum-chords the width of the layers may differ (see chapter 4.3.1). This feature is also predominant in *irregular* sum-chords. There are three classes of irregularity.

A sum-chord that is irregular is not necessarily inverted. In an *irregular root-position sum-chord* the harmonically upper layer (U) lies spatially above the lower one (L), which is also the spatial order in a regular sum-chord (cf. Fig. 4.1–1c), but in an irregular root-position sum-chord only the

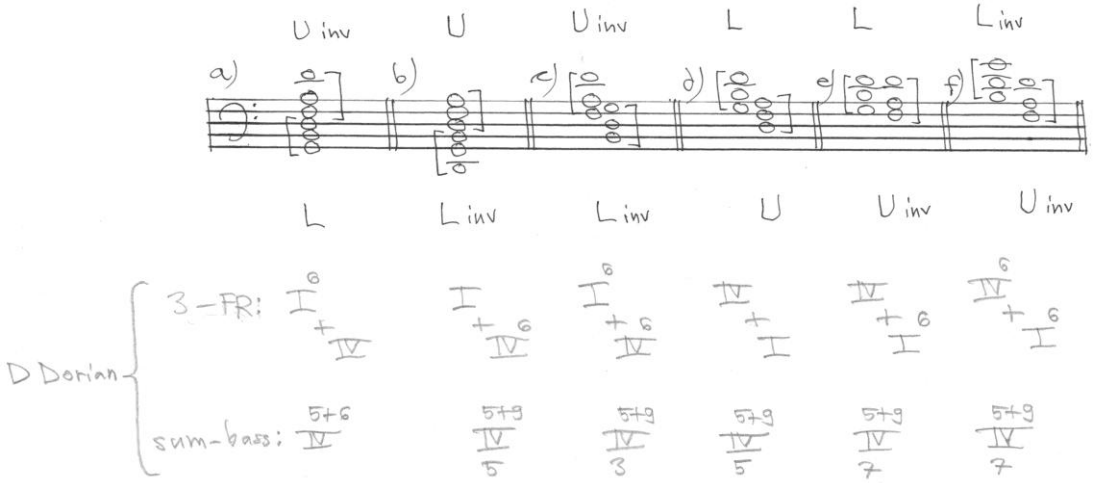
[229] "The term *ornamentation* is used in two ways in referring to music. In the narrow sense it refers to part of the performance practice of the late Baroque and Classical eras, (...). In the broader sense, ornamentation of a melodic line involves adding tones to it in such a way that its original form or profile can still be discerned" (Piston 1978:100). Piston does not define the harmonic quality of these added tones. In this study I consider *ornamentation* to be a device that utilizes non-harmonic tones, while besides these, *dissolving ornamentation* also utilizes harmonic tones.

upper sub-chord is inverted, whereas the lower one stands in root-position (U inv + L; Fig. 5.2–1a).

In inverted sum-chords the irregularity goes deeper. In this second class of irregularity the harmonically upper layer still lies spatially above the lower one, but the lower sub-chord is inverted (U + L inv; Fig. 5.2–1b), or both of them are (U inv + L inv; Fig. 5.2–1c).

Finally there is the third class of irregularity that may be called *reverse*. In reverse sum-chords harmonic and spatial qualities are at odds. The harmonically upper sub-chord (in terms of a regular sum-chord) spatially stands below the harmonically lower sub-chord (L + U). A reverse sum-chord is perforce inverted, whether both of its sub-chords stand in root-position (L + U; Fig. 5.2–1d), or not (L + U inv; Fig. 5.2–1e, L inv + U inv; Fig. 5.2–1f).

Fig. 5.2–1 a–f. Irregular sum-chords (U = upper layer in a regular sum-chord, L = lower layer in a regular sum-chord).



5.2.1 SEVEN-FOUR-TWO CHORDS IN THOROUGH BASS PRACTICE

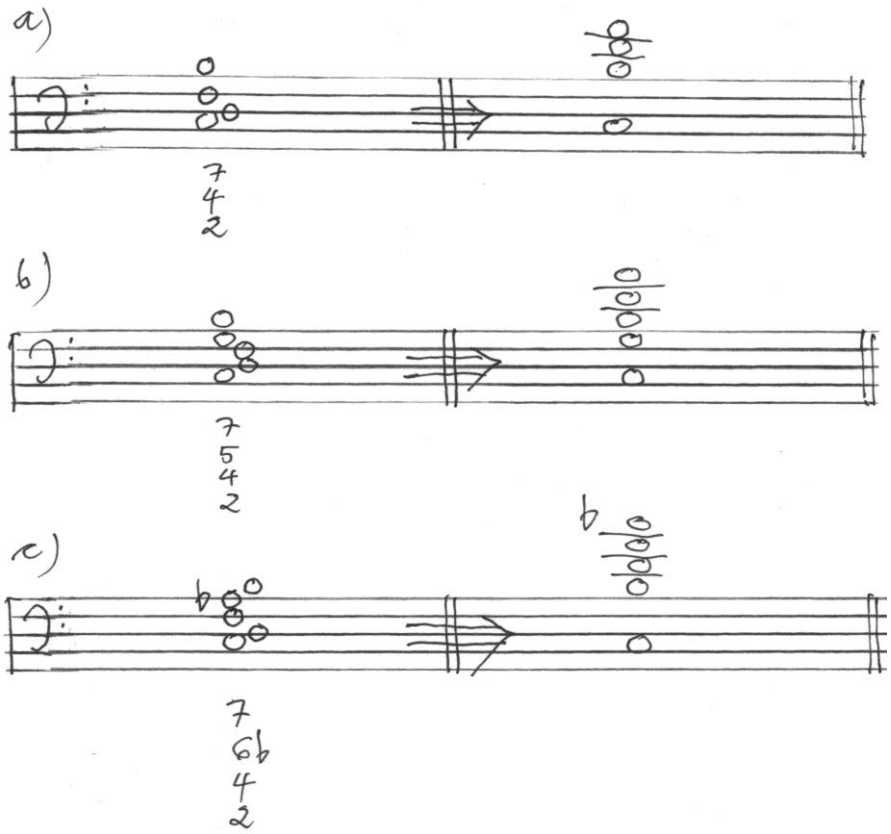
In traditional organ point *Satz* an organ point either did belong to a harmony that leant on the assisting bass, or it did not (see chapter 4.6.1). In the latter case the outcome was not a triad or seventh chord, but an organ point-formation. Some irregular root-position sum-chords in the music of Sibelius resemble traditional organ point-formation seven-four-two chords (see chapter 4.6.1) with regard to their interval structure.

In the figured bass-practice of the Baroque era (*basso continuo*), the signatures seven-four-two (Fig. 5.2.1–1a), seven-five-four-two (Fig. 5.2.1–1b) and seven-six-four-two (Fig. 5.2.1–1c) were encountered in organ point *Satz* mostly in connection with tonic or dominant organ point.[230] As combinations

[230] C. P. E. Bach deals with seven-four-two chords under the heading "The chord of major seventh" (C. P. E. Bach: 1985[1762]:293–299). Major seventh chords in the modern sense of the word are

of chord and tonic organ point their harmonic content may be considered as VII, V7 and VII7b over tonic organ point (e.g. C: VII/I1, C: V7/I1 and C: VII7b/I1; Fig. 5.2.1–1 a–c; cf. Fig. 5.6–3 [op. 12:III:194–195]).[231] On dominant organ point the seventh (e.g. in C major the fourth degree F) is analogously raised to a major seventh (i.e. to F sharp). The chords without dominant organ point would then be secondary dominants similar to the ones above. For the sake of brevity all the formations of this group are below called seven-four-two chords. The traditional seven-four-two chords, either complete or incomplete, may also be found and traced in the music of Sibelius, either in non-layered (see Fig. 8.3.2–1 [op. 52:III:98; seven-four-two chord]) or layered *Satz* (see , Fig. 11.3.1–2 [op. 112:71; five-four-two chord without the major seventh], Fig. 11.9.2–1 [op. 63:IV:379–385; posited seven-four-two chords).

Fig. 5.2.1–1 a–c. Seven-four-two chords.



C. P. E. Bach considers a seven-four-two chord as a "retardation" or "passing" formation. From this it follows that organ point is more 'harmonic',

discussed under the heading "The chord of the seventh" (ibid.:265–283). In order to avoid confusion in my study I have used the out-written signature "seven-four-two".

[231] Piston 1978:375 uses the term "five over one" regardless of the spatial arrangement of the seven-four-two chords.

i.e. more structural, than the chords moving in relation to it.[232] For this reason in this study organ point is not regarded as a non-harmonic tone, unlike in some textbooks on harmony.[233]

In the Classic and Romantic Eras new forms of organ point-formations also emerged. Yet in order to introduce Sibelian analogies of seven-four-two chords there is no need to scrutinize any later evolutions of them. Also, all the Sibelian forms – that for the sake of brevity are below called *sum-seven-four-two chords* – may be found in *Satz* where there is a sustained tone that is mostly tonic, dominant or mediant. This kind of *line-pedal Satz* may be considered a Sibelian variation of traditional organ point *Satz* (see section 5.1.2).

5.2.2 SUM-SEVEN-FOUR-TWO CHORDS

In traditional organ point *Satz*, besides the two harmonic situations where an organ point either did, or did not, belong to a harmony that leant on the assisting bass, in terms of this study (see chapter 4.6.1), a third harmonic situation emerged where smaller harmonic units together added up to a larger one (see chapter 4.6.2). Sibelius used this third additive alternative in shaping formations that outwardly resembled organ point-formations, i.e. traditional seven-four-two chords (see section 5.1.1).

In traditional seven-four-two chords – according to the very rubric of C. P. E. Bach – the seventh is a major one (ma7), while in Sibelian sum-seven-four-two chords (that may be called pedal point-formations) the seventh is a minor one (mi7). In connection with tonic pedal point this minor seventh is caused by the subtonic (see chapter 4.2.3), or by a flattened leading-tone in those scales not possessing a subtonic. Thus sum-seven-four-two chords are a specific group among dominant-type chords (see Figs. 5.2.2–2c, 5.2.2–3b, 5.2.2–4d, 5.2.2–5c).

In figured bass-practice the compound second was discerned from a ninth on harmonic grounds (see Fig. 4.3.1–3).[234] Yet in order to show the analogy between traditional and sum-seven-four-two chords, this classic practice of accuracy is relaxed in this section. Thus in the following figures (from Fig. 5.2.2–1 to Fig. 5.2.2–5) the sum-ninth may be marked by the signature “two”, the sum-eleventh by the signature “four” and the sum-thirteenth by the signature “six”.

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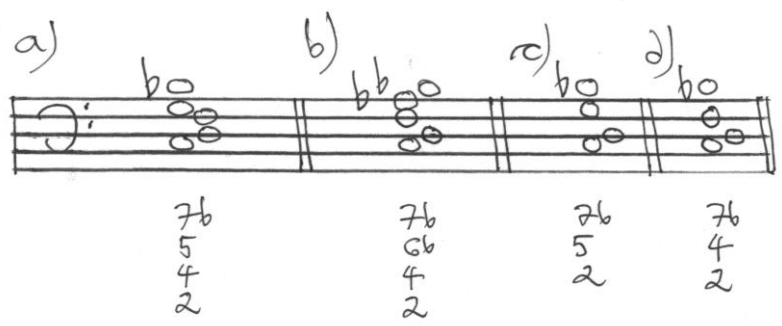
[232] C. P. E. Bach [1762](1985):293–299; on p. 294 a seven-four-two chord is characterized as a “passing” or “retardation” depending on context. On p. 298 the factors of a seven-five-two chord (a variation of seven-four-two) are called “appoggiaturas”.

[233] See e.g. Piston 1978:129–132.

[234] Cf. C. P. E. Bach: 1985[1762]:302–303 “The ninth is and remains a ninth even when it is placed directly adjacent to the bass. (…) Of course, (…), it is always better to place the ninth nine degrees above the bass.”

Below the sum-seven-five-four-two chord (Fig. 5.2.2–1a) and the sum-seven-six-four-two chord (Fig. 5.2.2–1b) are viewed as the complete formations, while the others are considered their incomplete versions. Thus the sum-seven-five-two chord (Fig. 5.2.2–1c) is considered an incomplete version of the sum-seven-five-four-two chord (Fig. 5.2.2–1a). On the other hand, the sum-seven-four-two chord (Fig. 5.2.2–1d) may be understood an incomplete version of either of the complete formations. Because of this family resemblance in these formations and because of their importance in Sibelian *Satz*, in terms of both three-voice framework (see chapter 4.3) and modal dimension it is appropriate to scrutinize sum-seven-four-two chords in a way that some readers might find rather meticulous.

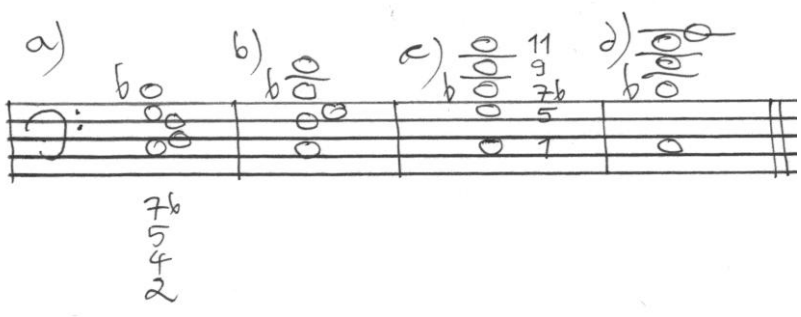
Fig. 5.2.2–1 a–d. Sum-seven-four-two chords.



Above the traditional seven-four-two chords were combinations of a chord and organ point (see Fig. 5.2.1–1). In these combinations the lowest tone of the chord – whatever it may be – functions as an assisting bass. In a similar way the sum-seven-four-two chords may be considered combinations of a sub-chord and a sub-tone below it (in all the Figs. 5.2.2 the sub-tone is c). In this combination the lowest tone of the sub-chord functions as the assisting bass. Thus a sum-seven-four-two chord also has several alternatives for an assisting bass according to which one of the factors of the sub-chord stands the lowest. In the closest positions of these alternatives the sum-ninth (as well as the sum-eleventh and sum-thirteenth) stands below the sum-seventh.

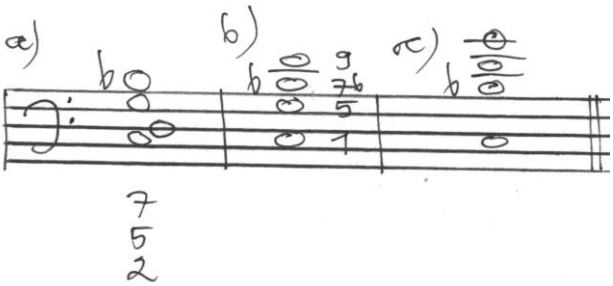
In Fig. 5.2.2–2 there are all the alternatives for the assisting bass of the upper sub-seventh chord of a sum-seven-five-four-two chord (mi7–5–4–2). In Fig. 5.2.2–2c there is a root-position sub-seventh chord in a regular sum-eleventh chord without a third, while in Figs. 5.2.2–2a, –2b and –2d there are irregular root-position sum-eleventh chords. This term is used here, even when the lower, supposedly regular, sub-chord is represented only by its root (cf. section 5.1). The three-voice framework of C Mixolydian: I mi7–5–4–2 in Fig. 5.2.2–2c would be C Mixolydian: V7+I1 and its sum-bass C Mixolydian: I1+11. The other alternatives can be deciphered accordingly.

Fig. 5.2.2–2 a–d. Sum-seven-five-four-two chords.



In Fig. 5.2.2–3 there are all the alternatives for the assisting bass of the upper sub-triad of a sum-seven-five-two chord (mi7–5–2). In Fig. 5.2.2–3b there is a root-position sub-triad in a regular sum-ninth chord without a third, while in Figs. 5.2.2–3a (see Fig. 11.5–2 [op. 52:II:93–102]) and 5.2.2–3c there are irregular root-position sum-ninth chords. The three-voice framework of C Mixolydian: I mi7–5–2 in Fig. 5.2.2–3b would be C Mixolydian: V+I1 and its sum-bass C Mixolydian: I1+9.

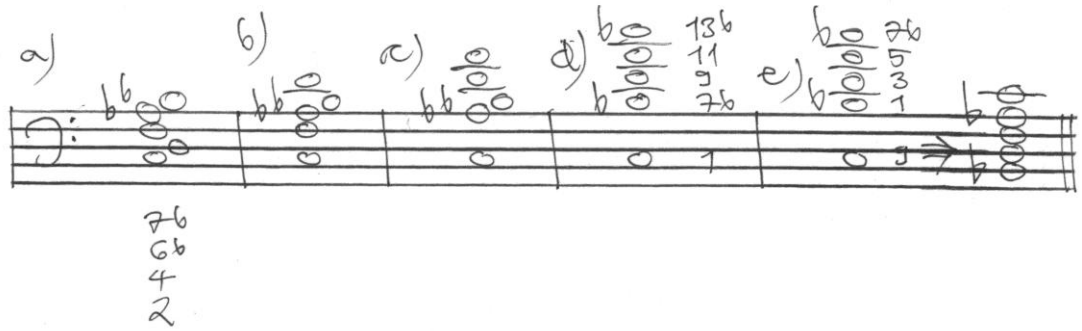
Fig. 5.2.2–3 a–c. Sum-seven-five-two chords.



In Fig. 5.2.2–4 there are all the alternatives for the assisting bass of the upper sub-seventh chord of a sum-seven-six-four-two chord (mi7–mi6–4–2). In Fig. 5.2.2–4d there is a root-position sub-seventh chord in a regular sum-thirteenth chord without the third or fifth, while in Figs. 5.2.2–4a, –4b and –4c there are irregular root-position sum-thirteenth chords. The three-voice framework of C Ionian-Aeolian: I mi7–mi6–4–2 in Fig. 5.2.2–4d would be C Ionian-Aeolian: VII7+I1 = I1+13 (sum-bass).

Yet it is also possible to understand this sum-seven-six-four-two chord as the 4th inversion of a sum-ninth chord (Fig. 5.2.2–4e) i.e. as a reverse sum-ninth chord (see section 5.1). In this case the sum-ninth (C) stands as the sustained tone, while the sum-root (B flat) stands as the seventh from this bass. The three-voice framework of C Ionian-Aeolian: I mi7–mi6–4–2 in Fig. 5.2.2–4e would be C Ionian-Aeolian: VII7+I1 = VII7+9 in the 4th inversion (sum-bass).

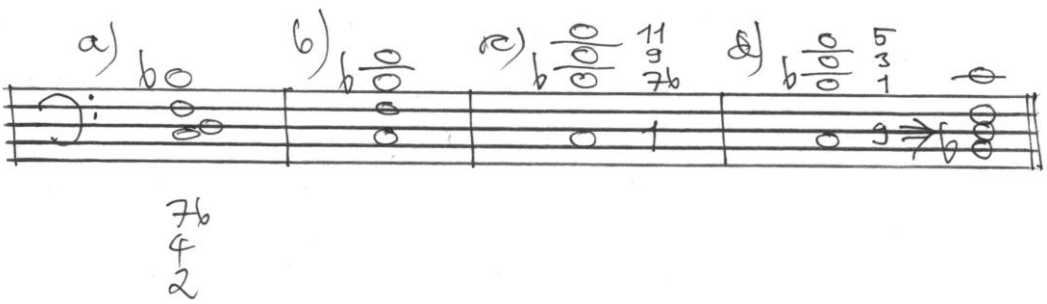
Fig. 5.2.2–4 a–e. Sum-seven-six-four-two chords.



In Fig. 5.2.2–5 there are all the alternatives for the assisting bass of the upper sub-triad of a sum-seven-four-two chord (mi7–4–2). In Fig. 5.2.2–5c there is a root-position sub-triad in an incomplete regular sum-eleventh chord without the third or fifth, while in Figs. 5.2.2–5a and –5b there are irregular root-position sum-eleventh chords. The three-voice framework of C Mixolydian: I mi7–4–2 in Fig. 5.2.2–5c would be C Mixolydian: VII+I1 = I1+11 (sum-bass).

It is also possible to understand this sum-seven-four-two as the 4th inversion of an incomplete sum-ninth chord without a seventh (Fig. 5.2.2–5d). Moreover, in this case the order of the layers is reversed (see section 5.1) and the sum-ninth stands as the sustained tone and the sum-root as the seventh from this bass. The three-voice framework of C Ionian-Aeolian: I mi7–4–2 in Fig. 5.2.2–5d would be C Ionian-Aeolian: VII+I1 = VII5+9 without a seventh in the 4th inversion (sum-bass).

Fig. 5.2.2–5 a–d. Sum-seven-four-two chords.

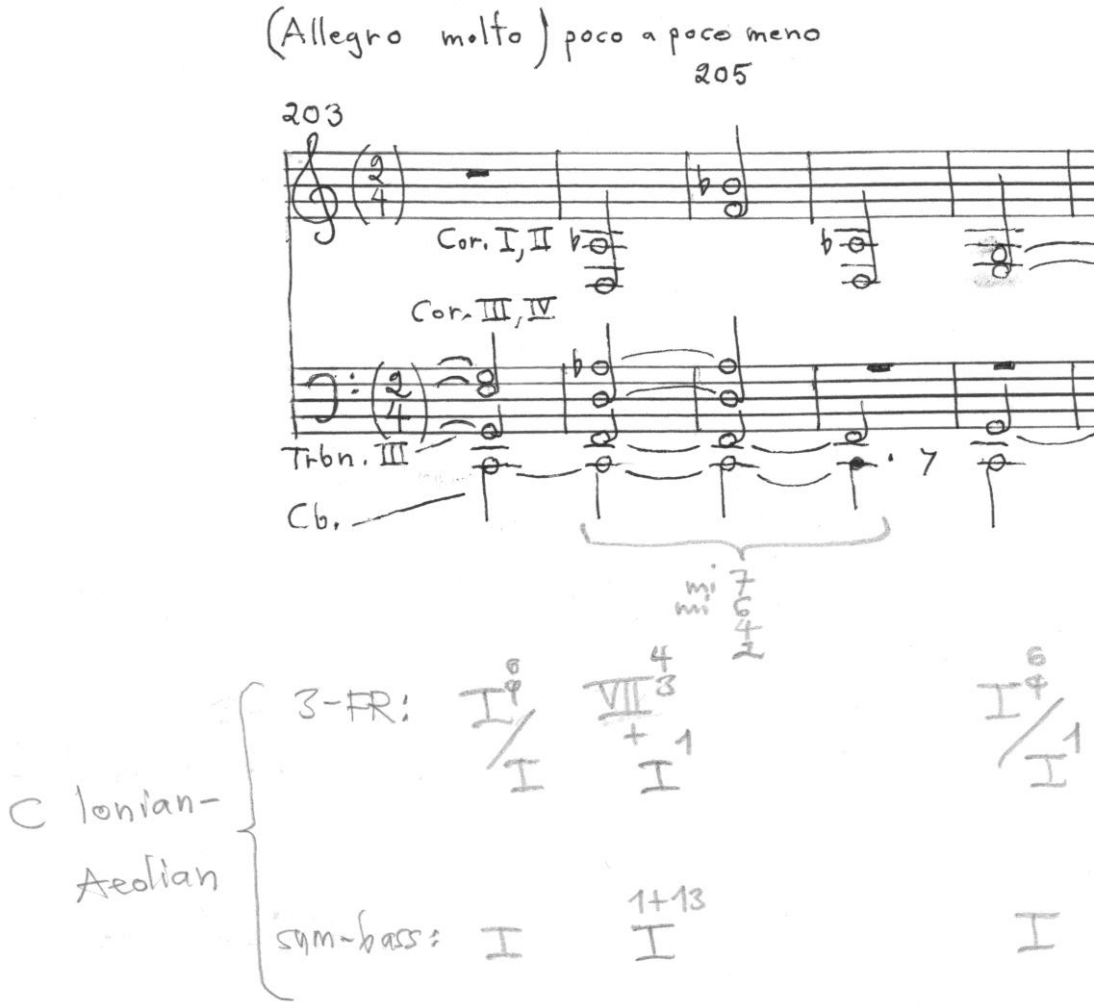


The sum-seven-four-two chords were presented above on the tonic in order to emphasize their difference in relation to traditional ones in major keys. Yet often the sum-seven-four-two chords appear on dominant pedal points (cf. section 5.1.1). In this case there is no need to raise the seventh (i.e. the fourth degree) in major and minor scales either.

In Fig. 5.2.2–6 there is a spot of line-pedal *Satz* that is a musical realization of Fig. 5.2.2–4b. This sum-seven-four-two chord rests on

sustained C (Fag., Cb.) over which there proceeds a dissolving thickening (Cor. I, II). This abundant line-pedal *Satz* is reduced (cf. Fig. 5.5–3 [op. 82:III:189–212]), but the lower horn parts (Cor. III, IV) that function as the orchestral artificial pedal effect (cf. chapter 8.3.2) in this dissolved sum-seven-four-two chord are still included.

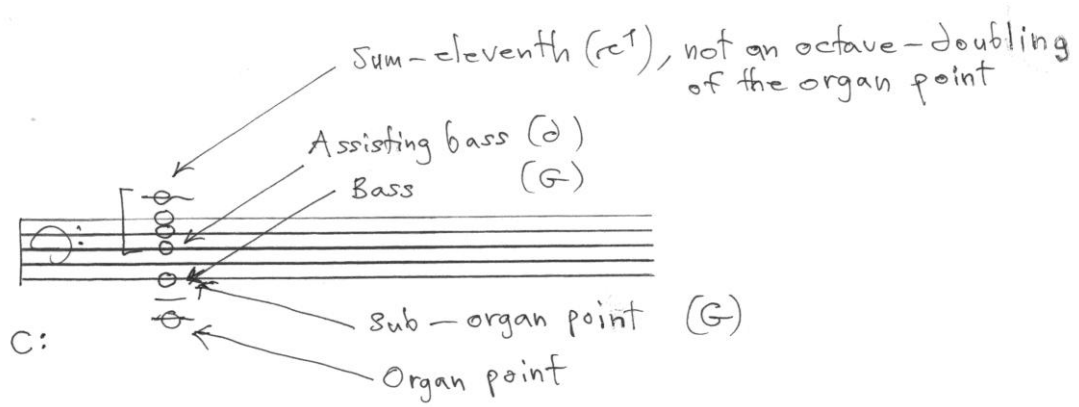
Fig. 5.2.2–6. Line-pedal *Satz* including a dissolving thickening. Fifth Symphony op. 82 (1915/1916/1919) 3. mvt. bars 203–207.



5.2.3 EXTENDED THREE-VOICE FRAMEWORK

In the music of Sibelius sum-seven-four-two chords on the dominant can be presented over tonic organ point (Fig. 5.2.3–1). In this kind of *extended three-voice framework* the dominant tone in relation to the assisting bass above it functions as the bass (as well as sum-bass), while in relation to the tonic organ point below it the sustained dominant functions as *the collateral organ point* (see section 5.1, cf. Fig. 5.5–1 [op. 63:IV:155–162]).

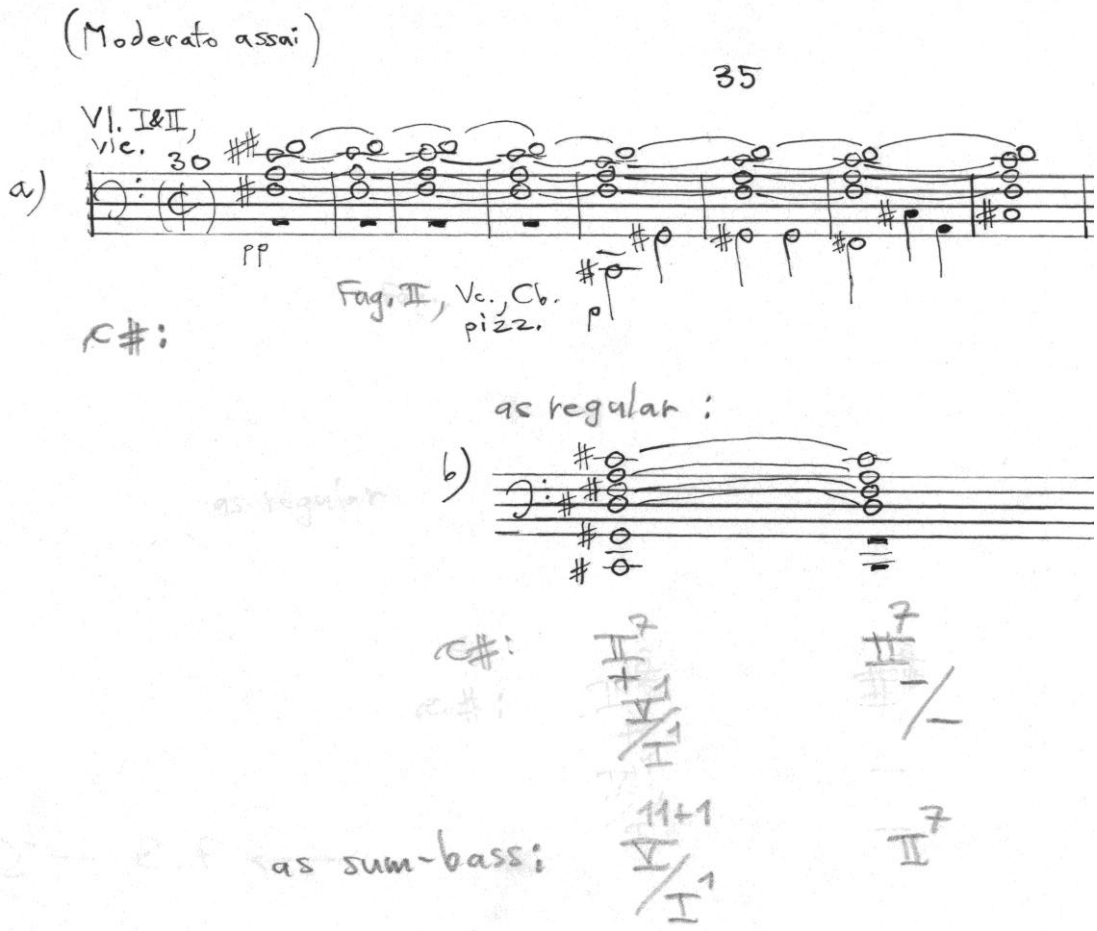
Fig. 5.2.3–1. An extended regular sum-seven-four-two chord.



An extended three-voice framework may also be melodically dissolved. In the lowest register a line enters (Fag. Vc., Cb.), which utilizes both the organ point and the dominant tone (Fig. 5.2.3–2a). Then in bars 36–37 the line – in its own register – dissolves the content of the upper sub-chord (c sharp: II six-five+V1/I1; this is shown as regular in Fig. 5.2.3–2b). This bass theme proceeds under an arpeggiation accompaniment (Vl. I, II, Vle.) that at first seems to be a dissolved pedal chord (see Fig. 8.5.2–1 [op. 9:30–49]). The assisting bass of it is f sharp, whereas the assisting bass of the regular reduction is d sharp (cf. Fig 5.2.3–1).

It is launched after an increasing and decreasing chord that is written as an augmented sixth chord A flat–C–E flat–F sharp (in bars 16–17, 21–22 and 26–29) and as a dominant-type ninth chord A flat–C–E flat–F sharp/G flat–B flat (in bars 18–20 and 23–25). In the latter the augmented sixth F sharp (Cl. I) is also spelled as a minor seventh G flat (Cor. III). In relation to the previous theme on a sustained tone C (in bars 9–15) the former of these A flat-rooted chords functions as c: VI Ger, whereas in relation to the following theme (from bar 34 on) the latter one functions as D flat/c sharp: V7+9.

Fig. 5.2.3–2 a–b. An extended irregular sum-seven-four-two chord dissolved. *En saga* op. 9 (1892/1902) bars 30–37.

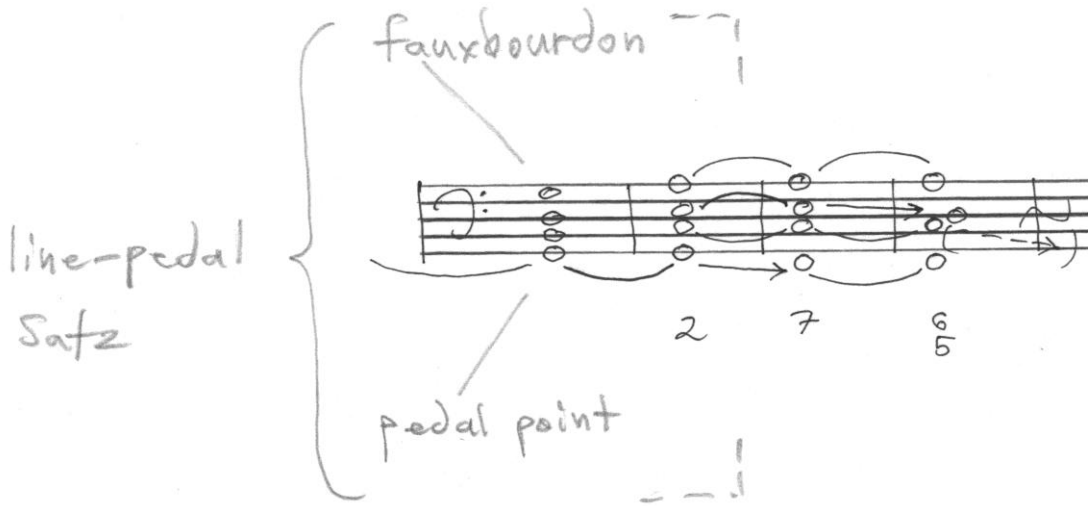


Besides on dominant and tonic, this kind of combination may also occur on other degrees (in C major the degrees of assisting bass, bass and organ point in Fig. 5.2.3–1 would be II7+V1/I1, but in D Dorian they would be I7+IV1/VII1). Also in connection with other degrees a dominant-type sum-seven-four-two chord is said to be combined with tonic-type organ point (see Fig. 10.4.2–1 [op. 104:III:53–102]).

5.3 THE ESSENCE OF RELEASING MOTIONS

In a two-voice framework (see chapter 4.3), i.e. in traditional *Satzlehre* the resolving motions of the dissonances determine the voice-leading. If these traditional rules were applied in *Satz* including e.g. ascending thickening and pedal point (see section 5.1), resolving motions would disjoin the collateral lines from the topmost line of the thickening and compel the hitherto stationary tone (see section 5.1) to proceed (Fig. 5.3–1).

Fig. 5.3–1. Resolving motions are bound to disjoin the line-pedal *Satz*.



In a three-voice framework (see chapter 4.3) the dissonances have a twofold intervallic quality (cf. Fig. 4.3–2). The dissonance treatment between consonant layers is a by-product that follows from their motions. Thus merely *in order to preserve the shape of the layers* the rules determining the two-voice framework must be supplied with releasing motions. It must be added that releasing motions may occur irrespective of a thickening, e.g. when four-part writing takes place over a sustained tone.

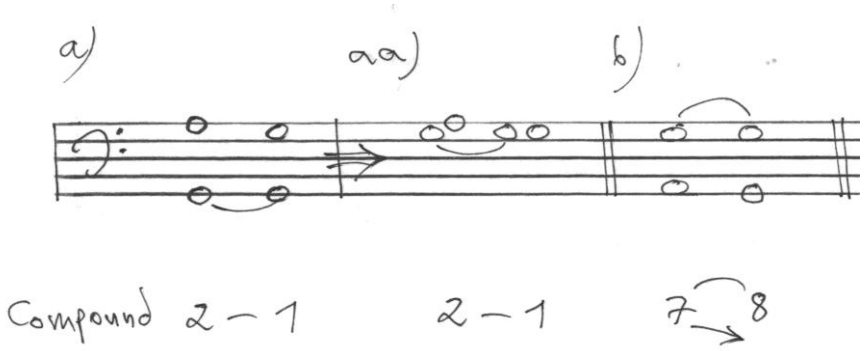
Yet the traditional resolving motions may also be used in a three-voice framework. Inside the layers, dissonances may also proceed according to traditional rules in three-voice frameworks (see Fig. 6.1.3–4 [op. 66:I:27–32]), Fig. 6.1.5–1 [op. 5:V:73–77], Fig. 6.1.6–1b [op. 112:612–634], Fig. 7.3–2 [op. 112:593–597], Fig. 11.4.2–3 [op. 46:V:7–10]). Dissonances may also proceed according to traditional rules between the layers of three-voice framework (see Fig. 6.2–1 [op. 109 no. 2/VIII:19–24], Fig. 7.1.1–1 [op. 49:159–161]). Resolving and releasing may also be simultaneously combined (see Fig. 5.7–1 [op. 52:I:60–67]).

Before Sibelius, releasing motions were used, but mostly in connection with melodic (i.e. non-harmonic) dissonances. These kinds of motion were not taken into consideration in the signatures of figured bass. Sibelius also uses these releasing motions ornamentally (see Fig. 4.4–3 [op. 22:IV:5–6]). However, in the music of Sibelius the amply and metrically emphatically used releasing motions constitute a class of chords, i.e. sum-seventh chords (see chapter 4.4, section 5.3.2).

In part-writing the releasing motions take place between two parts of which one remains oblique and another proceeds by step. Yet in releasing it is crucial that the part remaining oblique always functions in the manner of a sustained tone, even if it does not last longer than the duration required by two chords.

The releasing motion 2–1 (Fig. 5.3–2a) may serve as the first in ordering (see also Fig. 8.2.1–1 [op. 39:I:108–111], Fig. 7.5.1–1 [op. 112:250–259], Fig. 10.4.2–1b [op. 104:III:53]). From the subtracted releasing motion (Fig. 5.3–2aa) it may be derived as another one by means of octave-displacement of one of the interval's tones. This results in a releasing motion where the seventh descends to the octave (7–8 descending; Fig. 5.3–2b, see Fig. 5.1.3–2 [op. 82:III:105–108 et al.], Fig. 7.3–3 [op. 9:35–36], Fig. 7.6.2–1 [op. 63:II:193–195], Fig. 11.3.1–2 [op. 112:69–70]). This latter motion is found in traditional organ point *Satz*,[235] while the former releasing motion (2–1) is not. In a *Satz* containing octave-doubled components, both releasing motions may occur simultaneously (see Fig. 5.1.1–1 [op. 25:I:16–17]).

Fig. 5.3–2 a–b. Releasing motion 2–1 and its derivatives.



Before Sibelius, the releasing motion mi7–8 (Fig. 5.3–3a) was rare. From this another one may be derived by means of octave-displacement where the major second ascends to the unison (ma2–1 ascending; Fig. 5.3–3b, see Fig. 7.5.1–1 [op. 112:250–259], Fig. 11.5–2 [op. 52:II:93–102]). The motion mi7–8 may be considered a Sibelian variation of the traditional motion ma7–8.[236] It was found e.g. in organ point *Satz* in connection with seven-four-two chords (see section 5.2.1), while its octave-displacement minor second ascending to unison (mi2–1 ascending), if at all, resulted only from octave-doublings. In connection with traditional seven-four-two chords (that are based on assisting bass and bass; see Fig. 5.2.1–1 a–c) the motions 2–3 and 4–5 can also be found. Yet in the seven-four-two chords there are no added-dissonances.

In the music of Sibelius the motion mi7–8 (Fig. 5.3–3a; see also Fig. 5.5–1 [op. 63:IV:159–160], Fig. 5.5–4 [op. 104:III:15–16]) is inclined to emerge in connection with sum-seven-four-two chords (see section 5.2.2). Both major and minor seconds in this releasing motion (Fig. 5.3–3b) may be marked in the same way, i.e. 2–1 ascending (see op. 56:V:149–152, 157–159, 164–165).

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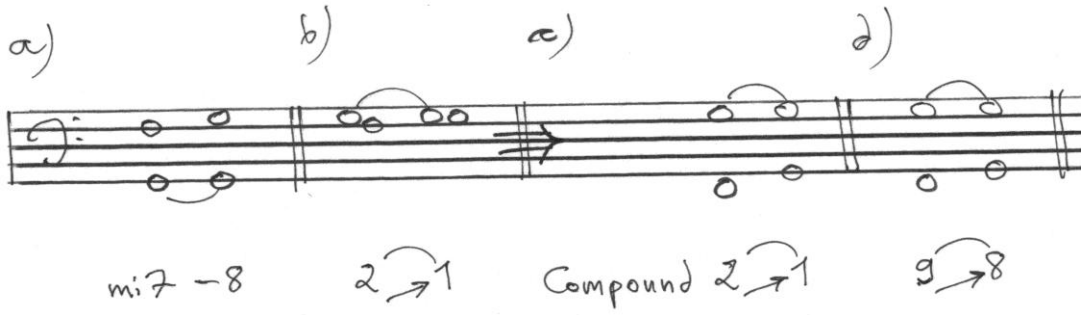
[235] At least in a passing motion; see Beethoven: Sonata op. 57:I:31–33 (and analogously in I:103–5, I:140–142).

[236] Major 7th proceeding to 8ve: C. P. E. Bach [1762](1985):296 Fig. 372.

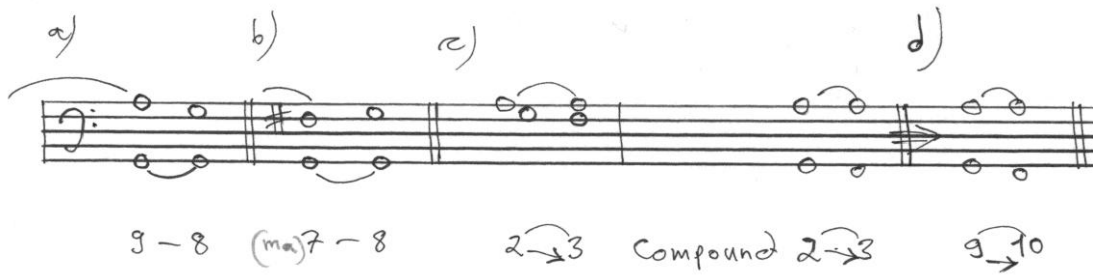
The motion 2–1 ascending may of course also be used as a compound second (5.3–3c). In connection with ninth chords the sonorously equal releasing motion will be 9–8 ascending (5.3–3d, see Fig. 5.1.3–2 [op. 82:III:105–165], Fig. 5.5–2 [op. 49:15–18]).

Fig. 5.3–3 a–d. Releasing motion mi7–8 and its derivatives.



In all the four releasing motions described above *the dissonance is followed by a perfect consonance* and *the goal tone of releasing already occurs before the releasing motion*. In the domain of traditional practice the suspensions 9–8 (Fig. 5.3–4a) and ma7–8 (Fig. 5.3–4b) are examples of this situation (see op. 105:521–525). However, in this study these analogous traditional motions are not termed as releasing motions, but they are classified as resolving motions instead. On the other hand, a traditional resolving motion 2–3 descending (between the bass and an upper part, Fig. 5.3–4c) when its compound second functions as a sonorously equal ninth, is to be considered a releasing motion (9–10 descending; Fig. 5.3–4d, see Fig. 7.3–3 [op. 9:35–36], Fig. 11.3.1–2 [op. 112:69–70]).

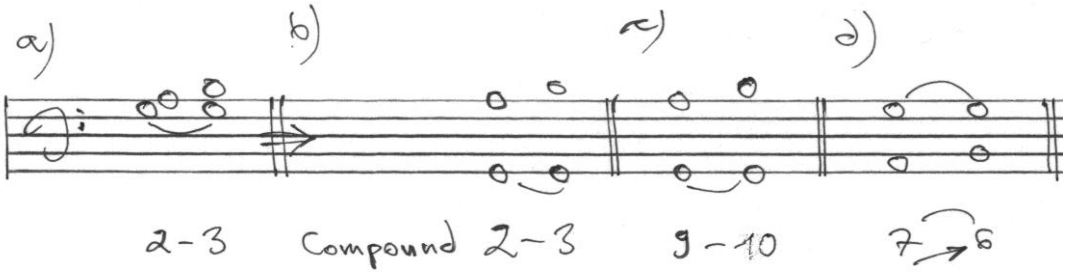
Fig. 5.3–4 a–c. Some resolving motions that resemble the releasing ones.



There are also other releasing motions where the dissonance is followed by an imperfect consonance and the goal tone of releasing does not occur before the releasing motion. In the above-mentioned releasing motion of second ascending to third (2–3; Fig. 5.3–5a) the dissonance is followed by an imperfect consonance (see also Fig. 5.1.3–1a [op. 63:IV:192–209], Fig. 8.3.2–1 [op. 52:III:94–96]). This motion may of course be used as a compound second (Fig. 5.3–5b). In connection with ninth chords the sonorously equal

releasing motion will be 9–10 (Fig. 5.3–5c, see Fig. 5.7–1 [op. 52:I:67]). From the releasing motion 2–3 another may be derived by means of textural inversion. This results in a releasing motion where the seventh ascends to the sixth (7–6 ascending; Fig. 5.3–5d, see Fig. 5.1.3–2 [op. 82:III:111–114 et al.], Fig. 5.5–3 [op. 82:III:210]).

Fig. 5.3–5 a–d. Releasing motion 2–3 and its derivatives.



In the releasing motions 7–8 descending (Fig. 5.3–2b) and 7–6 ascending (Fig. 5.3–5d) – not to mention their octave-displaced versions – a dissonance remains oblique and alters to a consonance because of the stepwise motion of the consonant factor of the interval. This practice is non-traditional.

5.3.1 RESOLVING AND RELEASING IN LINE-PEDAL *SATZ*

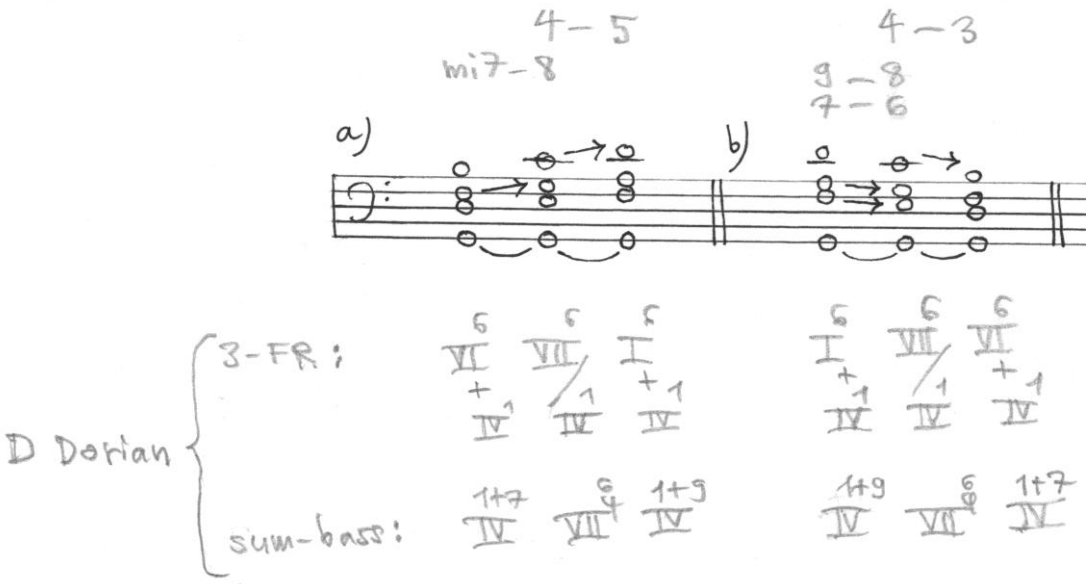
The pace of *fauxbourdon* in line-pedal *Satz* (see section 5.1) may vary from dense to sparse. In a dense pace where the *fauxbourdon* functions as a thickened line there is not always the need for chord-to-chord analysis (cf. Fig. 5.3.3–1 [op. 18:IV:1–5]), but in a less dense pace the sum-chords and other formations resulting from *fauxbourdon* and pedal point do form the harmonic basis of the *Satz* (see Fig. 5.1.3–4 [op. 56:II:1–9]). In the combination of fauxbourdon and pedal point below it, the layers – the upper sub-sixth chord and the lower sub-tone – are consonant. There is thus no need for dissonance treatment in the layers themselves. In layered *Satz* that contains only consonant layers, the treatment of dissonance emerges only *between* the layers. All the added-dissonances in relation to bass are here consonances in relation to assisting bass and only due to twofold intervallic quality (see chapter 4.3) the context and logic of the parts is revealed (cf. chapter 4.6.1). It may be added that exactly for this reason the concept of three-voice framework (see chapter 4.3) proves to be useful (cf. Fig. 5.5–1 [op. 63:IV:155–162]).

In the middle of a three-voice framework, besides the sum-seven-four-two chords dealt with above (see section 5.2.2), from a combination of fauxbourdon and pedal point other *non-additive* (see chapter 4.1.1) formations may also result. These are of triadic origin and remain as such,

but yet function in the manner of layers. These are *layered six-four chord*, *layered sixth chord* and *layered triad* (cf. Fig. 4.4–1). The first of these is dissonant, while the rest are consonant. In the harmonic analytic notation the segments of these non-additive formations are separated by a slash (/).

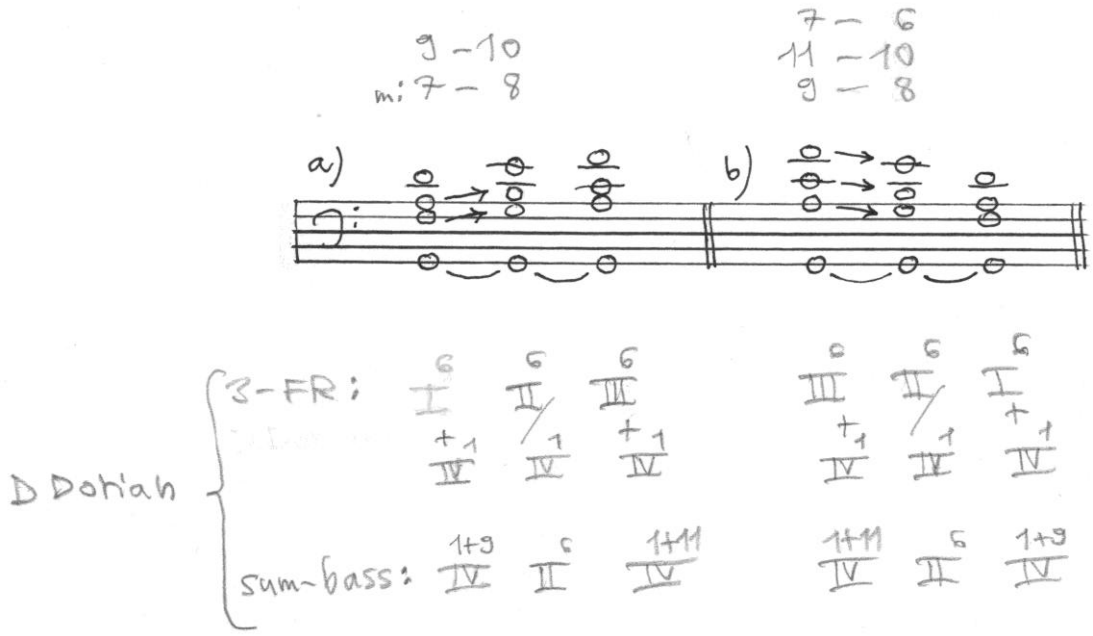
In Fig. 5.3.1–1 there is a *layered six-four chord*, which contains a sub-sixth chord (c1/g/e) and the bass (G) that octave-doubles the third of the sub-sixth chord (g) from the assisting bass (e). In both Figs. 5.3.1–1a and –1b the layered six-four chord (D Dorian: VII6/IV1=VII six-four) functions as a passing chord between two sum-chords that are irregular root-position ones (see section 5.2). These are the added-seventh chord (D Dorian: VI6+IV1=IV1+7) and the added-ninth chord (D Dorian: I6+IV1=IV1+9). It is an irregular version of the regular sum-ninth chord launched in the lecture fragment (see Fig. 4.1–1; cf. Fig. 4.6.1–1). This sum-ninth chord can also be understood as a sum-seven-five-two chord in open position (cf. Fig. 5.2.2–3c, as well as Fig. 4.6.1–1b). In Fig. 5.3.1–1a the layered six-four chord mediates in filled columnal increasing, whereas in Fig. 5.3.1–1b it mediates in filled columnal decreasing (cf. chapter 4.4). In the course of filled columnal decreasing (see chapter 4.4.1) the ninth (a–g; 9–8) and the seventh (f–e; 7–6) descend by step, according to the rules of traditional dissonance treatment. The layered fourth (c1–b; 4–3) also resolves according to the traditional rules, although from the assisting bass (e) the layered fourth (c1) is the sixth, i.e. a consonance. However, in columnal increasing (Fig. 5.3.1–1a) the matter is the opposite. *Releasing motions* emerge that differ from traditional resolving motions. Between the added-seventh chord and the layered six-four chord there is a releasing motion minor seventh ascending to the octave (f–g; mi7–8; cf. Fig. 5.3–3a). In the domain of *fauxbourdon* the dissonances added-seventh and added-ninth are the assisting bass (f) and the third from the assisting bass (a). In terms of a three-voice framework the added-dissonances have a twofold intervallic quality (cf. Fig. 4.3–2b). The behaviour of these dissonances thus depends on the direction of the *fauxbourdon*. Between the layered six-four chord and the added-ninth chord the fourth is released to the fifth (c1–d1; 4–5 [cf. op. 17:III:1–10]).

Fig. 5.3.1–1 a–b. Layered six-four chord.



In Fig. 5.3.1–2 there is a *layered six-three chord*, which contains a sub-sixth chord (e1/b/g) and the doubling of its assisting bass in the bass (g/G). In both Figs. 5.3.1–2a and –2b the layered six-three chord (D Dorian: II6/IV1=II6) functions as a passing chord between two sum-chords that are irregular root-position sum-chords (see section 5.2). These are the already encountered added-ninth chord (see Fig. 5.3.1–1) and the added-eleventh chord (D Dorian: III6+IV1=IV1+11). It can also be understood as a sum-seven-four-two chord (Fig. 5.2.2–5a). In Fig. 5.3.1–2a the layered six-three chord mediates in filled columnal increasing, whereas in Fig. 5.3.1–2b it mediates in filled columnal decreasing (cf. chapter 4.4.1). In the course of columnal decreasing (Fig. 5.3.1–2b) besides the ninth (a–g; 9–8) and the seventh (f1–e1; 7–6), the eleventh (c1–b; 11–10) also resolves. Again in columnal increasing (Fig. 5.3.1–2a) the matter is the opposite. Between the added-ninth chord and the layered six-three chord there are the releasing motions of minor seventh ascending to the octave (f–g; mi7–8; cf. Fig. 5.3–3a) and the ninth ascending to the tenth (a–b; 9–10; cf. Fig. 5.3–5c). The last-mentioned is sonorously equal to the releasing motion 2–3 (cf. Fig. 5.3–5b).

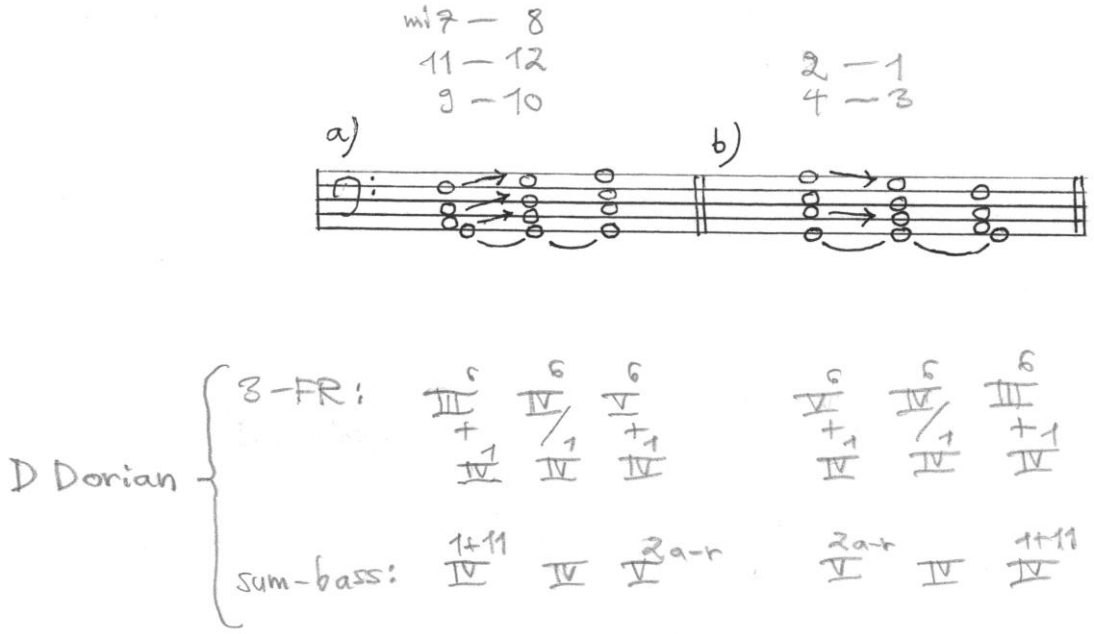
Fig. 5.3.1–2 a–b. Layered six-three chord.



In Fig. 5.3.1–3 there is a *layered triad*, which contains a sub-sixth chord (g/d/B) and the bass (G) that octave-doubles the sixth of the sub-sixth chord (g) from the assisting bass (B). In both Figs. 5.3.1–3a and –1b the layered triad does not function as a mediator in columnal processes. In Fig. 5.3.1–3a between the added-eleventh chord and the layered triad the releasing motions mi7–8 (f–g; cf. Fig. 5.3–3a), 9–10 (A–B; cf. Fig. 5.3–5c) and eleventh ascending to twelfth (11–12; c–d) emerge. The last ones are sonorously equal to the releasing motions and 2–3 (cf. Fig. 5.3–5b) and 4–5. In Fig. 5.3.1–3b the first chord at first seems to be a six-four-two chord. Yet this chord-formation does not resolve according to traditional rules where the root (a) should remain stationary, while the dissonant bass (G) should descend by step (a/G – a/F; see Fig. 5.3–1). In figured bass-practice the signature of this kind of formation where the bass was consonant was called a *nine-six-four chord*.[237] It had the character of a suspension where both the ninth and the fourth had to be prepared. A non-prepared version of a nine-six-four chord in this study is considered *an inverted sum-seventh chord*, an added-root seventh chord in the 3rd inversion (i.e. *added-root chord of the second*, abbreviated 2 added-root; see section 5.3.2). According to this consideration a *releasing motion* emerges where the compound second proceeds to the octave (= compound unison; a/G–g/G; cf. Fig. 5.3–2a). By subtracting the octave this releasing motion is 2–1 (cf. Fig. 5.3–2aa).

[237] See C. P. E. Bach [1762] (1985):305–307, Fig. 386.

Fig. 5.3.1–3 a–b. Layered triad.



5.3.2 ADDED-ROOT SEVENTH CHORD AND ADDED-SIXTH TRIAD

It has already been mentioned that there are three types of sum-seventh chords (see chapter 4.3.1). Of these, the added-seventh chords were already discussed (see section 4.4). These chords that the releasing motions constitute (see section 5.3), as a class may be located between traditional seventh chords and six-four chords. They were already marginally used before Sibelius. Save the added-sixth chord (see section 5.3.2), explained by Rameau, in theoretic literature the added-seventh triad (see chapter 4.4) and the added-root seventh chords (see section 5.3.2) were not recognised and therefore they were not clearly discerned from the proper seventh chord.[238] Analyzing e.g. Mozart or Chopin today without recognizing this class of chords distorts the hierarchy of harmonies, this is the case even more so with Sibelius.

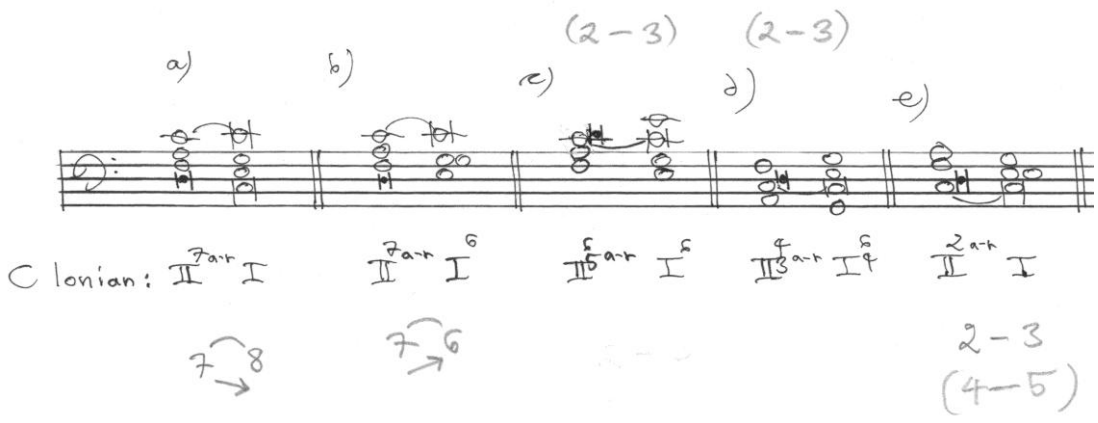
In this section added-root seventh chord (Fig. 5.3.2–1) and added-sixth triad (Fig. 5.3.2–3) are presented as sonorously equal. This is done for two

[238] J. Ph. Kirnberger describes a passing seventh chord (in this study the added-root seventh chord; 7+1): "In the free style the resolution of the seventh can be omitted when the seventh is formed between a stationary note in an upper voice and a passing note in the bass that leads from triad to its sixth chord, or vice versa" (Kirnberger [1771] 1982:104, Ex. 5.9 and ibid.:106, Ex. 5.14). Kirnberger also describes the similar behaviour of other inversions of this chord (ibid.:105–106, Exs. 5.12, 5.13 and 5.14). Cf. C.P.E. Bach [1762] (1985): 196–197, Fig. 218 (the first specimen) and 273, Fig. 353a (all the versions).

reasons. Firstly the releasing motions are similar in connection with both sum-seventh chords. Secondly it is in order to show how only different roots in these chords separate them from each other.

The name of the root position *added-root seventh chord* (e.g. C Ionian: II7 added-root; in the continuation abbreviated a-r, when necessary) is derived from the fact that in this sum-seventh chord the seventh does not resolve, but remains oblique while it is released to the octave, or to the sixth by stepwise motion of its root. In an added-root seventh chord the seeming dissonance seventh thus behaves in the manner of a consonance and the seeming consonance root proceeds in the manner of a dissonant factor. Mostly the root of an added-root seventh chord is supertonic and as such it is connected with the tonic triad (see e.g. op. 43:I:254–256). In each figure the added-root is indicated by a blackened note-head with vertical lines typical to a breve.

Fig. 5.3.2–1 a–e. Added-root seventh chord and its inversions.



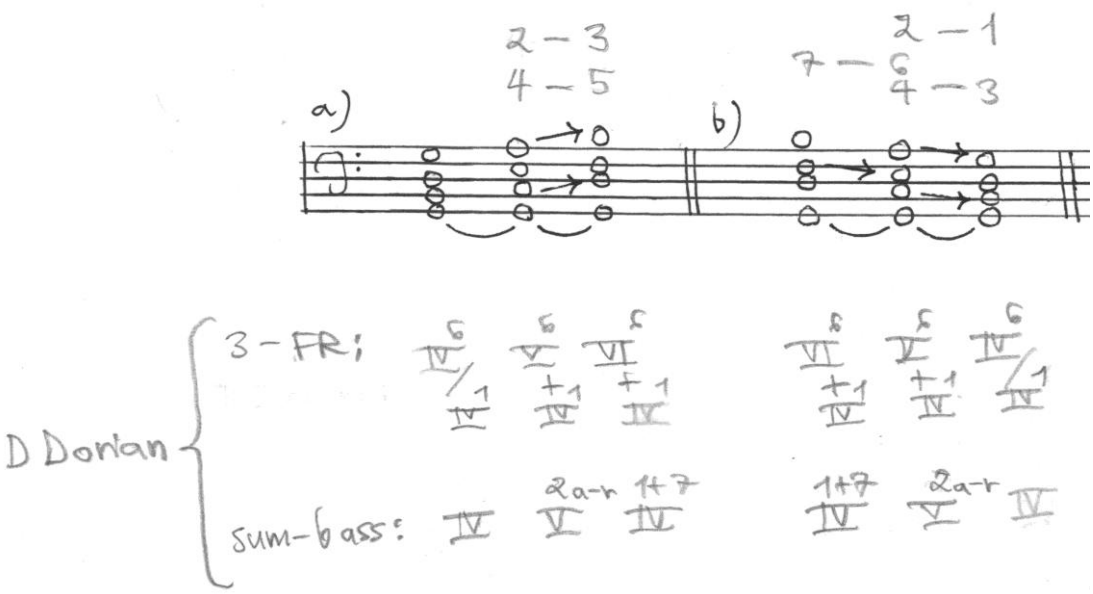
The releasing motions in an added-root seventh chord are either 7–8 descending (Fig. 5.3.2–1a, see also Fig. 5.3–2b), or 7–6 ascending (Fig. 5.3.2–1b; see also Fig. 5.3–5d). The first inversion of it is an *added-root six-five chord* (C Ionian: II six-five added-root; Fig. 5.3.2–1c), while the second inversion is an *added-root four-three chord* (C Ionian: II four-three added-root; Fig. 5.3.2–1d). The third inversion, an *added-root chord of the second*, (C Ionian: II2 added-root; Fig. 5.3.2–1e) was already discussed above (see Fig. 5.3.1–3b). Sibelius utilizes the progression involving this third inversion especially in Lydian mode. In order to simulate this, the tone f in Fig. 5.3.2–1e is to be sharpened. In the inversions the releasing motions are either 2–1 (see Fig. 5.3–2a), or 2–3 (Fig. 5.3.2–1e; see also Fig. 5.3–5a).

In a line-pedal *Satz* (see section 5.1) comprising of fauxbourdon and plain pedal point, an added-root chord of the second may function as a passing chord between a layered triad (cf. Figs. 5.3.1–3a and –3b) and an added-seventh chord (see chapter 4.4) in filled columnal increasing (Fig. 5.3.2–2a), or vice versa in decreasing (Fig. 5.3.2–2b). In the increasing process (Fig.

5.3.2–2a) between the added-root chord of the second and the added-seventh chord there is a releasing motion second ascending to a third (2–3; cf. Fig. 5.3–5b), as well as a fourth ascending to a fifth (4–5). The releasing motions of the added-root chord of the second that emerge in the decreasing process (Fig. 5.3.2–2b) have already been encountered (see Fig. 5.3.1–3b). Yet with the resolving of the added-seventh chord (7–6), another dissonance is introduced. This is usual in *Satz* involving thickenings. It leads to a more or less enduring tension.

Also, a root-position added-root seventh chord may function as an emphatic passing chord (see op. 56:V:48–52; D–E7–D), as well as the other inversions.

Fig. 5.3.2–2 a–b. Added-root chord of the second as a passing chord.

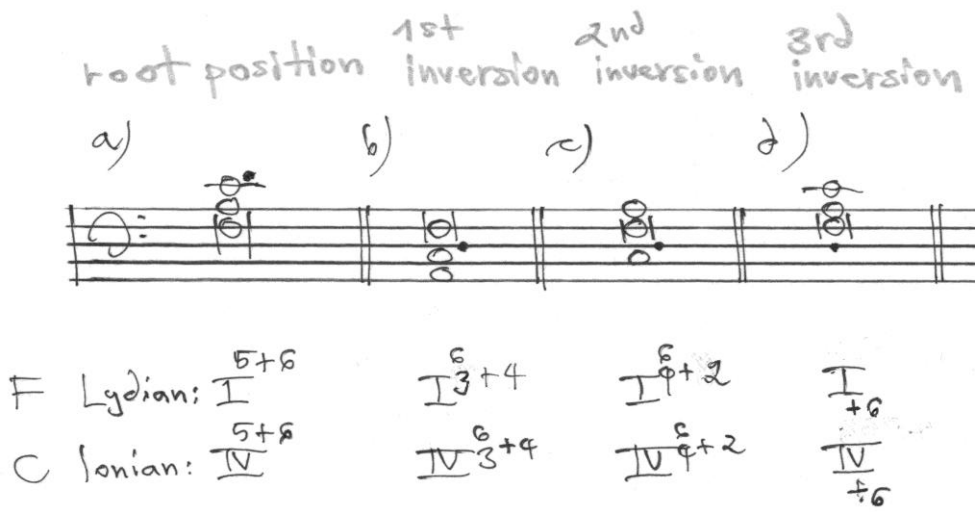


The situations above may be considered derivations from the traditional case of the "passing seventh" met in the "free style" (see section 5.3.2, footnote 11). However, with Sibelius the chords framing an added-root seventh chord, besides being rooted on the same degree (as above), may also be rooted on different degrees. In these cases the previous chord may either include the ensuing seventh (e.g. C–a7–G; see op. 52:III:246–247), or not (e.g. G four-three–F7–E flat; see op. 55:507–511).

Although an added-sixth triad (Fig. 5.3.2–3a) seems to be an inverted chord according to the traditional norms (D as its *factitious root*), it may be understood as the root position of this sum-seventh chord. In each figure the *actual root* F is indicated by the breve and the added-sixth by a blackened note-head. In a key or mode the actual root of an added-sixth triad is mostly tonic or subdominant. The most common progressions involving these are I5+6 – V and IV5+6 – I (see Fig. 5.1.3–3 [op. 112:1–3], Fig. 5.6–3a [op. 12:III:198–200, 201–202], Fig. 8.2.1–1 [op. 39:I:108–111]). In these

progressions the dissonance is released (see section 5.3), not resolved, as would be the case in the traditional progression II six-five–V.[239] In the figures 5.3.2–3 a–d below the chord is tonic in F Lydian (or also in F Ionian or in F major) and subdominant in C Ionian (or in C major). The F Lydian mode was mentioned first only in order to present the scalarly associated mode for D Dorian, the mode in which many Figs. in this study are presented. In an added-sixth triad the possibility for two different roots, which may be called the *dual root*-principle, opens possibilities for modal ambiguity (see chapter 11.4).

Fig. 5.3.2–3 a–d. Added-sixth triad and its inversions.



The first inversion is an added-fourth sixth chord (six-three+4; Fig. 5.3.2–3b). The second inversion is an added-second six-four chord (six-four+2; Fig. 5.3.2–3c).[240] The third inversion is an added-sixth below root of the triad (+6 below root; Fig. 5.3.2–3d).

5.3.3 RELEASING IN COLUMNS

In line-pedal *Satz* (see section 5.1) where a *fauxbourdon* proceeds over a pedal point those chords in the thickening that form sum-chords in connection with a sustained tone may become the core of columnal

[239] Added-sixth triad IV5+6 as an emphatic passing chord: Mozart: Symphony in C major ("Linz") KV 425 (1783) 1. Mvt. bars 5–7 (C: I six-four – IV5+6 – I6; in the added-sixth triad the fifth C played by Cor. & Vle. remains stationary and the sixth D played by Vl. I leaps a fourth upwards).

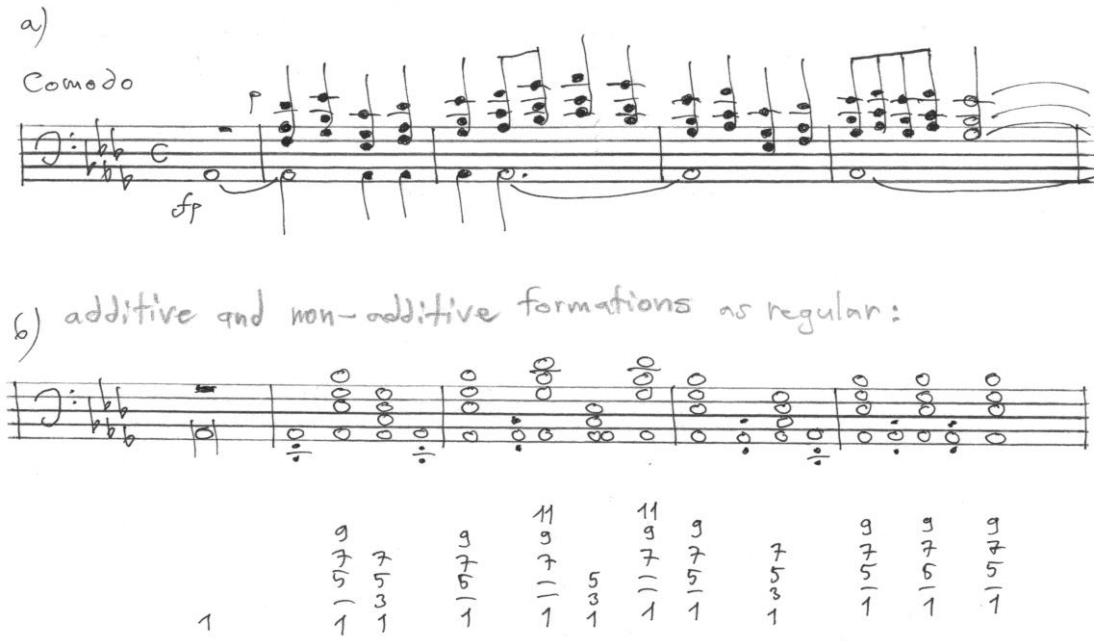
[240] IV degree added-second six-four chord (the 2nd inversion of 5+6): Chopin: Etude op. 25 no. 12 (1837) bars 1–4 (c: I – IV six-four+2 – IV six-four – I; the added-second D as a part of a metrically emphatic double neighbour note E flat–D–F–E flat), Scherzo op. 31 (1838) bars 5–9 (b flat: IV six-four+2 – I; either a releasing motion 2–3 or motion 2–1 may be assumed).

succession (see chapter 4.4), while other non-additive chords (see section 5.3.1) between them in the thickening merely function as passing chords.

In Fig. 5.3.3–1a there is a thickening by sixth chords. In the topmost line there is an E flat-rooted tonic tetrachord that is extended by the subtonic and submediant (E flat Dorian: C Db + Eb F Gb Ab; cf. 4.2.3–4c). The *fauxbourdon* proceeds over a subdominant pedal point (E flat Dorian: IV1), until in bar 5 and again in bars 6–9 it terminates in a sum-ninth chord (E flat Dorian: I6+IV1 = IV1+9). This is an irregular version (see Fig. 5.2.2–3c) of the sum-chord that Sibelius described in his lecture fragment (see Fig. 4.1–1). Also, the modal character of the lecture fragment that was pondered earlier (see chapter 3.3), is considered as prevailing here. In bars 2–6 there are some sixth chords that with the pedal point A flat make either layered triads (E flat Dorian: IV6/IV1), layered sixth chords (E flat Dorian: II6/IV1), or layered six-four chords (E flat Dorian: VII6/IV1; see section 5.3.1). All the other combinations result in irregular root-position added-seventh, added-ninth and added-eleventh chords rooted on the IV degree. Often these sum-chords also appear on the stressed (i.e. the first and third) beats (Fig. 5.3.3–1b). Taking into consideration the passing character of most of the non-additive chords, the whole passage – when considered from point of view of the regular reduction – seems an embellished increasing and decreasing columnal succession (see chapter 4.4). In bars 3–4 dissolution also occurs (E flat Dorian: III6+IV1 – I6+IV1 = IV1+11 – IV1+9; cf. Fig. 4.4.1–3b).

If the concluding key of this piece D flat major is already taken into consideration here, then in bars 1–15 there is a prolonged dominant in that key. However, if our interpretation of this passage as E flat Dorian is accepted (including a IV degree pedal point, which is a Sibelian resource; cf. Fig. 7.3–4 [op. 114:II:8–11]), then in this piece the alternation between the scalarly associated E flat Dorian and D flat major takes place (see chapter 4.2.2, chapter 11.9).

Fig. 5.3.3–1 a–b. Line-pedal *Satz* as a columnal succession. *Fire on the Island* op. 18 no. 4 (1895) bars 1–5.



5.3.4 ADDED-DISSONANCES AS LEAPING CONSONANT CHORD FACTORS

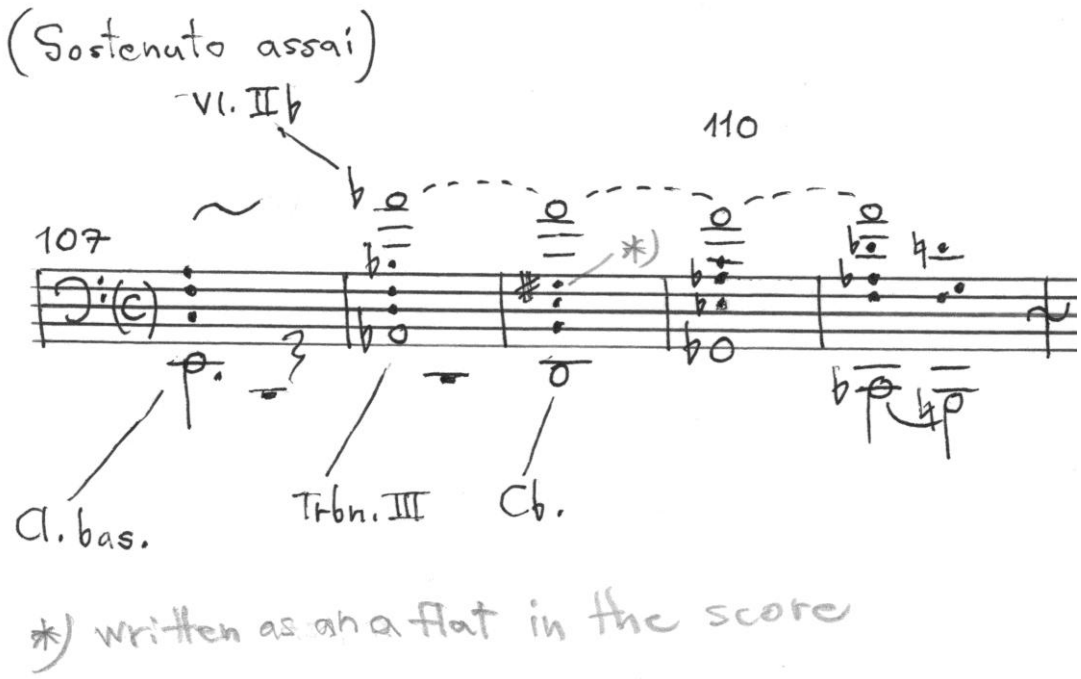
Above it was stated that in layered *Satz* containing only consonant layers, the treatment of dissonance emerges only *between* the layers (see section 5.3.1). From the twofold intervallic quality (cf. Fig. 4.3–2b) of an upper layer in a three-voice framework (see chapter 4.3) it follows that its content may be treated either as added-dissonances (see chapter 4.4), or as consonant chord factors. The latter possibility makes it possible to proceed from them by leaping against a stationary (see Fig. 11.9.1–1 [op. 82:I:297–298]), or a proceeding layer (see Fig. 8.5.2–1 [op. 9:46–49], Fig. 7.4.1–1 [op. 106:IV:9, 10], Fig. 9.6–2 [op. 104:IV:234]). Dissolution may also be in accordance with this principle (see Fig. 4.4–2a).

On the other hand, leaps in the lower layer (e.g. from a root) against a stationary upper one is a leap from a consonant chord factor (see Fig. 4.4–4b, see Fig. 5.6–3 [op. 12:III:203–204], Fig. 7.1.1–1 [op. 49:159, 160]).

However, in the music of Sibelius there are also leaping bass tones that according to the traditional norms are to be considered dissonances, i.e. sevenths. In order to prevent the tension from weakening suddenly due to a leap of a dissonance, the leap is directed to maintain the tension (cf. Fig. 7.1.3–1 [op. 109 no. 2/I:1–4]). Thus in Fig. 5.3.4–1 all the sevenths in the bass part (Cl. bas. → Trbn. III → Cb.) in successive dominant-type chords of the second leap to similar bass dissonances (the middle parts appear in

schematized form, without suspensions).[241] The common tone (a3 flat/a2 flat/a1 flat; as a *tremolo*) to all these chords of the second is played by the higher strings (Vl. I div. & Vl. II div.). Sibelius treats these bass dissonances as if they were added-sevenths (see chapter 4.4), i.e. sevenths of sum-seventh chords!

Fig. 5.3.4–1. Leaping dissonances (in the bass part). *The Oceanides* op. 73 (1914) bars 107–111.



5.4 SCALES AND *SATZ*

Most likely the Sibelian types of *Satz* were developed from the traditional ones (cf. section 5.1.2). Yet this development did not lead to the abandonment of traditional *Satz*-types. On the contrary: in Sibelius' output the traditional types of *Satz* are used until the end of his career. In soprano-bass *Satz* the bass parts are mainly comparable to those found in Romantic repertoire.

In the music of Sibelius scalic material mostly conforms to the type of *Satz*. Soprano-bass *Satz* (i.e. a two-voice framework; see chapter 4.3) is often used in connection with major and minor scales. As with this kind of *Satz*, Sibelius also uses major and minor scales until the end of his output.

[241] In Wagner's *Tristan und Isolde* (Act I, bars 1089–1090, 1092–1093, 1095–1096, 1096–1097) a bass tone of a chord of the second (i.e. the dissonance) leaps downwards to the root of another root-position seventh chord (in the prelude of *Tristan* a similar bass leap merely dissolves a harmony; cf. bars 28–29, 30–31).

Consequently scales other than major or minor often appear in Sibelian types of *Satz*. Yet correlation between the scalic material and *Satz* is not a rigid principle. Soprano-bass *Satz* may be used in connection with other scales than major or minor and, conversely major scales, as well as minor scales may be used in Sibelian *Satz*.[242]

The interdependence of *Satz* and scale is most recognizable in those formulae that are used for phrase endings. Therefore in this study the term "cadence" is used in connection with endings in major or in minor. The corresponding term in connection with modal scales is "closure" (cf. chapter 3.6, chapter 4.2.3). In interchange (see chapter 4.2.2) it is possible that a phrase in major or in minor is concluded by a closure, or that a modal phrase is concluded by a cadence. Furthermore in interchange a cadence may immediately follow a closure, or vice versa.

5.4.1 CHARACTERISTIC HARMONIC PROGRESSIONS IN MODES

In this study harmonic successions (see chapter 4.2.4 and 4.2.5) are discerned from harmonic progressions. Unlike in successions, in progressions the voice-leading follows the rules of figured bass-practice (cf. Fig. 4.2.4–2). A harmonic progression is capable of establishing or shifting tonality or neo-modality.[243] In this chapter my aim is to examine the harmonic potential of various modes and other scales, not to search for a definitive 'basic progression' to which all progressions can be reduced. The discussion about modulation is postponed to later chapter (see chapter 11.9).

In order to establish a heptatonic mode a *characteristic progression* is needed. It contains at least two chords. One of them is the tonic chord (I). The other chord is the *characteristic chord* (X) containing the *characteristic scale step* of the mode. Firstly the characteristic degree of a mode is the one that differs from the corresponding degree in major in major-like mode, or in minor in minor-like mode.[244] Thus Lydian differs from major on the fourth degree (Fig. 5.4.1–1a), and Mixolydian on the seventh degree (Fig. 5.4.1–1b). Aeolian differs from harmonic minor on the seventh degree (Fig. 5.4.1–1c).

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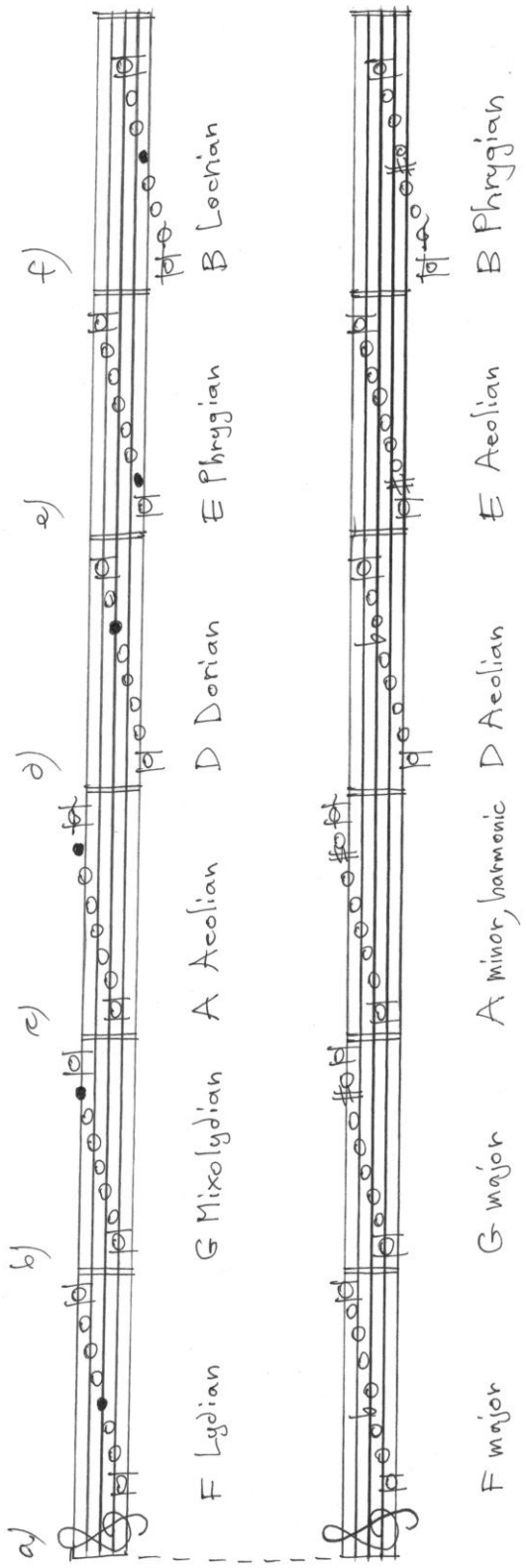
[242] Major scales in Sibelian *Satz*: see Fig. 4.2.5–2 [op. 52:I:61–64], Fig. 5.6–4 [op. 82:31–34], Fig. 5.7–1 [op. 52:I:60–67], Fig. 6.1.3–4 [op. 66:I:27–28], Fig. 9.6–2 [op. 104:II:234–235], Fig. 11.3.3–1 [op. 18:III:1–19], Fig. 11.9.2–1 [op. 63:IV:379–385]; minor scales in Sibelian *Satz*: see Fig. 6.3–4 [op. 56:V:254–259], Fig. 7.2.1–1 [op. 63:IV:178–182], Fig. 8.2.2–3 [op. 82:III:239–242].

[243] According to Schoenberg "A succession is aimless; a progression aims for a definite goal (...) A progression has the function of establishing or contradicting a tonality. The combination of harmonies of which a progression consists depends on its purpose – whether it is establishment, modulation, transition, contrast, or reaffirmation" (Schoenberg 1983:1–2). In Schoenberg his "aimless" successions also follow the rules of through bass. On the other hand the pentachord-successions encountered in chapter 4.2.4 and 4.2.5 are not "aimless".

[244] Cf. Persichetti 1967:32–33, 45.

The remaining modes, that include more than one degree differing from major or minor, are to be measured in relation to minor-like modes. Thus Dorian differs from Aeolian on the sixth degree (Fig. 5.4.1–1d), and Phrygian on behalf of the second degree (Fig. 5.4.1–1e). Locrian differs from Phrygian on the fifth degree (Fig. 5.4.1–1f). In Phrygian and Lydian the characteristic degree occurs in the tonic pentachord, while in Dorian, Mixolydian and Aeolian it occurs in the dominant tetrachord. In Locrian the characteristic fifth degree may be considered to occur in both of them (see chapter 4.2.1).

Fig. 5.4.1–1 a–f. Characteristic degrees of the modes.



The characteristic degrees in the domain of mixed modes may be defined accordingly. Thus e.g. Ionian-Aeolian differs from Mixolydian on the sixth degree, while Aeolian-Ionian differs from Dorian on the seventh degree.

In the domain of modes Ionian is a special case, because the scale of it is similar to major scale. Yet Ionian differs from major in terms of its characteristic progressions (see section 5.4.2).

The shortest possible forms of a characteristic progression are the tonic chord either preceding or following the characteristic chord (I – X, or X – I). Repetition of a two-chord characteristic progression produces *incomplete alternation* (either I – X – I – X, or X – I – X – I). The two shortest possible progressions overlap in the shortest possible form of *complete alternation* (I – X – I, or X – I – X). A longer specimen of a complete alternation is e.g. I – X – I – X – I.

In major and minor the characteristic progressions are either I–V7 or V7–I. In an authentic cadence the characteristic chord (V7) is at the same time the *cadential chord* before the *caesura chord* (V7–I; see section 5.4.2). In other heptatonic scales this is not necessarily the case.[245] Those characteristic progressions are also peculiar to natural minor (see Fig. 4.4–3 [op. 22:IV:7–10], Fig. 7.1.1–1 [op. 49:159–161], Fig. 7.2–1 [op. 112:143–152], Fig. 11.5–2 [op. 52:II:93–102]). Yet the natural minor scale is similar to the Aeolian mode. It is discerned from natural minor on harmonic grounds. A similar relation occurs between the major scale and Ionian mode (see section 5.4.2). Due to scalic similarity between Ionian and major, or Aeolian and natural minor, the term *inflection* is used instead of *interchange* (see chapter 4.2.2).

In a major key the seventh and fifth degrees are connected in the dominant chord. In a dissolving motion the leading-tone may descend (7.–6.–5.). For example, in the progression C: V–IV6–V six-five–I in the topmost part there may be the motion B–A–G, while in the bass part is the reverse motion G–A–B. Thus the descending leading-tone is part of a voice exchange in the domain of a dissolved dominant chord, in which there emerges a passing IV6 chord.[246] Also, altered tones as chord factors and chromaticism involving these are typical to a major key, whereas in Ionian mode altered tones are seldom found.

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[245] Schenker's reasoning when he tries to prove the 'defectiveness' of "church modes" is inadmissible. A mode cannot be considered "defective" on the grounds that its triads of the I, IV and V degrees are different from major or minor, or even if there is a diminished triad on one of those "steps" (Schenker 1980:55–56). The conclusion is more than obvious: a mode need not imitate major or minor. It need not be determined by the same three "scale-steps" as major or minor. Because of its peculiar scalic structure every mode is an independent harmonic system, determined by degrees that are peculiar to it, orientating "toward what is most natural, most simple, and as concise as possible" (ibid.:56).

[246] Of course, in a major key descending dissolving leading-tones (i.e. 7.–6.–5.) may also occur over a sustained dominant bass; see e.g. Schumann: *Fantasie* in C major op. 17 (1836–1838) 1. mvt. bars 9–12 (C: V7; in the accompaniment figuration the leading-tone is always present).

In Ionian mode the seventh degree does not function as the leading-tone. Simultaneous connecting of the seventh degree with the fifth degree in a dominant-type chord is avoided. In Ionian the seventh and fifth degrees are however simultaneously combined in the III degree triad (see Fig. 5.1.3–2 [op. 82:III:105–165]) and in the tonic seventh chord (I7, or I5+7).[247] In Ionian the tonic seventh chord does not appear as a passing chord, or as a suspension between the structural harmonies, as is the case in major.[248] In Ionian III or I7 the seventh degree either descends by step or ascends by step to a chord that is not a traditional statutory tonic. In the ascending alternative the ensuing chord may be a tonic added-sixth triad (see Fig. 5.1.3–2 [op. 82:III:105–165]), or a tonic added-sixth triad without fifth (see chapter 11.4). Even a single dominant chord amongst Ionian characteristic harmonies is sufficient to render it major-inflected (see Fig. 5.1.3–2 [op. 82:III:147–149]). On the other hand, a major key receives an Ionian inflection when a *non-dissolving* leading-tone descends amongst characteristic harmonies of major (see Fig. 5.1.3–4 [op. 56:II:7–10], Fig. 5.5–3 [op. 82:III:189–212], Fig. 6.4.1–1 [op. 52:III:77–90]), or the leading-tone ascends to e.g. a tonic added-sixth triad without a fifth (see Fig. 5.1.3–4 [op. 56:II:5–6]).

In Dorian (see Fig. 8.2.1–1 [op. 39:I:108–111], Fig. 8.4–1 [op. 70:1–5]), Phrygian (see Fig. 7.4.3–1 [op. 12:II:51–76]), Lydian, Mixolydian and Aeolian (see Fig. 5.5–2 [op. 49:15–18], Fig. 11.4.2–3 [op. 46:V:7–10]) modes the characteristic degree belongs to some other chord (X) than the tonic triad (I). In Locrian mode the characteristic degree belongs to the tonic triad. In Mixolydian and Aeolian modes the characteristic degree (i.e. subtonic) can be connected both with the non-tonic chords (X) and with the tonic chords (I). Below the characteristic progressions in these modes are presented as closures (section 5.4.2), but they can take place at any point in a harmonic period.

In mixed modes the characteristic progressions involve the same set of four chords on adjacent degrees. This set of four degrees only starts from a different degree in each mixed mode (Fig. 5.4.1–2).

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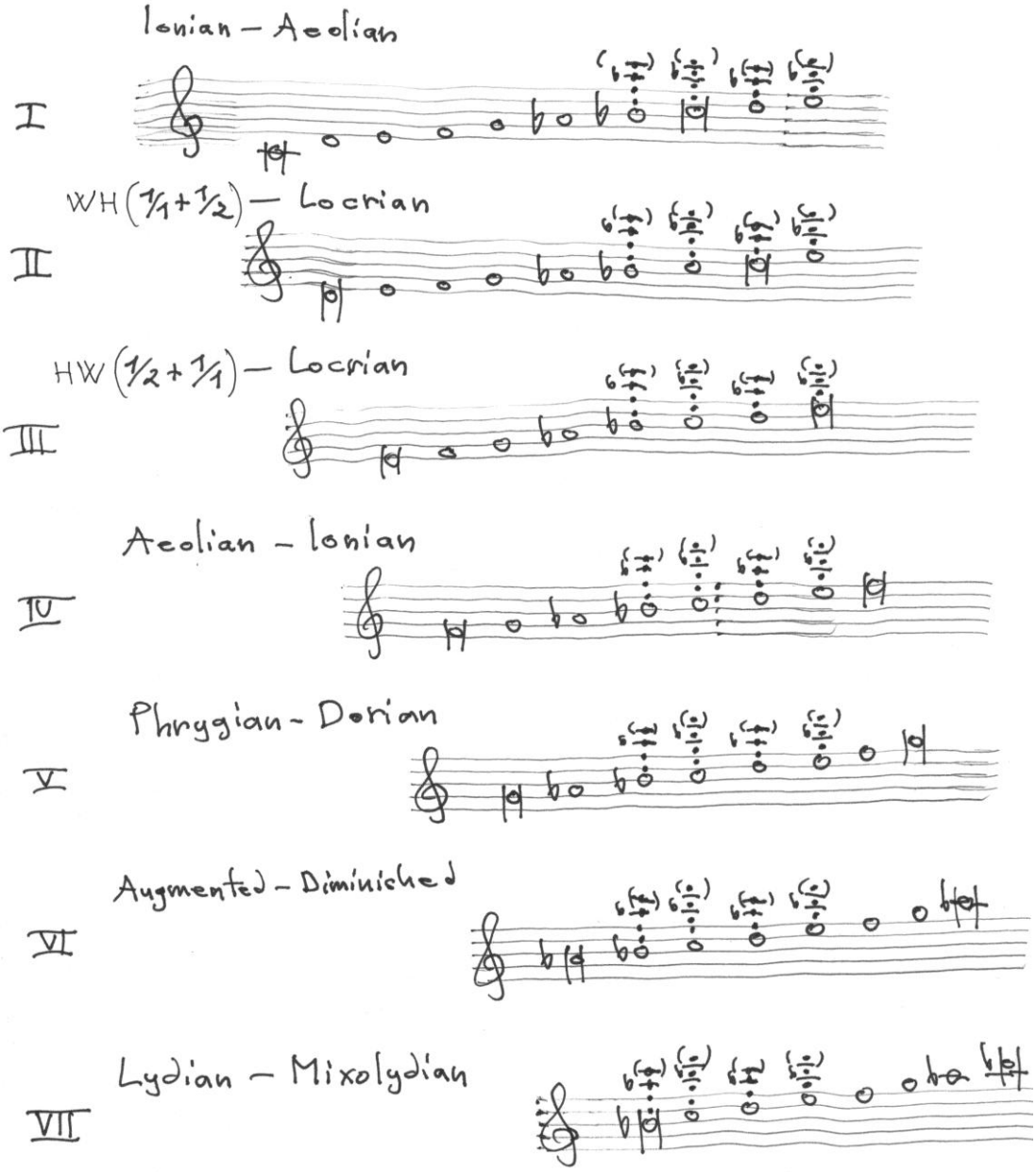
[247] In his textbook for harmony N. Rimsky-Korsakov (1930:31) suggests "for harmonization of the descending upper tetrachord" three non-dissolving progressions that in the terms of this study are to be considered as Ionian (e.g. C: I–III–IV–V). However, in harmonizing the descending upper tetrachord e.g. the Viennese Classics did not use those patterns. The cited Ionian pattern can be found before the eighteenth century (see Samuel Scheidt: *Görlitzer Tabulaturbuch 1650*, no. 3a, the first phrase). Rare remnants of Ionian treatment of harmony can still be traced in some four-part cantata chorales by J. S. Bach (see 371:20, the final phrase), remnants that no longer occur in his free compositions in major.

[248] The tonic seventh chord as a passing chord in major: Beethoven: IV Symphony op. 60 (1804) 2. mvt. bars 2–3 (E flat: I–I7–IV–V/I1; in a harmonization of the descending upper tetrachord).

Fig. 5.4.1–2. Characeristic chords in the mixed modes I–VII.



The chords based on these four adjacent degrees may appear in the form of a triad, seventh or ninth chord, or even wider formations (see Fig. 7.3–3 [op. op. 114:II:8–11], Fig. 7.4.1–1 [op. 106:IV:8–12], Fig. 9.3–1 [op. 52:I:85–97], Fig. 10.3–1 [op. 104:II:78–81], Fig. 10.4–1 [op. 74:II:35–38], Fig. 11.3.1–2 [op. 112:68–72]). All the seventh chords of these four adjacent degrees have the form of a dominant-type seventh chord or a half-diminished seventh chord. The first and the second degrees of the four-degree set (see Fig. 5.4.1–2)] often appear in the form of a dominant-type ninth chord. The triads of the third and the fourth degrees of the four-degree set are diminished, which gives them the quality of incomplete dominant sevenths. Actually there are not four chords, but only two – the third and fourth of these four chords in

the set can be interpreted as incomplete forms of the remaining two, the first and second. If this explanation is accepted, the alternating principle between two chords in a characteristic harmonic progression (see above) also applies when in mixed modes there are seemingly more than two harmonies.

5.4.2 MODAL CLOSURES

Cadences as well as closures are the points of the intersection of melody, harmony and form.[249] In his musical punctuation in the realm of modes Sibelius did not re-use formulas from the modal era, but conceived closures according to the inherited ones from the major-minor period.[250] In this kind of closure the tonic is approached from the supertonic (by melodic motion 2. – 1.), or from the subtonic (by melodic motion 7. – 8). In Ionian and Lydian modes there is indeed no subtonic, but in these modes the seventh degree does not function as a leading-tone.

Therefore a characteristic chord may precede the tonic chord (i.e. the caesura chord in closures) only in those modes where the characteristic degree is either the 2. or the 7. degree. Below the closures are presented as *fauxbourdon* in order to minimize the wealth of possibilities in the domain of voice-leading. The closures also contain characteristic chords in complete alternation. According to classic practice these three chords in these closures may be called *the chord of preparation – cadential chord – caesura chord*.[251]

In Phrygian the characteristic second degree is present in both kinds of cadential chord (E Phrygian: I6–II6–I6; Fig. 5.4.2–1a and I6–VII6–I6; Fig. 5.4.2–1b). In Lydian the characteristic fourth degree is also present in both kinds of cadential chord (F Lydian: I6–II6–I6; Fig. 5.4.2–1c and I6–VII6–I6; Fig. 5.4.2–1d). Yet practically all the Lydian closures are variations of the first one including the supertonic cadential chord (Fig. 5.4.2–1c).

In Dorian the characteristic sixth degree is only present in the supertonic cadential chord (D Dorian: I6–II6–I6; Fig. 5.4.2–1e). Yet this progression is

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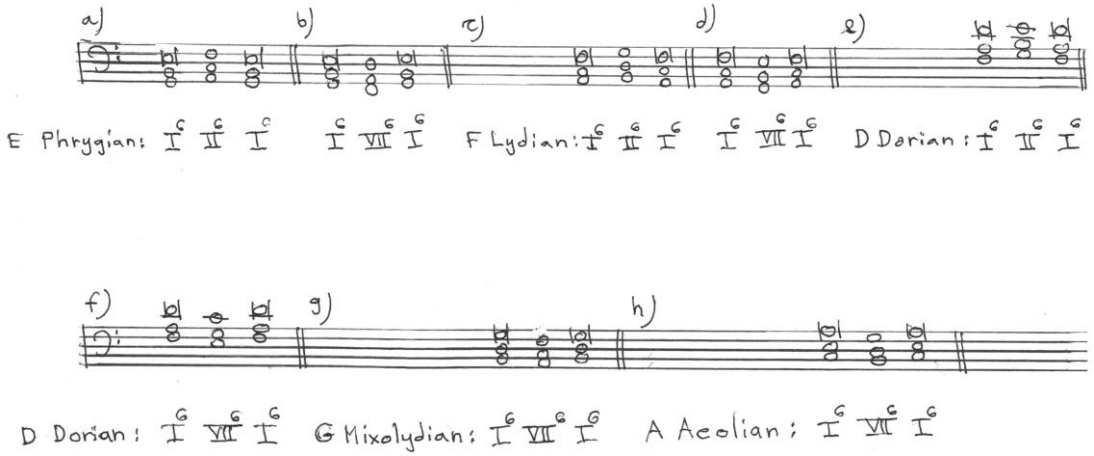
[249] According to Piston 1978:184 “There are no more important formulae than those used for phrase endings. They mark the breathing places in the music, establish the tonality, and render coherent the formal structure.”

[250] Besides Sibelius sometimes closes a phrase or an incise with the melodic pattern 5.–4.–1. or 3.–4.–1 (in either a complete or a short pentachord). This “falling fourth” is a common closure in Russian-Karelian and Russian folk-songs. Tawaststjerna in his biography points out the falling fourth in connection with the *Lemminkäinen* Legends (Tawaststjerna IIF:80, IIS:63, IE:176) and *Voces intimae* (Tawaststjerna IIIF:161, IIIS:153–154, IIE:118), but he does not associate this feature with Karelian folk music.

[251] Koch 1983(1787):38. Here Koch focuses only on the melody in (an authentic) cadence. His terms “with regard to its melodic components” are the note of preparation, the cadential note and caesura note. I will use these terms in connection with melody.

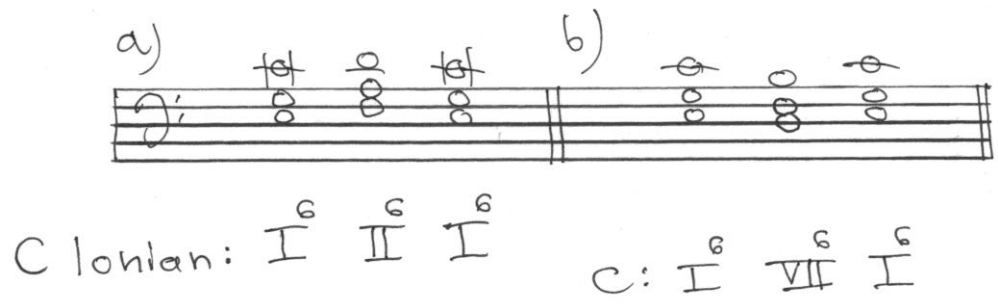
rare, while the latter including subtonic (D Dorian: I6–VII6–I6; Fig. 5.4.2–1f) is common. In Mixolydian the characteristic seventh degree is present only in the subtonic cadential chord (G Mixolydian: I6–VII6–I6; Fig. 5.4.2–1g). In Aeolian the characteristic seventh degree is present only in the subtonic cadential chord (A Aeolian: I6–VII6–I6; Fig. 5.4.2–1h, cf. Fig. 5.1.3–5 [op. 34:VIII:1–3]).

Fig. 5.4.2–1 a–h. Closures in Phrygian, Lydian, Dorian, Mixolydian, and Aeolian modes.



In Ionian there is no degree that differs from the major scale. Ionian is discerned from the major scale on harmonic grounds (cf. section 5.4.1). The respective closures “in C” would be C Ionian: I6–II6–I6 (Fig. 5.4.2–2a) and C: I6–VII6–I6 (Fig. 5.4.2–2b). The latter progression establishes the major key instead of Ionian. On the other hand practically all the Ionian closures are variations of the former progression including the supertonic cadential chord.

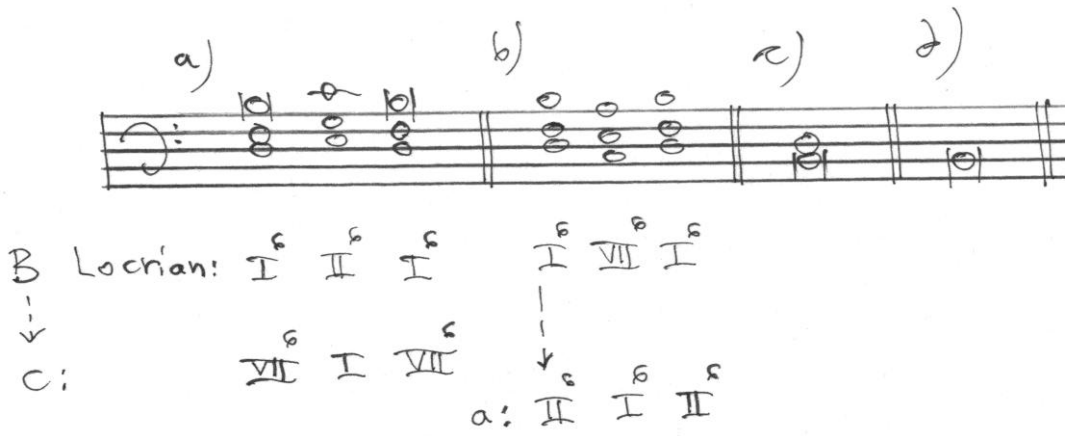
Fig. 5.4.2–2 a–b. Closures in Ionian mode.



In Locrian the characteristic fifth degree is a chord factor in the diminished tonic triad that has no character of repose. B Locrian: I6 does not have it in connection with the major (B Locrian: II6; Fig. 5.4.2–3a) or minor (B Locrian: VII6; Fig. 5.4.2–3b) sixth chords. These associate the suggested

closures to C major and A minor. In order to attain a concluding consonance in Locrian the tonic triad should be replaced by a tonic dyad (B Locrian: I3; Fig. 5.4.2–3c) or by a tonic tone (B Locrian: I1; Fig. 5.4.2–3d).

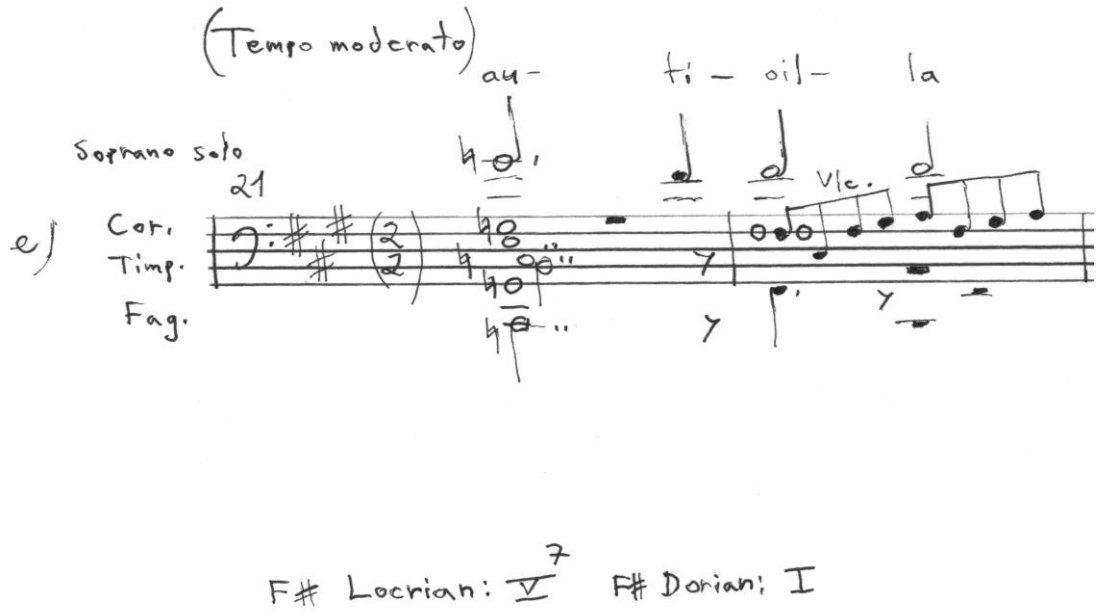
Fig. 5.4.2–3 a–d. On the closures in Locrian mode.



In order to achieve a Locrian closure four-part writing is needed – and preferably with interchange (Fig. 5.4.2–3e [op. 70:21–22]).[252]

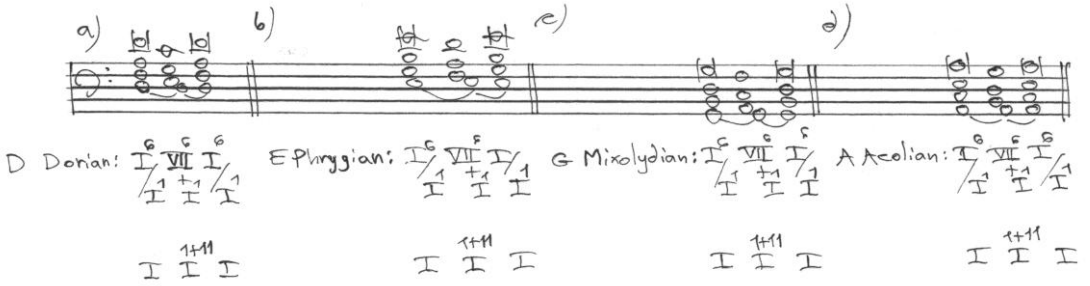
[252] The bars 13–22 of op. 70 can be considered as being based on a bass pattern of alternating falling fifths and rising fourths according to F sharp Locrian scale. The surmised sequence pattern would be F#–B–E–A–D–G–C–F#. In the surface level the chords of the pattern are treated according to F sharp minor. Thus the pattern takes the form of f#–B7–e six-four–A7–D6–[G]–C–f#. The bass of the A-rooted seventh chord is presumed on the grounds of a diminished sixth chord E–G–C# in bars 19–20. The G-rooted chord is hypothetic; it is not found in the score. Yet the supposedly eliminated II degree is assumed to be G natural instead of G sharp, because in the surface level in bars 16–21 only G natural appears even though F sharp minor rules. The device of *de-patternization* is dealt with later (see chapter 9).

Fig. 5.4.2–3e. A Locrian closure involving interchange. *Luonnotar* op. 70 (1913) bars 21–22.



The above closures may be connected with respective tonic pedal points (cf. section 5.2.2). The releasing motions in these are not re-examined here (see section 5.3). When closures including a subtonic sixth chord are connected with a tonic pedal point, the cadential sixth chord is the upper sub-sixth chord in a tonic sum-seven-four-two chord, i.e. in irregular root-position tonic sum-eleventh chord (cf. Fig. 5.2.2–5a). This is the case in Dorian (Fig. 5.4.2–4a), Phrygian (Fig. 5.4.2–4b), Mixolydian (Fig. 5.4.2–4c; cf. Fig. 5.5–4 [op. 104:III:15–16]) and Aeolian (Fig. 5.4.2–4d).

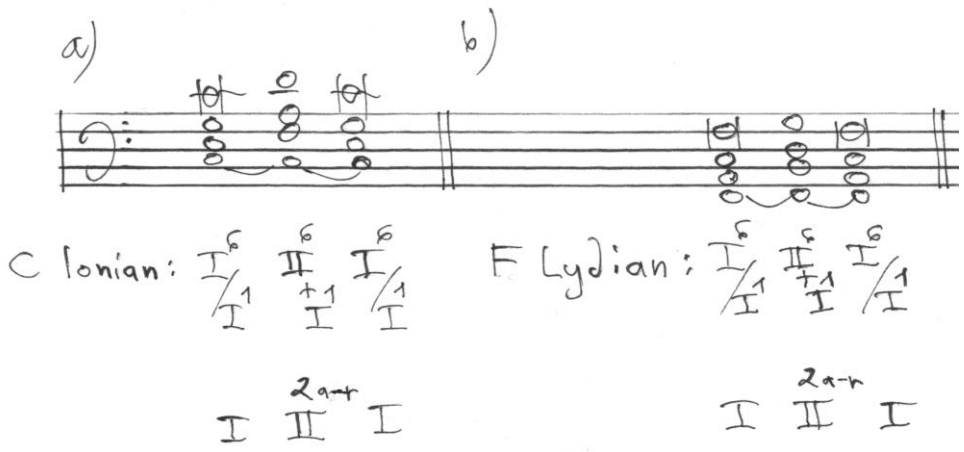
Fig. 5.4.2–4 a–d. Closures on tonic pedal points involving sum-seven-four-two chords in Dorian, Phrygian, Mixolydian, and Aeolian modes.



When closures including a supertonic sixth chord are connected with a tonic pedal point, the cadential sixth chord is the lower sub-chord in a supertonic added-root seventh chord (cf. Fig. 5.3.2–1) in the 3rd inversion (II2 added-

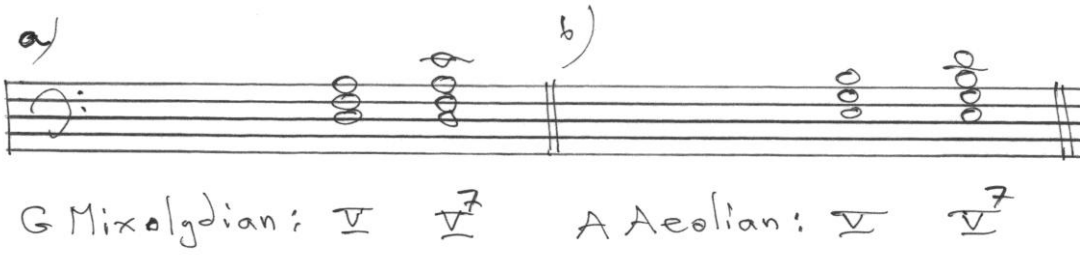
root). This is the case in Ionian (C Ionian: I – II2 added-root – I; Fig. 5.4.2–5a) and Lydian (F Lydian: I – II2 added-root – I; Fig. 5.4.2–5b; cf. Fig. 5.5–4 [op. 104:III:13–14], Fig. 8.3.2–1 [op. 52:III:94–96]).

Fig. 5.4.2–5 a–b. Ionian and Lydian closures on tonic pedal points involving added-root seventh chords in the 3rd inversion.



In Mixolydian and Aeolian the characteristic seventh degree (subtonic) also stands in dominant chords (G Mixolydian: V or V7; Fig. 5.4.2–6a, A Aeolian: V or V7; Fig. 5.4.2–6b), in which there is a minor seventh with a minor third. As was already noted (see chapter 4.1, Fig. 4–3), dominant-type chords in modes may emerge on degrees other than the fifth, so in modes non-dominant type chords can also emerge on the fifth degree. Progressions or closures including these non-dominant type V degree chords presupposes four-part writing.

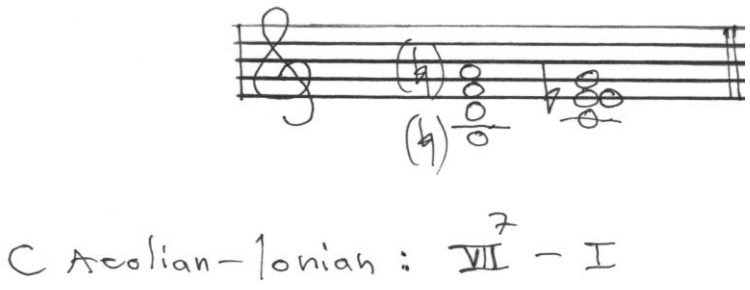
Fig. 5.4.2–6 a–b. Non-dominant type of V degree chords in Mixolydian and Aeolian modes.



In mixed modes (see chapter 4.2.1) those formulae that are used for phrase endings can be modelled accordingly, depending on whether a mixed mode includes a subtonic or a leading-tone (see Fig. 5.1.3–3 [op. 112:1–3], Fig. 5.5–3 [op. 82:III:195–212]). In mixed modes formulas often occur that are modelled after the traditional cadences familiar from the major-minor period (see Fig. 6.1.6–1 [op. 112:612–634]). One of these is Aeolian-Ionian: VII7–I

progression (Fig. 5.4.2–7; cf. Fig. 7.3–2 [op. 112:593–597]).[253] Due to the modal origin in this study they also are termed closures.

Fig. 5.4.2–7. Aeolian-Ionian closure.



5.5 ON THE CONTEXT OF SUM-SEVEN-FOUR-TWO CHORDS

As was already mentioned (see section 5.), before presenting the sum-seven-four-two chords (see section 5.2.2) in their harmonic context, it was necessary to discuss other matters in sections 5.3 and 5.4. Now the time has come to resume the topic that had been dropped temporarily.

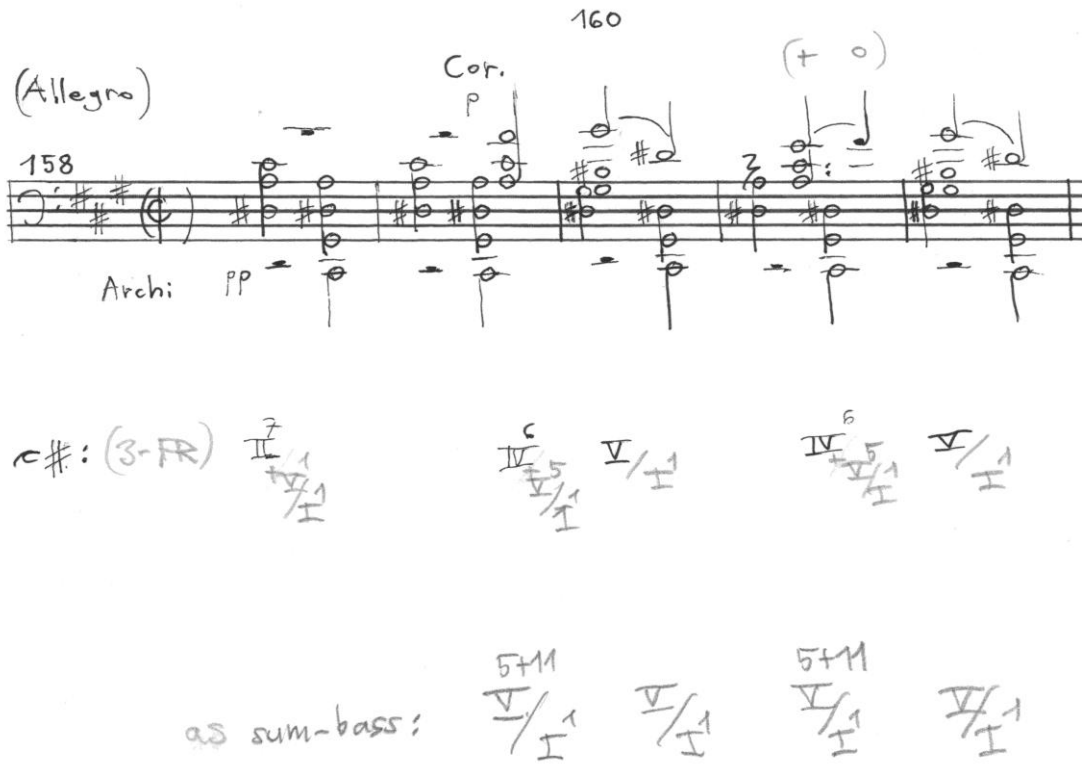
We have already seen that the sum-seven-six-four-two chord (mi7–6–4–2) and sum-seven-four-two chord (mi7–4–2) can be interpreted in more than one way (see Figs. 5.2.2–4e and 5.2.2–5d). Which of the alternatives, a chord rooted on the tonic or on the subtonic, is to be taken into consideration depends on harmonic context.

In Fig. 5.5–1 there is a harmonic reduction of an ostinato (Archi) over which three-part *Satz* occurs (Cor.). Taken together the layers in bars 159 and 161 add up to a sum-seven-five-four-two chord on a sustained dominant. This three-voice framework (see chapter 4.3) is extended by means of a tonic organ point (see section 5.2.3) that keeps re-appearing. In bar 161 the c sharp: IV6 is preceded by c sharp: VI that in relation to the sum-chord may be considered a passing chord that results from the passing tone e1 in Cor. I part. In the domain of assisting bass the progression in bars 159–162 obeys the rules of figured bass (c sharp: IV6+V5/I1 – V/V5/I1 – repeated = V5+11/I1 – V/I1 – repeated). In the combination of the layers the upper sub-sixth chord seems to proceed to the lower sub-triad of the same irregular root-position dominant sum-eleventh chord. In it the upper sub-sixth chord – according to its twofold intervallic quality (see chapter 4.3) – occupies the added-eleventh and added-ninth that resolve, while the minor added-seventh

[253] A progression similar to Fig. 5.4.2–7 also appears in Piston 1978:329 as the first part of the Example 21–12. Below it there reads “avoided”. The reasons for this originate from the practices of the major-minor system.

is released to the octave (mi7–8; cf. Fig. 5.3–3a). From the point of view of sum-bass, the progression may be considered *columnal* (cf. chapter 4.4).

Fig. 5.5–1. An alternating progression in the domain of assisting bass is a columnal progression in the domain of sum-bass. Fourth Symphony op. 63 (1911) 4. mvt. bars 158–162.



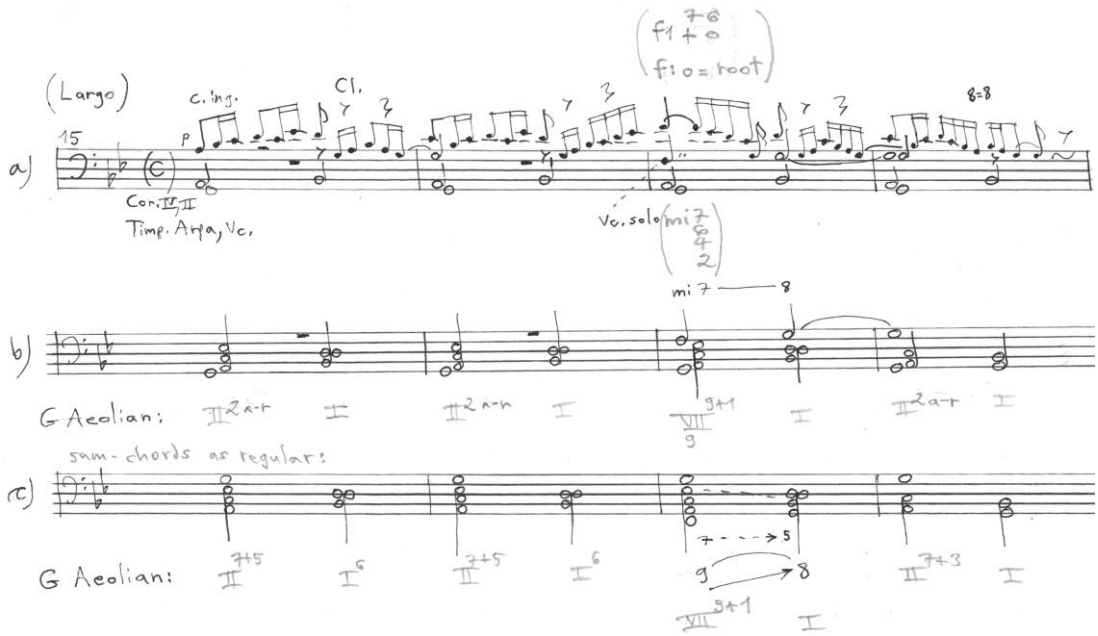
In Fig. 5.5–2b there is a harmonic reduction of a line-pedal *Satz* (Fig. 5.5–2a, see section 5.1). In bars 15–16 and 18 during the alternating harmonies G Aeolian: II2 added-root – I there is a releasing motion 2–3 (cf. Fig. 5.3–5a) between the tonic pedal point G (Timp., Arp., Vc.) and a tardy line A–B flat (Cor. IV, II). In bar 17 a counterpoint enters (Vc. solo) that against the pedal point G forms a releasing f–g motion (mi7–8). The tone F as the subtonic adds up to the intervals six-four-two to mi7–6–4–2.

According to regular reduction (Fig. 5.5–2c) this entering F (see chapter 6.1) functions as the sum-root of a reverse added-root ninth chord (G Aeolian: VII1+II2 added-root – I1/I = VII9+1 in the 4th inversion – I). In the F-rooted sum-ninth chord the former A-rooted seventh chord now stands as the upper sub-seventh chord. The entering F changes the root and the resulting progression is still non-columnal. Here another (columnal) alternative for the mi7–6–4–2 chord, namely an irregular root-position G-rooted sum-thirteenth chord (G– – –f–a–c1–e1 flat) is highly unlikely, due to the surrounding minor third B flat that prevents a dominant-type chord.

The former sustained seventh G now becomes released as the ninth G. The releasing motion – when it is restored from the octave-displacement "mi7–8" – here is 9–8 ascending (cf. Fig. 5.3–3d). Against the ascending

added-root (f – g) the former and also the following consonant e flat–d motion (6–5) becomes a by-product sum-seventh that resolves. At the same time in bar 17 in the melody there is an emphatic appoggiatura (7–6) to the sixth of G Aeolian: II2 added-root. This descending appoggiatura F resolves (f1–e1 flat) before the ascending added-root F is released (f–g). Thus in this bar the same tone F – depending on its behaviour – functions both as a non-harmonic tone (that is resolved) and a harmonic tone (that is released). There is thus a *multiple treatment of dissonance* (see chapter 9.6).

Fig. 5.5–2 a–c. An entering tone (Vc.) establishing a sum-seven-four-two chord. *Pohjola's Daughter* op. 49 (1906) bars 15–18.



The two possibilities in interpreting a sum-seven-six-four-two chord (irregular root-position and reverse) may be used successively as a compositional resource. The same sum-seven-six-four-two chord may be firstly treated as a sum-ninth chord in the 4th inversion and then as a root-position sum-thirteenth chord.

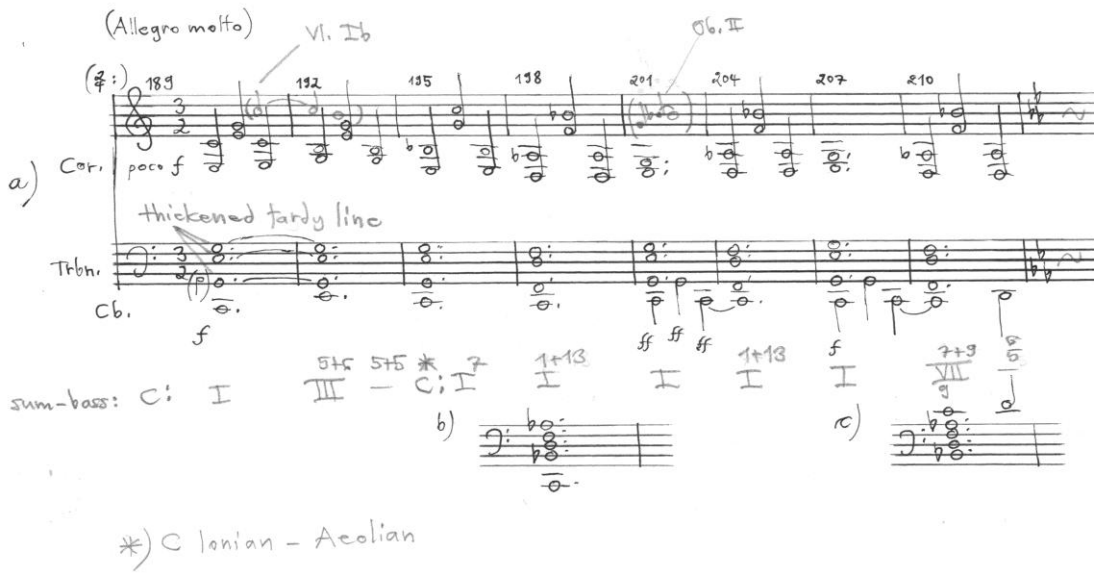
In Fig. 5.5–3a the same sum-seven-six-four-two chord is firstly (in bars 198–203 and 204–209) treated as an irregular root-position sum-thirteenth chord and finally (in bar 210) as a sum-ninth chord in the 4th inversion. By this means a smooth transition is achieved between different, even contrasting formal sections. In bars 194–195 soprano-bass *Satz* turns to line-pedal *Satz,* including the tonic pedal point C. The line-pedal *Satz* is reduced to the three main components (cf. Fig. 5.1.3–1 [op. 82:III:203–207]). In an undulating thickened tardy line (see section 5.1.1) the lowermost brass part (Trbn. III) may be considered the assisting bass. Along with this change of *Satz*-type in bars 194–195 there is also harmonic interchange from the Ionian-inflected C major in bars 189–194 to C Ionian-Aeolian mixed mode in

bars 195–212. This interchange causes an *augmented unison* between the seventh degree B and subtonic B flat.

Accordingly, the three-voice framework in bars 189–212 is C Ionian-inflected: I – III5+6 – III5+5 in bars 189–194 (cf. section 5.4.1), then C Ionian-Aeolian: I four-three/I1 in bars 195–197, then VII four-three+I1 in bars 198–200, then I four-three/I1 in bars 201–203, then VII four-three+I1 in bars 204–206, then I in bars 207–209, and finally VII four-three+I1 – VII four-three/II1 in bars 210–212. In relation to the sustained tone C – that in bars 195–197 was already the root before the first sum-chord – in the sum-seven-six-four-two chords (cf. Fig. 5.2.2–4b) in bars 198–200 and 204–206 the sub-seventh chord C Aeolian-Ionian: VII four-three functions as an upper layer in irregular root-position sum-thirteenth chords (C Ionian-Aeolian: I1+13; Fig. 5.5–3b; cf. Fig. 5.2.2–4d). Both the tonic triads (I) and VII degree chords are sub-chords of a sum-thirteenth chord. Thus both the root and the sum-root is C. Again from point of view of sum-bass there is a *columnal* progression (cf. chapter 4.5.3).

In bars 210–212 the upper sub-seventh chord (C Aeolian-Ionian: VII four-three) in the sum-seven-six-four-two chord is treated differently. The bass tone C is released into a B flat-rooted sub-seventh chord by the motion 7–6 ascending (cf. Fig. 5.3–5d). In regular reduction this becomes the motion 9–10 (C Ionian-Aeolian: I – VII7+9 in the 4th inversion – VII six-five; cf. Fig. 5.3–5c). This means that the B flat-rooted sub-seventh chord now functions as the (harmonically) lower sub-seventh chord in an inverted B flat-rooted VII degree added-ninth chord. In this reverse chord-formation the spatially lowermost sustained tone C stands as the harmonically topmost sum-ninth (Fig. 5.5–3c; cf. Fig. 5.2.2–4e). After this procedure the re-appearance of the three flats in bar 213 may seem abrupt, but this key-signature only legitimises the altered harmonic conditions.

Fig. 5.5–3 a–c. A sum-seven-four-two chord treated both as a sum-thirteenth chord and as a sum-ninth chord. Fifth Symphony op. 82 (1915/1916/1919) 3. mvt. bars 189–212.

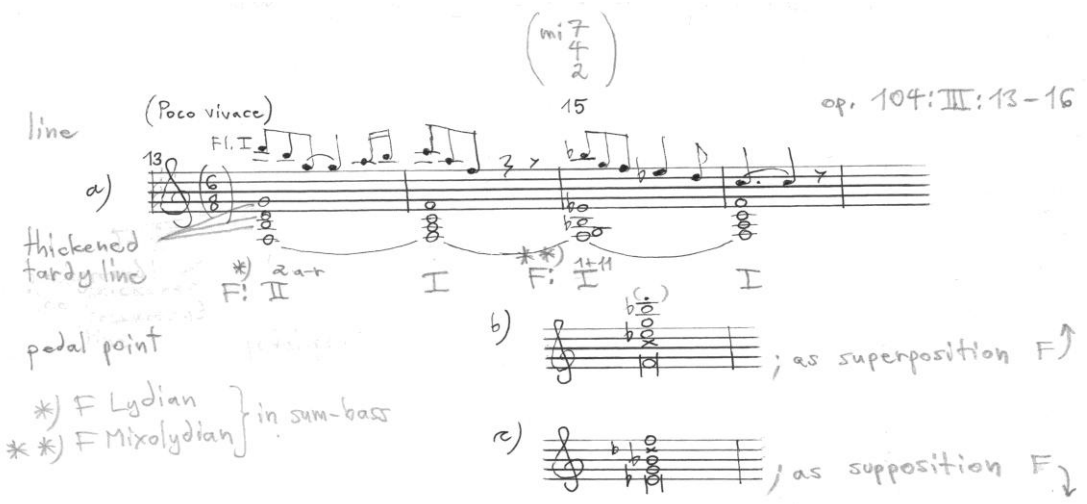


In cases when the harmonic basis of a *Satz* is a thickened tardy line that is put against a sustained tone, the root of a sum-seven-four-two chord is determined, not necessarily by columnal context (cf. Fig. 5.3.3–1 [op. 18:IV:1–5]), but above all by the preceding and following chords.

In Fig. 5.5–4a there is line-pedal *Satz* where the line dissolves the *fauxbourdon* of a thickened tardy line. The pedal point and the tardy line together form two successive closures: II2 added-root – I in F Lydian (cf. Fig. 5.3–2a, see Fig. 5.4.2–5b) and VII6+I1 – I in F Mixolydian (cf. Fig. 5.3–3a, cf. Fig. 5.4.2–4c). There is thus harmonic interchange between the characteristic progressions (see section 5.4.1). In bar 15 there is a sum-seven-four-two chord over the sustained tone F (cf. Fig. 5.2.2–5a). The surrounding chords that include the tone C support the interpretation of an incomplete sum-seven-five-four-two chord, i.e. an irregular root-position sum-eleventh chord without the third or fifth (F Mixolydian: VII6+I1 = I1+11; Fig. 5.5–4b). In the assisting bass the *fauxbourdon* includes three second-related roots G–F–E flat–F, while in the sum-bass the sum-roots G–F–F(11)–F occur in a columnal progression. For the twinkling of an eye the passing tone d2 natural in the melody in bar 15 increases the formation into a sum-seven-six-four-two chord, i.e. an irregular F-rooted root-position sum-thirteenth chord (Fig. 5.5–4b). A passing tone d2 flat would have contributed the same signature.

On the other hand, a surrounding D flat as a chord factor would suggest a sum-seven-six-four-two chord, i.e. a reverse E flat-rooted added-ninth chord without a seventh (F Mixolydian: VII6+I1 = VII5+9 in the 4th inversion; Fig. 5.5–4c). This root E flat would have corroborated the root-progression in the *fauxbourdon*.

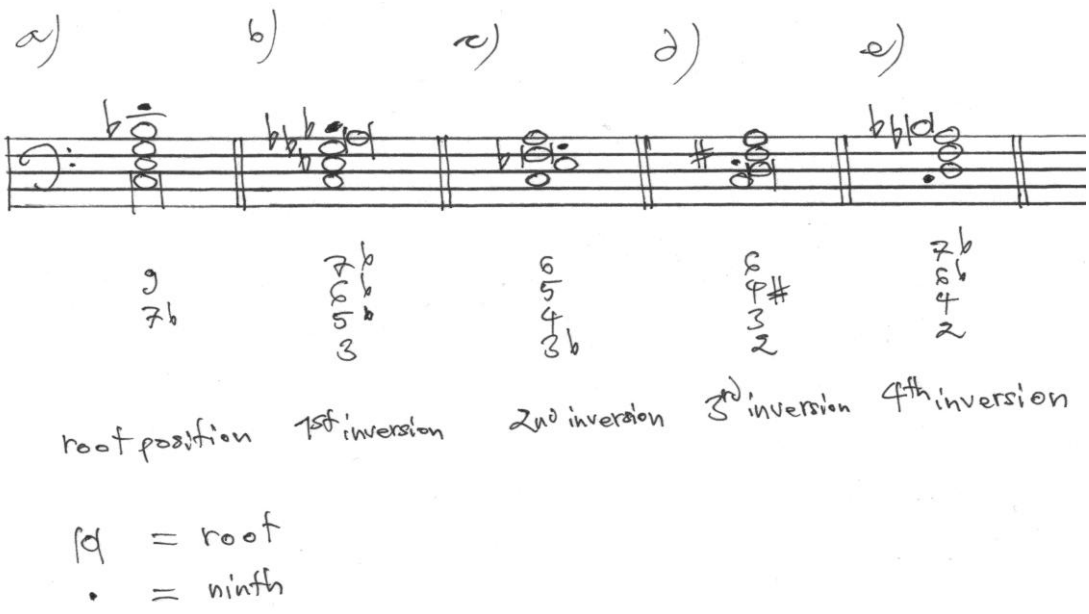
Fig. 5.5–4 a–c. Fauxbourdon causing a sum-seven-four-two chord. Sixth Symphony op. 104 (1923) 3. mvt. bars 13–16.



5.6 OTHER INVERSIONS OF SUM-NINTH CHORDS

In the era of figured bass, ninth chords were accidental and therefore it was unnecessary to develop any kind of deciphering for them (cf. Fig. 4.6.1–1). The only inversion of a ninth chord that can afterwards be deciphered according to a traditional figured bass signature is the 4th inversion (see Fig. 5.6–1e). It would of course be possible to suggest new signatures for other inversions. Thus the 1st inversion (Fig. 5.6–1b) of a sum-ninth chord would be a *seven*-six-five-three chord, the 2nd inversion (Fig. 5.6–1c) a six-*five*-four-three chord and the 3rd inversion (Fig. 5.6–1d) a six-four-*three*-two chord (in these signatures the location of the ninth is indicated by means of italics). Yet these signatures are longish and can easily be mixed up. Therefore in their tonal or modal harmonic context with all the inversions of a sum-ninth chord outlined below only the degree of the root (by Roman number) and the ordinal of its inversion are announced. In harmonic analytic notation the lowest factor of an inverted sum-ninth chord is marked below the roman number (cf. the sum-bass of Fig. 5.2–1). These practices are also followed in connection with inversions of sum-eleventh (see Fig. 7.2.1–1 [op. 63:IV:178–182]) and sum-thirteenth chords. For the sake of conciseness the procedures are illuminated in connection with sum-ninth chords. The same devices are adaptable to the wider sum-chords as well.

Fig. 5.6–1 a–e. Sum-ninth chord and its inversions.



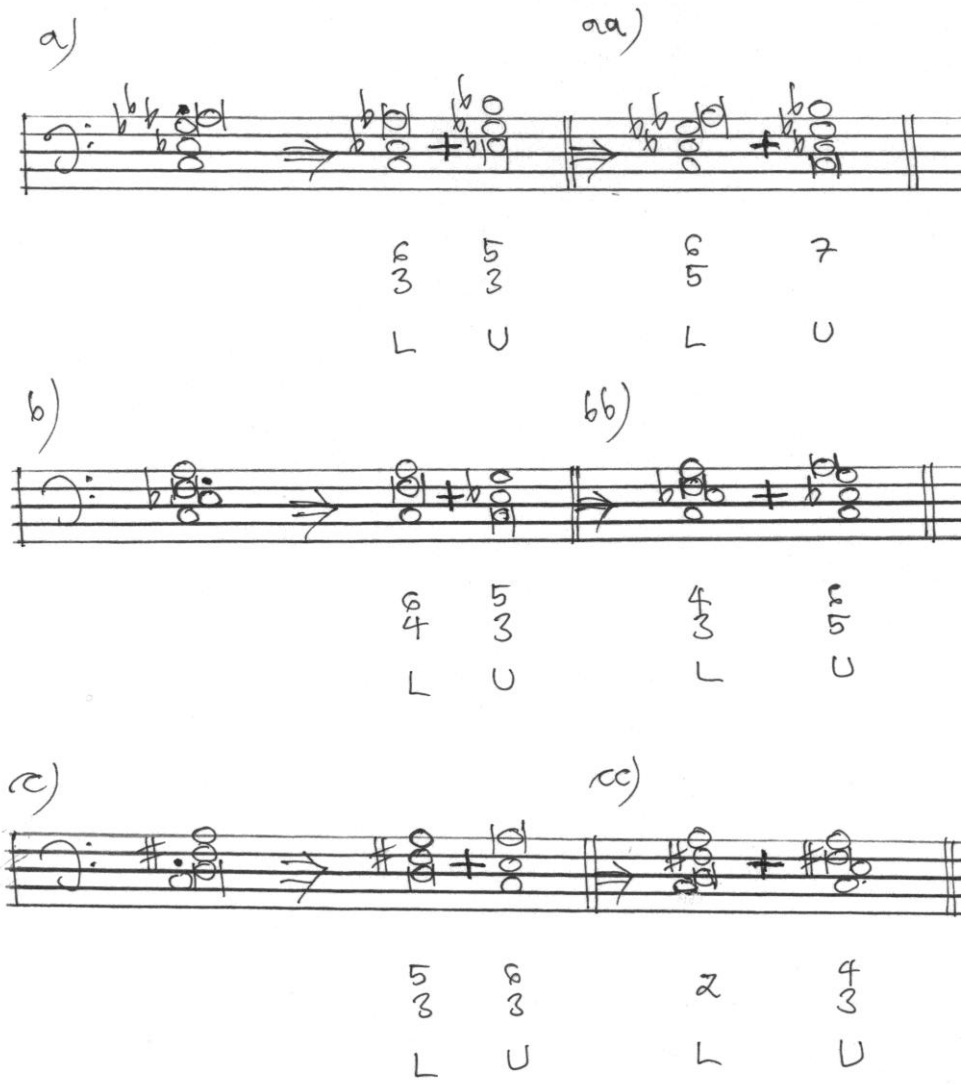
In order to compare the other inversions of a sum-ninth chord with the fourth one, all the other inversions in Fig. 5.6–1 are selected from dominant-type ninth chords that include the tone C. In each figure the root is indicated by the breve and the ninth by a blackened note-head.

The regular sum-ninth chord presented in the lecture fragment was a sum of sub-triads (see chapter 4.1). More often than not in the music of Sibelius the inversions of a ninth chord also appear as sums of sub-chords.

In Figs. 5.6–2a, –2b and –2c the first, second and third inversions of the dominant-type sum-ninth chords seen in Fig. 5.6–1 include fifth-rooted sub-triads that share common tones. When presented in the closest position possible, one sub-triad is always in root-position, while another is inverted. In Fig. 5.6–2a there is the inverted type U + L inv, while in Fig. 5.6–2c there is the reverse type L + U inv (cf. Fig. 5.2–1e). In both cases there is an assisting bass over the bass. In Fig. 5.6–2b there is a situation not hitherto encountered. The lowest tone [C] is common to both sub-triads. The bass and assisting bass meet in unison. Both layers thus share a *mutual bass* (see chapter 4.3, chapter 6.1.6).[254] This type could be considered either an inverted (U + L inv), or a reverse (L inv + U). The more tones the sub-chords have in common, the more possibilities there will be open for mutual basses. In Figs. 5.6–2aa, –2bb and –2cc the same inversions include third-related sub-seventh chords. All their combinations lean on mutual basses.

[254] A mutual bass may equally well be shared by sub-triads of a sum-seventh chord. Furuhjelm already suggests this possibility in 1905 (see Fig. 2.1.1–6 a–c).

Fig. 5.6–2 a–cc. The 1st, 2nd and 3rd inversions of sum-ninth chords as different combinations of sub-chords.



As well as on the layers of the same width, these inverted sum-ninth chords – as was the case with regular ones – may be based on layers of different width, e.g. on a sub-triad and sub-seventh chord (see Fig. 6.1.6–1 [op. 112:612–634]), etc. In a situation where a single tone as a sub-tone (i.e. as a layer) appears above the bass of a sub-chord, by assuming a mutual bass it is possible to conceive a hypothetic sub-chord where this sub-tone belongs (see Fig. 5.6–3). If a single tone appears below a sub-chord, by assuming a mutual soprano it may be decided whether there is a mutual bass or a separate assisting bass and bass (see Fig. 5.6–4).

In Fig. 5.6–3a after a two-voice framework (see chapter 4.3) a mutual bass is assumed in connection with a single bass tone. Before this spot of three-voice framework (see chapter 4.3) in bar 203 the tonic F major triad and subdominant *added-sixth triad* alternate (cf. Fig. 5.3.2–3). In bars 200

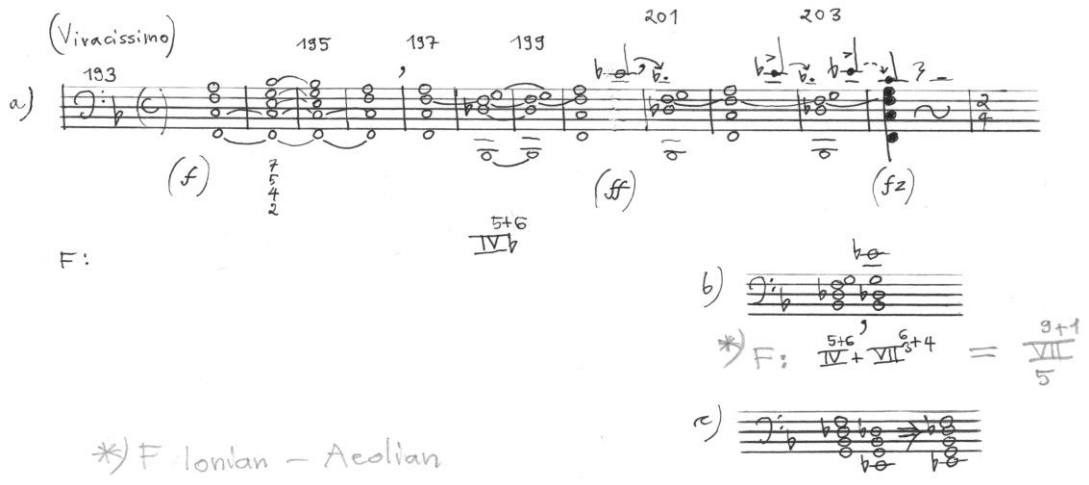
and 202 in the melody the tone E flat appears, which increases the F-rooted tonic triad to a secondary dominant seventh chord (F Harmonic major: V7 of IV). Then the seventh resolves to the third of the subdominant added-sixth triad (F Harmonic major: IV5+6). This is a resource well known before Sibelius.

However, the third appearance of the melody tone E flat differs from the earlier ones. In bar 203 it no longer occurs in connection with the tonic triad, but instead above the subdominant added-sixth triad (F Harmonic major: IV5+6). Against it this E flat at first seems to be a non-harmonic tone. Then in bars 203–204 the E flat proceeds by leap to the fifth C of the tonic triad.

Yet it may be assumed to be a sub-seventh chord (B flat–D flat–G–E flat) to which this tone E flat belongs as the lower root. This E flat-rooted dominant-type sub-seventh chord (F Ionian-Aeolian: VII four-three) leans on the same bass tone B flat as the added-sixth triad does (Fig. 5.6–3b). In the resulting added-root sum-ninth chord in the 2nd inversion (F Ionian-Aeolian: VII1/IV5+6 = VII four-three+IV5+6 = VII9+1 in the 2nd inversion) this E flat-rooted sub-seventh chord is the (harmonically) lower one, while the former sub-dominant added-sixth triad (that in bar 203 can also be written in F Ionian-Aeolian), would stand as the (harmonically) upper sub-seventh chord (Fig. 5.6–3c), if the sum-ninth chord is arranged into a regular stack of thirds.

According to this explanation (F Ionian-Aeolian: VII9+1 in the 2nd inversion – I) there is no "leaping non-harmonic tone", but instead the leaping sum-root E flat that perforce is a consonant tone (see section 5.3.4; cf. Fig. 5.1.3–2 [op. 82:III:147]). Thus in the middle of the plagal cadence (F Ionian-Aeolian: IV5+6 – I) a kind of passing progression is inserted ("1 ½ chord") that corresponds to an authentic closure. This passing progression is also non-columnal.

Fig. 5.6–3 a–c. A seeming leaping dissonance interpreted as a factor of a sub-seventh chord. Sonata op. 12 (1893) 3. mvt. bars 193–204.



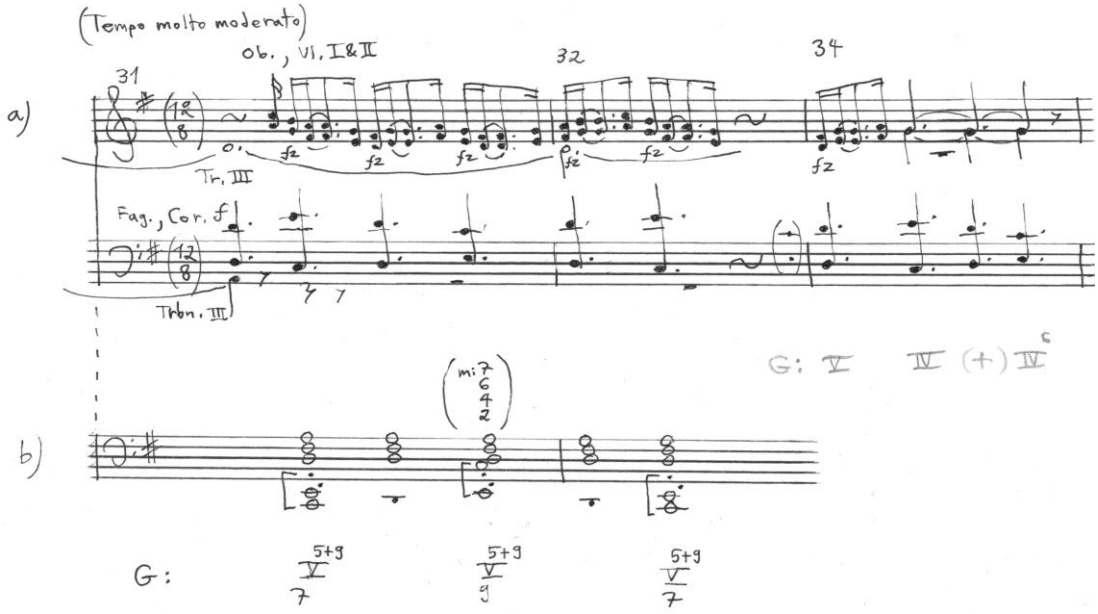
In Fig. 5.6–4 a mutual soprano is assumed in order to conceive a sub-chord. Against a sustained dominant tone d1/d (Tr. III, Timp.) proceeds a line thickened by thirds (Fl., Ob., Cl., Vl. I&II). This line at first utilizes an F sharp-rooted diminished pentachord and then the dyad f1 sharp–a1. The collateral line of it initially utilizes a D-rooted major pentachord and then the dyad d1–f1 sharp. Together these overlapping pentachords at first form a dissolved D-rooted dominant-type seventh chord (G: V7) and after dissolution 7–x–5 (see chapter 4.4) in bars 32–33 they form a dissolved dominant triad (G: V).

A two-part ostinato proceeds below the thickening (Fag., Cor., Vle., Vcl.) where the parts in a one-bar pattern (d1–e1–d1–c1 … and d–c–d–e …) proceed in *systematic contrary motion* (see chapter 7.4). Against the sustained tone d1/d (Tr. III, Timp.) in bars 31–32 the ostinato-tones C and E function merely as neighbour notes (Fig. 5.6–4a). Yet in relation to the thickening the ostinato functions as a layer where the sub-dyads e1/c and c1/e are separated by the passing tone d1/d.

Below the dominant triad (G: V) the sub-dyads of the ostinato function as an added-seventh and an added-ninth. Assuming a mutual soprano (A), the sub-dyads may be included in a (harmonically) upper sub-seventh chord (F sharp–A–C–E) that alternates between its second and third inversions (Fig. 5.6–4b). Together these layers add up to a reverse combination (L + U inv). With the D-rooted (harmonically) lower sub-triad the tenth-dyad adds up to a dominant added-ninth chord in the 3rd inversion, while the sixth-dyad presents the 4th inversion of it as a mi7–6–4–2 chord (cf. Fig. 5.2.2–4c). In relation to the passing tone d1/d the added-seventh is released and the ninth resolved. Those inversions hold true on the condition that the low A at the beginning of bar 31 is considered ceased (see chapter 6.1).

At the beginning of bar 32 during the tone d1/d a passing chord occurs (G: I six-four) resulting from a passing dyad b1/g1 in the thickening. In bar 34 against the terminating tone of the thickening g1/g1 the ostinato tones C and E stand as the root and third of a major triad (G: V–IV). Now the former consonant passing tone d1/d functions as a non-harmonic passing tone between G: IV3 and IV6 without third. In C Lydian these chords (C Lydian: II– I) would form a closure (cf. Fig. 5.4.2–1c). This new situation appears again in bar 38, while before it in bars 36 and 37 the familiar situation from bars 31–33 returns. Thus the scalarly associated G major and C Lydian alternate in bars 31–40 (see chapter 4.2.2).

Fig. 5.6–4 a–b. An assumed sub-seventh chord below a sub-triad. Fifth Symphony op. 82 (1915/1916/1919) 1. mvt. bars 31–34.



5.7 IRREGULAR THREE-VOICE FRAMEWORKS

Above there were cases of three-voice framework (see chapter 4.3) where the assisting bass proceeded above a sustained bass tone. In those cases the progression in terms of the sum-bass was columnal (cf. chapter 4.5.3) when all the chords in the domain of the assisting bass were – or could be considered to be – (harmonically) upper sub-chords of the same hypothetical sum-chord (see Fig. 5.5–1 [op. 63:IV:155–162], Fig. 5.5–3 [op. 82:III:189–212]). On the other hand, in those cases the progression in terms of the sum-bass was non-columnal when at least one root in the domain of assisting bass suggested a sum-chord for which the sum-root was different from the sustained tone in the bass part. In a non-columnal progression this different sum-root formed an interval of a second in relation to the sustained tone (see Fig. 5.5–2 [op. 49:15–18]).

However, when a sum-root in the domain of assisting bass is different from the sustained tone, it is still possible to build up columnal progressions, if a different sum-root increases the would-be sum-chord downwards. This new (harmonically) lower sum-root may spatially stand above the sustained tone, but also spatially below it. In this latter case the assisting bass will cross the bass. In crossing, the assisting bass and the sustained tone may also meet in unison and then immediately diverge.

From the point of view of terminology in a situation where the assisting bass crosses the former bass and then stands below it, these terms should be exchanged. Yet due to the momentary quality of this new situation and the

re-gaining of the original situation, the original terms should again be restored. This kind of terminological switch – that may reiterate – would easily lead to confusion. Therefore it should be decided that the assisting bass may keep its name even after crossing the bass. In this extraordinary spatial position the assisting bass bears a (harmonically) lower sub-chord, while the bass bears the (harmonically) upper sub-chord. Thus the terms assisting bass and bass are given for the components according to the spatial condition that prevails most of the time.

In Fig. 5.7–1a there is a *Satz* that is composed of two chordal layers. The structure and harmonic rhythm of them is different. One of the layers is a dissolved regular pentachord-succession (Vl. I, II, Vle., Vc.), which has already been encountered (see Fig. 4.2.5–2 [op. 52:I:61–64]).[255] The pattern in bars 61–63 (G: II–VII–V–VII–II–IV) is repeated in bars 64–66. The lower octave-doubling of this component ends in bar 62. Against this pentachord-succession in the strings enters a wind call (Fag., Cor. – Fl., Ob. Cl.; see chapter 6.1). The harmonic basis of the wind call – some passing chords neglected – consists of different forms of an F sharp-rooted half-diminished seventh chord (G: VII7–VII four-three). It includes the two F sharp- and A-rooted innermost pentachords of the pentachord-succession (G: II and VII). Thus only the two outermost pentachords (G: V and IV) will function as chordal layers in relation to the wind call.

In a regular adjustment of these components the assisting bass of the pentachord-succession would proceed above the bass, meet it in unison, then cross the bass and fall below it, again meet the bass in unison, then cross the bass and proceed above it, etc. (cf. Fig. 5.7–1b). Yet here due to the spatial relation of the components and the motions of the wind chord, the actual

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[255] According to Virtanen 2005:87 "Measures 61–67 are, again, built upon a single chord, the half-diminished seventh chord F#–A–C–E, and the note D that appears in mm. 62 and 65 reinforces the dominant function of these measures". It surely does, but Virtanen does not take into consideration the harmonic column (see chapter 4.4) the reach of which goes even beyond the dominant ninth chord. Virtanen also notices "the implied C-major chord on the first beat of m. 61; this chord, even if not unequivocally present on the surface, implicitly derives from an underlying voice-leading progression shown in Example 10–7" (Virtanen 2005:86). This implication may well be done, but in my opinion Virtanen overestimates the importance of this implied crotchet in bar 61 in comparison with the prolonged dominant in bars 61–67. Only in Ex. 10–8 (that illustrates an alternative approach indebted to Lauri Suurpää) the half-diminished seventh chord (replacing the implied C major triad) stands at bar 61 (ibid.:86), while in other respective examples the implied C major triad stands under number 61 and the half-diminished seventh chord after it seems a passing formation; see Virtanen 2005:76 (Ex. 10–1b), 81 (Ex. 10–4d), 82 (Ex. 10–5d; this letter "d" is missing, but the sketch comes after 10–5c), and 85 (Ex. 10–6; this marking is missing, but the sketch stands between Ex. 10–5 and Ex. 10–7). Both these decisions – excluding the added–root D from the sketches and neglecting the temporal weight in deciding the hierarchy of chords – seem to derive from the preconceived opinions of the "Schenkerian perspective" (cf. Virtanen 2005:76).

columnal succession will mostly be irregular, although the crossing of the components indeed takes place in bar 62.

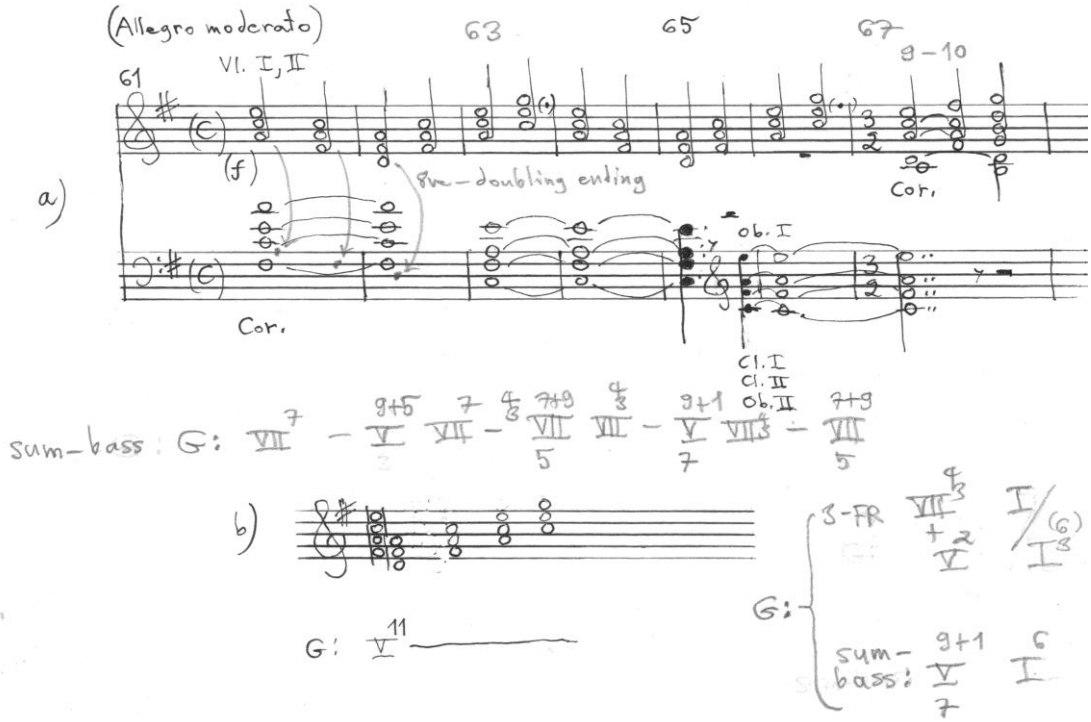
In bar 62 the lowermost D-rooted sub-triad (G: V) of the string figuration functions as the (harmonically) lower sub-triad that increases the upper F sharp-rooted sub-seventh chord downwards into a regular D-rooted added-root ninth chord in bars 61–62 (G: VII7+V = V9+5). In bar 65 the same sum-ninth chord is in reverse form (L + U inv; G: V+VII four-three = V9+5 in the 3rd inversion). The term "figuration" as used here does not imply the contrapuntal nature of the string layer. Yet it hardly meets the demands of a "counterpoint" in the traditional sense of the term. The content of string "figuration", or "counterpoint", is repeated only once, so it does not truly fulfil the demands of an ostinato either. This difficulty in finding an appropriate term for this segment of a *macro-component* (see chapter 8.5) stems from the untraditional nature of Sibelian *Satz*.

In bars 63 and 66 the topmost C-rooted sub-triad (G: IV) of the string figuration functions as the upper sub-triad. It increases the F sharp-rooted lower sub-seventh chord upwards into an inverted added-ninth seventh chord (U + L inv; G: IV+VII four-three = VII7+9 in the 2nd inversion). Here the sub-chords share the mutual bass C.

Taken all together, the irregular columnal succession is G: VII7 – V9+5 – VII7 – VII four-three – VII7+9 in the 2nd inversion – VII four-three – V9+1 in the 3rd inversion – VII four-three – VII7+9 in the 2nd inversion (cf. Fig. 4.2.5–2 [op. 52:I:61–64]). Furthermore all these may be considered sub-seventh and sub-ninth chords of a wider D-rooted dominant sum-eleventh chord D–F sharp–A–C–E–G (Fig. 5.7–1b).

In the surface level in bars 63–64 and 66–67 there is a filled dissolution 11–x–9 (G–F sharp–E). In bar 67 the entering horns suggest G: V2. This leads to a progression G: VII four-three+V2 – I/I6 = V9+1 in the 3rd inversion – I6. During this progression the suggested (harmonically) lower sub-seventh chord (G: V2) is resolved, while the upper sub-seventh chord (G: VII four-three) in the woodwinds ceases (see chapter 6.1). In the string figuration the ninth E is also released by the motion 9–10 (cf. Fig. 5.3–5c).

Fig. 5.7–1 a–b. Chordal layers put against each other. Third Symphony op. 52 (1907) 1. mvt. bars 60–67.



6. VERTICAL AND HORIZONTAL HARMONIC PHENOMENA

In this chapter the examination of vertical and horizontal dimensions of additive (see chapter 3.5) as well as non-additive harmony (see chapter 5.3.1) is continued. The vertical dimension is represented by the device of entering and ceasing bass (section 6.1). In traditional music theory these were concepts either un-recognized or rejected (section 6.1.4). In layered technique the layers may have different kinds of dynamic value, which is called poly-dynamism (section 6.1.7). The vertical harmonic dimension is expanded materially by vertical projections of the whole-tone scale (section 6.2), technically by means of polychords (section 6.3) and in orthographical terms by means of un-chords (section 6.4).

6.1 ENTERING AND CEASING LAYERS

The terms *entering* and *ceasing* have different meanings in different kinds of framework. In a two-voice framework (see chapter 4.3) an entering component joins in the *Satz* either as a doubling or as an additional part. Thus an entering component either belongs merely in the domain of orchestration, or also in the domain of counterpoint. In both cases the *Satz* remains a two-voice framework. Respectively a ceasing component ceases to be an ingredient in a doubling or in a counterpoint in a two-voice framework.

However, the device is more crucial when an entering component as a layer (see chapter 4.1.1) increases a hitherto prevailing two-voice framework into a three-voice framework (see chapter 4.3), or when a ceasing component as a layer decreases a hitherto prevailing three-voice framework into a two-voice framework.

Earlier we already encountered some entering components that also functioned as layers (see Fig. 5.2.3–2 [op. 9:30–37]). Yet often their layer-quality was somewhat obscured, because their harmonic content was introduced either as a simultaneous non-harmonic tone (see Fig. 5.5–2 [op. 49:17]), or as part of a pentachord-succession (see Fig. 5.7–1b [op. 52:I:60–67]). In this chapter the device of entering and ceasing layers will be illuminated in detail.

6.1.1 ENTERING ASSISTING BASS AND BASS

Spatially, an entering layer enters either above the bass of the previous layer, or below it. In terms of a three-voice framework (see chapter 4.3) a chordal layer that enters above the bass of the previous layer is an *entering assisting*

bass, whereas a layer (chordal or non-chordal) that enters below the bass of the previous layer is an *entering bass*.

From point of view of *Satz* an entering bass causes more drastic changes, because at its entrance it causes the previous bass to function as an assisting bass (see chapter 4.3). Therefore, the device of entering bass is examined first. The simplest way harmonically to consider an entering bass is as a single bass tone.

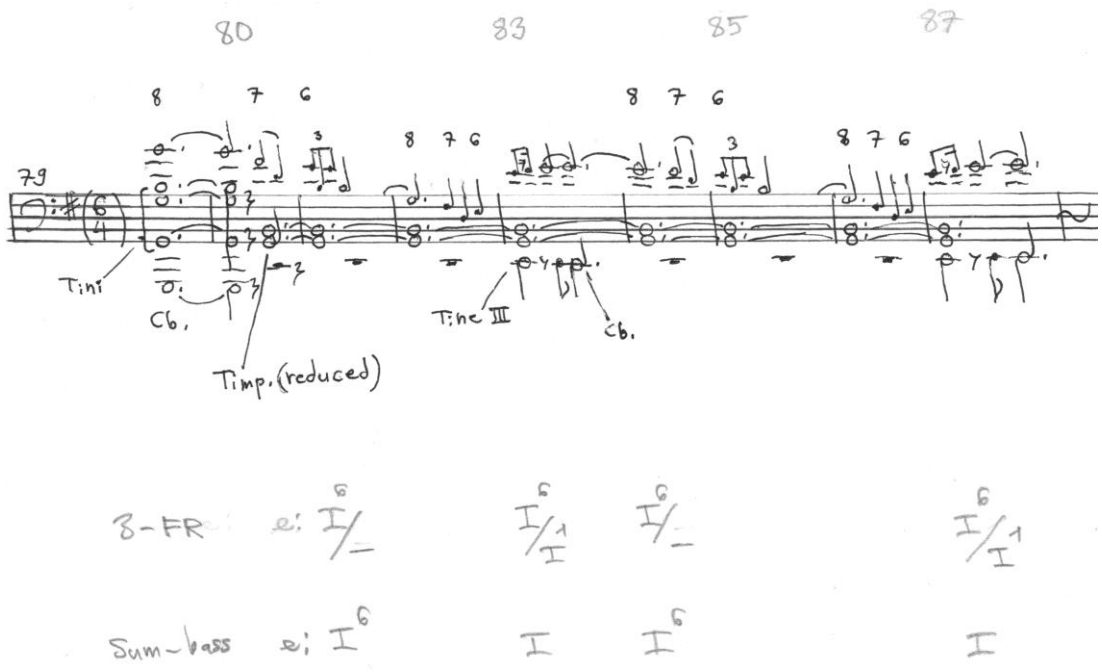
6.1.2 NON-ADDITIVE ENTERING BASS

A bass tone may enter either during the same chord, or at the moment of a chordal change. In both cases it may not introduce any other tones than those already present in the chord above it. An entering bass that remains in the domain of the harmony without increasing it may be called non-additive.

In a three-voice framework (see chapter 4.3) there may be e.g. layered triads, layered sixth chords and layered six-four chords (cf. chapter 5.3.1). Here the mechanism is presented in connection with these; seventh chords etc. will operate accordingly. It is a special feature in the orchestration of Sibelius that he sometimes replaces a bass line with a combination of entering and ceasing single tones. Thus instead of writing a bass part G–E–G–E–etc., the composer distributes these tones to different groups of instruments (Fig. 6.1.2–1 [op. 39:I:79–87]). In this way a tardy line-like bass part is replaced by combined sustained tones.[256]

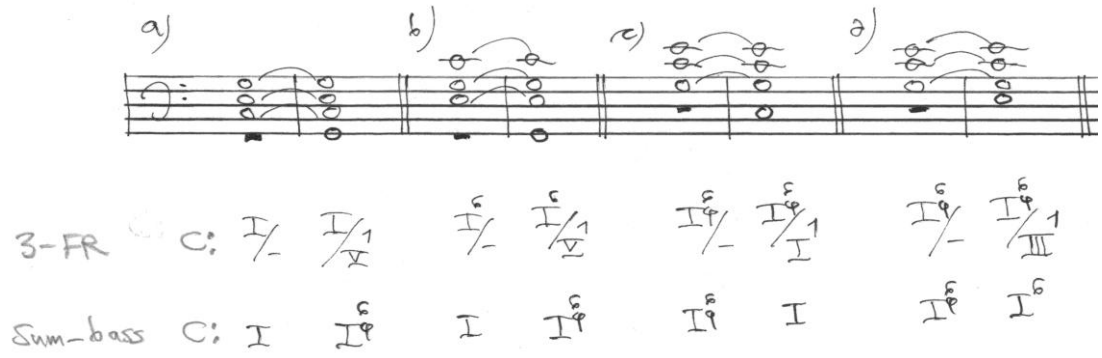
[256] Sibelius had already applied this device in a piano piece in 1893 (see Impromptu op. 5:IV:11–24, 39–46; the rests are not marked in the lowest part, but the entering and ceasing of it are obvious).

Fig. 6.1.2–1. Non-additive entering and ceasing bass. First Symphony op. 39 (1899/1900) 1. mvt. bars 79–87.



A special case among non-additive entering bass is the six-four chord. In a three-voice framework an entering bass may turn a triad (Fig. 6.1.2–2a) or a sixth chord (Fig. 6.1.2–2b) into a layered six-four chord. Moreover, an entering bass may turn a six-four chord into a layered triad (Fig. 6.1.2–2c), or into a layered sixth chord (Fig. 6.1.2–2d).

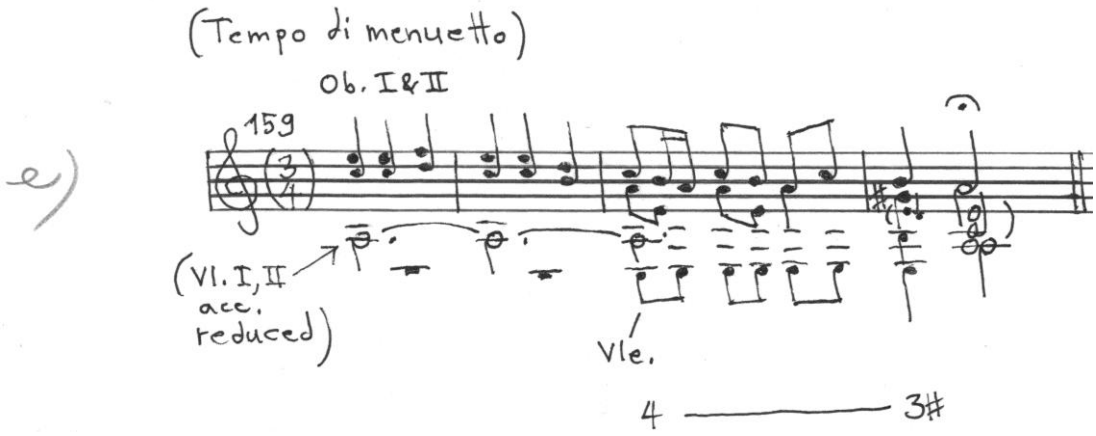
Fig. 6.1.2–2 a–d. Entering bass causing layered six-four chord, layered triad and layered six-three chord.



In terms of a three-voice framework in a layered six-four chord there is a sub-triad (Fig. 6.1.2–2a), or a sub-sixth chord (Fig. 6.1.2–2b).] If the fourth (i.e. the root C) is then resolved by the motion 4–3 in relation to the bass (c–B in Fig. 6.1.2–2a, c1–b in Fig. 6.1.2–2b), the assisting bass functions as an inner part of the two-voice framework (see chapter 3.4, chapter 4.3) and the

three-voice framework turns into a two-voice framework (Fig. 6.1.2–2e [op. 11:II:159–162]). On the other hand, if the fourth does not resolve, the bass before entering continues as the assisting bass in the three-voice framework that is here *latent* (see chapter 4.4) and perhaps will continue including sum-chords, i.e. three-voice framework including additive harmony.

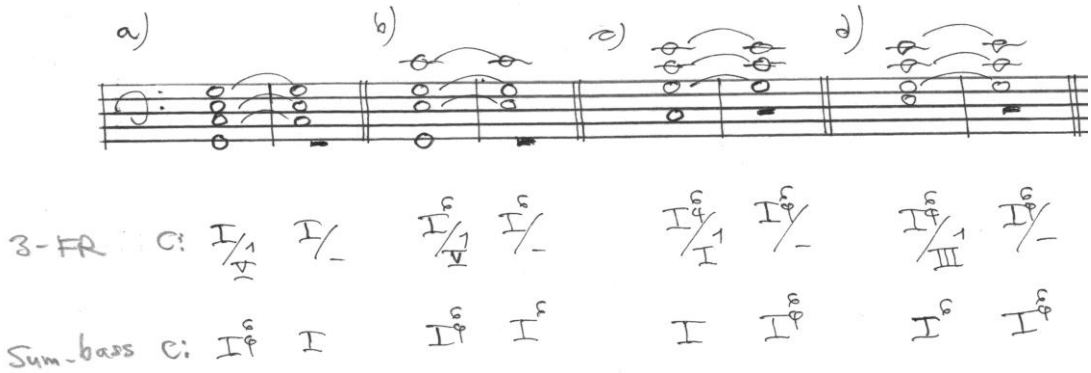
Fig. 6.1.2–2e. Layered six-four chord resolving. *Ballade* op. 11 no. 2 (1893) bars 159–162.



When there is a sub-six-four chord in a layered triad (Fig. 6.1.2–2c; see Fig. 5.1.3–5 [op. 34:VIII:3]), or in a layered sixth chord (Fig. 6.1.2–2d), the former dissonance of the fourth loses its dissonant quality and the former bass continues as an inner part in a two-voice framework – unless the bass again ceases, in which case the inner part (g in Figs. 6.1.2–1c and –1d) will continue as the bass of a two-voice framework (see Figs. 6.1.2–3c and –3d).

Respectively a ceasing bass may turn a layered six-four chord into a triad (Fig. 6.1.2–3a) or a sixth chord (Fig. 6.1.2–3b). Also, a ceasing bass may turn a layered triad (Fig. 6.1.2–3c), or a layered sixth chord (Fig. 6.1.2–3d) into a six-four chord.

Fig. 6.1.2–3 a–d. Ceasing bass in connection with layered six-four chord, layered triad and layered six-three chord.



After the ceasing of the bass the former sub-triad (Fig. 6.1.2–3a), or the former sub-sixth chord (Fig. 6.1.2–3b) of the previous layered six-four chord may remain. Yet the consonant quality of these is not indisputable. If in them the former fourth (C) immediately descends by step, it is resolved by the motion 4–3 in relation to a *seemingly ceased* bass (see section 6.1.4) that still functions as the bass, even though it keeps a rest. Only if the former fourth proceeds otherwise, may the bass be considered as ceased.

Furthermore, the dissonant quality of the six-four chord that was formerly a sub-six-four chord in a layered triad (Fig. 6.1.2–3c), or in a layered sixth chord (Fig. 6.1.2–3d), is not indisputable. If the fourth (C) is immediately resolved by the motion 4–3 in relation to the assisting bass G, the bass (C or E) is ceased and the former assisting bass (G) from now on continues as the bass proper. If the former fourth proceeds otherwise, the *seemingly ceased* bass (see section 6.1.4) still functions as the bass, even though it keeps a rest.

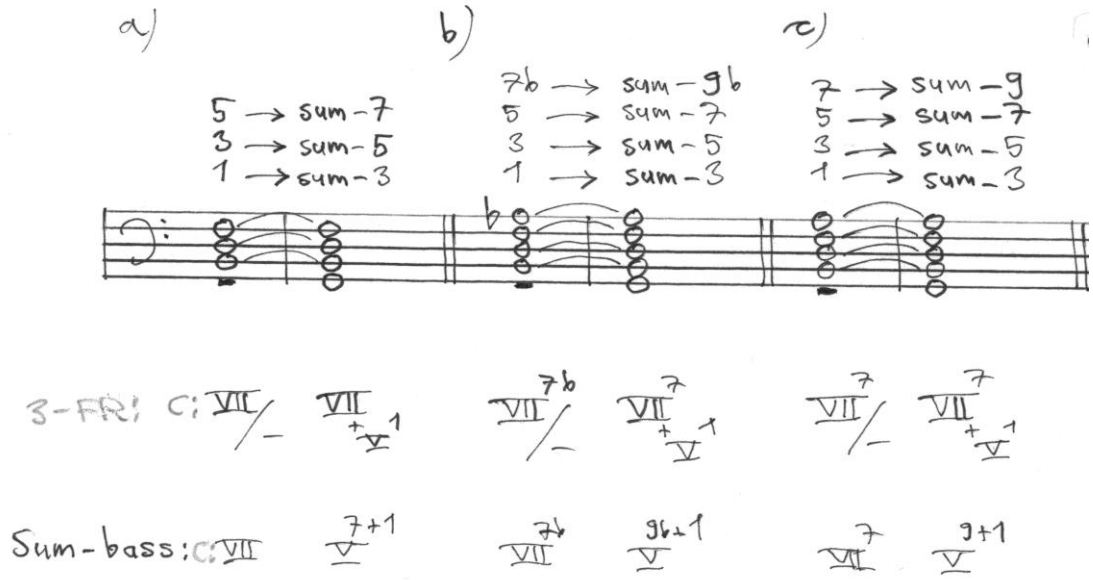
In the examples above the bass entered or ceased during a stationary chord. In connection with chordal changes a non-additive entering bass may turn a would-be six-four chord into a layered triad (see Fig. 6.2–1a [op. 109 no. 2/VIII:19–24]).

6.1.3 ADDITIVE ENTERING AND CEASING BASS

It was already noted (see section 6.1.2) that a bass tone may enter either during the same chord, or at the moment of a chordal change. In both cases it may introduce other tones than those already present in the chord above it. This kind of entering bass may be called additive. An additive entering bass may launch an organ point-formation (see chapter 5.2.1), or increase the chord to a wider sum-chord (regular or irregular), or both (see Fig. 5.2.3–2 [op. 9:30–37]). These are the alternatives in connection with an entering bass tone; an entering chord may also establish a polychord (see section 6.3).

Due to an entering bass tone, some chord-formations that include a diminished fifth may be increased downwards to added-root dominant-type sum-chords. These are a diminished triad that is increased to an added-root seventh chord (C: VII/- – VII+V1 = V7+1; Fig. 6.1.3–1a), a diminished seventh chord that is increased to an added-root ninth chord (c: VII7/- – VII7+V1 = V9+1; Fig. 6.1.3–1b), as well as a half-diminished seventh chord that may also become an upper sub-seventh chord in an added-root ninth chord (C: VII7/- – VII7+V1 = V9+1; Fig. 6.1.3–1c).

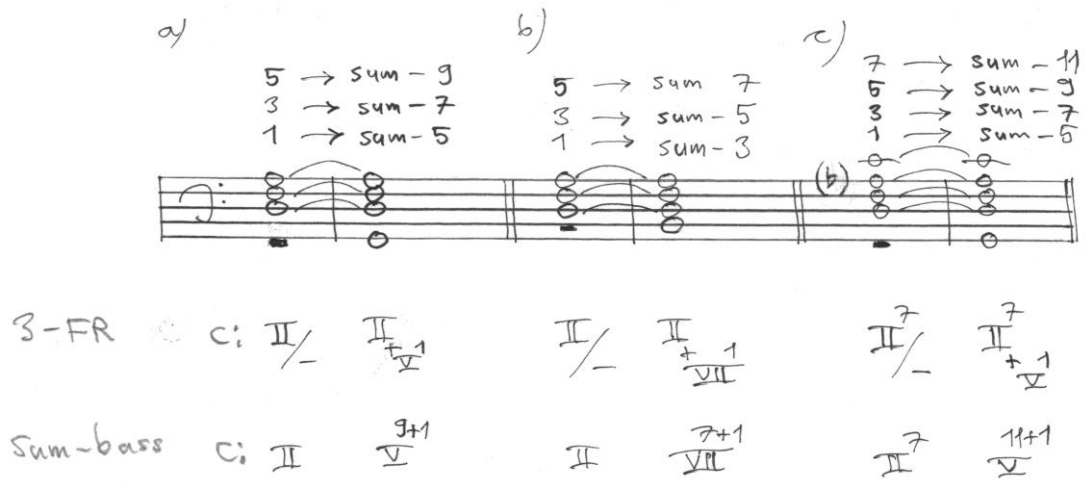
Fig. 6.1.3–1 a–c. Entering bass increasing dominant-type chords.



In Figs. 6.1.3–1 a–c the order of the symbols in the three-voice framework (see chapter 4.3) corresponds to the temporal order of the layers. Before the bass enters, the possibility for an entering bass during the previous chord is shown by an empty space after a slash (chord X/-). In these spots the three-voice framework is considered *latent* (see chapter 4.4) and the previous chord beforehand is regarded as the upper sub-chord. In sum-bass, when describing added-root chords the larger number that indicates the size of the sum-chord is placed before the plus-mark and the smaller number that shows the size of the entered (harmonically) lower segment is placed after it (cf. chapter 4.3, 4.3.1, 4.4).

By means of an entering bass, some non-dominant chords may also be increased downwards to dominant-type sum-chords. These are e.g. a minor triad that is increased to an added-root ninth chord (C: II/- – II+V3 = V9+1; Fig. 6.1.3–2a), or to an added-root half-diminished seventh chord (C: II/- – II+VII1 = VII7+1; Fig. 6.1.3–2b), as well as a minor seventh chord (or a non-dominant type half-diminished seventh chord) that is increased to an added-root eleventh chord (C: II7/- – II7+V1 = V11+1; Fig. 6.1.3–2c with an alternative c: II7/- – II7+V1 = V11+1; cf. also Fig. 5.2.3–2 [op. 9:30–37]).

Fig. 6.1.3–2 a–c. Entering bass increasing non-dominant chords to dominant-type sum-chords.

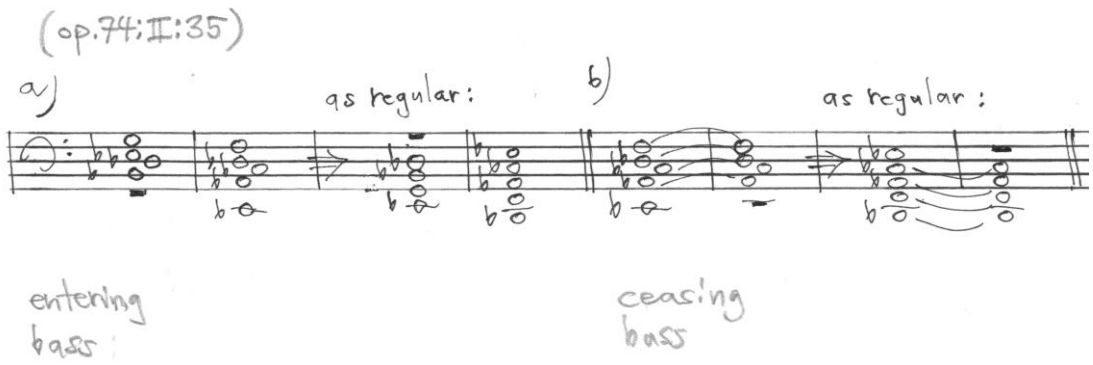


All the items in Figs. 6.1.3–1 and 6.1.3–2 fall into the class of supposition. Furthermore, an entering bass may be followed by another one that enters even lower than the previously entered bass. This second entering bass may also increase a stationary chord, or cause a harmonic change (see Fig. 6.1.3–4 [op. 66:I:27–32]).

In the reverse process the lower sub-tone of a sum-chord ceases and the chord-formation decreases upwards to its former upper sub-chord (see Fig. 4.4.1–1 [op. 56:V:254–259], Fig. 6.3–4 [op. 56:V:254–259]). Yet a ceasing bass that decreases a dominant-type chord upwards into a sub-chord that includes a diminished fifth is rare in the music of Sibelius. In these kinds of incident supposition is cancelled.

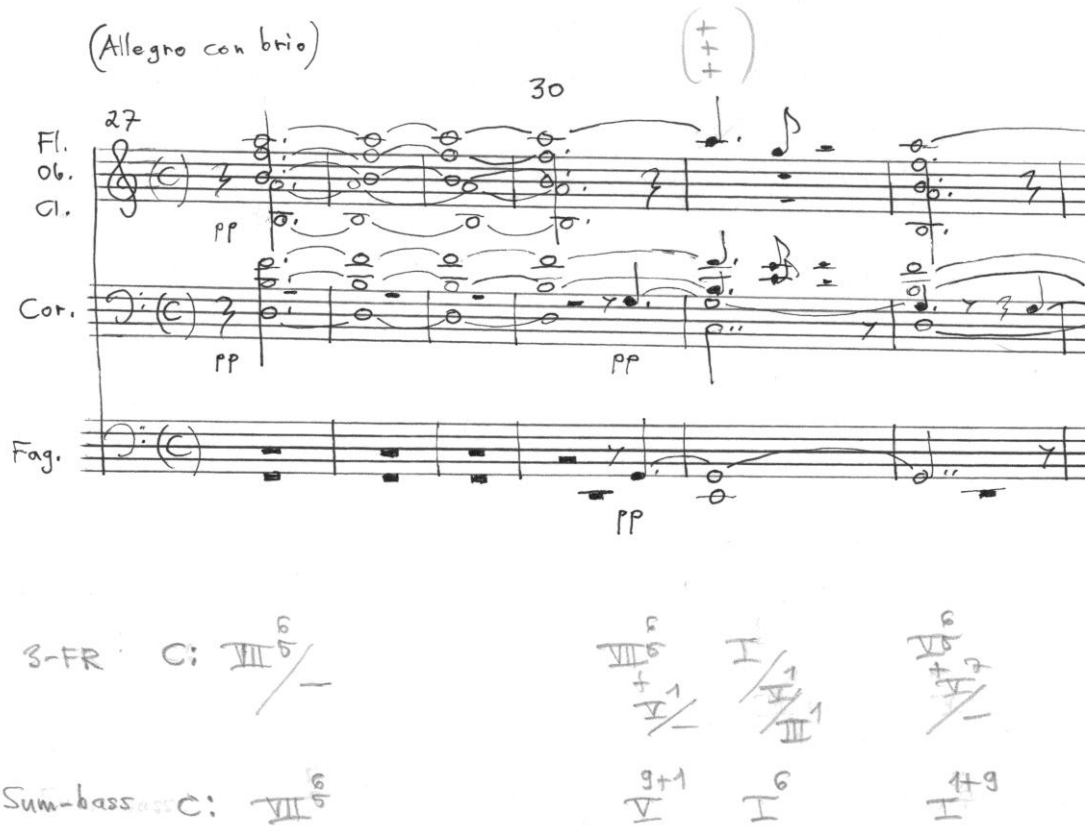
The above devices took place in connection with regular compound chords (cf. chapter 4.1). In connection with irregular ones (see chapter 5.2) the entering bass may increase the chord upwards (see Fig. 6.1.3–3a; cf. Fig. 10.4–1 [op. 74:II:35–37]). In this case the entering bass conducts itself according to harmonic superposition (see chapter 4.5.1) and the increased irregular chord is perforce inverted. Conversely, a ceasing bass decreases this chord downwards and cancels superposition (Fig. 6.1.3–3b; cf. Fig. 11.6.2–2f [op. 70:76–79]).

Fig. 6.1.3–3 a–b. Entering and ceasing bass in connection with irregular sum-chords.



In Fig. 6.1.3–4 in bars 27–30 there is a stationary B-rooted half-diminished seventh chord (Fl., Ob., Cl., Cor. I, III & IV) in the 1st inversion (C: VII six-five). In bar 30 a single bass tone G (Fag. I) enters below it with its doubling in the upper octave (Cor. II). This entering stationary tone (see chapter 5.1) increases the previous chord downwards into a G-rooted added-root sum-ninth chord (C: VII six-five/- – VII six-five+V1 = VII six-five – V9+1). After this the tone G does not cease, but in bar 31 it turns into an assisting bass due to another entering bass tone E (Fag. II). Over this low E the sum-ninth chord resolves as a triple suspension (C: VII six-five+V1/- – I/V1/III1 = V9+1 – I6). The first entering bass was additive, while the second one was non-additive, which turned a would-be six-four chord (C: I/V1 = I six-four) into a layered sixth chord (cf. chapter 5.3.1). In bar 32 the bass tone E ceases, while the assisting bass G again takes again the role of the bass tone over which the B-rooted half-diminished seventh chord re-appears and thus increases the bass tone G upwards into a G-rooted added-ninth sum-chord (C: I/V1/III1 – VII six-five + V1/- = I6 – V1+9). The process in bars 30–31 is then repeated in bars 32–33.

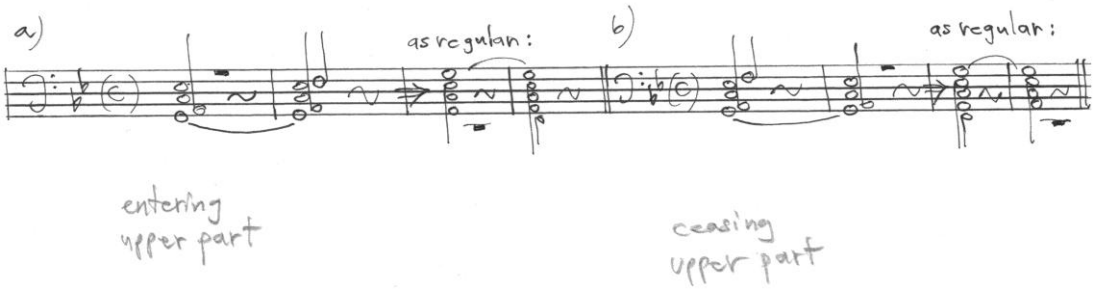
Fig. 6.1.3–4. Two entering and ceasing basses; additive and non-additive. *The Chase* op. 66 no. 1 (1912) bars 27–32.



The corresponding (regular) devices involving a layer entering above the previous one, are an entering upper sub-chord that increases a lower sub-chord upwards into a wider sum-chord (this may be considered to be the case in the lecture fragment, if the assumed D-rooted melody enters only after the G-rooted accompaniment) and a ceasing upper sub-chord that decreases the sum-chord downwards to its lower sub-chord (this may be considered to be the case in the lecture fragment, if the D-rooted melody ceases before the G-rooted accompaniment). Thus from the point of view of dissonance treatment there is no difference between a ceasing harmonic upper layer and dissolution (cf. chapter 4.4) – whether it is a ceasing upper part (cf. Fig. 6.2–2c [op. 109:I:44–47]), or a ceasing bass.

In cases of irregular devices an entering upper part may increase a chord (either inverted or in root-position) downwards. In this case the upper part conducts itself according to harmonic supposition (see chapter 4.5.1) and the increased chord is perforce inverted (Fig. 6.1.3–5a; cf. Fig. 5.5–2b [op. 49:16–17]). Reversely, a ceasing upper part decreases this chord upwards and cancels supposition (Fig. 6.1.3–5b).

Fig. 6.1.3–5 a–b. Entering and ceasing upper part in connection with irregular sum-chords.



6.1.4 SEEMING ENTERING AND CEASING BASS

Although the terms used above (see section 6.1.3) were not used during the times of traditional music theory, the entering bass was a concept unrecognized, while the ceasing (and re-entering) bass was a concept rejected. In thorough bass-practice a signature appearing above a rest was connected either with the following bass note (that appeared after a short rest),[257] or with the preceding bass note (when the following bass note appeared only after a long rest).[258] Usually the short rest stood in place of a beat or strong beat, while the long rest stood between beats or between strong beats.[259] A new harmony (new signature) was not allowed to be introduced above a long rest, unless it could be based on the preceding bass note and – in case of dissonance – it could find its resolution above the following bass note.[260]

Thus in thorough bass-practice a rest in the bass part was only *a seeming one*. Structurally the bass was not ceasing and re-entering. It was never absent, but always present; the rests were merely ornamental. Instead of a short rest, the bass note following the short rest could already be considered active and instead of a long rest there could still stand the bass note preceding it.[261] During a rest in the bass part a voice above it (e.g. the tenor part) did not become an assisting bass. Actually Kirnberger raises his voice

[257] C. P. E. Bach 1985 [1762]:188 Fig. 192 (short rest), Kirnberger 1982 [1771]:214, Ex. 11.15 (a short rest; most of the harmonies falling on a rest are presented as false cases).

[258] C. P. E. Bach 1985 [1762]:188 Fig. 193 (long rest; the latter example).

[259] "A trained musician can very easily determine which of these two cases applies to a given rest by examining its context" (C. P. E. Bach 1985 [1762]:188).

[260] C. P. E. Bach 1985 [1762]:188 Fig. 193 (a new consonant signature above a long rest; the former example), Kirnberger 1982 [1771]:214–215 Ex. 11.16 (a new dissonant signature above a long rest). See also J. S. Bach: *WKI* I (1722) Prelude in B flat major, bars 16–17.

[261] According to the norms of thorough bass-tradition there is no ceasing bass in Beethoven: VII Symphony op. 92 (1811–1812) 2. mvt. bars 276–278 (a: I–I six-four), but instead there is a "long rest" after a bass being struck.

against this possibility: "… a new harmony cannot be used at the rest, since it would have no foundation."[262]

However, in a three-voice framework (see chapter 4.3) the assisting bass functions as this foundation. In order to discern a seemingly ceasing and entering (or re-entering) bass part in a two-voice framework (see chapter 4.3) from the proper one that establishes a three-voice framework, the terms *resting bass* (in two-voice framework) and entering/ceasing bass (in three-voice framework) are used below.

6.1.5 DIFFERENT TYPES OF FRAMEWORK IN ANALYSIS

In the case of an entering and ceasing bass a situation may occur where a rest in a bass part may be explained in two possible ways, either as a *resting bass* (see section 6.1.3), or as a *ceased bass*. Thus there are cases where a two-voice and a three-voice framework (see chapter 4.3) are both possible explanations.

In deciding between a resting bass or ceased bass it must be cleared up which of these explanations is simpler. If during the rest of the bass the dissonances in the upper parts are easier and more logical to measure against the part next to the bass during the rest than to the absent bass tone, and if assuming an absent bass during the rest only complicates harmonies and voice-leading, the resting bass may be considered to have lost its structural power, i.e. ceased (until it perhaps again re-enters). On the other hand, if assuming a resting bass allows more consistency and clearness in voice-leading and harmonic logic, then explaining it as a resting bass should be preferred.

Fig. 6.1.5–1 illuminates these criteria. The harmonies of Fig. 6.1.5–1a and Fig. 6.1.5–1b are explained as resting basses in two-voice framework (see chapter 4.3) where an A-rooted dominant-type ninth chord (A Mixolydian: I9) precedes an F sharp major triad (b: V).[263] Resolving of the ninth (b–a sharp) results in a cross-relation A–a sharp between the bass and an upper voice. The interval of a seventh g/A resolves to an octave f sharp/F sharp. These are the features that in terms of a two-voice framework make this modulating progression quite clumsy.

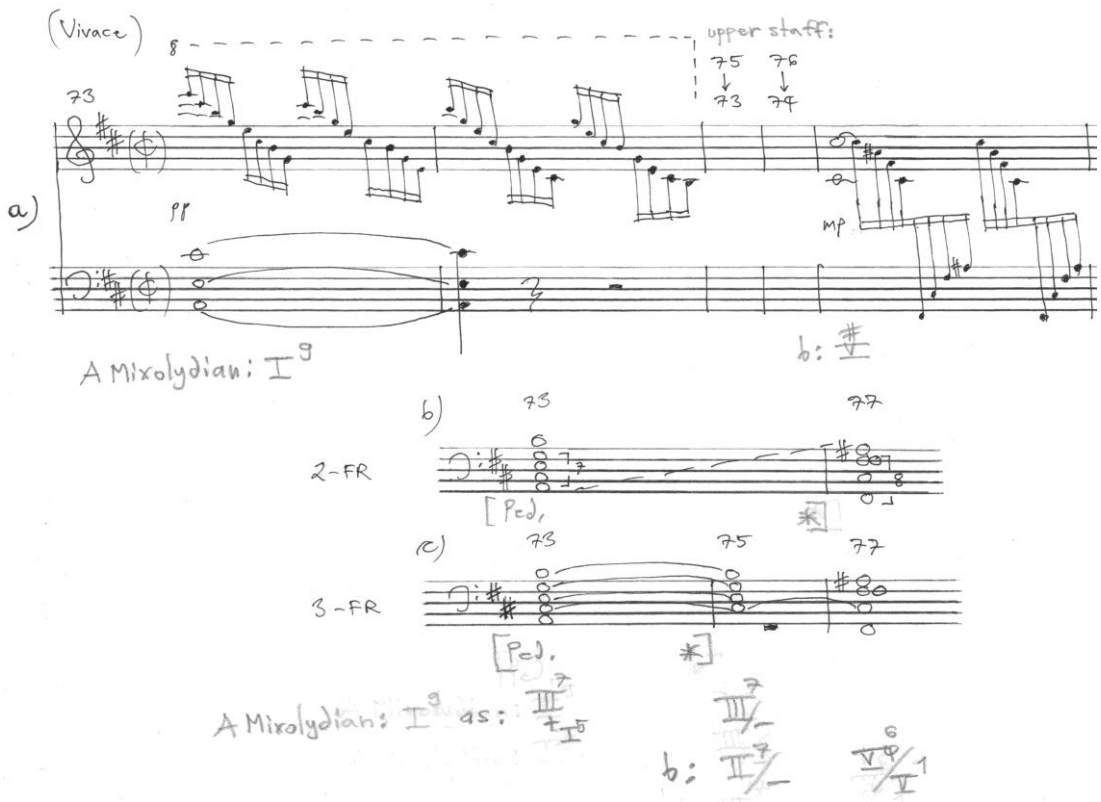
In Fig. 6.1.5–1c the same harmonies are explained by means of ceasing and entering bass in terms of a three-voice framework. There are now three successive chords of which the first (in bars 73–74) is interpreted as an A-rooted added-root sum-ninth chord (A Mixolydian: I5+9) that includes a latent three-voice framework (see chapter 4.4) with an assisting bass c sharp (A Mixolydian: III7/I). During the second C sharp-rooted half-diminished

[262] Kirnberger 1982 [1771]:214, 215; Ex. 11.17.

[263] In an analytic approach not taking into consideration other scales than major or minor this A Mixolydian: I9 would be considered "D: V9".

upper sub-seventh chord this assisting bass c sharp becomes its bass proper when the lower root (A) has ceased (A Mixolydian: III7/- → b: II7/-).[264] At the moment of a chordal change the bass (F sharp) re-enters. In this third chord the tone c sharp continues as a latent assisting bass of the sub-six-four chord in a layered triad (b: V six-four/V1 = V). This layered triad (in bar 77) may also be considered the first chord in the following two-voice framework. In this explanation the seventh (b) of the half-diminished upper sub-seventh chord finds its resolution in a progression typical to minor (b: II7–V). Thus the motion b–a sharp is not a resolution of a sum-ninth, but a resolution of the sub-seventh. In the modulating progression A Mixolydian: III7+V1 – III7/- → b: II7/- – V six-four/V1 both cross-relation and clumsiness of voice leading are avoided. For a pianist each explanation has its consequences in the use of the sustaining pedal.

Fig. 6.1.5–1 a–c. Either a resting bass in a two-voice framework, or a ceasing and entering bass in a three-voice framework. Impromptu op. 5 no. 5 (1893) bars 73–77.



[264] Sibelius did not write semibreve rests to bars 75 and 76 in the lower staff (see *JSW* V/1:16). Anyway those empty bars decide a similar situation.

6.1.6 ENTERING AND CEASING WITH MUTUAL BASS

In a three-voice framework (see chapter 4.3) columnal successions or progressions (see chapter 4.5.3) can be achieved by means of entering and ceasing layers. These may utilize an assisting bass and bass (see chapter 4.3), but also a *mutual bass* where the assisting bass and bass meet in unison (see chapter 4.3, chapter 5.6).

In Fig. 6.1.6–1a there are three different cases of mutual bass. The pitches in them are B1/b1 (bar 614), d/D (bars 615–623) and b1/B1 (bars 624–634). The chords leaning on the bass are B Aeolian-Ionian: IV six-four – IV+7 below root – I with a Picardy third. The six-four chord in bars 612–614 is the caesura chord of the previous phrase. The chords leaning on the assisting bass (Vl. I&II, Timp.) are B Aeolian-Ionian: I5–I6–I5 in bars 614–634. Besides between the two first chords in bar 614 (B Aeolian-Ionian: I5–I6) the assisting bass includes a passing added-root ninth chord (B Aeolian-Ionian: IV9+1 without third and seventh) caused by Timp.

These layers enter successively. Therefore the sum of them begins as B Aeolian-Ionian: -/IV six-four – I5+IV six-four (in bars 612–614). The sum-bass is B Aeolian-Ionian: IV six-four – IV5+9 without the seventh in the 2nd inversion. The added-ninth sum-chord in bar 614 is a kind of "1 ½ chord" (cf. Fig. 5.6–3 [op. 12:III:203]). The B Aeolian-Ionian: I5 remains stationary in the topmost layer, while in the bass (in bars 614–615) there is motion B–D along with a chordal change to B Aeolian-Ionian: IV+7 below root. This chord in bars 615–622 is heavily doubled by almost all of the wind instruments. Together the layers add up to a complete sum-ninth chord (B Aeolian-Ionian: IV7+9 in the 3rd inversion).

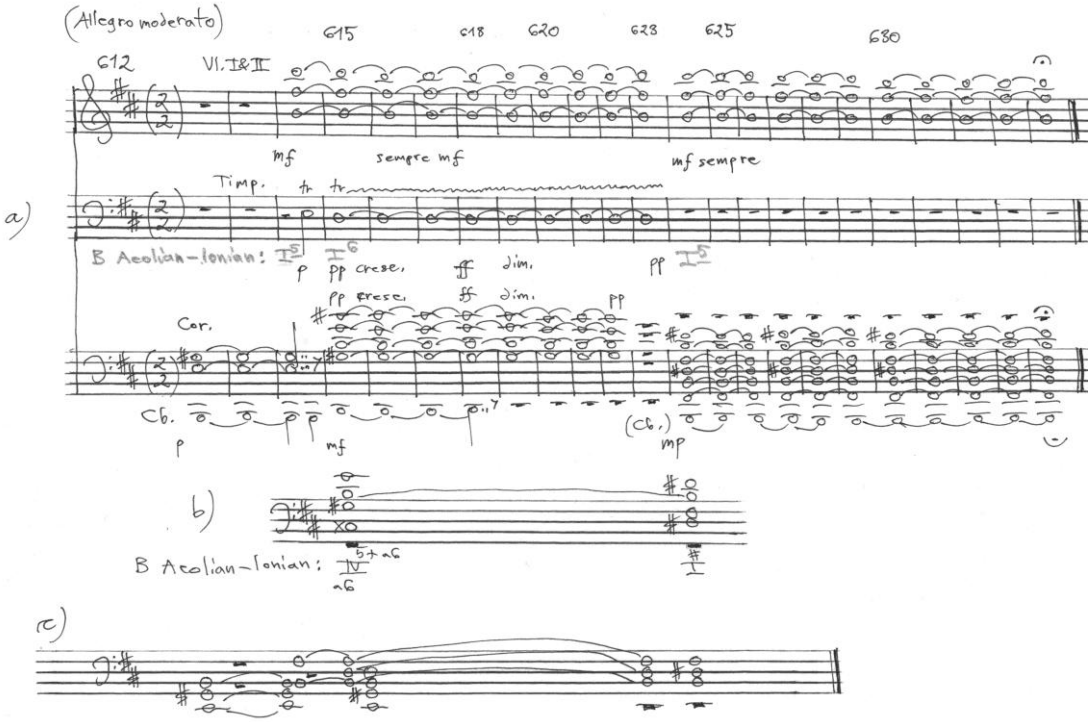
The Timpani part in bars 614–623 firstly as the assisting bass in bar 614 doubles the fourth of the E-rooted six-four chord of the lower layer. Then in bars 615–622 it doubles the following bass tone D an octave higher (d). Now the layers share a mutual bass. Only in bar 623 is the independence of the assisting bass revealed, as it still sounds in bar 623 after the bass D (in bar 622) has ceased. Thus in bar 623 the chord formed by the Timpani and the upper strings is B Aeolian-Ionian: I5/III1 = I6. The mutual bass tone d/D in bars 615–622 is thus formed by a dissonance of the E-rooted (harmonically) lower sub-seventh chord (the seventh of it) and a consonance of the B-rooted (harmonically) upper sub-triad (the third of it). The twofold intervallic quality thus shows itself in the mutual bass. After the ceasing of the E-rooted lower sub-seventh chord (B Aeolian-Ionian: IV+7 below root) of the E-rooted sum-ninth chord (B Aeolian-Ionian: IV7+9 in the 3rd inversion), the upper B-rooted minor sub-sixth chord sounds alone in bar 623. As such is may be considered a kind of "2 ½ chord". Here the lower sub-seventh chord does not proceed to the upper sub-triad (B Aeolian-Ionian: IV+7 below root – I6), but

the chordal change is achieved merely by ceasing the lower sub-seventh chord.

The third and concluding chord in bars 624–634 is B Aeolian-Ionian: I#. Without the Picardy third the whole conclusion in bars 612–634 would have been an irregular columnal succession (cf. chapter 4.4), but now a successive interval of an augmented unison between d (Timp.) and d sharp (Vle. IV, Vc. III) results. In relation to it the previous E-rooted lower sub-seventh chord proceeds in the manner of an augmented sixth chord (B Aeolian-Ionian: IV5+a6 – I#). The compound diminished third e1/c double-sharp reaches the octave d1 sharp/d sharp (Fig. 6.1.6–1b).

In their entirety bars 612–634 may be considered a prolonged modal plagal (IV–I#) closure that confirms the previous authentic closure in bars 603–609. In this plagal closure in the bass motion B1–D–B1, the cadential tone (D) really "falls" to the caesura tone (B1). Furthermore the cadential tone D may be considered a 4–3 resolution (e–D) of the previous six-four chord (in bars 612–614) taken over by the bass part. From the point of view of the bass part the regular version where the columnal succession is clear (Fig. 6.1.6–1c) would have resulted in a weaker solution that may not even have been perceived as a closure.

Fig. 6.1.6–1 a–c. Entering and ceasing layers sharing mutual bass. *Tapiola* op. 112 (1926) bars 612–634.



6.1.7 LAYERS AND POLY-DYNAMISM

In poly-dynamism different instruments or instrument groups are written to perform different dynamic degrees. Sometimes this may be done in order to achieve balance, although in the music of Sibelius there are instances that can hardly be explained in this way (see Fig. 7.1.3–1 [op. 109 no. 2/I:1–4], Fig. 11.3.1–2 [op. 112:68–72]).

In the above Fig. 6.1.6–1 [op. 112:612–634] the layers are differentiated by means of polydynamics. In bars 612–623 there are four kinds of dynamic process. The upper strings maintain their *mf sempre*, while against it the winds present the process *pp – cresc. – ff – dim. – pp*. The double-basses have a similar process *p – < – mf – > – p*, but this begins before the wind layer and ends during the peak of it. The most complicated case is the timpani which are dynamically connected with the wind layer (*p – pp – cresc. – ff – dim. – pp*), while harmonically they function as the assisting bass of the upper strings.

In bars 612–623 polydynamics are used in additive harmony. Even more effective polydynamics are seen in connection with non-additive harmony (cf. chapter 5.3.1). During the concluding chord of the composition there is contrasting poly-dynamism where different steady dynamic levels appear at the same time. In the upper layer (B Aeolian-Ionian: I5) that entered earlier, the dynamic direction *mf sempre* is repeated in bars 624–625). The entering lower layer (B Aeolian-Ionian: I with Picardy third) launches *mp*. Without this dynamic differentiation the assisting bass (b1; Vl. Ib & Vl. IIb) and the bass (B1; Cb.) that share the common tone, as well as the assisting soprano (d1 sharp; Vle. I) would have remained in oblivion in this three-voice framework (see chapter 4.4).

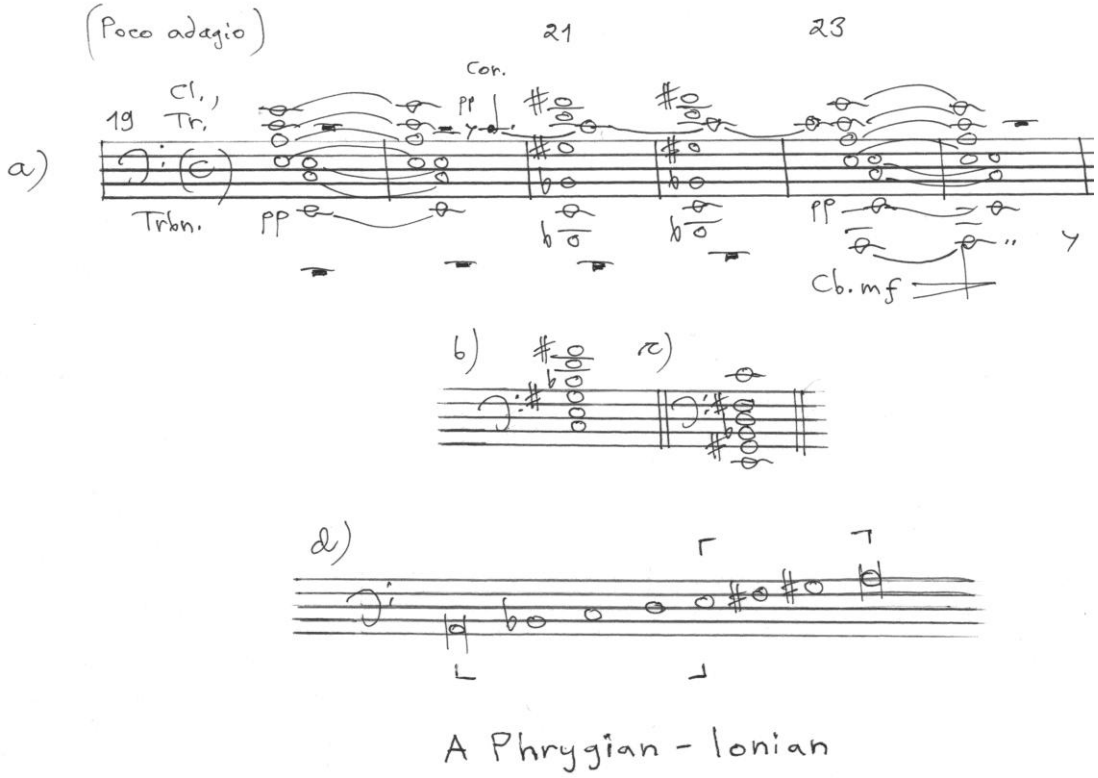
6.2 CHORDAL PROJECTIONS OF WHOLE-TONE SCALE

In Sibelius' music there are chord-formations in which all the factors can be located in a whole-tone scale (see Fig. 7.4.2–1 [op. 112:436–456]). The written appearance of these scales depends on the location of the diminished third (see Fig. 4.2.2–3c). An inversion of these chord-formations depends on the root and this depends on harmonic context.

In Fig. 6.2–1a the bars 21–22 as such can be explained in several ways, even if only dominant-type chords are taken into consideration. Two alternatives for them are a C-rooted sum-eleventh chord (Fig. 6.2–1b) and an E-rooted sum-thirteenth chord (Fig. 6.2–1c). In this particular case the chord-formation stands between A-rooted minor six-four chords. In bar 23 an entering bass turns a would-be six-four chord into a layered triad (cf.

section 6.1.2). Thus here the set of tones similar to a whole-tone scale (Bb–C–D–E–F#–G#) can also be considered a segment in A Phrygian-Ionian mixed mode (cf. Fig. 4.2.2–3a) where the tonic A divides the diminished third G sharp–B flat into two half-steps (Fig. 6.2–1d). In this mode between two tonic chords there is an E-rooted dominant sum-ninth chord with diminished fifth in the 2nd inversion (A Phrygian-Ionian: I six-four – V5+9 in the 2nd inversion – I six-four/I1) during sustained tone C (i.e. the sub-thirteenth in Fig. 6.2–1c). The dissonances seventh and ninth become resolved (cf. chapter 5.3).

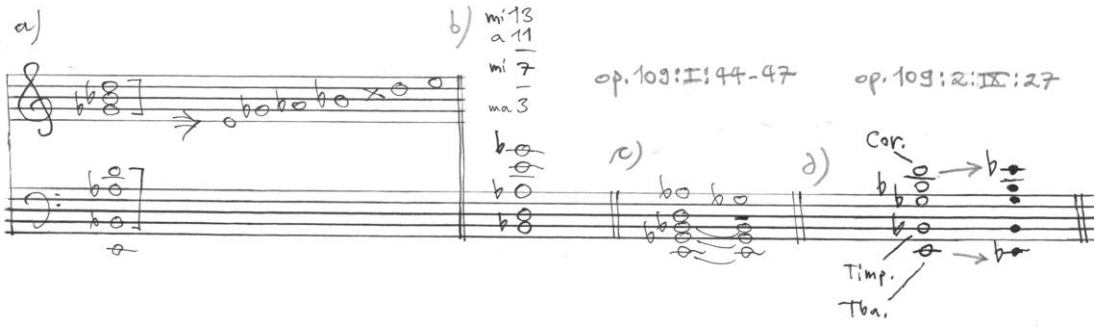
Fig. 6.2–1 a–d. Chordal projection of a whole-tone scale or a mixed mode. *Ariel's Song* op. 109 no. 2/VIII (1925/1927) bars 19–24.



In the non-modal context the written diminished third in a whole-tone scale is not to be considered an indicator of a missing tonic. The formation at the end of op. 109 no. 1 (Fig. 6.2–2a) is convenient to explain as an inverted incomplete B flat-rooted dominant-type thirteenth chord without a ninth (Fig. 6.2–2b). Yet the dissonance treatment in this formation – the dim4–dim3 resolving motion A flat–G flat (in bars 32–35, 36–39, 40–41, 42–43 and 44–47) and the mi7–5 dissolution D–B flat (in bars 32–35, 36–39, 40–41 and 42–43), as well as the final ceasing of the minor seventh D (in bars 44–47) that in terms of dissonance treatment corresponds to the dissolution – suggests an E-rooted non-dominant eleventh chord that is followed by an E-rooted triad with a diminished fifth and third (Fig. 6.2–2c).

It is interesting to note that in another version of this music (op. 109 no. 2/IX:27) this last chord of the overture – though without the resolving A flat – is followed by one more chord, an E flat minor triad (Fig. 6.2–2d). The dissonance treatment, where the (compound) minor seventh d1/E is treated in the manner of an augmented sixth d1/F flat, resembles the procedure at the end of *Tapiola* op. 112 (cf. Fig. 6.1.6–1b).

Fig. 6.2–2 a–d. Chordal projection of an incomplete whole-tone scale.



If the principle of enharmonic equivalency in explaining the whole-tone formations is accepted,[265] the number of possible explanations vastly increases. Practically all chordal projections of the whole-tone scale can be explained as chords or as sum-chords. Only enharmonic reading offers different possibilities for any roots or sum-roots in them. Regarding tension, the opposite phenomenon for a whole-tone chord is a *polychord*.

6.3 POLYCHORDS

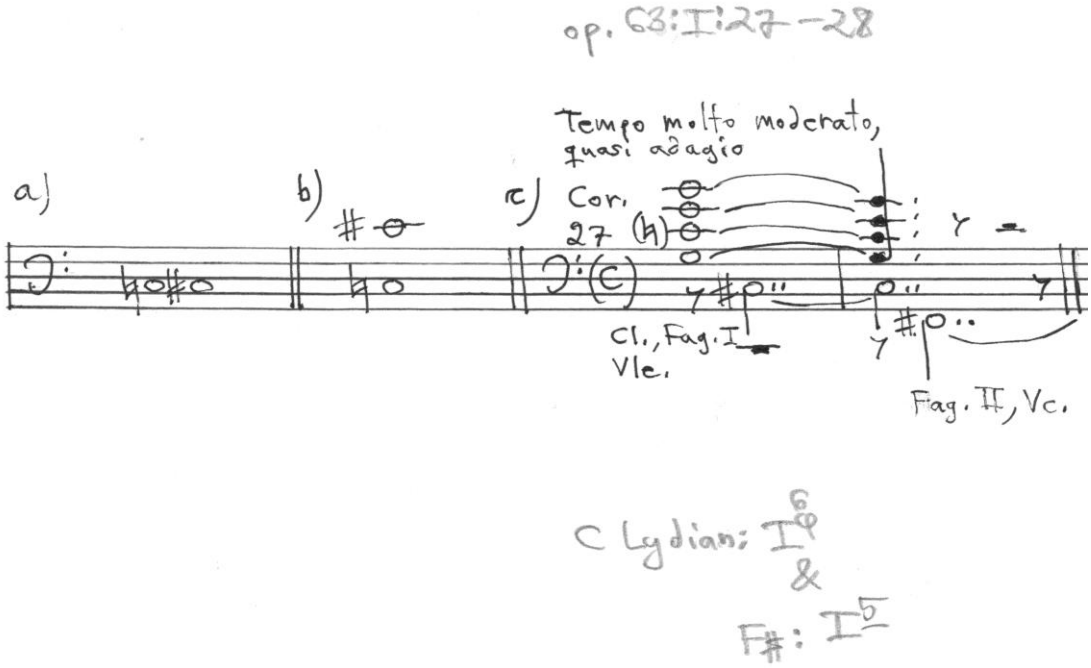
In a sum-chord the simultaneous sub-chords or layers merge into a wider formation that has a sum-root. In a polychord there are also simultaneous sub-chords or layers, but these remain distinctive. Consequently the term sum-root is not relevant in connection with a polychord. Yet always the concepts ”sum-chord” and ”polychord” are not exclusive. Consequently the term chord-formation (see chapter 4.5.3) may also be extended to cover polychords. Depending on spatial distribution and orchestration, the same sub-chords may be presented either as a sum-chord, or as a polychord. Below the classification is made on perceptive grounds.

Polychords can be divided into two classes. In the first class there are polychords in which it is possible to arrange the sub-chords or layers into a regular stack of thirds. This stack may be similar to a non-dominant-type

[265] This kind of acceptance is somewhat motivated by the fact that Sibelius sometimes uses simultaneous enharmonically equivalent tones in his scores; see e.g. the paragraph before Fig. 5.2.3–2 [op. 9:30–37].

sum-chord (see Fig. 6.3–2). In the second class there are polychords in which it is impossible to arrange the sub-chords or layers into a regular stack of thirds in terms of orthography. This is the case when there is at least one simultaneous augmented unison (e.g. c sharp/c natural) between the different sub-chords (Fig. 6.3–1a). Depending on spatial conditions, instead of an augmented unison an augmented octave (c1 sharp/c natural; Fig. 6.3–1b) or diminished octave (c1 natural/c sharp; Fig. 6.3–1c [op. 63:I:27–28]) may occur. For the sake of brevity only the term augmented unison is used below.

Fig. 6.3–1 a–c. Augmented unison, augmented octave and diminished octave in polychords.

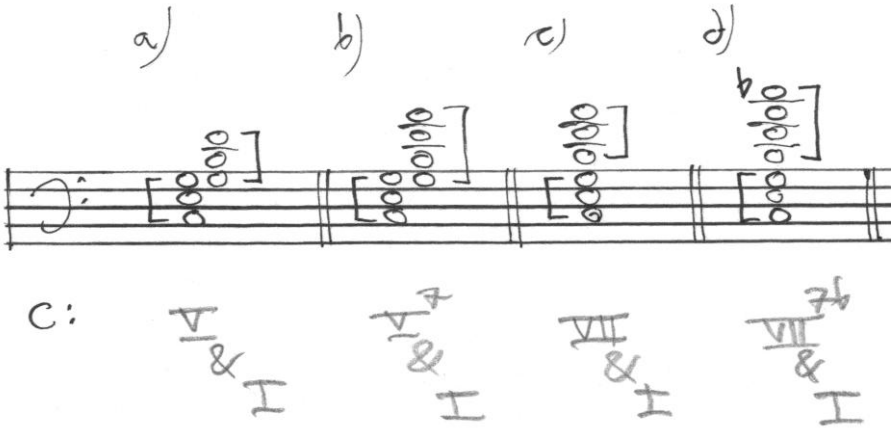


Traditional organ point-formations, i.e. seven-four-two chords (see chapter 5.2.1), may be considered rudimentary forms of a polychord. A seven-four-two chord where the tonic and a chord including the leading-tone are combined (see Fig. 5.2.1–1a) would give rise to a polychord that includes simultaneous tonic and dominant sub-chords. Organ point-based polychords can already be found in the Classic era.[266] If the sub-chords of these are arranged into a regular stack of thirds, a non-dominant ninth (Fig. 6.3–2a), eleventh (Fig. 6.3–2b and –2c; cf. Fig. 11.3.1–2 [op. 112:72]), or thirteenth chord (Fig. 6.3–2d) leaning on the tonic will result. Yet in these stacks the

[266] An organ point-based polychord that includes simultaneous tonic and dominant sub-chords: Haydn: Symphony no. 104 in D major (1795) 4. mvt. bars 311, 313, 314–315, 317 (D: V7&I; V7 in the domain of assisting bass as passing chords between I/I over the sustained tonic triad by Fag., Cor. & Vc, Cb.).

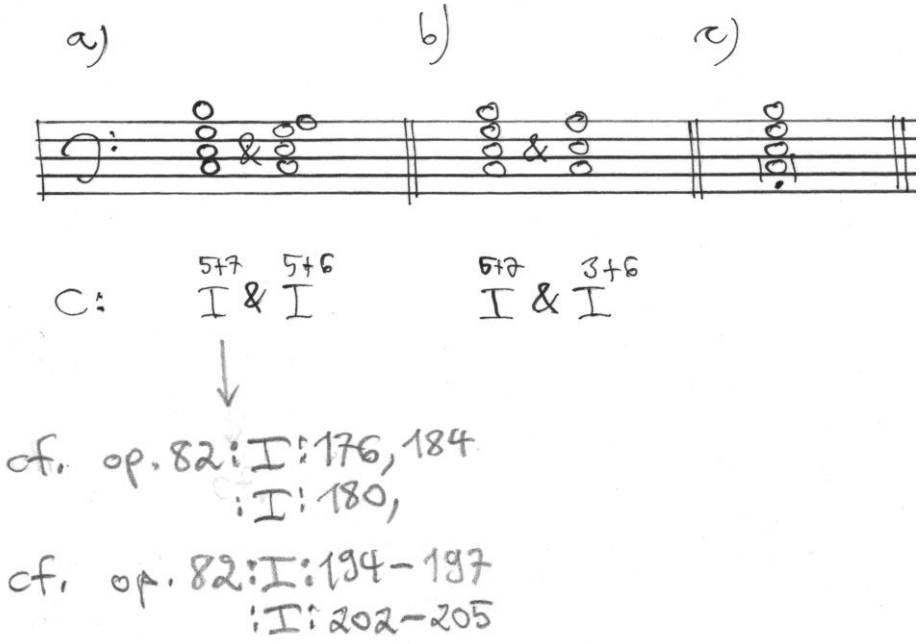
sub-chords do not mix into a non-dominant sum-chord, but they remain distinctive.

Fig. 6.3–2 a–d. Organ point-based polychords.



This regular stack of thirds of the first class of polychords may even be similar to a dominant-type sum-chord (see Fig. 2.1.1–5b). Yet in these combinations of the first class where e.g. added-sixth and added-seventh chords share the mutual bass (Figs. 6.3–3a, –3b), the perceptive forces that separate the sub-chords from each other are stronger than those that would unite them into a sum-chord (Fig. 6.3–3c).

Fig. 6.3–3 a–c. Polychords in which sub-chords share a mutual bass.



In harmonic analytic notation a polychord is shown by means of ampersand (&) between the sub-chords – instead of slash (/) used in connection with non-additive chords (see chapter 5.3.1) and a plus-mark (+) used in connection with sum-chords (see chapter 4.3). After the ampersand the sub-chord of which bass tone in the *Satz* stands lower (e.g. VII&I in Fig. 6.3–2c) is placed. The order is at will in those cases where the sub-chords of a polychord share the same bass (e.g. I5+7&I5+6, or I5+6&I5+7 in Fig. 6.3–3a).

In Fig. 6.3–4a there are some polychords during dominant sum-chords of D minor. Detached from polychords the pentachord-succession (d: VII–II–IV) in the melody (Vl. I) where the viola below it holds the dominant organ point has been encountered earlier (see Fig. 4.4.1–1 [op. 56:V:254–259]). During this columnal (see chapter 4.4) process Vl. II and Vc. dissolve C-rooted (bar 255) and E flat-rooted (bar 257) major triads. Between the roots of the diminished sub-triads (d: VII and d: II) extracted from the line and the root of the major sub-triads, there are augmented unisons (C/C sharp and E flat/E natural; Fig. 6.3–4b). These simultaneous augmented unisons only occur in the level of reduction. In the surface level they are successive, so there is no clash. It can be said that here one layer is immersed into another (see chapter 10.5.3).

It is indeed possible to explain the two polychords in more than one way. An explanation here would be to assume 'poly-minority' where both unaltered and altered degrees from a minor key occur simultaneously (d: VII&d natural: VII in bar 255 and d: II&N in bar 257). A major or minor key may be established even without its tonic chord (see Fig. 11.9.1–1 [op. 82:I:282–298]), whereas when establishing a mode its tonic chord is indispensable (cf. Fig. 5.4.2–3e [op. 70:21–22]).[267] Therefore a polymodal explanation (d: VII&D Aeolian: VII in bar 255, d: II&D Phrygian: II in bar 257) where D natural minor is replaced by D Aeolian mode and the Neapolitan triad of D minor by D Phrygian: II degree would be forced, because neither the scales nor the tonics of those supposed modes exist in the surface level.

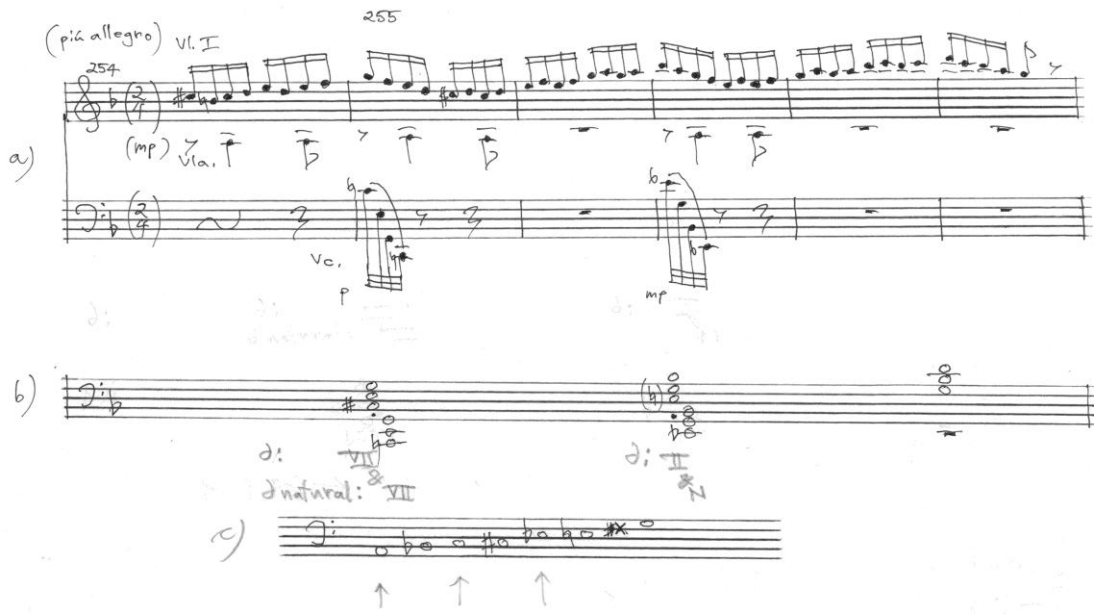
There is also another explanation that is based on expanded functions of major or minor, i.e. on axial tonality by minor thirds. Besides the A-rooted major triad in bar 254 – the dominant of the prevailing key D minor – the C- and E flat-rooted major triads may be considered by analogy the dominants of F minor and A flat minor. According to this explanation, the dominant chord is enriched by means of polychords implying simultaneous different scales that have different tonics, i.e. *bitonality* (d: V&f: V and then d: V&a

[267] In e.g. the sequence C: III–VI7–II–V7–I all the chords are directed to the goal chord tonic triad. If the first two chords, instead of being an E minor triad and an A minor seventh chord, are an E flat minor triad and an A-rooted dominant-type seventh chord, they may be explained by means of interchange as C Locrian: III – C: V7 of II – II etc. (cf. op. 103:III:45–49; here the dominant-type chords are ninth chords).

flat: V). Yet the all-embracing dominant of D minor is not disturbed by these bitonal polychords (see chapter 11.6.2).

In any case, these major sub-triads establish an incomplete symmetric octatonic scale (A–Bb–C–C#–Eb–E–[F#]–G–A; Fig. 6.3–4c). This scale does not contain the tonic of the prevailing key D minor and implies a raised third degree that does not exist in it. From the angle of modality this would be a defect, but from the point of view of expanded functions of the major-minor system it poses no problem. Therefore this fragment may be considered an example of polyscalic bitonality (see chapter 11.6).

Fig. 6.3–4 a–c. Isolated polychords during a dominant chord. *Voces intimae* op. 56 (1909) 5. mvt. bars 254–259.



In bitonal polychords the intervallic relation between the roots may be either augmented unison, third (major third or minor third), or augmented fourth (tritone) or diminished fifth (see Fig. 11.9.1–1 [op. 82:I:282–298]).

Often polychords emerge due to an entering layer and vanish due to a ceasing layer. Respectively an entering layer may cause some dissonances between it and the previous sub-chord of a newly-established polychord. In connection with a ceasing layer these dissonances are neither resolved nor released, but they vanish as does the polychord.

In Fig. 6.3–5a in bars 204–207 there is a polychord of the second class. The factors in its sub-chords may be derived from a symmetric interval pattern a–d–c#–F#–F–Bb (see Fig. 7.5.1–2 [op. 70:173–208]). Here the selections from this pattern generate sub-chords, two of which have already begun before bar 204. The first of these is a sustained D-rooted minor seventh chord in the 3rd inversion (Vl. I&II, Cb.). The third of this chord (F natural) is present as a quiet chord factor in the second Harp part (d flat/G flat/F). The second layer offers a louder major third F sharp for the first

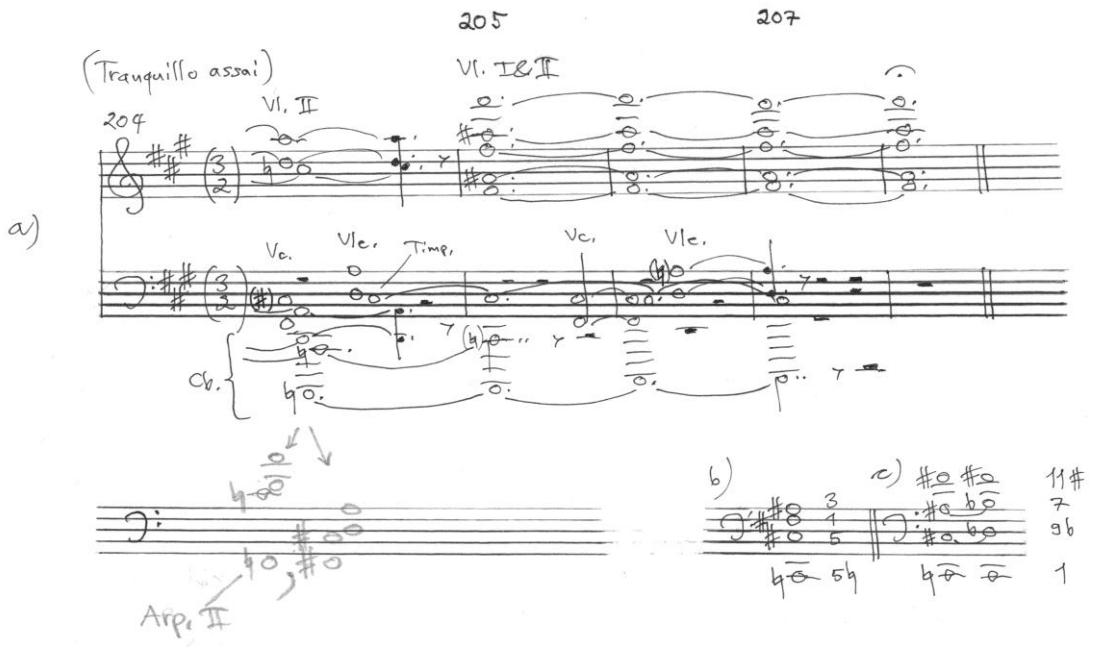
layer, though in the second layer this F sharp functions as the root of an added-sixth triad (Timp., Arp., Vle., Vc.) that keeps ceasing and re-entering.[268] In bar 205 an F sharp-rooted triad appears in the 2nd inversion (Fl., Ob., Cl., Timp. I, Vl. I&II). Excluding the lowermost C natural (Cb.), which remains as the only remnant of the first layer, this new chord cancels the first layer.

In bars 205–207 there is a clash between the sub-chords of the polychord. In Fig. 6.3–5a there are two augmented unisons, the earlier C sharp/C natural and A sharp/A natural (Vle. I). The third one, F sharp/F natural (Vc. II/Arp. II) is left out. They as well as other dissonances between the layers vanish along with the ceasing of the added-sixth triad in bar 207. After the cessation of this second layer (Vc., Arp. I, Vle.), the only remnant of the first layer low C (Cb.) also ceases in bar 207. Then in the same bar the fifth of the last chord ceases (Timp. I), until in bars 207–208 only the major third A sharp/F sharp is left. The tone A sharp functions as the Picardy third to F sharp, which may be considered the tonic of this composition (cf. Fig. 8.4–1 [op. 70:1–5]).

After the ceasing of the second layer in bar 207 it is possible to consider the remnants of *Satz* in bar 207 as an F sharp-rooted major triad with a diminished fifth in the 2nd inversion where the – polymodally considered – Locrian fifth C natural stands lowest (Fig. 6.3–5b). By applying enharmonic reading (A sharp as B flat, C sharp as D flat), it may also be viewed a C-rooted dominant-type root-position eleventh chord with an augmented eleventh and a minor ninth (Fig. 6.3–5c), but without the third or fifth (cf. Fig. 2.1.1–5b). The dissonances in these alternatives also vanish along with the ceasing chord factors.

[268] In a score of op. 70 (B&H PB 5076) in bar 204 in the Timp. I part there is an e sharp and in the Timp. II part there is no pitch. In bars 205–207 in the Timp. I part there is a dyad e/c sharp, whereas the Timp. II part has been left empty. In *JSW* VIII/1 the Timp. I part in bar 204 has been corrected to c sharp and in the Timp. II part the tone d has been added according to the previous bars. In bars 205–207 in Timp. I the same c sharp continues and in the Timp. II part in bars 205–207 there are rests. The editors of *JSW* justify these corrections on the grounds of "overall harmonic context" (*JSW* VIII/1:297). I find the reasoning of *JSW* editors well-founded.

Fig. 6.3–5 a–c. Vanishing dissonances in a ceasing polychord. *Luonnotar* op. 70 (1913) bars 204–208.



6.4 UN-CHORDS

In the music of Sibelius there are instances where a simultaneous combination of tones that is sonorously equal to a chord is not written as such, but in a manner where instead of a major third there is a diminished fourth (or instead of a minor sixth an augmented fifth). This kind of phenomenon is in this study called an *un-chord*. It is often not possible to locate an un-chord on any degree in the prevailing key or mode. The source of un-chords is not orthography demanded by transposing instruments, because un-chords can be found in notation for non-transposing instruments as well. Sibelius may even write a triad as an un-chord. Sometimes the reason for this vertical awkwardness may be in making the horizontal notation easy to read for the performers. Also, a suspension (traditionally a non-harmonic tone) may form a diminished fourth in relation to some factor in the prevailing chord and thus be a factor in a un-chord (see Fig. 7.3–2 [op. 112:593–595]).

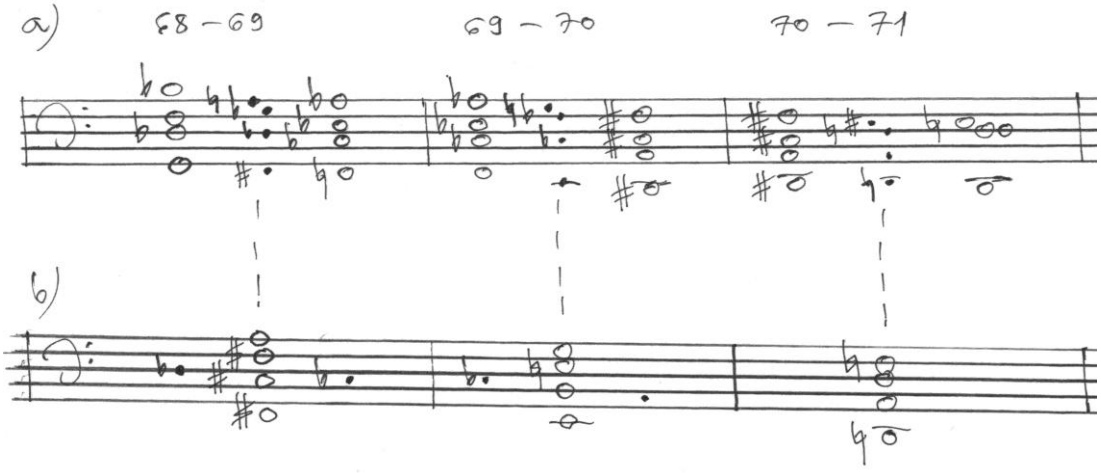
In order to execute an un-chord as a chord, i.e. a sonorously equal stack of thirds, an interval of a diminished fourth (or an augmented fifth) must be replaced – in one's mind or in a reduction – by an enharmonically equal major third (or minor sixth). In this replacing there is more than one possibility. A diminished fourth (e.g. D–Gb) can be written as an enharmonically equal major third in two ways (either D–F#, or Ebb–Gb). Out of several alternatives the one that allows the least complexities should be chosen. In the domain of triads or seventh chords a diminished fourth

functions as a sonorously equal major third. However, in wider chord-formations that exceed the boundaries of an octave (e.g. eleventh chords), an interval of an augmented fifth does not necessarily need enharmonically equal re-interpretation, but as such may occur between the chord factors (see Fig. 6.4.2–1c [op. 104:II:116–117]).

In Fig. 6.4–1a between G-, F- and D sharp-rooted half-diminished seventh chords there are three un-chords of unusual complexity (see chapter 10.1). All these three formations include augmented seconds (between the soprano and alto parts), as well as augmented fifths (between the soprano and tenor parts). In two of them diminished sixths (between the tenor and bass parts) and diminished ninths (between the alto and bass parts) occur. If these intervals were written as enharmonically equal minor thirds, minor sixths, fifths and octaves over the bass tones, three passing minor triads rooted on F sharp, E and D (Fig. 6.4–1b) would result.

Yet writing these passing formations as chords instead of un-chords according to Fig. 6.4–1b would cause numerous complexities. In bars 68–69 in the tenor part there would read d1 flat–c1 sharp–c1 flat (Fig. 6.4–1b) instead of the written d1 flat–d1 flat–c1 flat (Fig. 6.4–1a). It seems that in his part-writing Sibelius favours a major second instead of a doubly augmented unison. Furthermore, all the minor sevenths (between the alto and bass parts) in this sequence are treated in the manner of augmented sixths (though leading not to octaves, but to diminished ninths in bars 68 and 69). The orthography in this respect would also not lessen these complexities.

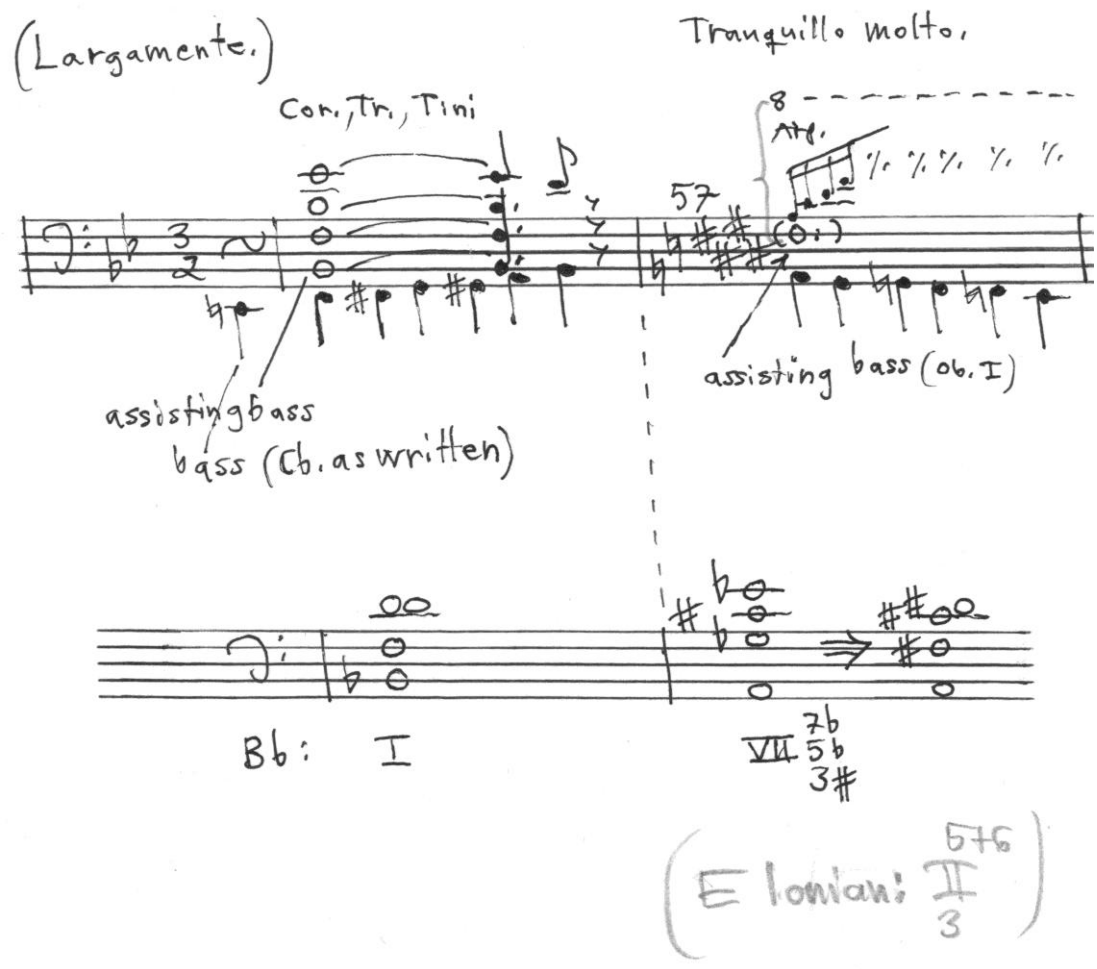
Fig. 6.4–1 a–b. Un-chords as passing formations. Sixth Symphony op. 104 (1923) 4. mvt. bars 68–71.



In the above case (Fig. 6.4–1) Sibelius used half-diminished seventh chords in the manner of augmented sixth chords. This may also be said in the opposite way: Sibelius modified an augmented sixth chord (e.g. a French sixth chord Ab–C–D–F#) into a sonorously equal half-diminished seventh chord e.g. by lowering its third (Ab–Cb–D–F#) and then writing it as such

(e.g. G#–B–D–F#). In the music of Sibelius a written half-diminished seventh chord may also prove to be a derivation from a diminished seventh chord, i.e. from a dominant-type seventh chord (Fig. 6.4–2 [op. 49:56–57]).[269] A formation sonorously equal to a half-diminished seventh chord (written as such or not) thus has many tonal and modal applications; in the music of Sibelius it functions like a knight in chess.

Fig. 6.4–2. A half-diminished seventh chord seen as a modified diminished seventh chord. *Pohjola's Daughter* op. 49 (1906) bars 56–57.



[269] Virtanen 2001:170 explains the "F# sonority" in bars 57–60 differently. According to him "neither the key signature nor the single – dissonant – sonority based on E decisively defines the tonality" of the so-called second theme from bar 57 on. This is true in the case of E major, but an F sharp-rooted added-sixth triad with a minor third and major sixth along with the ensuing E-rooted major seventh chord in bars 57–62 are characteristic harmonies of E Ionian (in all, these bars include E Ionian: II5+6–I7–I5+6). I agree with Virtanen, that "the theme associated with Pohjola's daughter is tonally unstable" – during the pivot chord in bars 57–60 between B flat major and E Ionian. I also find another reason for this instability, namely pentachordal *ambiguity* in this pivot chord (cf. Fig. 11.4.3–2a).

6.4.1 A CHORD INTERPRETED AS AN UN-CHORD

Aside from the horizontal (see Fig. 6.4–1a), in his vertical writing Sibelius may favour major seconds instead of doubly augmented unisons. Thus a chord that is written as a seventh chord may prove to be an un-chord, if its voice-leading context is taken into consideration.[270] This kind of un-chord may, but need not be a passing chord.

In Fig. 6.4.1–1a in the principal key of C major the written formation in bars 77–85 might be understood either as C: V six-five of N, or VI Ger where the augmented sixth F sharp is written as G flat.[271] Yet neither of these two traditional possibilities are seized upon, but a third totally unexpected one is offered.

If an augmented unison A flat–A natural in the line (Fl. I) is interpreted as enharmonically equal minor second G sharp–A, the vertical result of this operation is not another kind of stack of thirds, but an un-chord including an augmented fifth C–G sharp (instead of a minor sixth C–A flat). Furthermore the octave-displaced major second between the soprano and tenor parts (a1 flat/g flat) alters into a doubly augmented octave (g1 sharp/g flat; Fig. 6.4.1–1b).

This un-chord in bars 85–86 then resolves to an organ point-formation C: VII four-three/I1 (cf. chapter 5.2.1) by contrary motion between the line (Fl. I) and three tardy lines (Cor. I–III). The releasing motion 7–8 descending (cf. Fig. 5.3–2b) in bars 86–87 between the stationary line tone (a3) and the innermost tardy line b–a (Cor. III) leads from the sub-seventh chord to a sub-sixth chord (C: II6) over the tonic organ point C.[272] This releasing motion shows that the half-diminished sub-seventh chord (C: VII four-three) in bar 86 proves to be a sum-seventh chord over a tonic organ point, namely

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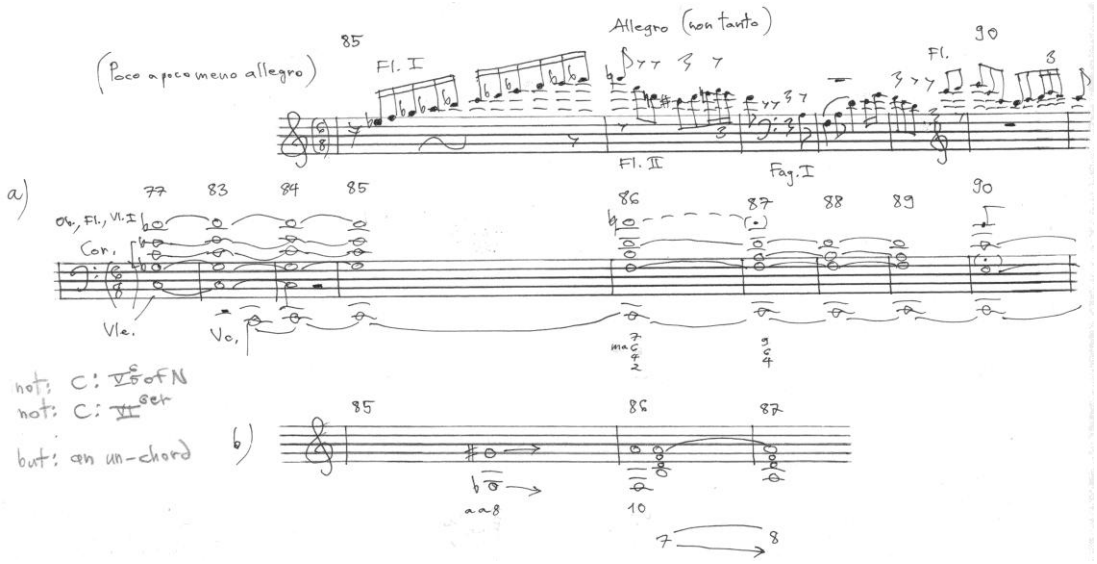
[270] Before Sibelius it was usual to write un-chords as chords, e.g. Schubert in his Piano Sonata in D major op. 53/D 850 (1825) 3. mvt. Trio, bars 162–166 writes between G: V2 and I the chord B–D#–F#. According to Piston 1978:270 (Ex. 17–24) the whole progression (the smallest details are neglected here) is G: V2–V of VI–I. The (melodic) repetition of the theme of the Trio begins at G: "V of VI" in bar 164. What would be the reason for the irregular resolutions of the dominant and a secondary dominant? Assuming an un-chord B–Eb–F# instead of a chord clarifies the picture: after the dominant chord a collection of chordal (B) and leading-tones (Eb–D, F#–G) call for the tonic. Instead of a chord we thus have a passing formation (i.e. an un-chord) that is written as a chord. Interestingly enough, in his Ex. 17–23 Piston takes the possibility of an un-chord into consideration (though not this term; besides b–d1–g1 sharp–e2 also b–d1–a1 flat–e2).

[271] In Virtanen 2005:113 this chord in Example 12–2 is written as c1–e1 flat–g1 flat–a2 flat (below bar number 77). In the text this chord is not discussed. In Example 12–2 the ensuing chord (below bar number 86) is written as c1–d1–f1–a2. Yet according to Cor. III the correct chord in bar 86 in this graph should have been written b–d1–f1–a2 (over the tonic organ point C–c).

[272] During the rests in bars 86–89 the tone a3 – as well as f3 and d3 – in bar 86 are considered to be present, until a new chord is struck in bar 90. In this reasoning the principles of C. P. E. Bach and Kirnberger concerning the rests in bass part (see section 6.1.3) are applied to the upper parts as well.

an added-root seventh chord in the 2nd inversion, an *added-root four-three chord* (C: VII four-three added-root/I1; cf. Fig. 11.4.2–1b). In relation to the tonic organ point the innermost tardy line (Cor. III) indeed proceeds as 7–6, but according to the through-bass practice the leading-tone should proceed ma7–8 (see chapter 5.3, 5.3.1), especially in this context. Also the formation in bar 87–89 that proceeds in bars 89–90 similarly to the *nine-six-four chord* found in thorough-bass practice (cf. Fig. 5.3.1–3b), may be considered a sum-seventh chord, an *added-root chord of the second* (C Ionian: II2 added-root; cf. Fig. 5.3.2–1e). All these features make bars 86–90 seem not to be C major, but Ionian-inflected C major (see chapter 5.4.1).

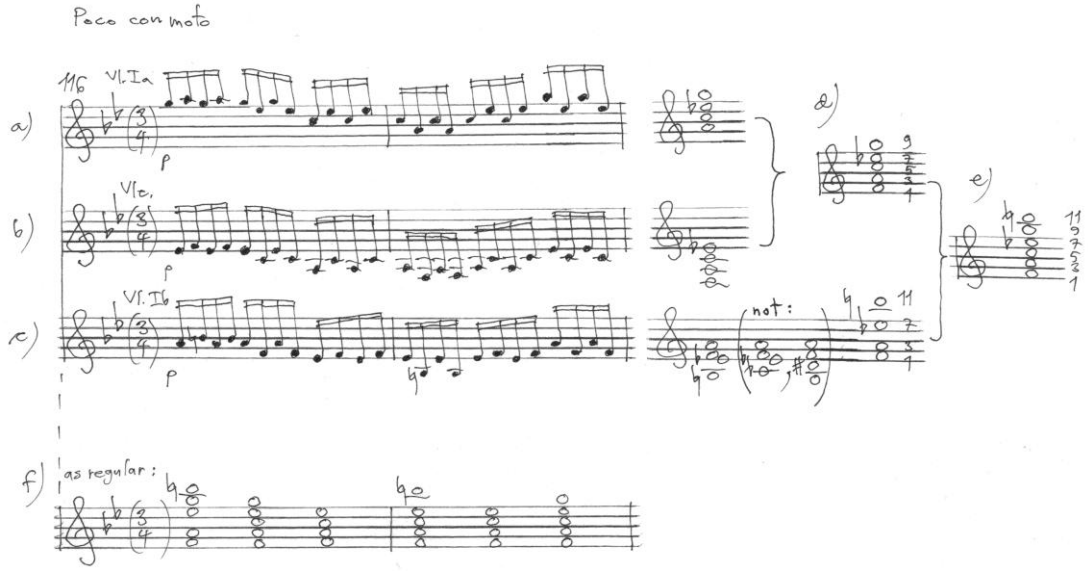
Fig. 6.4.1–1 a–b. A chord interpreted as an un-chord. Third Symphony op. 52 (1907) 3. mvt. bars 77–90.



6.4.2 A SEEMING UN-CHORD INTERPRETED AS A SUM-CHORD

Above the un-chords were examined in the limits of the octave. Yet there are cases when an augmented or diminished interval typical to an un-chord may be understood – exceeding the boundaries of the octave – to belong to a sum-chord, without any need for replacing it with an enharmonically equal consonant interval.

Fig. 6.4.2–1 a–f. A seeming un-chord as a sub-chord of a wider sum-chord. Sixth Symphony op. 104 (1923) 2. mvt. bars 116–117.



In Fig. 6.4.2–1 the limits of the octave are exceeded in interpreting the interval of an augmented fifth (or diminished fourth). In bars 116–117 these intervals occur (b1–e1 flat, e1 flat–b) in a seeming un-chord (Fig. 6.4.2–1c). In the score there are three chordal layers each of which is presented in a staff of its own. All of them are dissolved in similar motion.

The topmost figuration (Vl. Ia) contains an A-rooted half-diminished sub-seventh chord (A–C–Eb–G; Fig. 6.4.2–1a).[273] The lowermost figuration (Vle.) contains an F-rooted dominant-type sub-seventh chord (F–A–C–Eb; Fig. 6.4.2–1b). These sub-seventh chords spatially overlap each other and together they add up to a dissolved F-rooted dominant-type sum-ninth chord (Fig. 6.4.2–1d). However, the middle part (Vl. Ib) between these staves is written neither as a dominant-type seventh chord with a lowered fifth (i.e. B–*D#*–F natural–A), nor as an augmented ("French") sixth chord (i.e. *Cb*–Eb–F–A), even though it is enharmonically equal to both these formations.

The reason for the notation (F–A–Eb–B; Fig. 6.4.2–1c) that seems awkward horizontally (f1–a1–e2 flat–b2) becomes clear when this un-chord is compared with the two previous sub-seventh chords. The tones F, A, E flat and B natural appear to be the root, third, seventh and augmented eleventh of a sum-eleventh chord that includes the two other sub-seventh chords (Fig. 6.4.2–1e). At the beginning of bar 116 the B natural indeed can be explained as an upper neighbour note (a1–b1–a1; 3–a4–3 instead of 3–11–3), but at the beginning of bar 117 the B natural is treated as a leap, in the manner of a chord factor (e1 flat–b–e1 flat; 7–11–7).

[273] This topmost layer is the only one that Virtanen 2008:176 takes into consideration in bars 116–122 (Ex. 6a).

In the harmonic reduction these three layers are presented as three dissolving thickenings. If only the tones that occur on the beats in the figuration are taken together, they form an A-rooted half-diminished seventh chord; i.e. the topmost sub-seventh chord. In bars 116–117 the F-rooted sum-ninth and sum-eleventh chords only emerge between the beats, as if they were a columnal by-product of dissolving motions. (The case is similar in bars 118–119, but from bar 120 on the chord factors 1, ma3, 5, mi7 and a11 begin to occur on the beats; see Fig. 9.4–1 [op. 104:II:116–128]).

In this process the augmented eleventh B natural undergoes dissolution. Nowhere is the augmented eleventh B natural located topmost; during the first beat in bar 116 it is located below the major ninth G and during the first beat in bar 117 below the minor seventh E flat. In the level of harmonic reduction on every crotchet the regular sum-eleventh chord decreases and increases (Fig. 6.4.2–1f). Various inversions and an irregular root-position chord succeed each other densely in this *irregular columnal succession* (cf. chapter 4.4).

7. ON SIBELIAN VOICE-LEADING

In the previous sixth chapter the main emphasis of the examination was on vertical dimension, without neglecting the horizontal one. In this seventh chapter the matter is reversed. The horizontal dimension of additive harmony (see chapter 3.5) manifests itself in simple (section 7.1) and florid (section 7.2) counterpoint involving thickened lines. In this kind of *Satz* dissonances also emerge that are neither resolved nor released, but which turn from a dissonance to a consonance, or to another kind of dissonance (section 7.3). In his voice-leading Sibelius also applies the principle of systematic contrary motion (section 7.4). This principle brings forth important harmonic consequences that are separately examined (section 7.5). Finally heterophony as an important resource of Sibelian voice-leading is discussed (section 7.6).

7.1 THICKENED TWO-PART COUNTERPOINT

In an earlier chapter it was stated, that in layered *Satz* that contains only consonant layers, the dissonances are not treated between the parts, as is the case in traditional *Satzlehre*, but between the layers (see chapter 5.3.1). In that case the consonant layer was *fauxbourdon*, the parallel motion of sixth chords. The above principle holds good also when *fauxbourdon* proceeds against another line. This combination introduces a possibility for simple counterpoint (i.e. *punctus-contra-punctum*).

7.1.1 THICKENED SIMPLE TWO-PART COUNTERPOINT

In simple counterpoint similar and contrary motions are used instead of oblique motion. In simple counterpoint there are two alternatives concerning thickening. In *the first species* one of the lines is thickened intervallically or chordally, while another is plain. In *the second species* both lines are thickened. In this second species both the thickenings may be of the same width or of different width. Between thickened components the most consonant combinations are those where there are the most unisons (or octaves). Thickening of two separate lines often creates harmonic fullness to such an extent – even sum-chords – that along with these "framing voices" there is no need for middle voices at all.[274] The thicker the lines are, the

[274] In four-part writing Sibelius sometimes uses a bass part that is thickened by fifths (see op. 11:II:93–94, 95–99, 113–117, 120, 143–148, 149–152, op. 46:IV:22–24, 26–28). This is an interesting

denser the harmonic rhythm is apt to be, and vice versa. In the case of a dissolving thickening (see chapter 5.1) the matter is the opposite, their harmonic rhythm follows e.g. that of tardy lines (see chapter 5.1.1).

In Fig. 7.1.1–1 there is a reduction of a *fauxbourdon* and bass line that proceed in simple counterpoint mainly by contrary motion. The three-voice framework (see chapter 4.3) may be explained by means of interchange, without assuming modulations (see chapter 4.2.2). All the scales are minor-like: e natural: IV6+II1 – V6+IV1 – VI6/III1 – E Phrygian: VII6/II1 – I6/I1 – II6+VII1 – III6+II1 – IV6/I1 – e: V/VII1. Between the natural minor and Phrygian scales there is one differing degree (F sharp–F natural) and between Phrygian and minor scales two differing degrees (F natural and F sharp as well as D natural and D sharp).

The sum of these layers is e natural: II7+1 – V2 – VI six-four – E Phrygian: VII6 – I – VII7+1 – III2 – IV six-four – e: V6 without a third (from the bass). The last four chords seem to sequentially and variedly repeat the pattern formed by the first four chords. The penultimate sub-sixth chord (e: IV6) is treated as four-part writing. The parallel motion is abandoned in the upper layer, while one of its parts forms consecutive octaves (e1/E – d1 sharp/D sharp) with the bass part (see chapter 8.2.1). The leading-tone also becomes doubled, or even tripled.

In the two first combinations in bar 159 and in the second and third ones in bar 160 the bass part increases the sixth chords into sum-seventh chords, an added-root seventh chord and an added-seventh triad in the 3rd inversion (+7 below the root of the triad; cf. Fig. 4.4–5d). During the leap of the bass line the same dissonant tension is maintained. Furthermore these leaps are taken from the added-root, i.e. from a consonant chord factor (see chapter 5.3.4). In the added-root seventh chords (marked by x) the sum-seventh is the third in relation to the assisting bass. This sum-seventh is not treated in a traditional manner, although it can be said that the resolution is taken over by the assisting bass. In the inverted added-seventh triads (marked by y) the dissonant bass proceeds in a traditional manner, but the ensuing chord is a layered six-four chord where the sub-sixth chord carries the fourth in non-traditional ascending motion.

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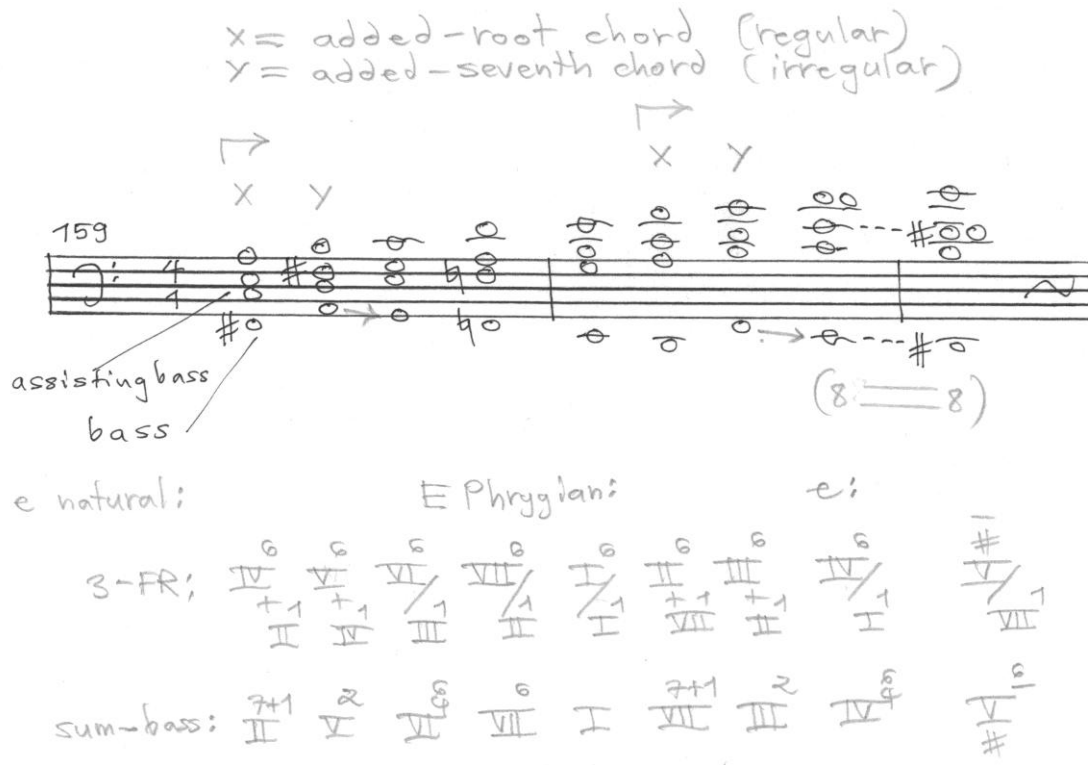
border-line case between traditional and Sibelian counterpoint. A similar device was later utilized by Bartók; see the Fifth Quartet (1934) 2. mvt. bars 10–25, 46–49).

Fig. 7.1.1–1. Simple two-part counterpoint including a thickened line. *Pohjola's Daughter* op. 49 (1906) bars 159–161.

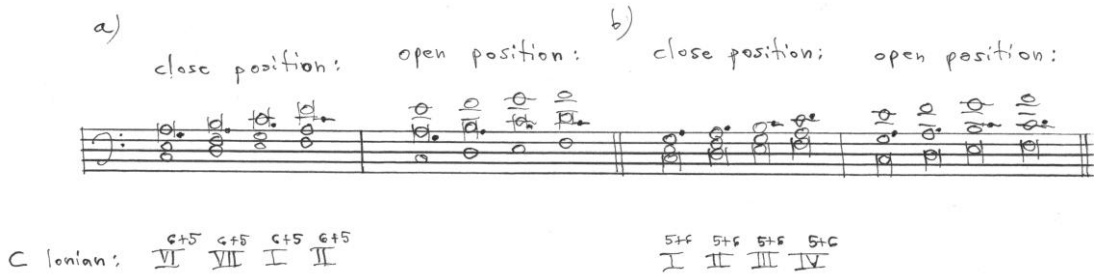


7.1.2 DISSONANT THICKENINGS

Earlier and as outlined above, the consonant thickening was *fauxbourdon* (see chapter 5.1). The principle of dissonance treatment between the layers also holds true with dissonant thickenings. In these a line is combined with at least three collateral lines (or a tardy line with at least three collateral tardy lines). In line-tardy line *Satz* (see chapter 5.1.1) as well as in line-pedal *Satz* (see chapter 5.1) the dissonant thickenings mostly contain sum-seventh chords. Dissonant thickenings by six-four chords (cf. chapter 5.1; see Fig. 5.1.3–5 [op. 34:VIII:1–3], Fig. 11.6.3–2 [op. 112:338–341]), sum-ninth chords, or by sum-eleventh chords (see Fig. 9.2–1 c–d [op. 63:IV:145–159]) are rare.

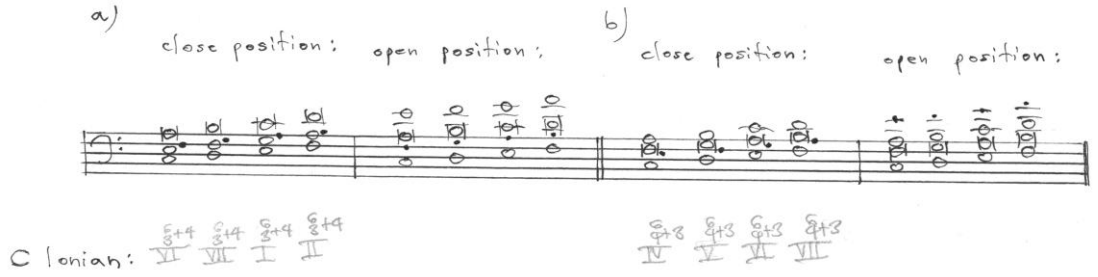
Either in close or open position a dissonant thickening using sum-seventh chords may often be considered as based on *fauxbourdon* (see chapter 5.1). Thus e.g. a parallel of six-five chords may be considered a parallel of added-fifth sixth chords (6+5; Fig. 7.1.2–1a), i.e. *fauxbourdon* with an added fifth (see Fig. 8.1.2–4c [op. 82:II:209–212]). Depending on the harmonic context this device may also be considered a parallel of added-sixth triads (5+6; Fig. 7.1.2–1b), i.e. a parallel of root-position triads where the sixth is added (see Fig. 7.5.1–2 [op. 70:173–208]).

Fig. 7.1.2–1 a–b. Dissonant parallel motion of either added-fifth sixth chords, or added-sixth triads.



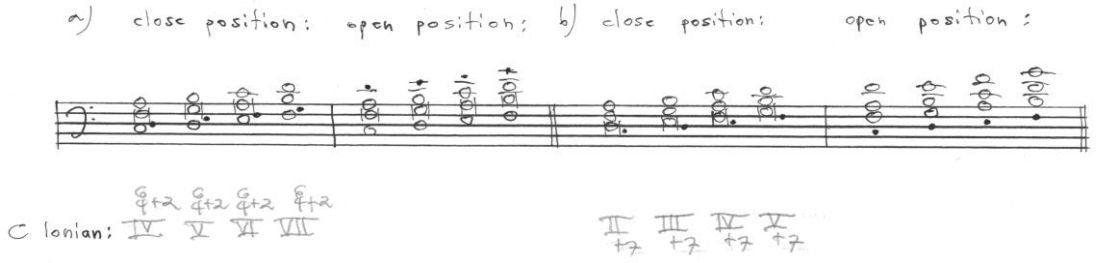
A parallel of six-four-three chords may be considered either a parallel of added-fourth sixth chords (sixth-three+4; Fig. 7.1.2–2a), i.e. *fauxbourdon* with added fourth, or a parallel of added-third six-four chords (six-four+3; Fig. 7.1.2–2b, see Fig. 8.5.7–1 [op. 112:105–144]).

Fig. 7.1.2–2 a–b. Dissonant parallel motion of either added-fourth sixth chords, or added-third six-four chords.



A parallel of chords of the second may appear to be parallel of added-second six-four chords (six-four+2; Fig. 7.1.2–3), or a parallel of added-seventh below root-chords (+7 below root; Fig. 7.1.2–3b).

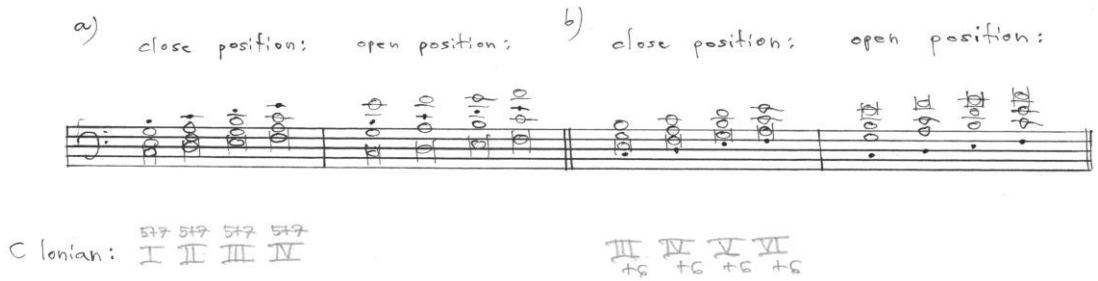
Fig. 7.1.2–3 a–b. Dissonant parallel motion of either added-second six-four chords, or added-seventh below root-chords.



A parallel motion of seventh chords may be considered a parallel of added-seventh triads (5+7; Fig. 7.1.2–4a), or a parallel of added-sixth below root-chords (+6 below root; Fig. 7.1.2–4b). In the latter thickening there is a bass

tone at the interval of a fifth below the assisting bass, i.e. below every six-three chord of *fauxbourdon*.

Fig. 7.1.2–4 a–b. Dissonant parallel motion of either added-seventh triads, or added-sixth below root-chords.



In the device of texture modulation (see chapter 8.1) the last chord in a dissonant thickening is treated according to the norms of four-part writing (cf. Fig. 8.1.2–4c [op. 82:II:209–212]).

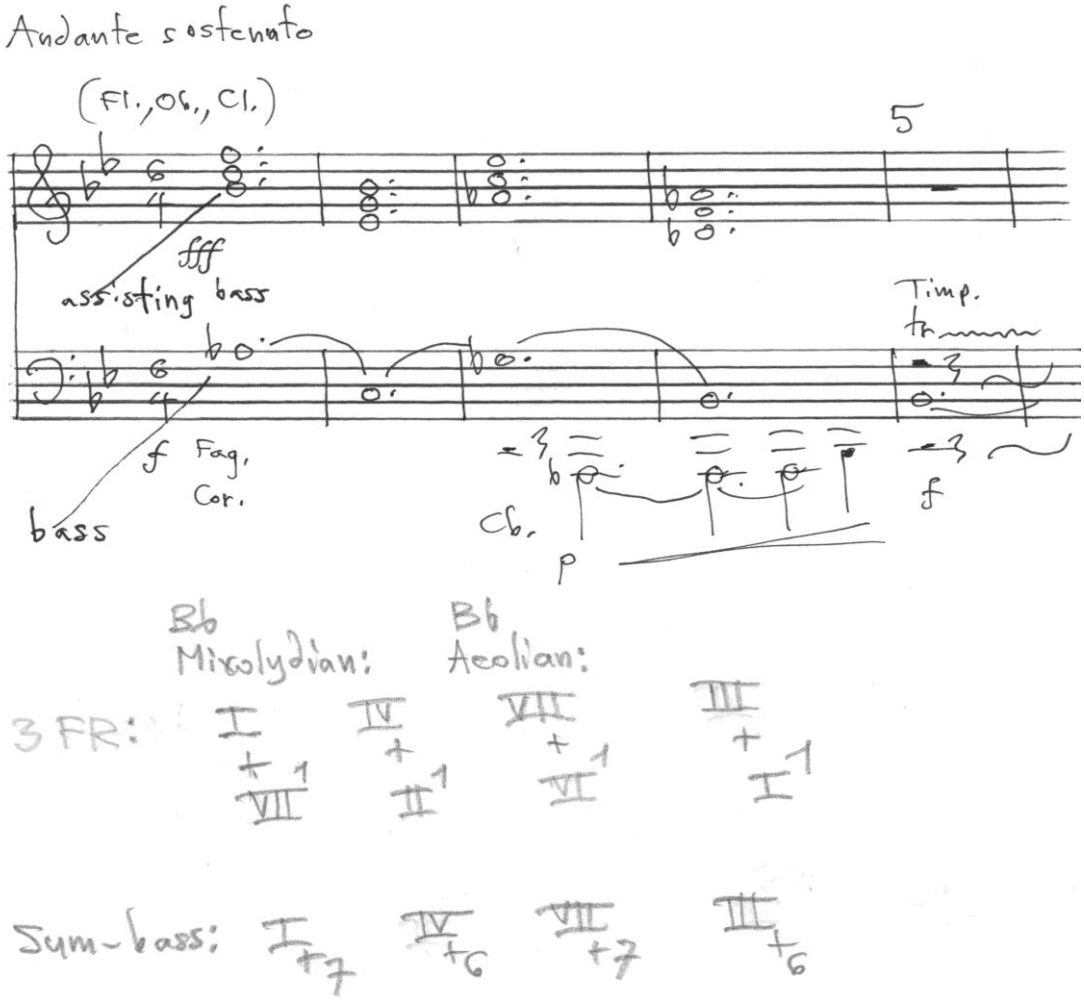
7.1.3 SIMPLE TWO-PART COUNTERPOINT IN SIMILAR MOTION

The simplest species of simple thickened two-part counterpoint is where there is a chordal thickening to which another line, either plain or thickened, joins in with similar motion. The principle of the unchanging tension of dissonant thickening may also be applied to simple counterpoint.

In Fig. 7.1.3–1 the assisting bass bears a line (Fl., Ob., Cl.) that is thickened by root-position major triads (cf. chapter 5.1). The first and the second triads form a pentachord-succession with the distance of a fifth (cf. Fig. 4.2.5–1c) as do the third and fourth triads. These contain interchange (B flat Mixolydian: I–IV – B flat Aeolian: VII–III) from a major-like to a minor-like mode (see chapter 4.2.2). The plain bass part (Cl. bas., Fag., Cor.) proceeds *punctus-contra-punctum* in similar motion. The three-voice framework (see chapter 4.3) is B flat Mixolydian: I+VII1 – IV+II1 – B flat Aeolian: VII+VI1 – III+I1. The sum of these components is four sum-seventh chords. The first and third are added-seventh triads in the 3rd inversion and the second and fourth are added-sixth triads in the 3rd inversion. The sum-bass is B flat Mixolydian: I+7 below root – IV+6 below root – B flat Aeolian: VII+7 below root – III+6 below root. The added-tone, i.e. the dissonance is neither resolved nor released, but always leaps into a chord-formation that has the same dissonant tension (cf. Fig. 5.3.4–1 [op. 73:107–111]).

In bars 3–4 there is an entering bass (Cb.) that is not an additive one (see section 6.1.2). In bar 3 it doubles the assisting bass (a1 flat) and in bar 4 both the soprano (a1 flat) and the bass (B flat). It only affects the inversions of the sum-chords. Here it is eliminated from the analytic notation of the sum-bass.

Fig. 7.1.3–1. Simple thickened two-part counterpoint in similar motion. *The Oak Tree* op. 109 no. 2/I (1925/1927) bars 1–4.



7.2 DISSOLVING THICKENED FLORID COUNTERPOINT

In an earlier chapter there was already an example of thickened florid counterpoint where *fauxbourdon* proceeded against plain pedal point (see Fig. 5.3.3–1 [op. 18:IV:1–5]).[275] Moreover, there the most consonant

[275] In the domain of traditional invertible two-part counterpoint at the octave (or at the 10th or at the 12th), one part or both of them may, if certain conditions are fulfilled, be supplied with a parallel part at a third or at a tenth. These adjustments bring to mind the thickened lines used by Sibelius. I am indebted to Les Black for noticing this aspect of invertible counterpoint. However, although Sibelius may use thickened lines even in his invertible counterpoint, the *Satz* in these is unlike the traditional invertible counterpoint (see e.g. *Voces intimae* op. 56 (1909) 3. Mvt. bars 27–28 (Vl. I, II/Vla., Vc.; one-bar adjustment. Notwithstanding the florid-like appearance of the notation the counterpoint is actually simple; cf. bars 60–61, 62–63). Therefore I find the possible resemblance between the

combinations were those that contained octaves between the components (see section 7.1.1). Yet there the harmonic rhythm, i.e. the density of harmonic changes, was determined according to the thickened component. In florid counterpoint where both the line and pedal point are thickened, the harmonic rhythm depends on the interaction of the components. This may result in dissolved harmonies.

In Fig. 7.2–1 there is line-pedal *Satz* where the line (Cl. I, Vle. I/Cl. II, Vle. II) is thickened by major thirds and the pedal point (Cor., Trbn.) by a major second (F sharp/E). In connection with the thickened line this second may function either as an inverted minor seventh (F sharp o/E +), or as an octave-displaced major ninth (F sharp +/E o). The thickened line is based on a descending pattern (C sharp/A – B/G – A sharp/F sharp) by major thirds. Due to a cross-relation between the A natural and A sharp in the first and the last dyads, this kind of device may be called a *cross-relation pattern* (cf. Fig. 7.5.1–1 [op. 112:251, 253, 255, 257]).[276] In the first and third dyads in this pattern are the seventh degrees of the B-rooted scales (subtonic A – leading-tone A sharp). In bars 145–147 and 149–151 these dyads are chromatically ornamented.

Several sum-chords emerge between the thickened components. It is possible to explain some of these in two ways (Figs. 7.2–1c, –1d and –1g). Yet all of these are subordinated to the sum-seventh chords participated in by the first (Fig. 7.2–1a) and fifth (Fig. 7.2–1e) dyads, which are the most emphatic on behalf of musical time. The outcome of the thickening and the pedal point is dissolved to F sharp-rooted seventh chords in the 3rd inversion between B natural minor and B minor (b natural: V2 – passing formation – b: V2; Fig. 7.2–1i).

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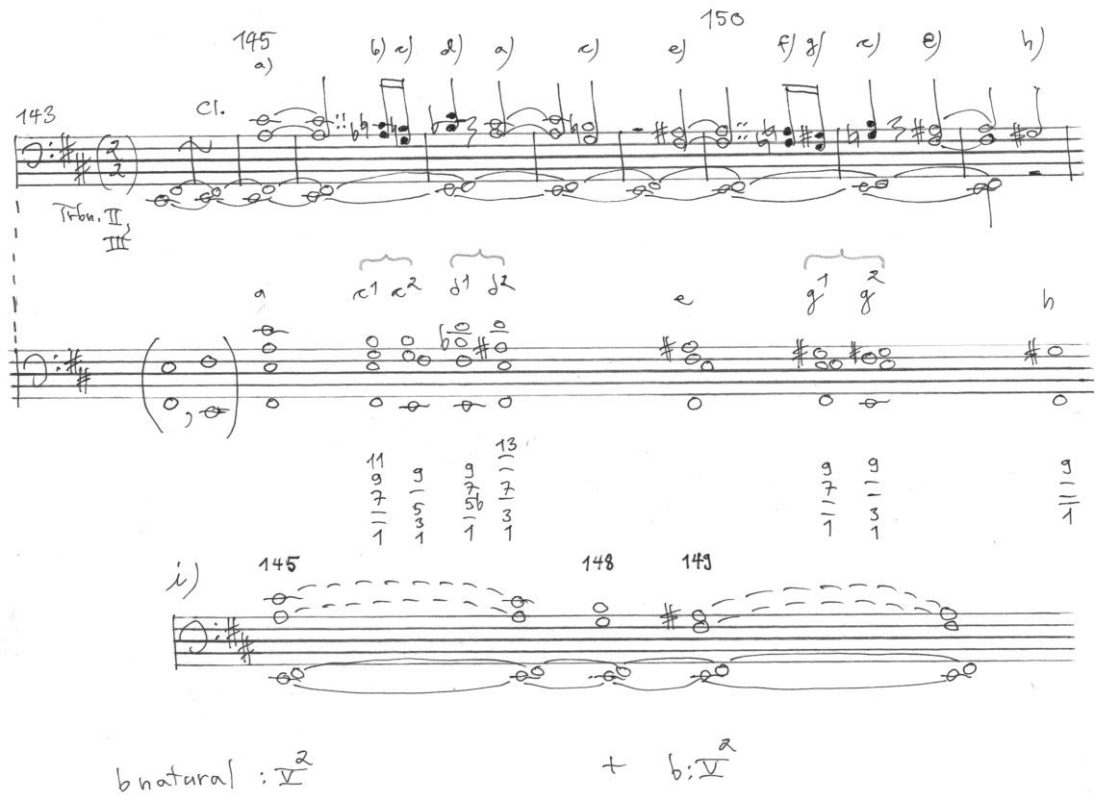
traditional invertible counterpoint and Sibelian counterpoint including thickened lines to be only apparent. Somewhat similar cases include the resemblance between a de-patternized collateral line and a collateral part (see chapter 7.6), as well as the resemblance between steady and de-patternized thickening and strict and free organum (see chapter 7.6).

[276] In music before Brahms a cross-relation pattern was used as a vehicle for modulation, but Brahms used it also in interchange (see e.g. Hungarian dance no. 1 (1872) bars 53–54; g: II7–V2, III Symphony op. 90 (1883) 4. mvt. bars 13; f: II6–V, 46–48; c: I six-four–V). In the music of Sibelius the cross-relation pattern is scarcely used in modulations.

Fig. 7.2–1 a–i. Florid thickened counterpoint dissolving harmonies. *Tapiola* op. 112 (1926) bars 143–152.



7.2.1 COLUMNAL THICKENED FLORID COUNTERPOINT

Hitherto we have mainly encountered columnal progressions (see chapter 4.5.3) where the assisting bass proceeds from the upper sub-chord to a lower one and vice versa (see Fig. 5.5–1 [op. 63:IV:155–162], Fig. 5.5–3 [op. 82:III:189–212]). However, in one case in florid counterpoint the assisting bass also increased the lower sum-chord downwards (see Fig. 5.7–1 [op. 52:I:60–67]). In this case the chord-formation still remained a dominant-type chord. Yet there is also the possibility that in increasing the lower sub-chord downwards a sum-chord that is structurally different from the previous one is created, while still being a segment in the same column (see chapter 4.5.3).

In Fig. 7.2.1–1a there is a reduction of three-part *Satz* (cf. Fig. 5.5–1 [op. 63:IV:155–162]) that proceeds over a rhythmically animated sustained chord (e: V6; for the sake of brevity the key may here be considered E minor, cf. Fig. 5.1.3–1 [op. 63:IV:179–209]). In the level of reduction the fauxbourdon turns to three-part writing (cf. Fig. 7.1.1–1 [op. 49:160–161], see also Fig. 8.4–3 [op. 63:IV:178–182]). Only at the end of the phrase in bars 181–182 do the layers form a non-additive chord (e: V/V6). The first, third and fifth minim (e: IV6) as the upper sub-sixth chord and the pedal point chord as the

lower sub-triad add up to an inverted dominant added-eleventh chord (e: IV6+V6 – V/V6 = V5+11 in the 1st inversion – V6). In Fig. 7.2.1–1a this sum-bass is only marked below the three-voice framework (see chapter 4.3) in bars 180–182.

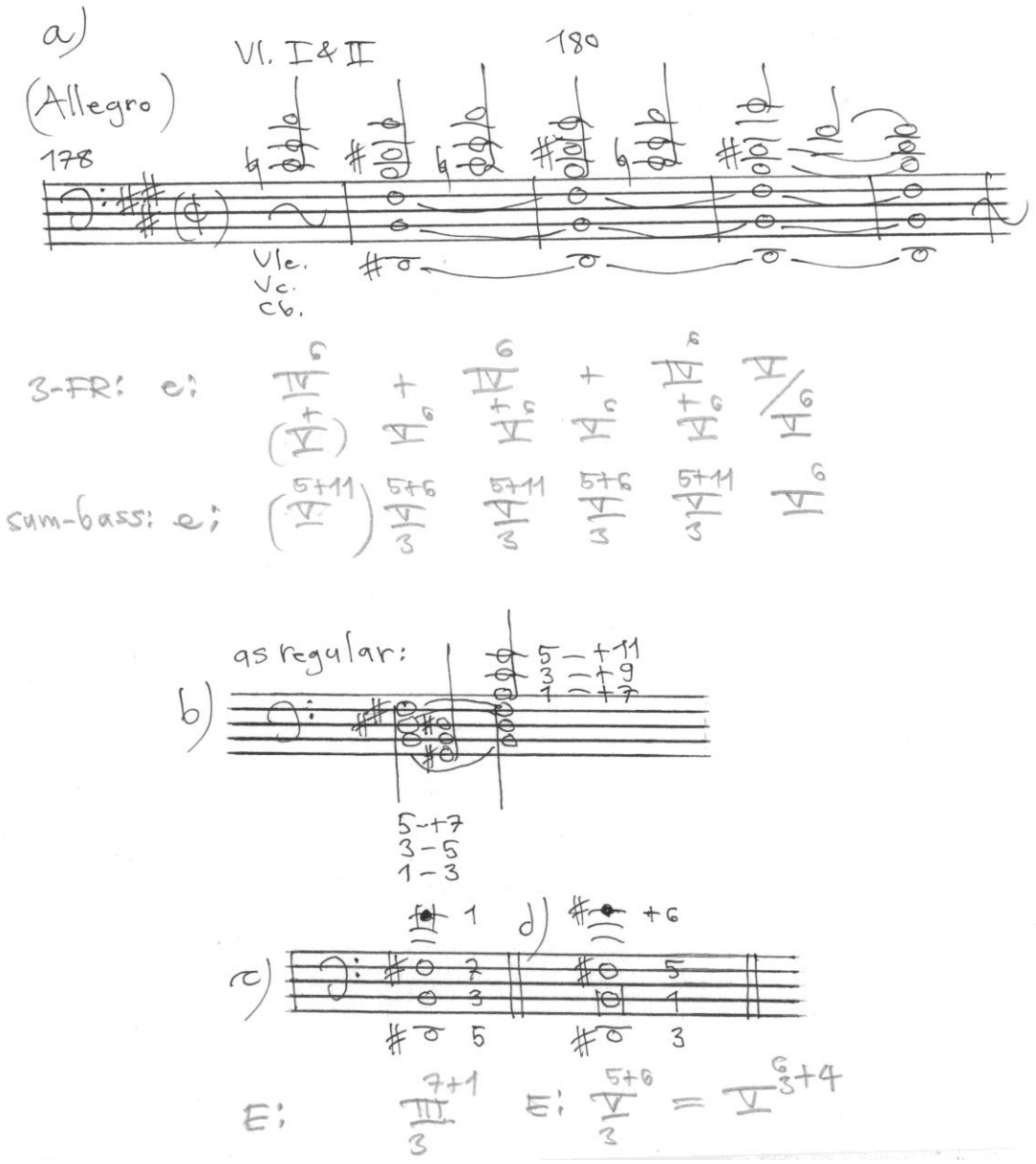
In the upper framework there is also a neighbouring sixth chord (E: III6; E major here as interchange) as the second and fourth minim. From the point of view of a regular sum-chord (Fig. 7.2.1–1b) this G sharp-rooted neighbouring sub-sixth chord functions as a lower sub-triad in relation to the B-rooted sustained sixth chord that for it is an upper sub-triad. Thus the upper framework alternately includes sub-triads that – according to a regular stack of triads – occur either above (A-rooted) or below (G sharp-rooted) the B-rooted sub-triad that sounds in the lower framework.

Together the G sharp-rooted sub-sixth chord and the pedal point add up to a regular formation G sharp–B–D sharp–F sharp (Fig. 7.2.1–1b). Instead of explaining it as an added-root seventh chord in the 1st inversion (E: III6+V6 = III four-three added-root; Fig. 7.2.1–1c) the context, i.e. a sustained dominant sixth chord in the lower framework, suggests an added-sixth triad in the 1st inversion (E: III6+V6 = V six-three+4; Fig. 7.2.1–1d). In the former alternative (Fig. 7.2.1–1c) the sustained fifth (F sharp) would have turned from a consonance to a sum-seventh (5 → 7) and vice versa, whereas in the latter alternative (Fig. 7.2.1–1d) the sustained B-rooted sixth chord remains consonant and the neighbour note (G sharp) is the dissonance i.e. an added-sixth (see chapter 5.3.2).

In the resulting combination of the layers where the sum-chords alternate, this ornamental added-sixth triad in the 1st inversion (E: V six-three+4) that prolongs the dominant eleventh chord is less dissonant than the structural sum-eleventh chord. This kind of relation between ornamental and structural chords is different from the traditional harmonic hierarchy.

When the added-fourth G sharp is released by motion 2–3 (cf. Fig. 5.3–5b) against the sustained sub-sixth chord, along with the neighbouring chord, this leads to the sum-seventh (A) in the line. The resolution of the sum-seventh again leads to the added-fourth (G sharp), until the tone A is released by the motion mi7–8 (cf. Fig. 5.3–3a) to the caesura sixth chord. The dissonance treatment similar to bars 180–182 was already dealt with in connection with an analogous passage (see Fig. 5.5–1 [op. 63:IV:155–162]).

Fig. 7.2.1–1 a–d. Florid thickened counterpoint as columnal process. Fourth Symphony op. 63 (1911) 4. mvt. bars 178–182.



7.3 OBLIQUE AND STATIONARY DISSONANCES

In a *Satz* where there are plain or thickened parts that proceed in simple counterpoint against a plain or thickened sustained component, simple and florid counterpoint is combined. The framework that includes simple counterpoint may be based on part-writing between plain parts, i.e. it may be a two-voice framework (see chapter 4.3) as such.

In the traditional preparation of dissonance the same tone is turned from a consonance into a dissonance. In Sibelius' music there are also other

possibilities. A part that in oblique motion proceeds against a sustained (or stationary) tone may cause it to turn from a dissonance to a consonance. These cases may be called *dissonances remaining oblique* with the change of another part, or *oblique dissonances* for short (see Fig. 11.3.1–5b [op. 7:II:93–97], Fig. 11.3.2–3c [op. 73:53–54]). The proceeding parts may also turn a stationary tone (see chapter 5.1) from a dissonance to another kind of dissonance. These cases may be called *stationary dissonances*.

In Fig. 7.3–1a there is a scanty two-voice framework containing the two parts d1 flat–c1 flat–d1 flat in the uppermost voice and g flat–a flat–g flat in the second highest voice. This simple counterpoint proceeds over a sustained open fifth f/B flat (b flat: I5). Below this fifth in the harp part (Arp. II) there is furthermore an A that is left out here (see Fig. 11.6.2–2c [op. 70:54–81]). It is a sub-tone of a sub-sixth chord of a polychord (see section 6.3). This detail will be scrutinized later (see chapter 11.6.2).

When the two open fifths d1 flat/g flat and f/B flat are arranged into a regular stack of thirds (Fig. 7.3–1b), a G flat-rooted major seventh chord results in the 1st inversion. However, according to the harmonic context there are reasons for considering it a B flat-rooted added-sixth triad (b: I5+6). When measured against this sum-seventh chord, the tones c1 flat and a flat seem merely neighbour notes connected with an added-note g. In any case, in bars 60–61 they – without the added-note – act as a sub-dyad c1 flat/a flat with the sustained open fifth f/B flat add up to a passing B flat-rooted minor ninth sum-chord (Figs. 7.3–1a, –1b). Yet harmonic context does not give any support to the key of E flat minor, even though this formation could be its dominant chord.[277] Added-note g (Arp. I) in bars 60–61 is here considered ornamental (Fig. 7.3–1a).

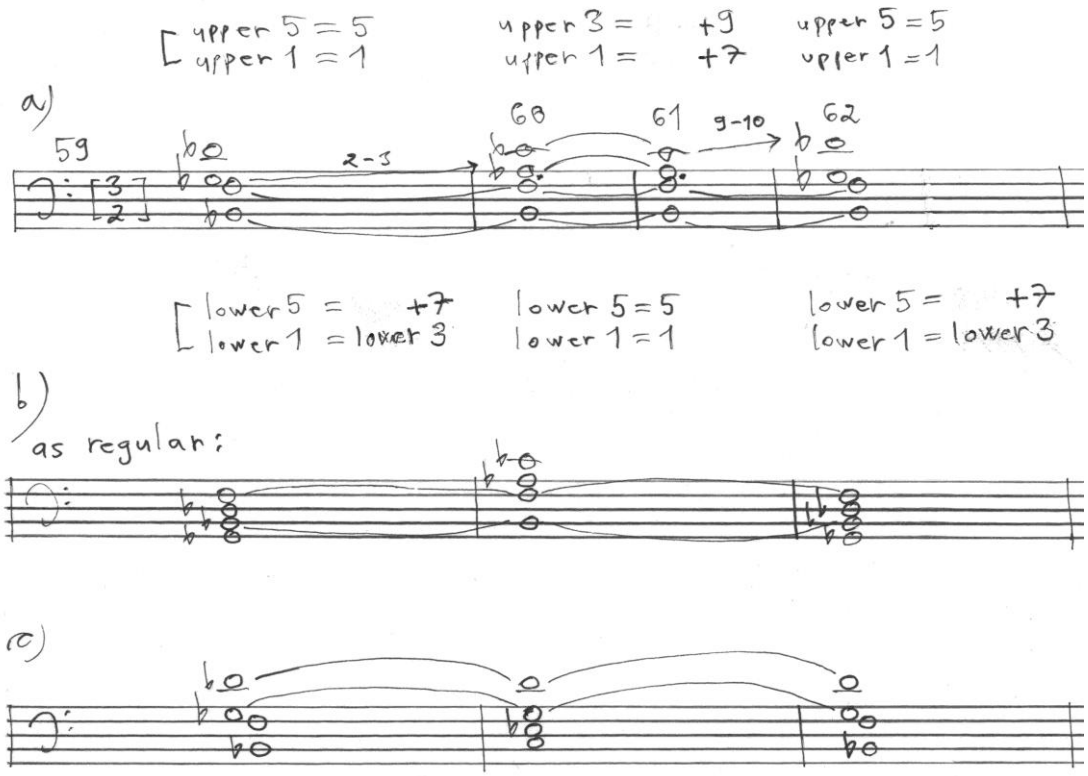
In terms of regular sum-chords (Fig. 7.3–1b), the proceeding parts increase the stationary ones firstly upwards and then downwards to the original situation. In this process the twofold intervallic quality concerns firstly and lastly the open fifth, while between them the middle dyad shows the twofold intervallic quality. In bars 59–60 the added-seventh (f) turns to the fifth (when the root G flat ascends by releasing motion 2–3; cf. 5.3–5a) from a dissonance to a consonance and in bars 61–62 the sustained f turns again from a consonance to a dissonance, when the added-seventh A flat resolves and the added-ninth C flat is released by the motion 9–10 (cf. Fig. 5.3–5c). Although the ornamental added-ninth chord is more dissonant than the structural added-seventh chords (cf. Fig. 7.2.1–1 [op. 63:IV:178–182]), the tension does not undergo notable changes.

In Fig. 7.3–1a only the most prominent details are included, yet the structure in these bars is even more complicated. The voice part in bars 57–59 – that is omitted here – seems to be based on another passing dyad e2

[277] According to Maasalo 1964:172 ”the dominant ninth chord of E flat minor muddles the tonal image; it namely does not lead to E flat minor but reverts to the original chord of B flat minor…”. See also chapter 11.6.2, footnote 330.

flat/c1 that bears similar relation to the sustained open fifth f/B flat (Fig. 7.3–1c) than the passing dyad c1 flat/a flat to the fifth d1 flat/g flat (Fig. 7.3–1a).

Fig. 7.3–1 a–c. Oblique dissonance in a combination of florid and simple counterpoint. *Luonnotar* op. 70 (1913) bars 59–62.



The change in another part in cases of those dissonances that remain oblique may not be caused only by passing tones, as above (Fig. 7.3–1 [op. 70:59–62]). The change may also result from a resolution in another layer (Fig. 7.3–2), or a releasing motion of another layer (Fig. 7.3–3 [op. 9:30–37]).

In Fig. 7.3–2 in the upper register (Vl. I&II, Vle., Vc.) in bars 593–595 there is a seventh chord F double-sharp–A sharp–C sharp–E sharp (G sharp Aeolian-Ionian: VII7). In bars 593–594 this includes an emphatic appoggiatura b4 (4–3) that is prepared in bars 591–592. In relation to the root F double-sharp this suspension B forms a diminished fourth and is at the same time a factor in an un-chord (see section 6.4). When the diminished fourth is interpreted as an enharmonically equal major third (G–B), a dominant-type seventh chord with a diminished fifth will result (C#–E#–G–B). In bar 593 a half bar after this un-chord a sustained major third e sharp/c sharp (Cor.) enters beneath it. In the reduction its doubling to the upper octave is left out. At the moment of entry this horn consonance merely doubles the members of the un-chord. After the resolution of the 4–3 suspension in bar 595 the horn consonance doubles the fifth (c3 sharp/c

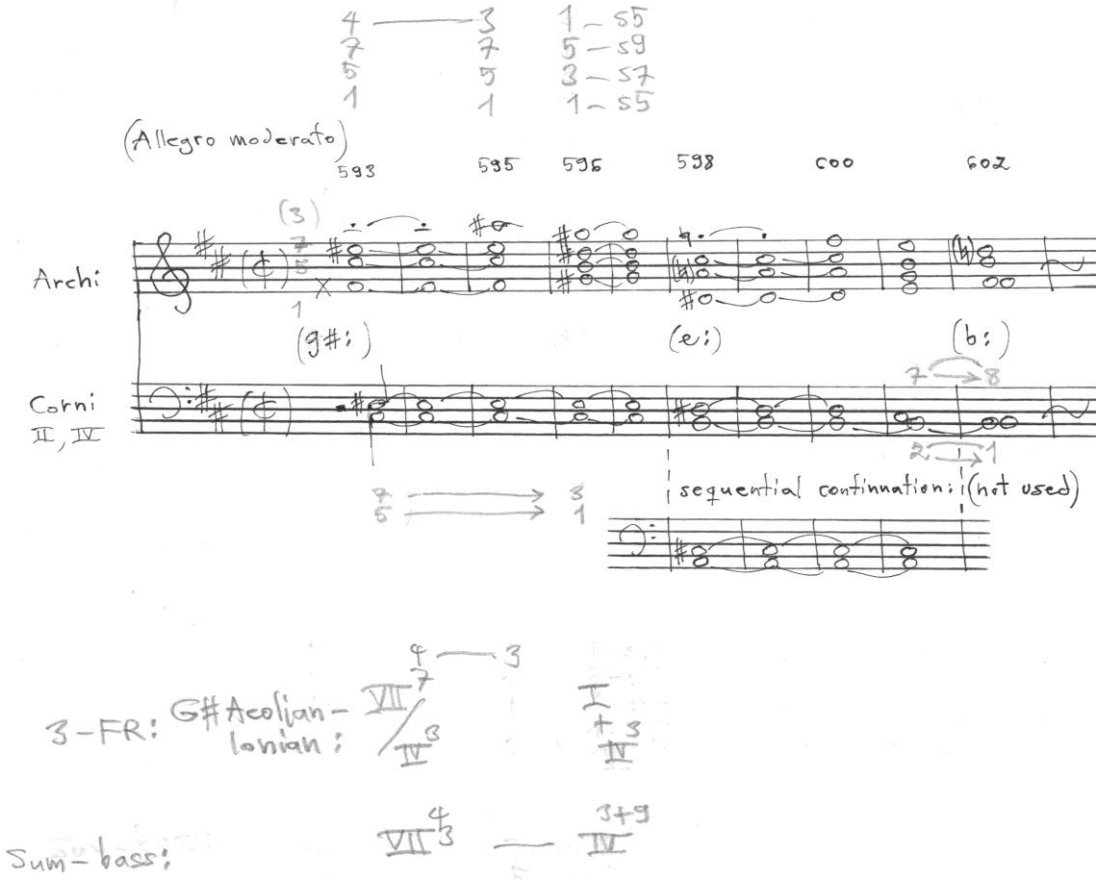
sharp) and the seventh (e2 sharp/e sharp) of the proper string chord (i.e. G sharp Aeolian-Ionian: VII7) in the low register. Thus the three-voice framework here is *latent* (see chapter 4.4). In the upper framework in bar 596 the seventh (e2 sharp; Vle.) of the seventh chord is resolved to the fifth (d2 sharp) of the tonic triad (G sharp Aeolian-Ionian: VII7–I), while this seventh (e sharp; Cor. II) in the lower layer remains oblique and turns from a dissonance to a consonance (7 → 3).

After the resolution in the upper framework the resulting triad in the domain of assisting bass and the interval of the third in the bass add up to a sum-ninth chord (G sharp Aeolian-Ionian: VII7/IV3 – I+IV3 = VII four-three – IV3+9). This resolution then establishes a three-voice framework (see chapter 4.3) that is no longer latent. It is noteworthy, that here resolution in one layer increases the overall tension from the seventh chord to the (sum-)ninth chord between the layers. This circumstance is beyond the two-voice framework.

In this dominant-type sum-ninth chord the fifth D sharp of the upper sub-triad is the added-ninth (u-5 = +9) and the third of the upper sub-triad B is the added-seventh (u-3 = +7; cf. Fig. 4.3–2b). The former seventh E sharp and fifth C sharp doubled in the lower register now continue as the third (7 → 3) and as the root (5 → 1) of the resulting sum-ninth chord.

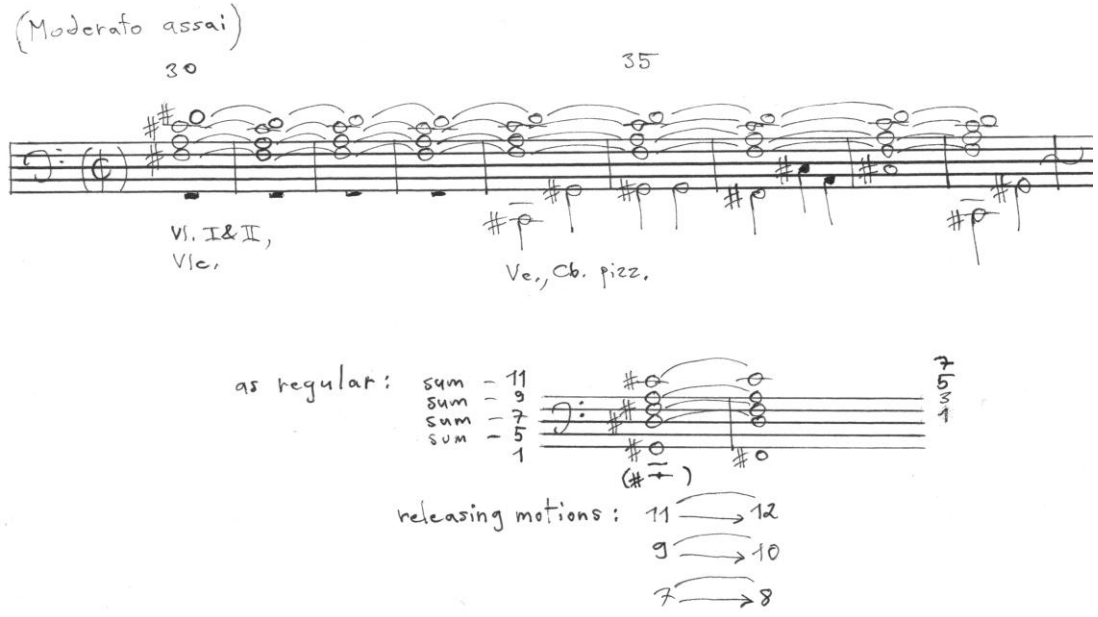
In the following bars 598–601 the same progression is transposed to E Aeolian-Ionian in the upper framework, while the lower layer proceeds differently from this half sequence.

Fig. 7.3–2. Oblique dissonance during a resolution in three-voice framework. *Tapiola* op. 112 (1926) bars 593–602.



In Fig. 7.3–3 there are several simultaneous oblique dissonances. The sum-eleventh, sum-ninth and sum-seventh of an extended sum-seven-four-two chord (c sharp: II six-five+V1/I1; see Fig. 5.2.3–2 [op. 9:30–37]) continue as the fifth, third and root due to simultaneous releasing motions caused by the bass theme (cf. Figs. 5.3–2b and 5.3–4c).

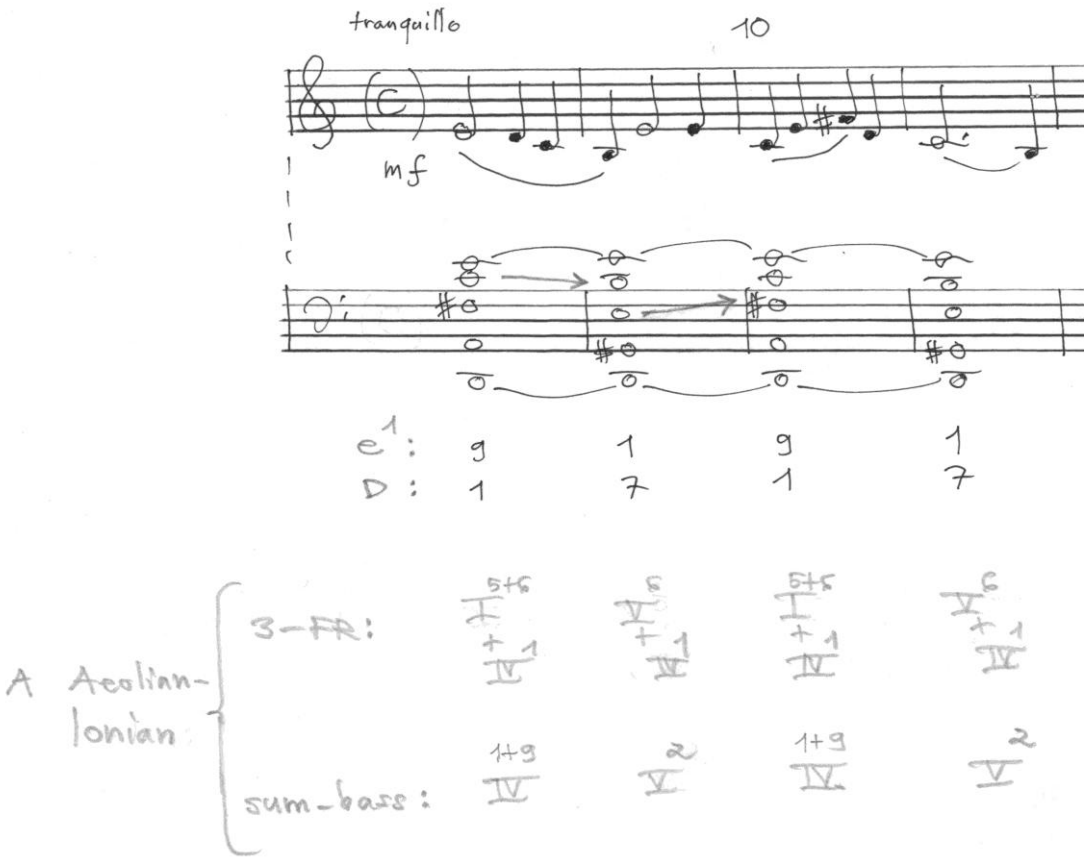
Fig. 7.3–3. Several simultaneous oblique dissonances. *En saga* op. 9 (1892/1902) bars 30–37.



In the above figures stationary consonances turned to dissonances, or vice versa. In *stationary dissonances* the factors of a dissonant interval do not proceed, but turn to another kind of dissonance. The phenomenon leans on the sonorously equal appearance of some dissonances. Thus, depending on the motions of other parts, the compound second may turn to a sum-ninth (cf. Fig. 4.3.1–3a and –3b) and the compound fourth to a sum-eleventh (cf. Fig. 4.3.1–4a and –4b), or vice versa. The analogous case from the point of view of voice-leading between a compound sixth and a sum-thirteenth differs from these, because the compound sixth is a consonance in relation to the bass. In a three-voice framework the dissonant quality of the sum-thirteenth may be twofold; it may at the same time be the seventh in relation to the assisting bass (cf. Fig. 4.3.1–4c and –4d).

In Fig. 7.3–4 there are alternating harmonies A Aeolian-Ionian: I added-sixth triad+IV5 – V+IV1 (twice). As sum-bass these are A Aeolian-Ionian: IV1+9 – V2 added-root (twice). In the reduction the interval quality of the simultaneous sustained E's and D's keeps alternating. The topmost E turns from the ninth to the root and again to the ninth, while the lowermost D turns from the root to the seventh and again to the root. Besides these in the D-rooted sum-ninth chord the sum-seventh C is resolved and in the E-rooted sum-seventh chord the root E against the sustained seventh D is released by the motion 2–3 (cf. Fig. 5.3–5a).

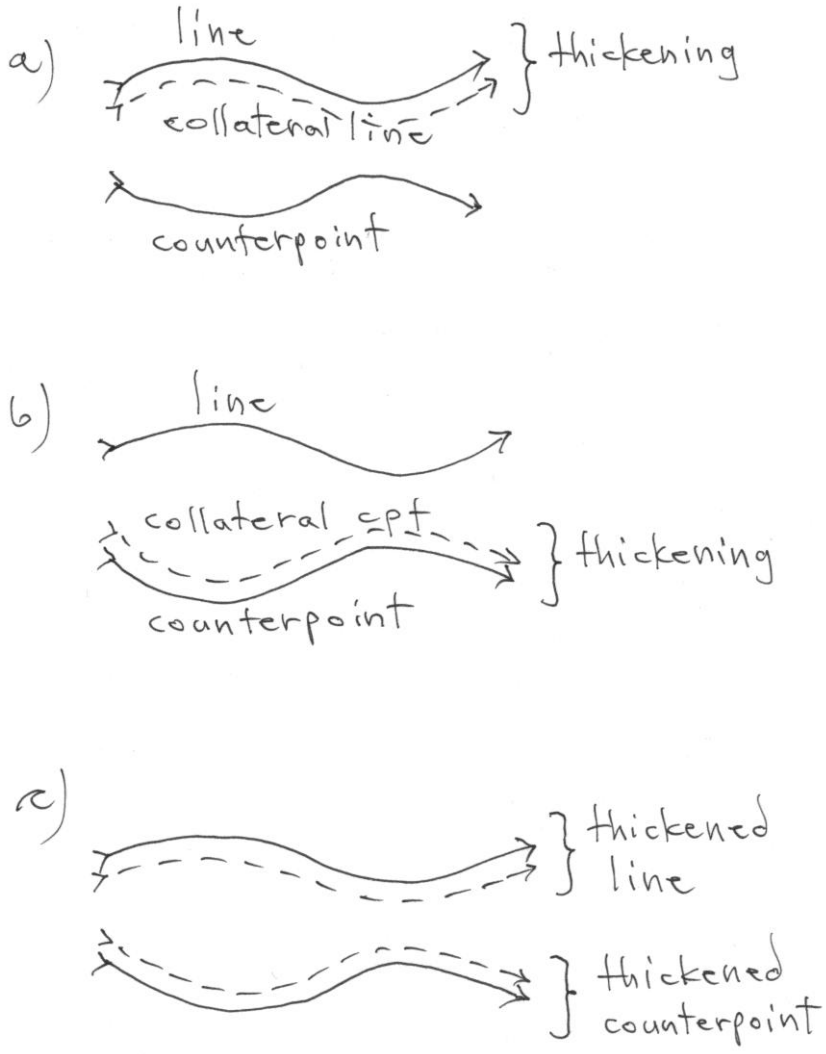
Fig. 7.3–4. Stationary dissonances during progressions. *Winter Scene* op. op. 114 no. 2 (1929) bars 8–11.



7.4 SYSTEMATIC CONTRARY MOTION

Earlier, simple (i.e. *punctus-contra-punctum*) two-part counterpoint with thickened lines was dealt with. In this practice both similar and contrary motions were used (see chapter 7.1). Aside from this, Sibelius also utilizes simple two-part counterpoint with thickened lines that proceed systematically in contrary motion (Fig. 7.4–1).

Fig. 7.4–1. Systematic contrary motion with thickened lines.



According to the traditional norms of voice-leading, two voices in simple counterpoint are most independent in contrary motion, less independent in similar motion and least independent in parallel motion.[278] However, when contrary motion is used systematically in simple counterpoint, the parts become *interdependent* (cf. section 7.5).

In addition to its use with heptatonic scales, the device of systematic contrary motion in simple counterpoint is used in connection with the chromatic scale (see Fig. 7.4.2–1 [op. 112:437–456]). In the latter usage the resulting chord factors are derived from either of the two alternating transpositions of the whole-tone scale (see also section 7.4.5).

The principle of systematic contrary motion contains many facets that are derivable and can be used separately. Some of these facets are the interdependent two-voice framework (section 7.5) and spatial symmetry as a

[278] Cf. Piston 1978:29–30.

generator of harmony (section 7.5.1). In connection with systematic contrary motion palindromic harmonies may emerge. For example, in a case where an ascending stepwise motion is followed by a descending stepwise motion of similar ambitus, the topmost tone then functions as the axis of symmetry to palindromic harmonies (see Fig. 7.4.1–2 [op. 82:III:77–96], Fig. 9.3–1 [op. 52:I:85–97]).

7.4.1 HARMONIC QUALITIES OF SYSTEMATIC CONTRARY MOTION

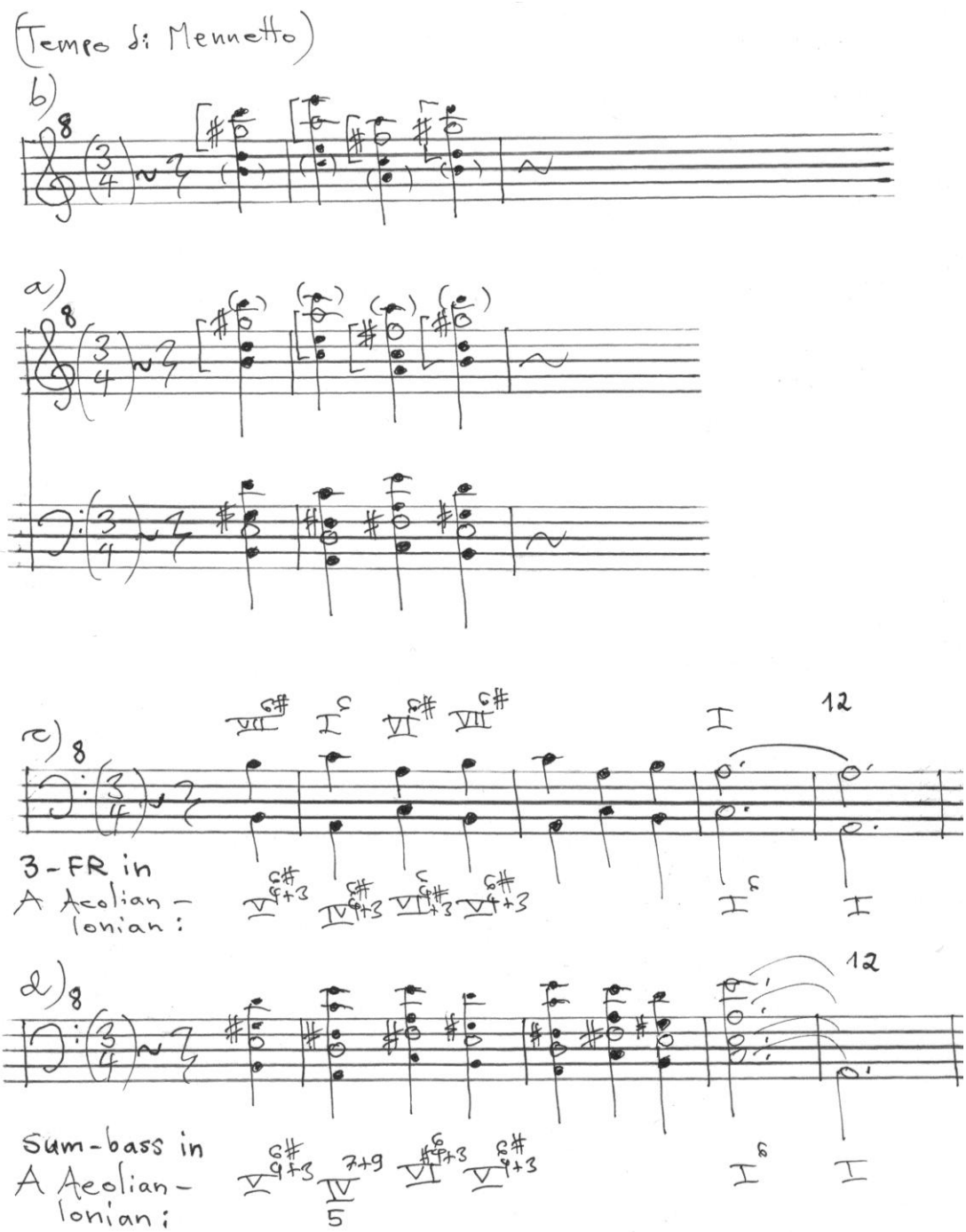
The harmonic qualities of systematic contrary motion in simple counterpoint depend on the thickness of the parts. The thicker they are, the denser the harmonic rhythm is apt to be (Fig. 7.4.1–1 [op. 106:IV:8–12]). Contrariwise, the thinner the parts are, the less dense the harmonic rhythm is likely to be. In this latter case more than one contrapuntal combination may represent the same harmony (Fig. 7.4.1–2 [op. 82:III:77–96]).

In Fig. 7.4.1–1 in bars 8–11 there is systematic contrary motion between two chordally thickened parts. The assisting bass is not obvious here, because the upper thickening may be considered either a parallel of sixth chords in which the bass is octave-doubled upwards (Fig. 7.4.1–1a), or a parallel of six-four chords in which the soprano is octave-doubled downwards (Fig. 7.4.1–1b). For the sake of convenience the former alternative is used here (cf. Fig. 8.4–3 [op. 63:IV:178–180]). The bass bears a parallel of added-third six-four chords (cf. Fig. 7.1.2–2a). The roots are shown with minims.

The three-voice framework (see chapter 4.3) in A Aeolian-Ionian is shown in Fig. 7.4.1–1c. Compared with the respective bass chords in the assisting bass the sub-sixth chords VII6 and V6 are already included. Only the sub-sixth chord I6 in the assisting bass increases the respective bass sub-chord into an inverted sum-ninth chord. Thus the sum-bass may be written A Aeolian-Ionian (see Fig. 7.4.1–1d).

In bars 9 and 10 the sum-ninth E proceeds by the leap of a third (Fig. 7.4.1–1a). In terms of assisting bass it is a consonance (see chapter 5.3.4). The decreasing progression between the two sum-chords (A Aeolian-Ionian: IV7+9 in the 2nd inversion – VI six-four+3) is columnal (see chapter 4.5.3). In bars 10–11 the last sum-chord (V six-four+3) is resolved as if it were a non-additive seventh chord (A Aeolian-Ionian: V four-three) where the resolution is taken over by the bass. This sixth chord in a latent three-voice framework (see chapter 4.4) in bar 11 then leads to a two-voice framework (see chapter 4.3) for a short period.

Fig. 7.4.1–1 a–d. Systematic contrary motion between two chordal thickenings. *Danse champêtre* op. 106 no. 4 (1925) bars 8–12.



In Fig. 7.4.1–2 there is a table that presents intervals, chords and sum-chords that originate from two intervallic thickenings by sixths. The intervals are taken from the flute and bassoon parts. In this E flat-centered passage the combined dyads b) result in the second inversion (E flat: I six-four+2) and f) the root-position of the tonic added-sixth triad (E flat: I5+6). In this context the dyad d) stands for the incomplete first inversion of the tonic triad (E flat:

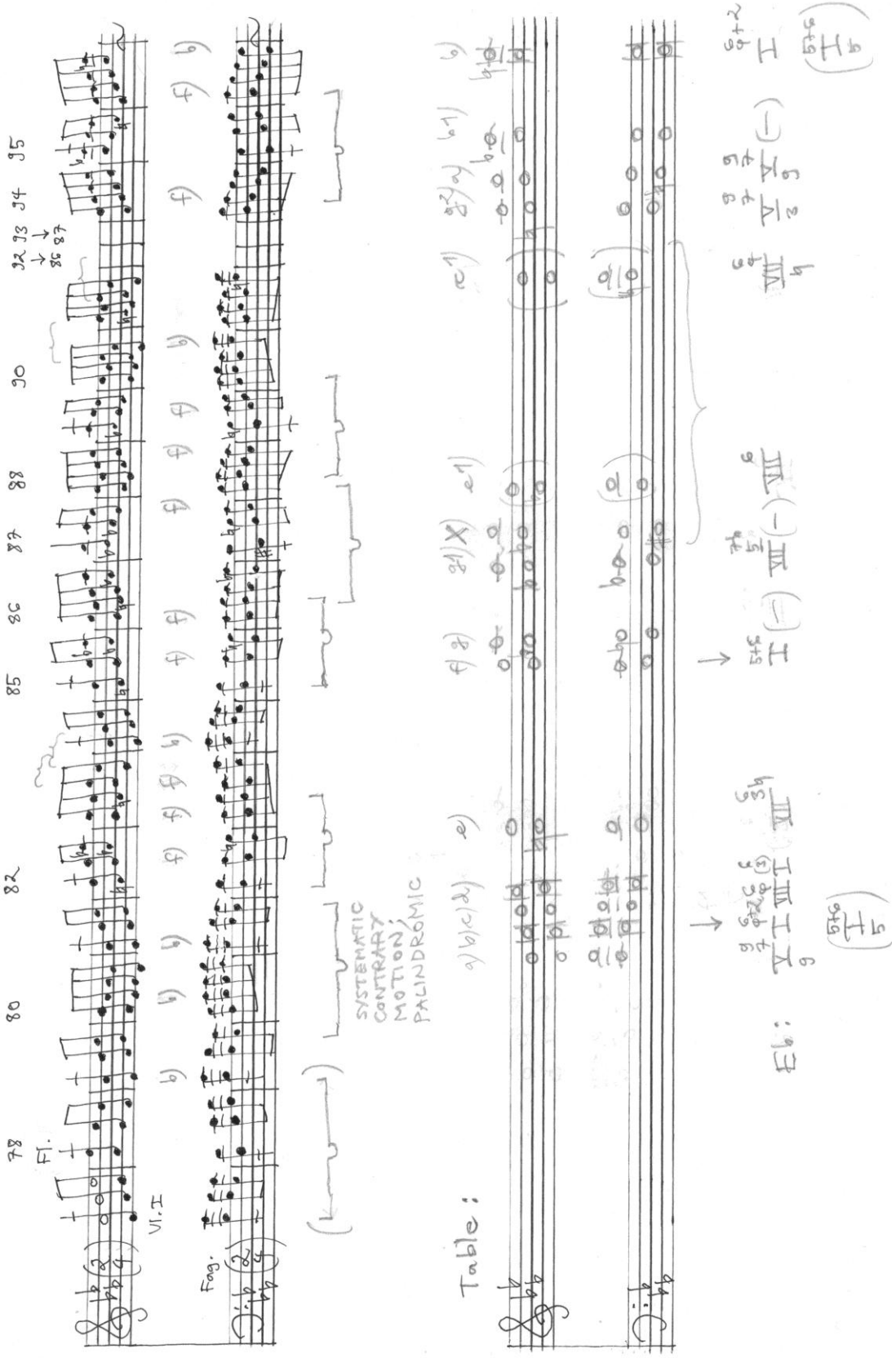
I6). The combined dyads a), c), e) and g) result in various dominant harmonies (i.e. VII, V9, VII7b). In some dyads there is the possibility of using alternative intervals that in the lower thickening in alternatives g1) and x) present major sixths as enharmonically equal diminished sevenths.

In the upper thickening the alternative for e1) stems from the need for interchange (E flat Ionian-inflected major – E flat Lydian), as do the alternatives for g1), x) and b1) (E flat Ionian-inflected major – E flat Ionian-Aeolian).

In the lower thickening interchange demands the alternative for c1) (E flat Ionian-inflected major – E flat Lydian), while the alternatives for g1) and x) stem from the needs of chromatic voice-leading. The alternative lower dyad (c1 flat/d) for g1) always proceeds to the alternative lower dyad (b flat/c sharp) for x) in bars 86–87 and 92–93. Respectively this alternative lower dyad (b flat/c sharp) for x) always proceeds to the alternative lower dyad (b natural/d) for g) and this in turn proceeds to the lower dyad f) in bars 87 and 93.

From the passage where the tonic organ point E flat (Vl. II in bars 60–83, Vle. in bars 84–87, Vl. II & Vle. in bars 87–96) is omitted, it can be seen that in systematic contrary motion an interval in the thickened upper part always meets the respective interval (shown in the table) in the thickened lower part. The two parts are thus *interdependent* (cf. section 7.5). In several places this principle leads to a palindromic harmonic structure (these are shown by brackets where the curve denotes the axis of symmetry). At the same time the logic of the pre-ordered harmonic vocabulary including the tonic and dominant sum-chords unravels itself. In general both thickenings move stepwise, so the dissonances become either followed by their inversion or resolved. Some of the leaps (in bars 83–84 and 91) produce the same chord in different inversions. The dissonance (b flat) only leaps in bars 90–91, but the resolution of it (a1) in the upper collateral line may be considered octave-displaced.

Fig. 7.4.1–2. Systematic contrary motion between two intervallic thickenings. Fifth Symphony op. 82 (1915/1916/1919) 3. mvt. bars 77–96.



7.4.2 DISSOLVING SYSTEMATIC CONTRARY MOTION

Above (in Fig. 7.4.1–1 [op. 106:IV:8–12]) the systematic contrary motion established the harmonies, but systematic contrary motion may also be used in dissolving harmonies that in the deep level originate from four-part writing. In the surface level the dissolving thickenings may outwardly resemble harmonically dense four-part chorale.

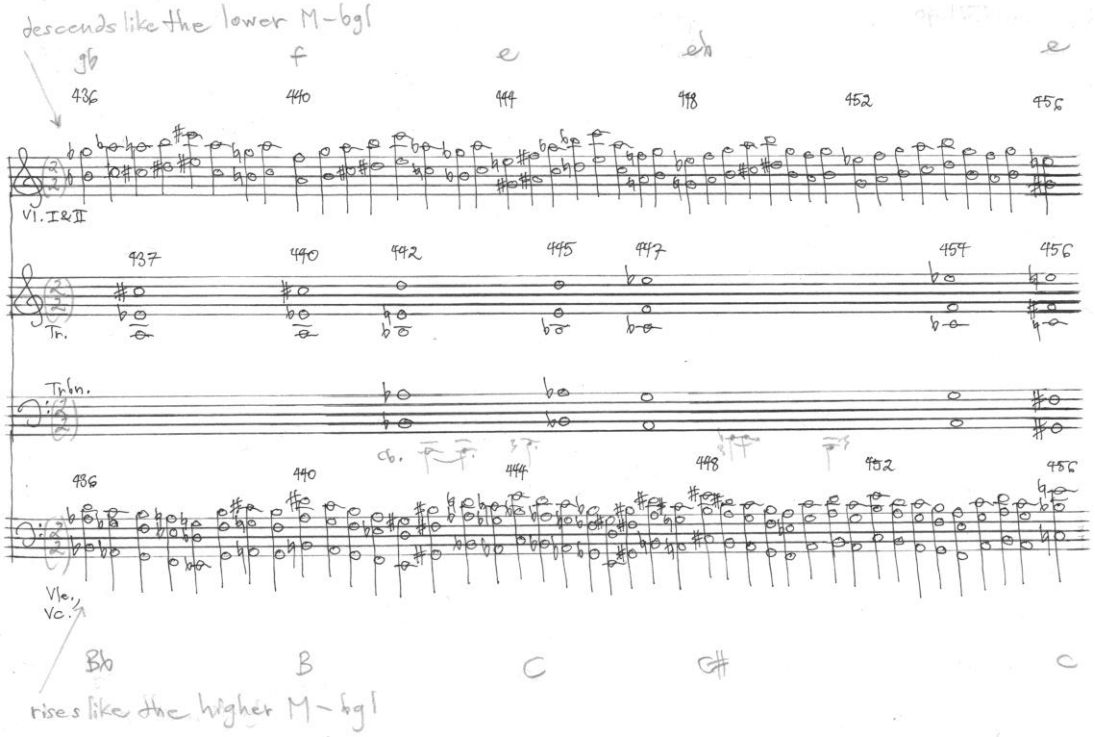
In the most complicated case the parts in systematic contrary motion dissolve harmonies that are formed by other parts that also proceed in systematic contrary motion. Between these components the rhythmic relation is that of florid counterpoint.

In Fig. 7.4.2–1 in order to concentrate on systematic contrary motions by tardy lines and macro-tardy lines (see chapter 8.5.2) the surface level lines (played by the upper woodwinds) are left out. The rhythmically denser layer consists of two thickened tardy lines that proceed in systematic contrary motion. The lower of the tardy lines (Vc., Vle.) is chordally thickened by root-position dominant-type seventh chords without a fifth, while the upper one (Vl. II, Vl. Ib, Vl. Ia) is intervallically thickened by minor sixths.

The macro-tardy lines (Tr./Trbn.) are also thickened; the lower one intervallically by minor sevenths and the upper one chordally by formations that are enharmonically equal to inverted French sixth chords without the third and where the tritone functions as the assisting bass. The thickened macro-tardy lines proceed in systematic contrary motion by minor seconds. All the dissonances are thus treated by step, though the changes in tension are small. The sum-chords are alternately based on either of the two whole-tone scales (see chapter 6.2).

The ostinato-like four-bar patterns (containing eight minims) of the tardy lines are adjusted according to these formations in order to utilize the same whole-tone scale that the macro-tardy lines suggest. The eight minim-patterns of the tardy lines thus dissolve the sum-chords of the macro-tardy lines. Casually the tardy lines increase those sum-chords by using some degrees of whole-tone scale that are not included therein (cf. chapter 6.2). In this process the assisting bass now and then crosses the bass (see section 8.4) in this four-voice framework (Fig. 7.4.2–1b; see chapter 4.3).

Fig. 7.4.2–1. A systematic contrary motion dissolving another one. *Tapiola* op. 112 (1926) bars 436–439, 440–443, 444–447, 448–451, 452–455.



7.4.3 SELECTIVE APPLICATION OF SYSTEMATIC CONTRARY MOTION

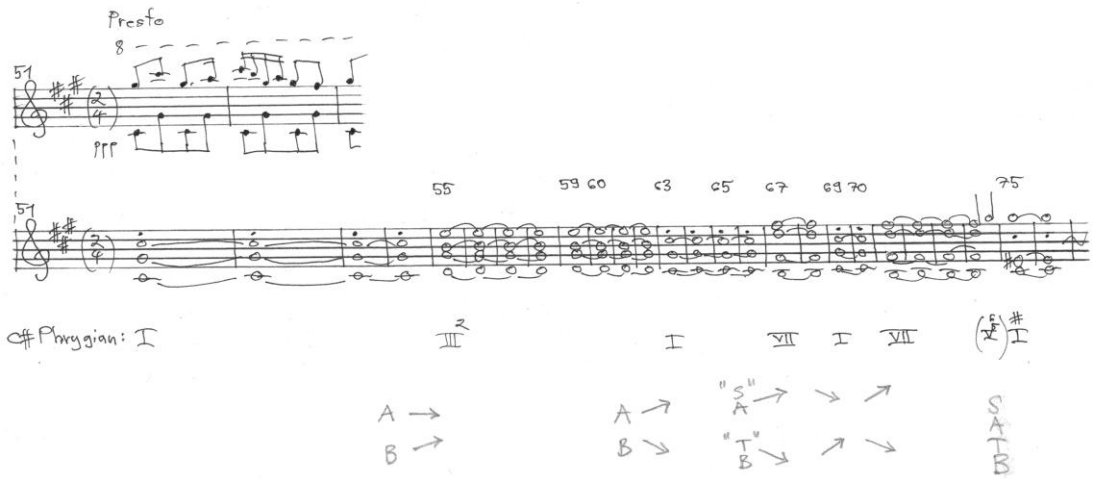
The principle of systematic contrary motion need not be applied to all the parts (as was the case above in Fig. 7.4.2–1 [op. 112:436–455]), but it may be applied selectively. In selective application in e.g. four-part writing only two parts may proceed by contrary motion, while the others may remain stationary. Selective and total application may be also juxtaposed. Whether applied selectively or totally, the principle of contrary motion leads to *Satz* where the point of departure is returned to now and then. This gives a static quality resembling that of line-pedal *Satz* (see chapter 5.1.3) to a Sibelian type of soprano-bass framework.

In Fig. 7.4.3–1 different selective applications of systematic contrary motion are juxtaposed. In bars 51–75 in the level of harmonic reduction the tones of the tonic triad of C sharp Phrygian may be seen as points of departure. To the reduction a latent tone e2 has been added to bars 51–54, 63–66 and 69–70. A latent c2 sharp has been added to bars 75–76; this addition could also be dispensed with.

In bars 51–66 the contrary motion is selective, taking place only between the alto (c2 sharp–b1–c2 sharp) and bass (c1 sharp–d1–c1 sharp) parts. In bars 63–71 the parts grouped into two thickenings proceed according to contrary motion (cf. Fig. 7.4–1c). This grouping results in some parallel fifths

between the lowest parts (see section 8.2.1). In bar 74 a motion 5–6 in the topmost part extends the harmonic vocabulary of the passage and at the same time in bars 71–76 turns the *Satz* in bars to traditional part-writing (see section 8.1).[279] Even before that in bars 62–63 the chord of the second becomes resolved (C sharp Phrygian: III2–I).

Fig. 7.4.3–1. Successive selective and total applications of systematic contrary motion. Sonata op. 12 (1893) 2. mvt. bars 51–76.



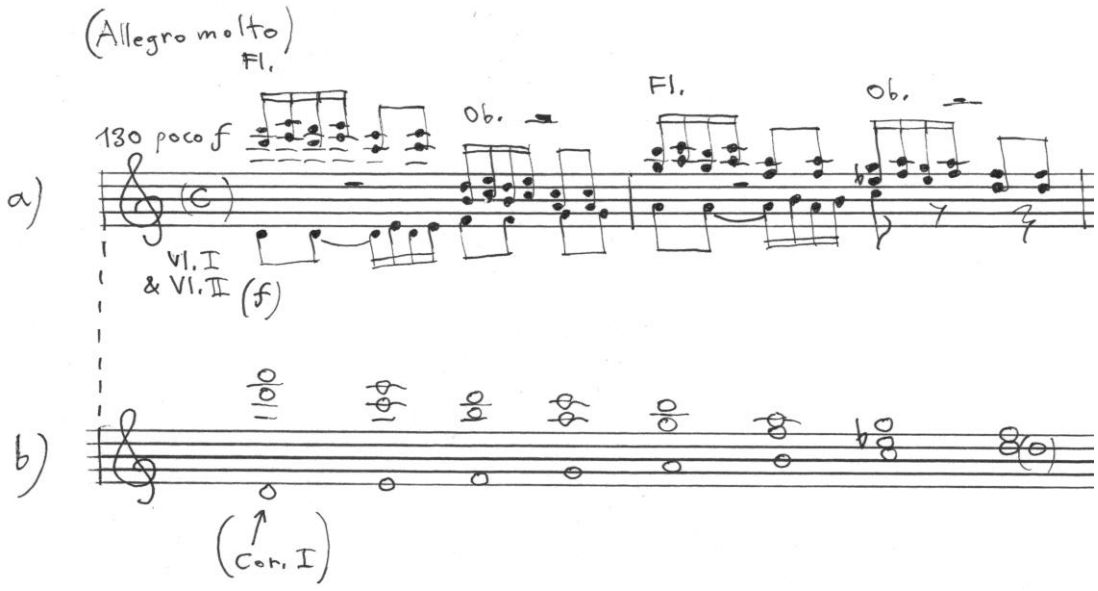
7.4.4 INVERSION AS A COUNTERPOINT

In florid counterpoint the principle of systematic contrary motion can be applied to one of the parts. In two-part *Satz* one part is thus an inversion of another. Yet ornamentation of one or both of the lines leads to *Satz* where the principle of contrary motion seems non-systematic.

In Fig. 7.4.4–1a there is a plain line (Vl. I&II) and its counterpoint thickened by thirds (Fl., Ob.) taken from a multipart *Satz* based on a bass part that proceeds by rising fourths and falling fifths. Deviations from the rigid application of systematic contrary motion are eliminated in the *surface level reduction* (Fig. 7.4.4–1b; cf. Fig. 7.4–1a). Actually, the reduced line is also played by the first Horn (see chapter 8.3.2).

[279] According to the principles dealt with in chapter 4.2.3, I have interpreted the tetrachord G sharp–C sharp at the beginning of the melody as a dominant tetrachord of C sharp Phrygian mode in relation to the open tonic fifth C sharp–G sharp. The unaccented tone F sharp between two G sharps in bars 52–53 and 64–65 is thus a lower neighbour note. Tolonen 1976:87 however, regards this unaccented F sharp as the lower edge of an F sharp–C sharp pentachord which in relation to the C sharp–G sharp pentachord of the accompaniment creates *modal ambiguity* (cf. chapter 11.3): “Pentachord is based on F sharp, harmonic background on C sharp”.

Fig. 7.4.4–1. Inversion as a counterpoint. Sixth Symphony op. 104 (1923) 4. mvt. bars 130–131.



In two-part *Satz* the principle of systematic contrary motion may be applied in such a way that it leads to a third derived part that presents an inversion of the second one. As in the case of other devices, systematic contrary motion may function as a generator of harmonies. Only when the device would produce unwanted harmonies, rest – or deviation from rigid application – may replace the tone (or tones) resulting from systematic contrary motion.

In Fig. 7.4.4–2 there is a *Satz* where the strings play dense accompaniment above the bassoon melody that in the tenor register functions as the bass part (cf. chapter 3.4). In the reduction the lower octave-doubling (Vc.) of the topmost part (Vl. I) is eliminated as well as the densest ornamentation of the strings. Also, in the reduction the topmost part (Vl. I, Vc.) and the middle part (Vl. II, Vle.) proceed in simple counterpoint in relation to each other.

Besides the last and the first notes between incises (in bars 82–83, 83–84 and 84–85), the bassoon melody proceeds mostly by half-steps. The ascending minor thirds deviate from this inclination in bars 86, 88 and 89. All the dissonances between the string parts are either immediately resolved (e.g. in the first dotted crotchet of bar 83), or lead stepwise to another dissonance(s) and are then resolved (e.g. from the third to the fourth dotted crotchet in bars 81, 82, 83, 84 and 85). All the dissonances between the topmost string part and the bassoon melody are resolved accordingly.

The relation of the middle part to the bassoon melody is based on parallel motion by sixths. The upper part of this parallel is ornamented. This turns the simple counterpoint to a florid one. The ornamented middle part proceeds by half-steps throughout. This brings both major and minor sixths to accompany the bass part. In the middle of bars 86 and 88 instead of the interval of a sixth there is a major third. These deviations from the parallel

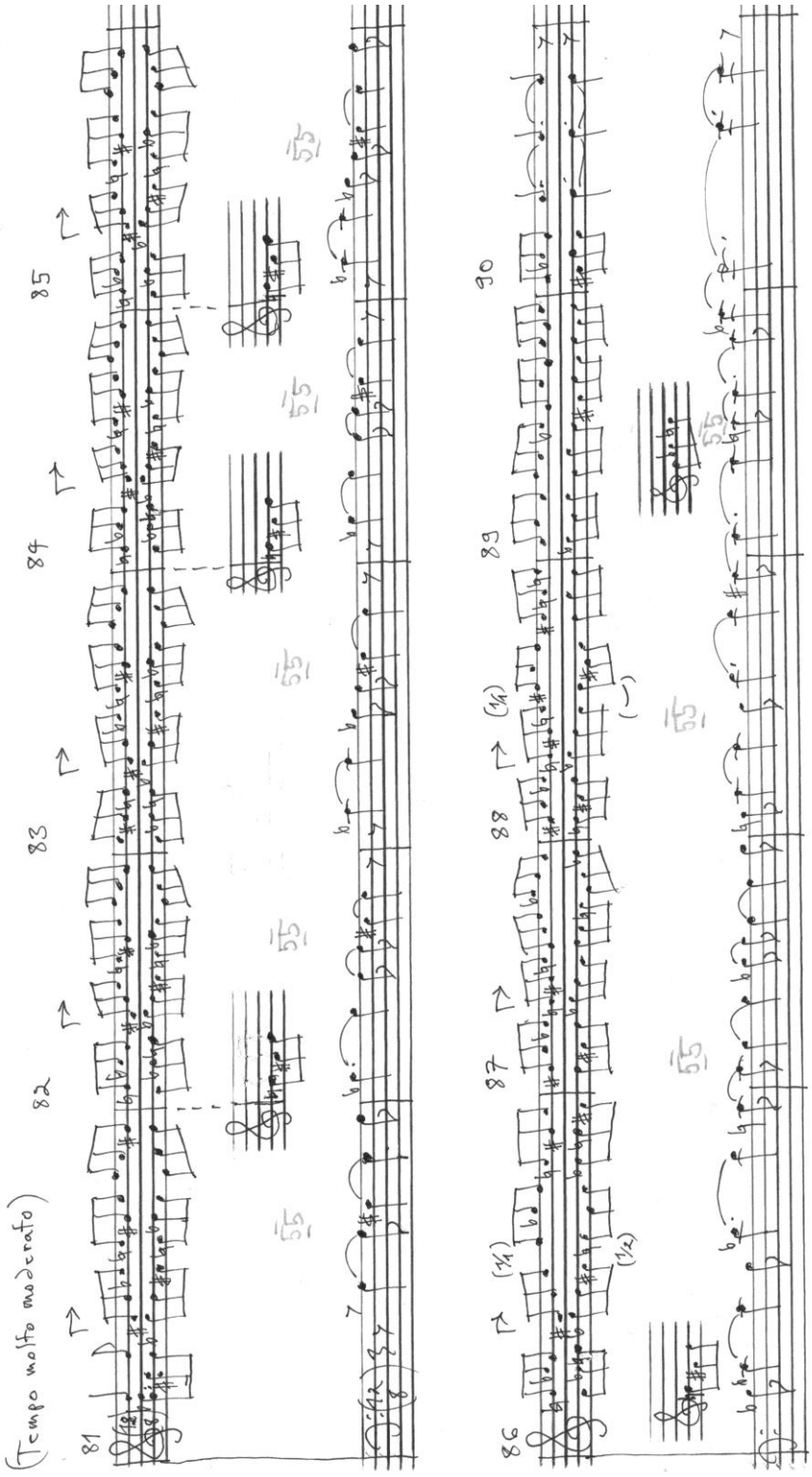
motion occur at the same time as the ascending minor thirds in the bassoon melody. After the first deviation (in bar 86) the ornamented parallel motion is re-established in bars 87–88. After the second deviation (in bar 88) the ornamented parallel returns no more, but is replaced by florid two-part *Satz*.

Besides some deviations listed below, the string parts proceed according to systematic contrary motion. It is interesting that all these deviations take place not in the topmost part that may be considered the derivation from the middle part, but instead the deviations occur in the middle part and thus *de-patternize* (see chapter 10.1) the parallel motion between the lowest parts. During the last and first quavers between bars 81–82, 83–84, 84–85, 85–86 the contrary motion of the string parts is abandoned and replaced by parallel motion. At the beginning of bars 82, 84, 85 and 86 where f1 stands in the middle part, there should have been g1 according to the principle of systematic contrary motion in relation to the topmost part. This deviation brings a B flat major triad at the beginning of bars 82, 84 and 86 instead of a G-rooted minor sixth chord. In bars 89–90 this passage terminates to an E flat major triad (without the fifth). Before this passage an E flat major sixth chord prevailed in bars 68–72. The deviation from the systematic contrary motion (E flat: V instead of III6) thus fits better with the framing key – which is also the principal key.

It is interesting to note that any deviations are not done in order to remove consecutive fifths (see section 8.2.1) between the upper string part and the bassoon melody (bars 81, 82, 83, 84, 85), or between the lower one and the bassoon melody (bars 87, 88, 89). These consecutive fifths also sound for an infinitesimal moment in the surface level.

Furthermore in bar 86 the contrary motion is inexact between the sixth and seventh quavers (whole-step against half-step). In bar 88 there is an oblique motion between the sixth and seventh quavers. By means of these deviations consonances (f2/f1/d1 flat and f2 sharp/f1 sharp/d1) are obtained against some apex tones of the bassoon melody. Finally, in bars 89–90 in the accompanying string parts systematic contrary motion is abandoned in terms of parallel minor sixths).

Fig. 7.4.4–2. Systematic contrary motion in two-part counterpoint involving a thickening. Fifth Symphony op. 82 (1915/1916/1919) 1. mvt. bars 81–90.



7.4.5 SYSTEMATIC CONTRARY MOTION BEFORE SIBELIUS

In music before Sibelius the principle of systematic contrary motion was used in the thematic level. Systematic contrary motion was rare as a detailed principle in generating harmony.[280] Yet already in Romantic era a harmonic device was in use where thickenings in systematic contrary motion proceeded only by chromatic half-steps and by this means produced equally valid ("consonant") formations where the chord factors were derived from either of the two alternating transpositions of the whole-tone scale.[281]

7.5 INTERDEPENDENT TWO-VOICE FRAMEWORK

The principle of interdependency of voices may also be separated from systematic contrary motion and thickenings (cf. section 7.4.1). The simplest form of interdependent framework can be met in connection with alternating harmonies.

In Fig. 7.5–1 there is *Satz* where four parts proceed in *punctus-contra-punctum* manner throughout. Although some of the chords are resolved in one way or another and others are released, this chorale-like *Satz* is still very different from traditional chorale. There is an *interdependent* two-voice framework where every melodic tone reappears with exactly the same bass tone and middle voices during the first twelve bars. The bars 10–13 are repeated in bars 16–20.

As to the harmonic content of this passage, instead of analyzing it as G-centered, it is more economical to analyze it as D-centered. In this way the mode may be considered D natural minor where before and after the dominant sixth chords (d natural: V6) secondary dominant chords occur (in bars 4–5, 9–11). Interestingly enough, these are not E-rooted dominant-type seventh chords, but G sharp-rooted half-diminished ones normally found in the progression A Aeolian-Ionian: VII six-five–I6. This application is an example of Sibelian modalized chromaticism, or chromaticized modality. In bars 12–13 an interchange from D natural minor to D Aeolian-Ionian takes place.

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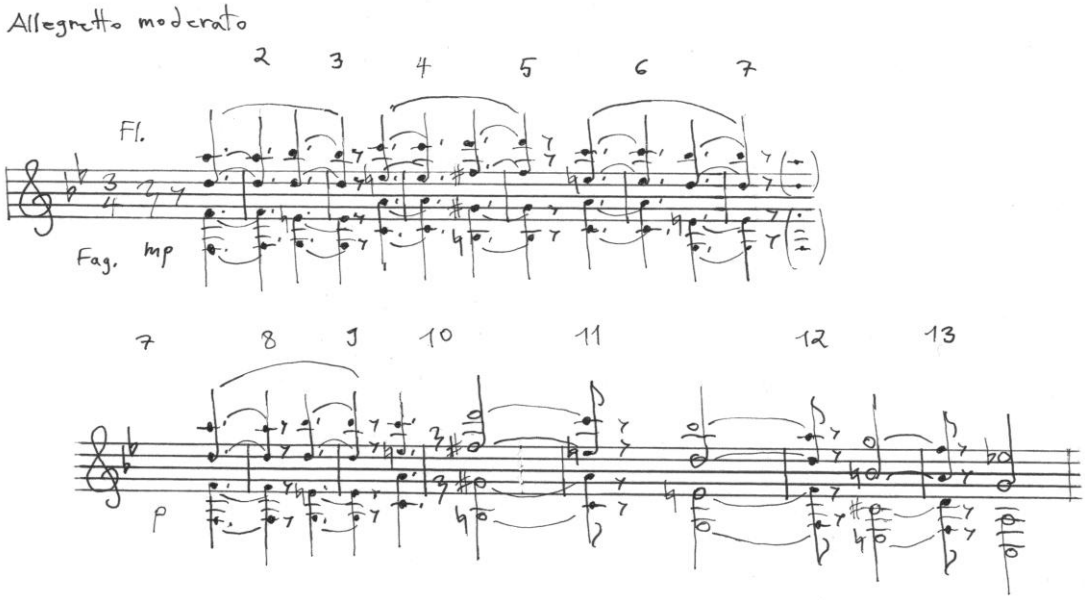
[280] Harmony results from line and thickened line that proceed in systematic contrary motion: Wagner: *Parsifal* (1877–1882) act II bars 50–55 (from the rehearsal number 131; Cor. III, IV, Tr. I, II/Bass Tuba; woodwind doublings omitted. Both the lines are chromatic. The descending upper line is thickened by a major third. In bar 50 the counterpoint is florid, while in bars 51–53 it is syncopated. Due to syncopation the resulting chords are not derived from two alternating whole-tone scales (cf. Fig. 7.4.2–1[op. 112:436–456]). Besides this basic adjustment there are also other non-chromatic voices that supplement the basic *Satz* with "normal" part writing).

[281] As Tawaststjerna states, this mixture of whole-tone scale and chromatic scale is also known from Debussy's *La Mer* (1905) and from the *Faust-Symphony* by Liszt (Tawaststjerna IIIF:205, IIIS:195, IIE:151 Ex. 91, see also Piston 1978:483; Ex. 31–7).

Fig. 7.5–1. Interdependent two-voice framework. Sixth Symphony op. 104 (1923) 2. mvt. bars 1–13.

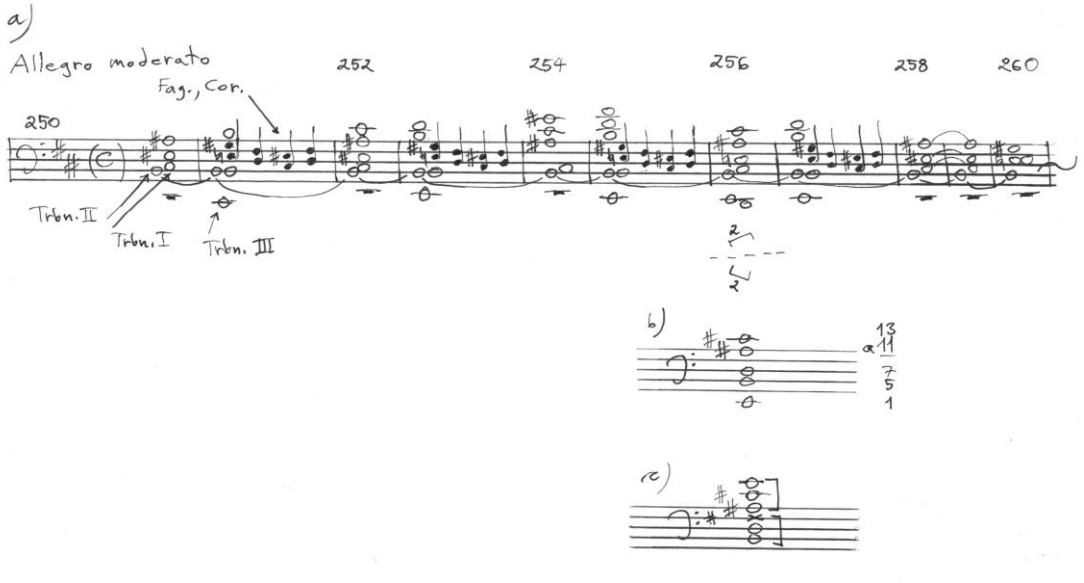


7.5.1 SPATIAL SYMMETRY AS GENERATOR OF CHORD-FORMATIONS

The linear principle of systematic contrary motion may also be transferred to a vertical one, into the principle of spatial symmetry. In generating chords the principle of spatial symmetry is in accordance with the non-traditional spatial quality of Sibelian *Satz* (see chapter 3.4, section 8.4).

Already the sum-chord that Sibelius presented in the lecture fragment (see chapter 4.1) can also be seen as a manifestation of the principle of spatial symmetry. In this sum-ninth chord the axis of symmetry is the lowest tone of the D Dorian melodic pentachord (assisting bass) and the topmost tone of the accompanying pentachord (assisting soprano). From this axis (unison) in both directions the vertical interval sequence is unison–minor third–major third. The principle of spatial symmetry may lead to more complicated chord-formations.

Fig. 7.5.1–1 a–c. Spatial symmetry generating a chord-formation. *Tapiola* op. 112 (1926) bars 250–260.



In Fig. 7.5.1–1a there is an organ point *Satz* where a fifth below the tonic organ point B (Trbn. II) the tone E enters, ceases and again re-enters (Trbn. III). In bars 251, 253, 255 and 257 this low E increases the tonic triad B Aeolian-Ionian: I into an added-root ninth chord IV9+1 (cf. Fig. 11.3.1–2 [op. 112:68–72]). In the low strings this E is reached by means of linear B–E motions (Vc., Cb.). Before and after the upper tonic sub-triad (B Aeolian-Ionian: I) in the assisting bass in bars 250, 252, 254 and 258–259 there are seven-four-two chords on the tonic organ point (see chapter 5.1.1). In these bars the seven-four-two chords (including E sharp) appear according to a B Augmented pentachord-diminished tetrachord (cf. Fig. 4.2.1–2f). However, in bar 256 the seven-four-two chord (including E natural) is again in B Aeolian-Ionian, which is the prevailing mode. In bars 251, 253, 255 and 257 the polymodal clash (E sharp/E natural) caused by a cross-relation pattern (see Fig. 7.2–1i [op. 112:143–152]) shows that those mixed modes are also simultaneous for a while.

Even though this seven-four-two chord is in B Aeolian-Ionian in bar 256, it is not the only deviation from the established pattern. In this bar there is also another anomaly, viz. the dissolved dyad E/D below the tonic organ point in bar 256 (Vc., Cb.). Earlier in the corresponding bars 250, 252 and 254 there was a dissolved dyad C sharp/B1 (Fag., Vc., Cb.) that doubled the tonic organ point and the assisting bass over it (Trbn. I, II). In bar 256 the resulting harmony might be explained as a sum-chord (an E-rooted sum-thirteenth chord in the 3rd inversion), but this explanation is forced (Fig. 7.5.1–1b). Also, the explanation of it as a polychord is only slightly more convincing (Fig. 7.5.1–1c). Anyway this deviation *de-patternizes* this passage (cf. chapter 10.1).

However, it is possible to derive from principle of spatial symmetry from the deviation from the normal practice in bar 256. In relation to the fifth E–B in bars 251, 253, 255 and 257 the lower tone D of the dyad E/D in bar 256 (B–E–D; fifth + major second downwards) may be seen as a counterpart of the upper tone of the simultaneous dyad c sharp/B in bars 250, 252 and 254 (c#–B–E; fifth + major second upwards). The seeming anomaly in bar 256 is thus dictated by the principle of spatial symmetry (major second ← fifth → major second; i.e. c# ← B–E → D). In bar 256 all these four tones (c sharp, B, E and D) sound together (Trbn. I&II, Vc., Cb). In the following bar the symmetric seconds (C sharp, D) are released into the basic fifth E–B by the motions 2–1 (cf. Fig. 5.3–2a) and 2–1 ascending (cf. Fig. 5.3–3b).

Besides generating chordal (or quasi-chordal) structures, the principle of vertical spatial symmetry may be used as a vehicle in counterpoint. Symmetry can be seen as an ideal harmonic state (corresponding consonance), while asymmetry means deviation from it (corresponding dissonance). In this kind of system the dissonances are no longer resolved, or even released.

In Fig. 7.5.1–2a in the level of harmonic basis the principles of parallel motion, contrary motion and spatial symmetry all work together. In order to concentrate on the symmetry and asymmetry the surface level lines are left out. In this passage the generator of harmony is a symmetric formation that is firstly continued vertically in an asymmetric way and only then symmetrically.

The harmonies result from florid counterpoint involving a dissonant thickening (cf. Fig. 7.1.2–1b) and a line below it, which together form a three-voice framework (see chapter 4.3). The successive sum-seventh chords in the dissonant thickening (Arp. II/Vle., Vc.) in the assisting bass may be considered G sharp-, F sharp-, E- and F sharp-rooted added-sixth triads (5+6) in open position (cf. Fig. 7.1.2–1b). Earlier in bars 166–167, the upper fifth (B/E) was introduced after the lower one (D#/G#).

In each of these added-sixth triads of the dissonant thickening added-notes are also played by the harps (marked by blackened note-heads). The first G sharp-rooted added-sixth triad (in bars 171–172) and the fourth F sharp-rooted added-sixth triad (in bars 192–194) include passing harmonic combinations. This kind of device was described earlier (see Fig. 7.3–1 [op. 70:59–62]) and therefore they are not taken into consideration here.

If the harp tones (shown by blackened note-heads) in these formations are not considered merely ornamental added-notes (cf. Fig. 7.3–1a [op. 70:60–61]), but instead as structural tones, they then take part in a construction of intervals that continues the vertical pattern a fifth downwards – a minor second downwards – a fifth downwards (b–e–d#–G#) by another minor second downwards (b–e–d#–G#–G). The harps play the enharmonically equal tones c1b–fb–eb–Ab–G. At the same time the harp tones open the way for increasing the formation one more fifth downwards

according to the vertical pattern (b–e–d#–G#–G–C; Fig. 7.5.1–2b).[282] Also, the minor second upwards from the topmost tone according to the vertical pattern would lead to C in another octave-register (c–b–e–d#–G#). Yet in any of these chord-formations in bars 173–191 this possibility for continuing the patterns symmetrically is not seized upon.

Instead of this symmetric turn a fifth downward from the harp tone G, in bars 176–179 an asymmetric turn a fourth downwards appears (G–D; the latter tone by Cb. div.). In this juncture the asymmetric turn may be traced back to the principle of contrary motion; i.e. a fifth upwards. In the double-basses the tone D in this asymmetric turn is connected with the spatially topmost fifth (B/E) of the added-sixth triad doubled in the lowermost register.

In bars 182–185 and 196–204 in connection with the added-sixth triads standing a major second lower (a–d–c#–F#) the corresponding asymmetric turn fourth downwards appears (F–C). In the double-basses the tone C in this asymmetric turn is connected with the spatially topmost fifth (A/D) of the added-sixth triad doubled in the lowermost register (Cb. div. – Vl. II div., Cb. div.).

The outcome of the double-bass chords is another steady dissonant thickening of E- and D-rooted minor seventh chords without the third in the 3rd inversion. Due to the relative weakness of the single harp tones (G natural, F natural), it is probable that these inverted minor seventh chords are perceived as dominant-type seventh chords in the third inversion (because of G sharp and F sharp in the lower 'cello part). In any case, the principle of asymmetry has thus resulted in polychords that share the same roots (E and D).

Furthermore it is to be noted that in connection with the E-rooted added-sixth triad in bars 186–188, neither the symmetric turn a fifth downwards from the harp tone (E flat–A flat), nor the asymmetric turn a fifth upwards (E flat–B flat) is cultivated. Instead the continuing sustained low C makes the E-rooted added-sixth minor triad seem to be a segment in a root-position C-rooted major seventh chord. The reason for avoiding the pattern-like asymmetric bass note B flat (downwards from the E flat of the second Harp) becomes evident as a result of the end of this composition.

In bar 205 the symmetric continuation of the pattern (a–d–c#–F#–F–Bb; Fig. 7.5.1–2c) to the lowermost fifth B flat is finally reached as an enharmonically equal A sharp, though located in the middle and topmost registers (Ob. I, Cl. I, Vl. Ib, Vl. IIb). It removes the asymmetric tone C natural that was also doubled to the upper register in bars 195–204 (Vl. II div.). In my opinion the sparing of the pitch B flat/A sharp for the ending is the reason for avoiding the symmetry that earlier would have resulted in a low B flat (downwards from the F of the Harp II) firstly in bar 182.

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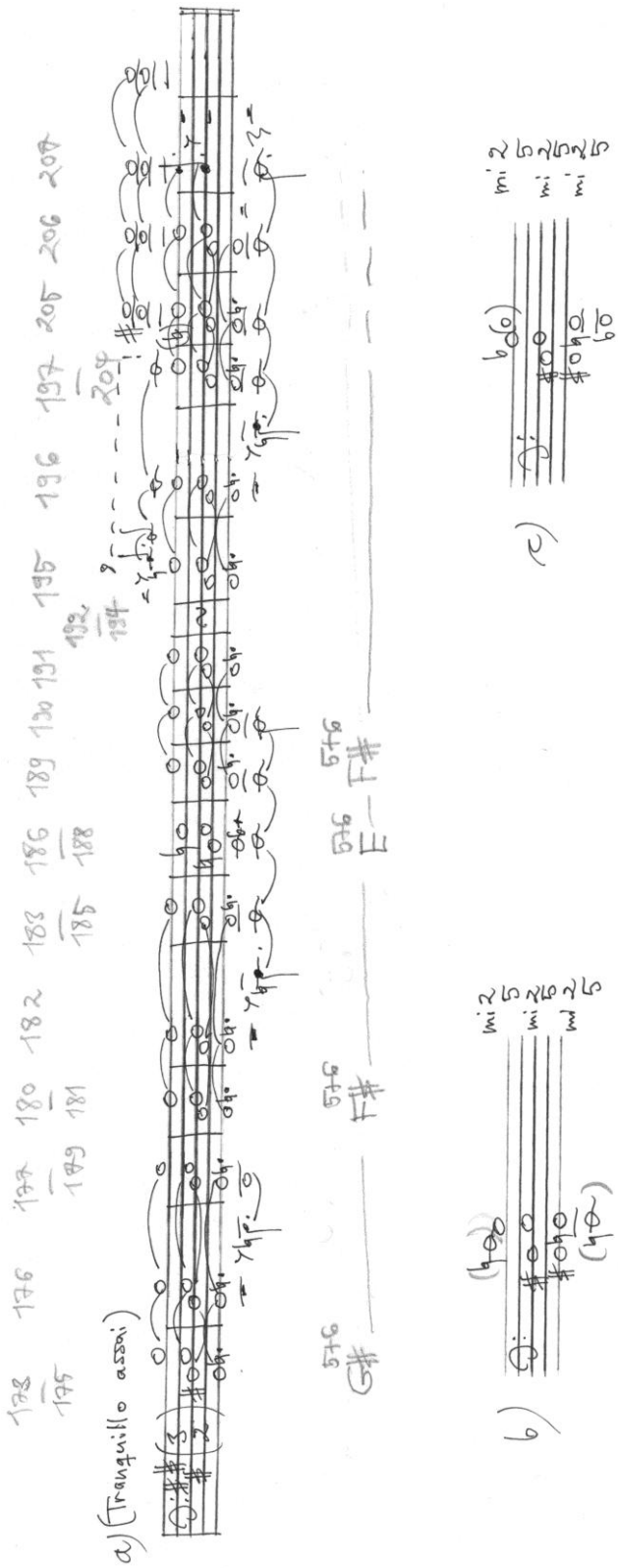
[282] These tones happen to comprise a hexatonic system, in this case the "Northern" co-cycle (see Cohn 1996:17–18).

In the lowest register the outcome of the asymmetric turn C still holds until the penultimate bar 207, where it ceases. Also the tones a–d–c# (Vc. I, Arp. I, Vle.) of the symmetric formation cease in bars 206–207. Finally in bar 208 the tone A sharp functions as the Picardy third to F sharp, which may be considered the tonic of this composition (cf. Fig. 8.4–1 [op. 70:1–5]).

From this angle (and by applying interchange) the added-sixth triads would form the thickening II5+6 – I5+6 – VII5+6 – I5+6 (i.e. F sharp Dorian: II5+6 – F sharp Aeolian: I5+6 – F sharp Locrian: VII5+6 – F sharp Aeolian: I5+6). Since below F sharp Locrian: VII5+6 in bars 186–188 is the low C natural that suggests a major seventh chord (see above) that in F sharp Locrian would be V7, bars 186–191 thus recall bars 21–22 where there was an authentic closure (F sharp Locrian: V7 – F sharp Dorian: I) also utilizing interchange (see Fig. 5.4.2–3e [op. 70:21–22]).

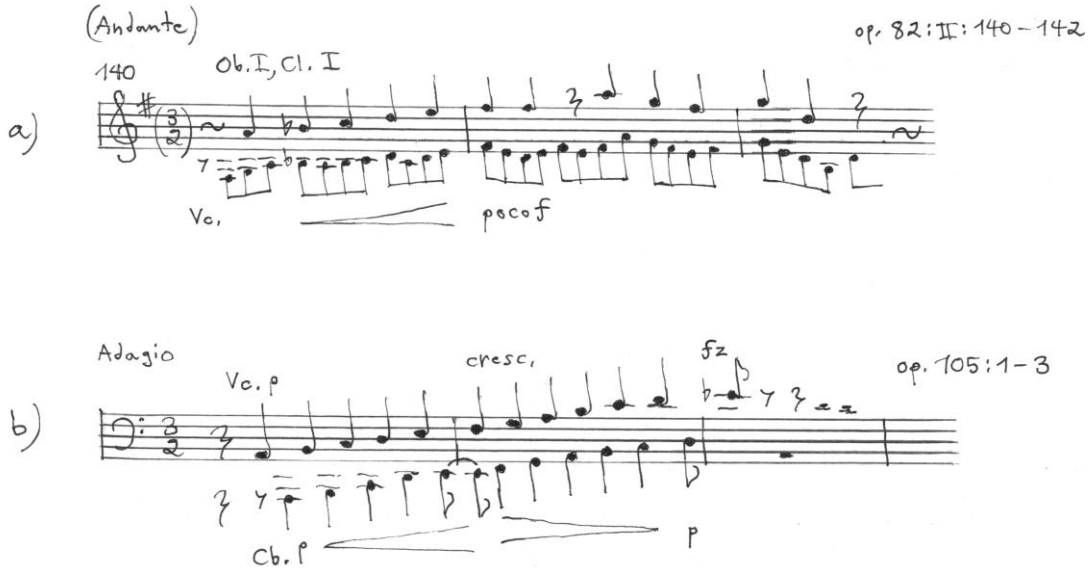
Fig. 7.5.1–2 a–c. Spatial symmetry and asymmetry in a counterpoint involving chordal thickening. *Luonnotar* op. 70 (1913) bars 173–208.



7.6 HETEROPHONY

It is peculiar to Sibelian *Satz* that even the main components of line-pedal *Satz* (see Fig. 7.6.1–1 [op. 82:III:439–442]), or the framing parts in two-voice framework (see e.g. op. 63:III:55–56) may be heterophonically related to each other. In the surface level two species of heterophony can be discerned, ornamental and non-ornamental. Ornamental heterophony consists of an adjustment where there are two parts: a basic line and its ornamented version, which occur simultaneously (Fig. 7.6–1a). In non-ornamental heterophony the parts in an adjustment are not related through ornamentation, but differ rhythmically (see Fig. 8.5.7–1 [op. 112:137–144; assisting bass and bass]), as is the case e.g. in syncopated heterophony (Fig. 7.6–1b).[283]

Fig. 7.6–1 a–b. Heterophony; ornamental (op. 82:II:140–142) and non-ornamental (op. 105:1–3).



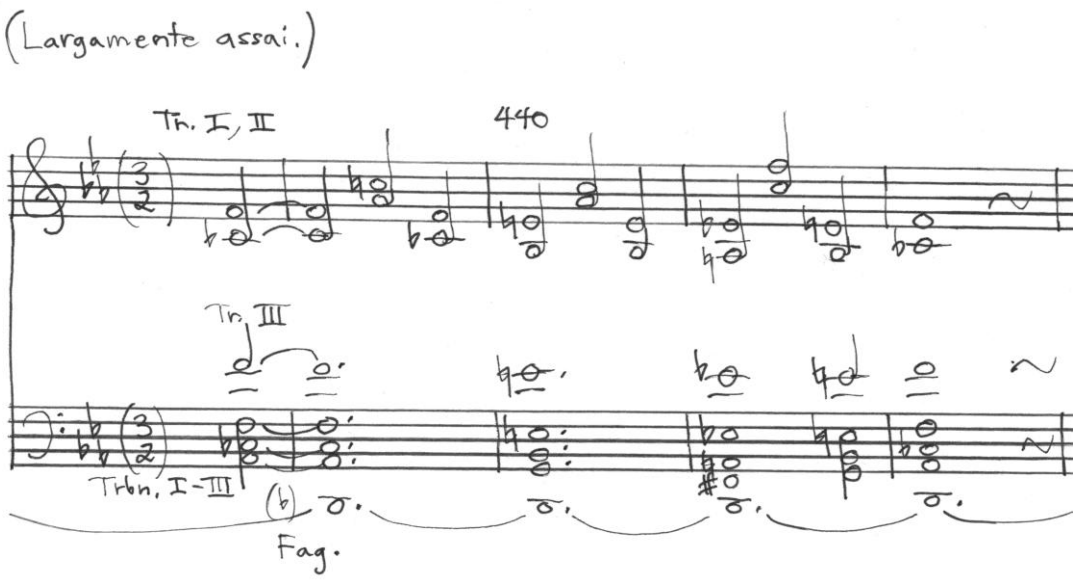
7.6.1 THICKENED LINES IN ORNAMENTAL HETEROPHONY

In an ornamental heterophonic adjustment the basic line, the ornamental line, or both of them may be thickened. In an adjustment: a thickened basic line with a plain ornamental line, the latter is usually related to the line and not to a collateral line (such was also the case in Fig. 7.6–1a from where the collateral line below the line was omitted for the sake of clearness). When both the basic line and the ornamental line are thickened equally, the respective lines and collateral lines are related to each other (see Fig. 7.6.1–1

[283] Cf. Schumann: *Fantasie* in C major op. 17 (1836–1838) 1. mvt. bars 114–127 (the lower staff).

[op. 82:III:439–442]). When the thickenings are of different widths, heterophonic relation may concern only some parts.

Fig. 7.6.1–1. Heterophonic relation between thickened components. Fifth Symphony op. 82 (1915/1916/1919) 3. mvt. bars 439–442.



In Fig. 7.6.1–1 the harmonic foundation of the *Satz* is a chromatic *fauxbourdon* that contains only diminished triads in the 1st inversion (Trbn. I–III). This thickening descends and ascends stepwise (by minor seconds and augmented unisons). The second collateral line of the *fauxbourdon* (Trbn. III) functions as an assisting bass in relation to an organ point D flat (Fag., Vc., Cb.).

Out of the three trumpets the third trumpet merely doubles the topmost part of this *fauxbourdon* an octave above. The first and the second trumpet play the line and the collateral line whose relations to the first and the second trombones are that of ornamental heterophony.

When the melody (Tr. I) is subtracted from its harmonic platform, its curve implies the supertonic of E flat major and the chromatics connected with it. Earlier in bars 435–438 the tonic was treated accordingly (tonic–leading-tone–subtonic–leading-tone–tonic).

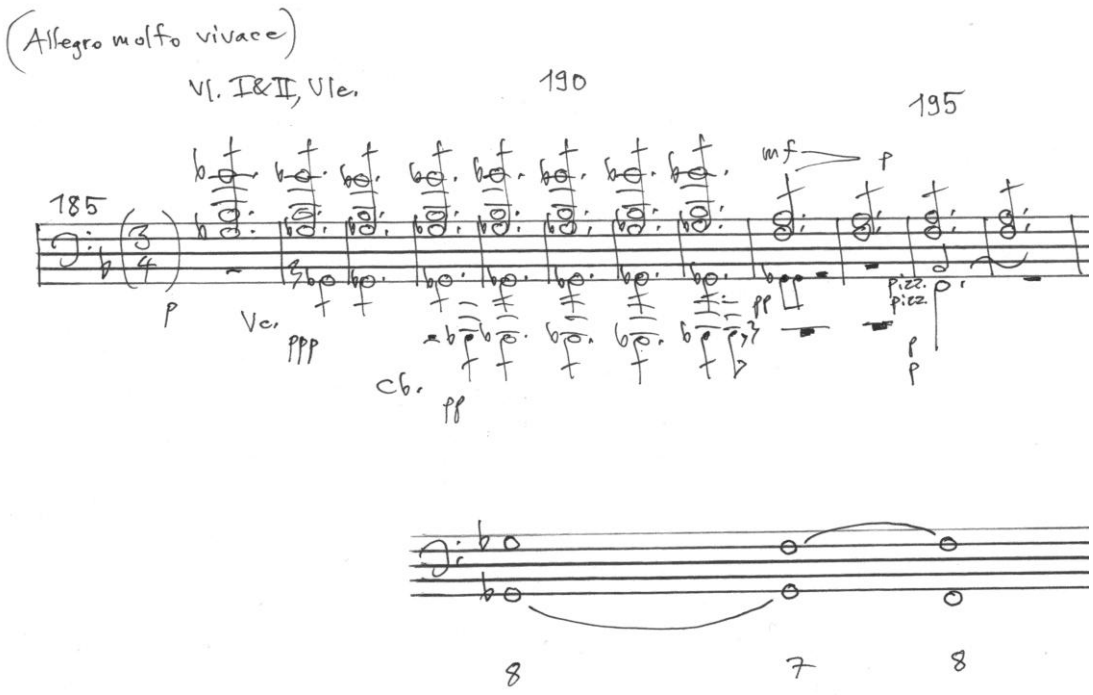
7.6.2 HETEROPHONIC SUSPENSIONS

Sibelius sometimes also uses non-ornamental heterophony in the domain of dissonance treatment. This makes components in dissonant situations utilize the same *contrapuntal paths* without the need to alter their shape (cf. chapter 8.2.1). In this practice Sibelius uses suspensions where the interval of preparation is unison, or octave. Thus the dissonance is released to a similar

interval as its preparation (e.g. 8–7–8; i.e. 7–8 descending, cf. Fig. 5.3–2b). This practice was forbidden in traditional *Satz*.[284]

Heterophonic suspensions may also be presented as prepared appoggiaturas (i.e. without a tie).

Fig. 7.6.2–1. A suspension in non-ornamental heterophony. Fourth Symphony op. 63 (1911) 2. mvt. bars 185–196.



[284] According to Kirnberger "Only the octave is not well suited as a preparation of the ninth, since a forbidden octave progression results from its resolution" (Kirnberger [1771] 1982:92–93). Kirnberger speaks about the descending suspension 9–8.

8. ON SOME ASPECTS OF SIBELIAN VOICE-LEADING

After dealing with the harmonic principles of Sibelian *Satz* in the previous chapters (see chapter 4 and chapter 5), and discussing some basic principles of Sibelian voice-leading (see chapter 6 and chapter 7), a glance may now be cast on some general conditions, principles, and details in the domain of Sibelian voice-leading. In the previous chapters, however, the harmonic and contrapuntal dimensions were not separated, but interwoven. In this chapter the same policy is also carried out.

The concept of texture modulation (section 8.1) is inseparably connected with so-called changing parts (section 8.1.1). Another feature closely connected with textural changes is consecutive octaves and fifths (section 8.2). This invites the device of fusing and dividing lines (section 8.2.2). This device may also be applied in connection with heterophony (section 8.3). Heterophony is also a means by which orchestral artificial pedal effects may be achieved (section 8.3.2). The above resources, on the other hand, are connected with the spatial quality of *Satz* (section 8.4). A peculiar feature in Sibelius' voice-leading is macro-components (section 8.5), which also connects with texture modulation.

8.1 TEXTURAL CONTRAST AND MODULATION

Above different kinds of component as well as *Satz* have been observed. In the music of Sibelius the types of *Satz* may be contrasted according to the demands of form. This means that the types of *Satz* change at formal borderlines, or even more densely according to the phrasal rhythm. On the other hand changes that take place inside a phrase may be considered *texture modulation*.

In texture modulation the hierarchy between the components changes. Texture modulation may be classified as *qualitative* or *quantitative*. In a quantitative texture modulation the number of the components changes. There is a quantitative texture modulation when e.g. line-tardy line *Satz* (see chapter 5.1.1) turns into line-pedal *Satz* (see chapter 5.1) due to an entering pedal point. The corresponding case is a change from soprano-bass *Satz* to organ point *Satz* due to an entering organ point. In a qualitative texture modulation the already existing components undergo changes. A qualitative texture modulation takes place when e.g. a Sibelian type of *Satz* turns into a traditional one (see Fig. 7.4.3–1 [op. 12:II:63–76], Fig. 8.1.2–4c [op. 82:II:209–212]), or vice versa. The changes are not so notable when a qualitative texture modulation occurs in the domain of the same (either Sibelian, or traditional) type of *Satz* (see Fig. 7.1.1–1 [op. 49:160–161], Fig. 7.2.1–1 [op. 63:IV:180–182]).

The qualitative and quantitative texture modulation may also be simultaneously combined.

8.1.1 CHANGING PARTS

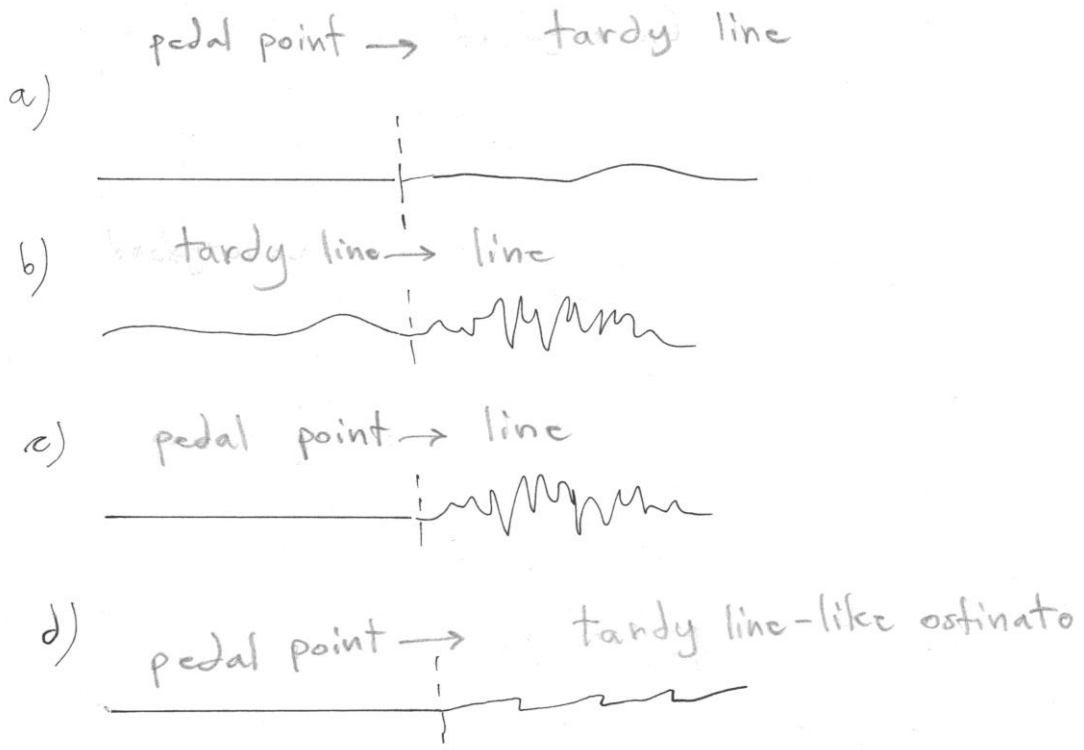
One kind of qualitative texture modulation is *activation* or *de-activation* of the melodic curve of a component. Activation of the curve means widening the ambitus and the intervals as well as increasing the number of intervals. In de-activation the opposite process takes place.

Melodic activation may be – and mostly is – connected with rhythmic activation, i.e. with increasing rhythmic density. Respectively melodic de-activation may be connected with decreasing rhythmic density.

From the consistent process of rhythmic-melodic activation or de-activation of a component a seamless change in a profile results. Therefore the outcome of the process may be called a *changing part*. In order to discern changing parts from successive different kinds of component, only those processes that begin and end inside phrases and are performed by the same instrument (or instruments) throughout are taken into consideration.

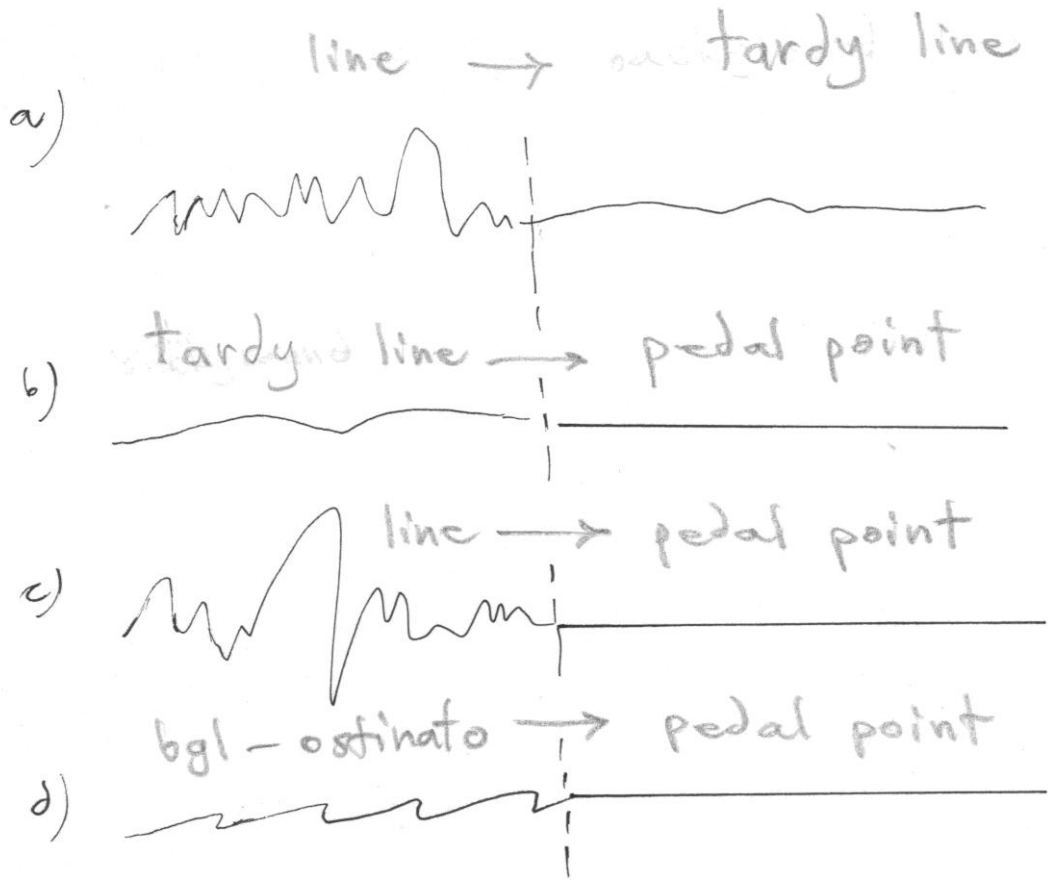
Changing parts where activation takes place are pedal point → tardy line (Fig. 8.1.1–1a) and tardy line → line (Fig. 8.1.1–1b). A changing part including more notable activating change is e.g. pedal point → line (Fig. 8.1.1–1c). A changing part that includes a more minute activating change is pedal point → tardy line-like ostinato (Fig. 8.1.1–1d). In these changing parts the pedal point is generated by elongating the commencing tone.

Fig. 8.1.1–1 a–d. Changing parts by means of activation.



Changing parts where de-activation takes place are line → tardy line (Fig. 8.1.1–2a) and tardy line → pedal point (Fig. 8.1.1–2b). A changing part including more notable de-activating change is e.g. line → pedal point (Fig. 8.1.1–1c). A changing part including a more minute de-activating change is e.g. tardy line-like ostinato → pedal point (Fig. 8.1.1–2d). In these changing parts the pedal point is generated by elongating the concluding tone.

Fig. 8.1.1–2 a–d. Changing parts by means of de-activation.



In a changing part the device of activation may be followed by de-activation. These devices may also recur in a changing part. Thus activation may be followed by further activation, or de-activation may be followed by further de-activation.

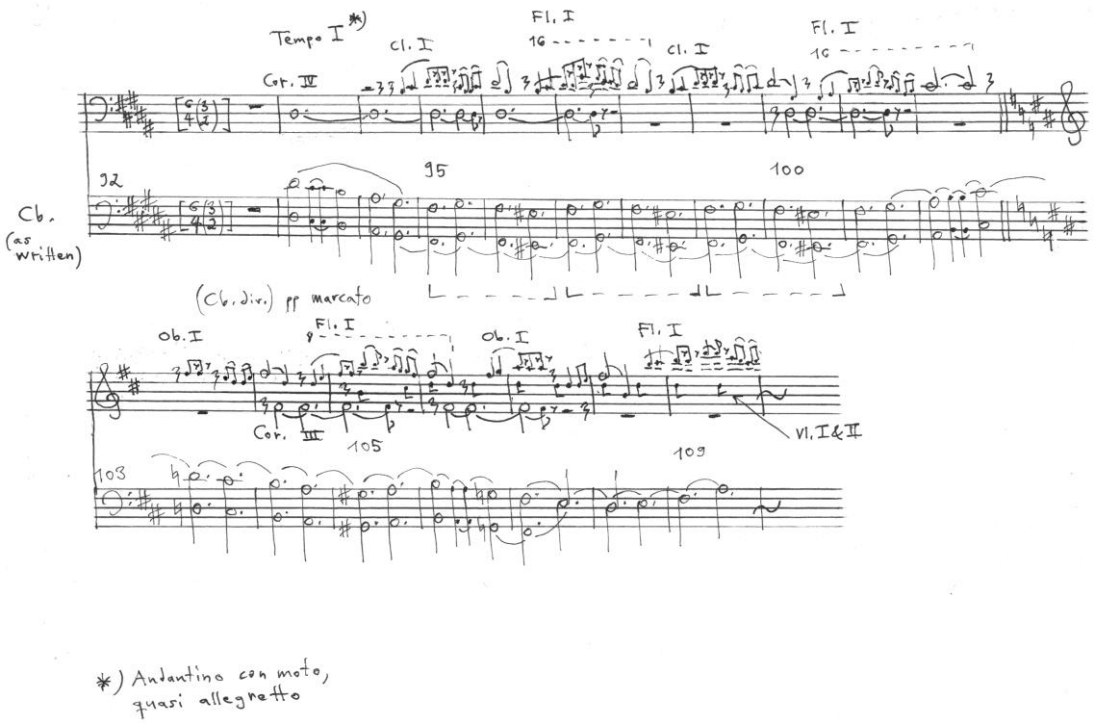
In Fig. 8.1.1–3 there is a changing part (Cb. div.) that undergoes ensuing de-activation and activation. Firstly, below the dominant pedal point D sharp (Cor. III, IV) it functions as the bass line in soprano-bass *Satz* (in bars 93–94). Then it is de-activated into a tardy line-like ostinato (bars 95–100). Furthermore during bars 95–101 the pedal point D sharp ceases and re-enters irrespective of other components. This quantitative texture modulation decides whether the ostinato takes part in line-pedal *Satz* (5.1) or in line-tardy line *Satz* (see chapter 5.1.1).

The ostinato is again activated into the bass line (bars 101–102) in soprano-bass *Satz*. From bar 103 the tonal centre changes from G sharp to B. In bars 104–105 there is line-pedal *Satz* with a dominant pedal point F sharp. Thus in bars 103–104 there was a quantitative texture modulation (as well as a qualitative one; from a traditional to a Sibelian type of *Satz*). In bar 105 a changing component enters, tardy line → pedal point (see Fig. 8.1.1–2b). This second pedal point, the mediant D, occurs as a deep level

component that in the surface level is included in the string figuration in bars 106–110. In this figuration, using patterns of six quavers, the D's occur on the strong beats and are furthermore accented. This causes a qualitative texture modulation (see section 8.1), because the changing part does not enter as a surface level component; in this latter case the texture modulation would have been quantitative. In bars 107–108 the dominant pedal point F sharp ceases (again a quantitative texture modulation). Yet in bars 106–110 the lowest component continues as the lowermost tardy line in line-pedal *Satz*.

The tonal quality of this passage is examined separately later (see Fig. 11.5–2 [op. 52:II:93–102]).

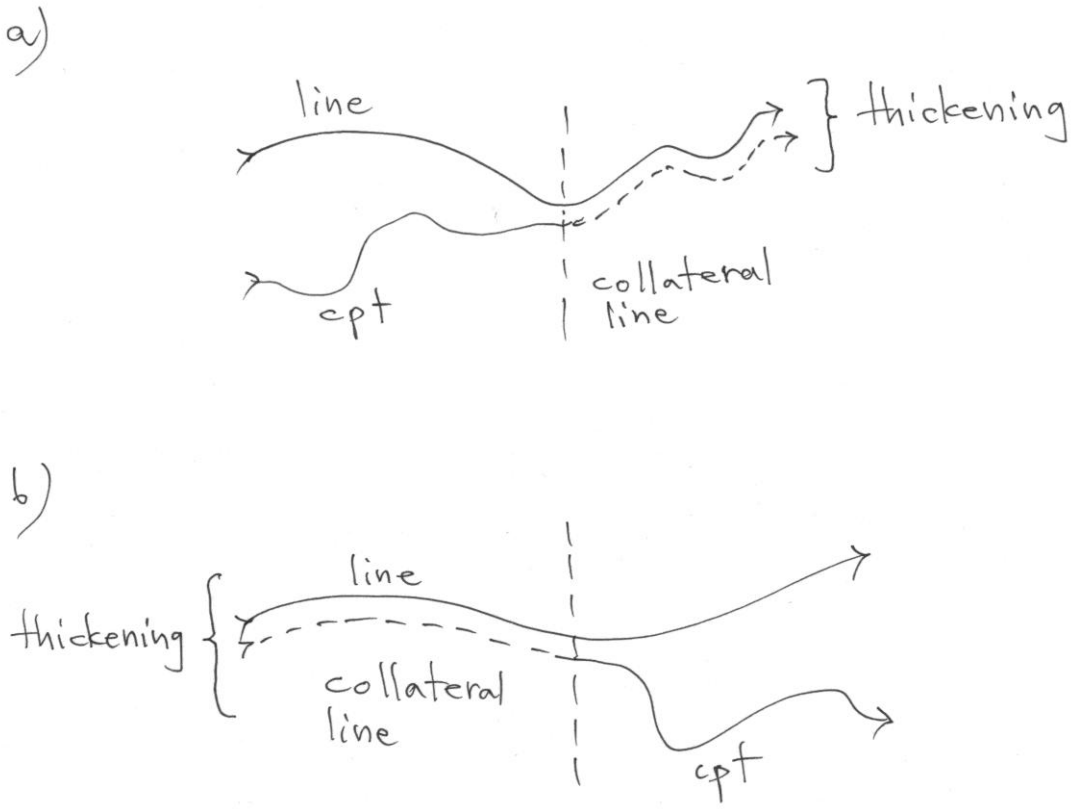
Fig. 8.1.1–3. De-activation and activation in the lowest part. Third Symphony op. 52 (1907) 2. mvt. bars 92–109.



8.1.2 TEXTURE MODULATION IN THICKENINGS

Texture modulation in the domain of the same type of *Satz* may take place in even smaller details; in thickenings. In quantitative texture modulation the number of collateral lines is either decreased or increased. In qualitative texture modulation a counterpoint (i.e. an accompanying line) is de-activated into a collateral line (Fig. 8.1.2–1a). In the reverse change a collateral line is activated to a counterpoint (Fig. 8.1.2–1b).

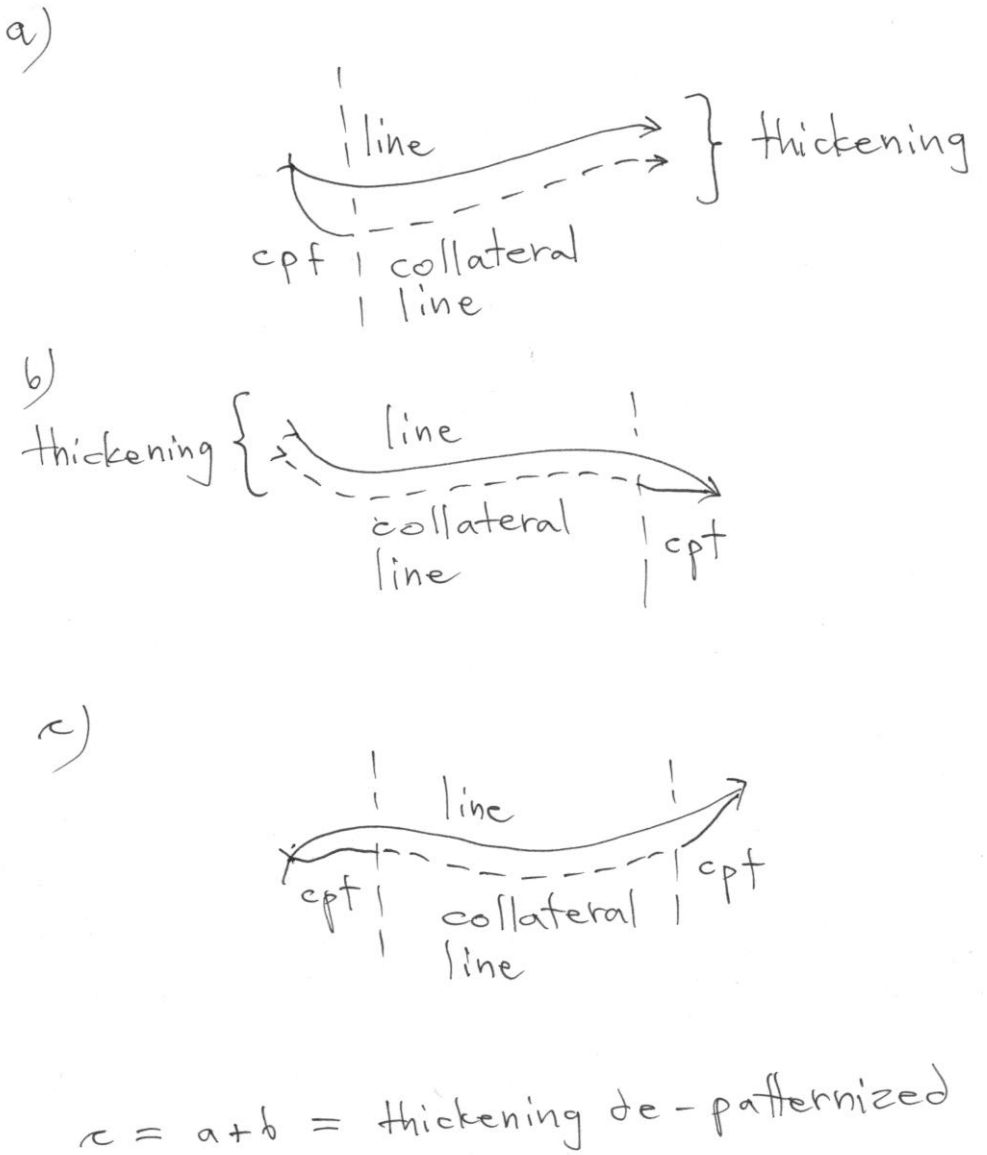
Fig. 8.1.2–1 a–b. A counterpoint de-activated into a collateral line a) and a collateral line activated into a counterpoint b).



De-activation may be used at the beginning of an intervallic thickening. After the commencing unison the lines and counterpoint then proceed in contrary or in oblique motion to the interval of a third (or to some other thickening interval). Then they continue as line and collateral line (Fig. 8.1.2–2a). At the end of a thickening activation may occur. The line and collateral line now turn to line and counterpoint that by contrary or by oblique motions proceed to unison (Fig. 8.1.2–2b). A thickening that in this way both begins and ends with unison, may be considered *de-patternized* (Fig. 8.1.2–2c; see chapter 10.1).

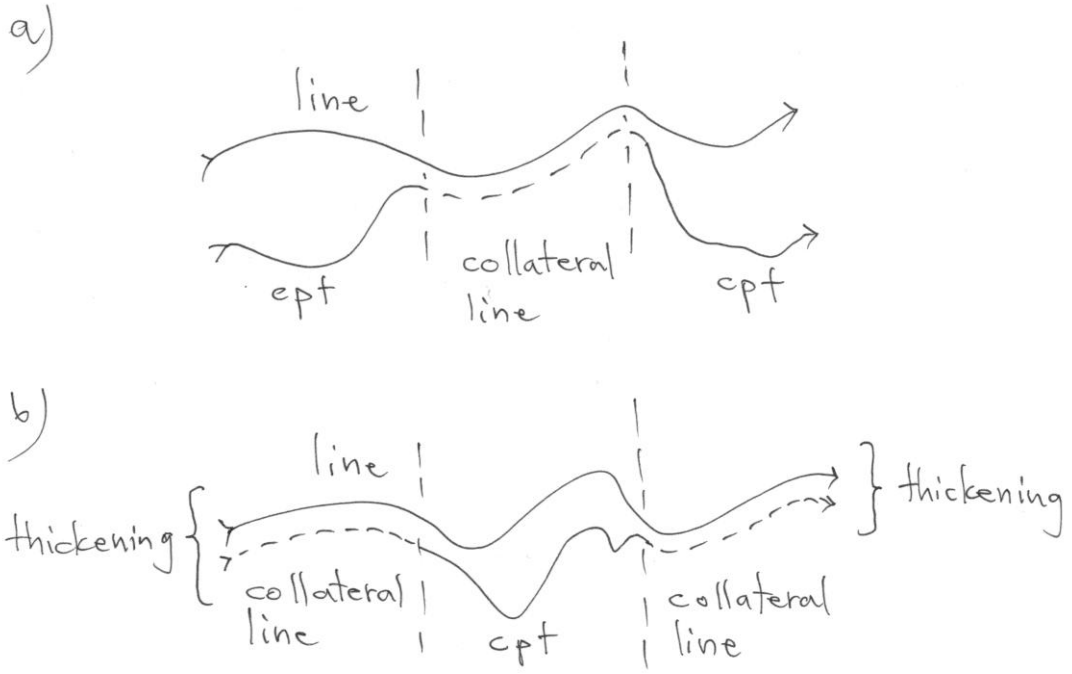
Another way to obtain the effect of unison at the beginning or at the end of a thickening is to use a rest in the collateral line. A unison with the line or a rest may also be used in the middle of a collateral line in order to avoid an unwanted tone that would result from parallel motion.

Fig. 8.1.2–2 a–c. De-activation and activation at the beginning and at the end of a thickening.



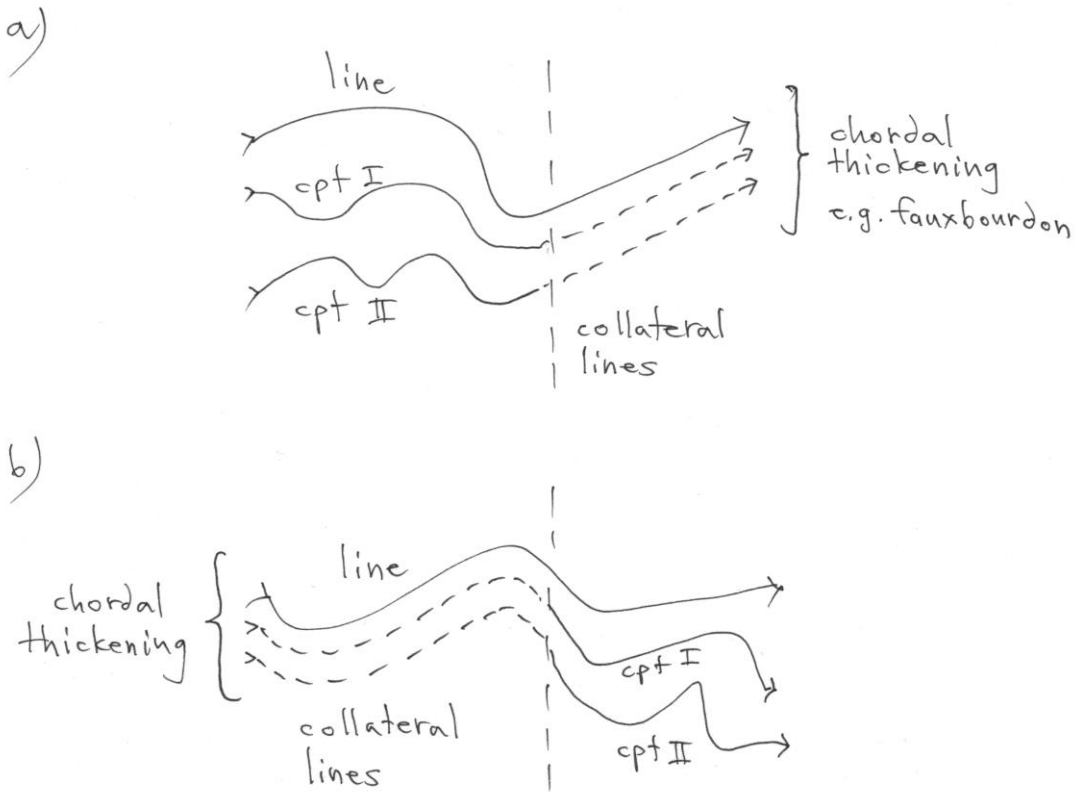
De-activation into a collateral line and activation away from it to a counterpoint need not be limited to de-patternized thickenings. Thus between two components there may be the sequences line and counterpoint → thickening → line and counterpoint (Fig. 8.1.2–3a), or thickening → line and counterpoint → thickening (Fig. 8.1.2–3b).

Fig. 8.1.2–3 a–b. Sequences of de-activation and activation.



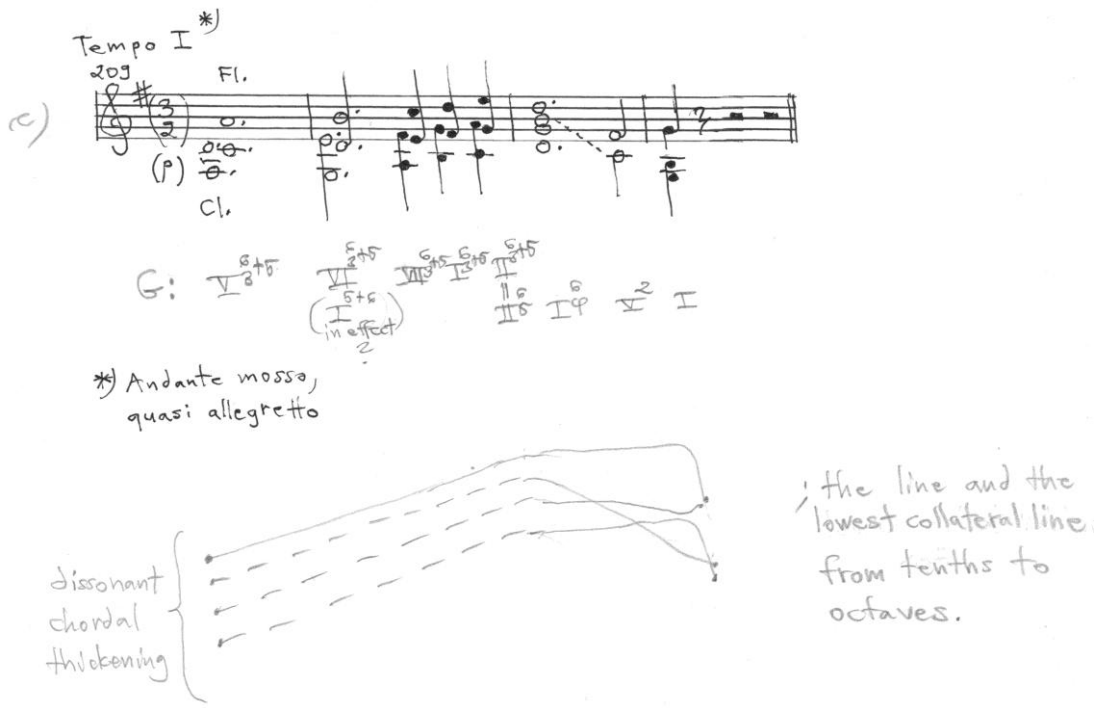
These kinds of textural change may be multiplied. In multiplied de-activation there are e.g. three lines two of which turn into collateral lines of a *fauxbourdon* (Fig. 8.1.2–4a). Even separate layers of a sum-chord may become collateral lines of a dissonant thickening (see Fig. 9.2–1 [op. 63:IV:138–162]). In the reverse device of activation the collateral lines of a chordal thickening turn into lines (Fig. 8.1.2–4b).

Fig. 8.1.2–4 a–b. De-activation and activation multiplied.



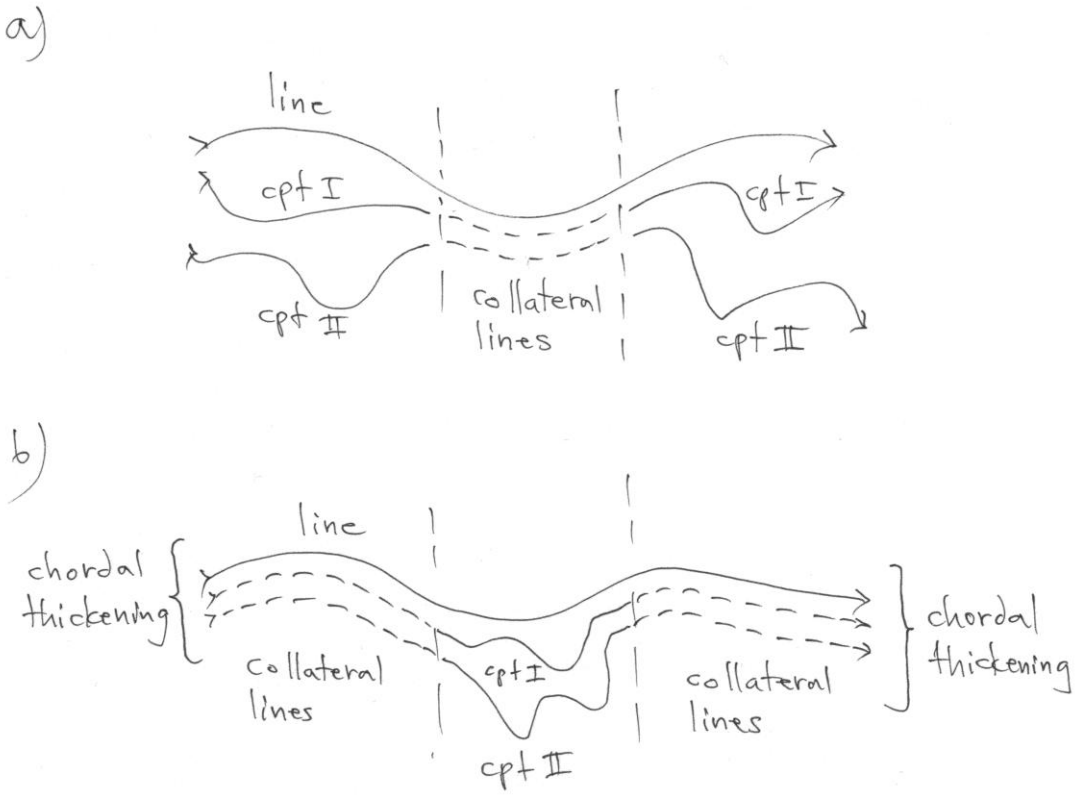
In terms of dissonance treatment a sum-chord in a parallel motion (see chapter 7.1.2) is considered a chord that is then resolved (Fig. 8.1.2–4c [op. 82:II:209–212]) – or released (see also section 8.2.2).

Fig. 8.1.2–4c. Collateral lines of a dissonant thickening activate to four-part writing. Fifth Symphony op. 82 (1915/1916/1919) 2. mvt. bars 209–212.



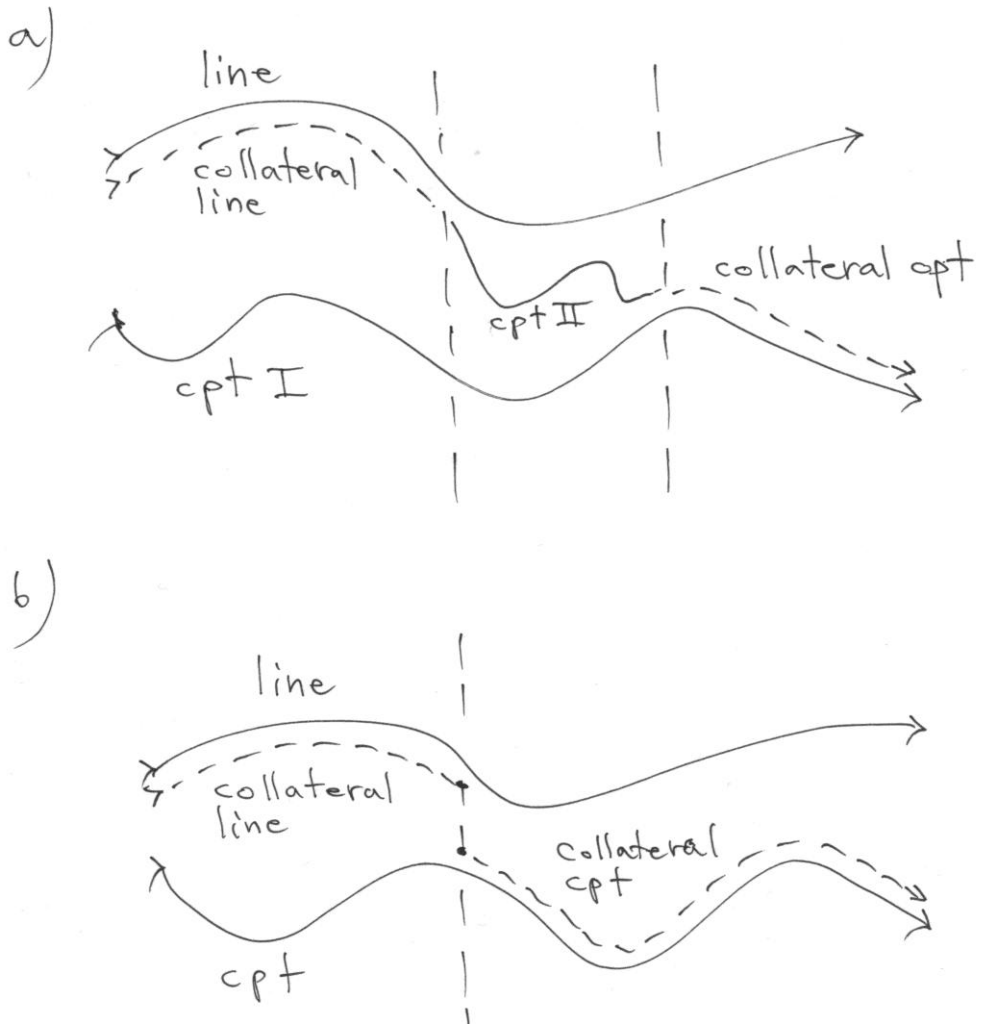
Also, in multiplying the reverse devices may follow each other (Figs. 8.1.2–5a, –5b). These kinds of combination may take place between successive phrases or incises.

Fig. 8.1.2–5 a–b. Sequences of multiplied de-activation and activation.



Between more than two components a collateral line may not always be connected with the same line. Thus in a sequence of line with collateral line → three-part counterpoint → counterpoint with collateral line, the collateral line changes like a servant his master turning from a collateral line to a collateral counterpoint (Fig. 8.1.2–6a). The change is the most minute when it happens immediately (Fig. 8.1.2–6b). In an immediate device there is no three-part *Satz*.

Fig. 8.1.2–6 a–b. A collateral line not permanently connected with the same line.

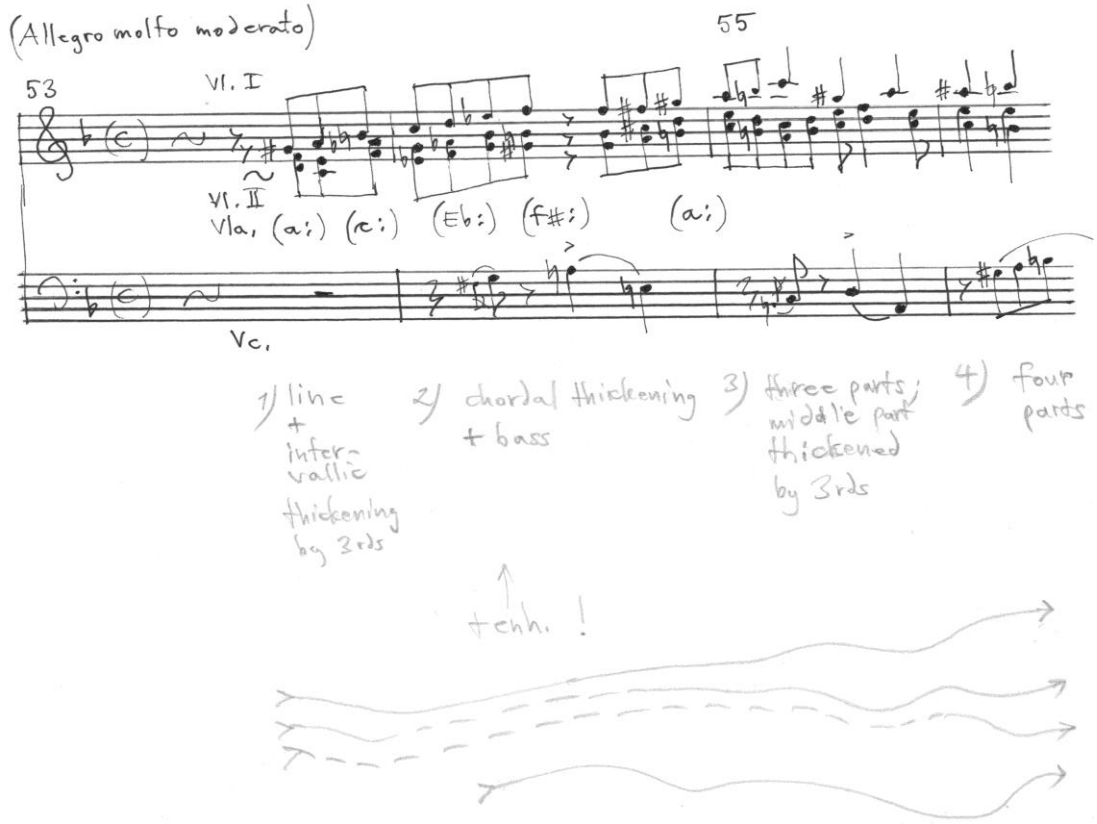


In the above cases of qualitative texture modulation there was always a line that remained as such. It is also possible that besides a line, at least one of its collateral lines also remains intact. In these cases thickenings grow thicker or thinner.

Thus a line and an intervallic thickening may *converge* into *fauxbourdon* (Fig. 8.1.2–7 [op. 56:I:53–54]), or *fauxbourdon* and a line may converge into a dissonant thickening. Also two intervallic thickenings may converge into a chordal thickening. In the reverse process a chordal thickening may *diverge* into an intervallic thickening and a line (Fig. 8.1.2–7 [op. 56:I:54–55]; in bars 55–56 these activate into the three topmost lines in four-part writing; cf. Fig. 8.1.2–1b). Respectively a dissonant thickening may diverge into a *fauxbourdon* and line. Moreover, a chordal thickening may diverge into two intervallic thickenings.

These dense textural changes take place in a *Satz* that is harmonically uniform: a-, c-, E flat-, and f sharp-rooted sixth chords gather into axial tonality by minor thirds. Every one of them as "tonics" is preceded by a VII6 in their respective keys.

Fig. 8.1.2–7. Successive devices of qualitative texture modulation. *Voces intimae* op. 56 (1909) 1. mvt. bars 53–56.



8.2 CONSECUTIVE MOTIONS BEFORE SIBELIUS

Textural change of hierarchy in thickenings, which was dealt with above, brings forth the question on consecutive motions in voice-leading. In traditional voice-leading, consecutive octaves and fifths were forbidden. This was done in order to attain independence between the parts. Consecutive fifths, not to mention consecutive octaves, would sub-ordinate one voice to another.

In music, however, consecutive motions were never totally absent. In the Baroque era consecutive fifths could be used for poetic purposes. This poetic practice also continued after Baroque music.[285] One of its manifestations was

[285] See Piston 1978:287 (Ex. 18–22; Verdi).

using consecutive fifths to introduce a rustic flavour.[286] Besides poetic function, consecutive motions also had structural functions. Consecutive fifths as well as octaves that were not used inside a phrase or incise served as musical articulation when they were deliberately used between phrases or incises.[287]

In the nineteenth century there was the tendency to accept consecutive motions inside a phrase as well. The very Ideology of Romanticism (as Jean Paul put it: "Romanticism is beauty without bounds…") contributed to this tendency.[288] In this respect of voice-leading Wagner was a turning-point. He deliberately used consecutive fifths in the manner that in the previous music (e.g. that of Beethoven) was exceptional. Consecutive fifths in Wagner's scores may be classified into various groups. Some of these are based on previous practice, such as consecutive fifths between an augmented sixth chord and the ensuing triad.[289] In *Satz* containing more than four parts, consecutive fifths do not disturb even the most sensitive ear and they help to find contrapuntal paths not used by other instruments.[290] Yet Wagner also employs consecutive fifths in rhythmically uniform four-part writing that

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[286] See Piston 1978:287–288.

[287] Consecutive octaves and fifths between phrases articulating two-reprise form: Chopin: *Grande polonaise brillante* op. 22 (1836) bars 69–70 (in bars 67–72 and 73–84 there are the two reprises of a two-reprise form in G major. In this AABB1AA1 there are no repetition signs and all the phrases are three bars long. The following bars 85-96 include the written repetition of the reprise II, i.e. BB1AA1. Between the first phrase and its repetition – AA – there occur consecutive octaves between the framing parts and consecutive fifths between the bass and tenor parts. See also bars 81–82 and 93–94 of the reprise II), 72–73 (between the last phrase of reprise I and the first phrase of reprise II – AB – consecutive fifths occur between the bass and tenor. See also bars 84–85).

[288] Jean Paul cited from Strunk 1981 V:6. This thought may be regarded as the core of the Ideology of Romanticism.

[289] Consecutive fifths in multipart *Satz* between an augmented sixth chord and the following triad (+/o – o/o): Overture to *Parsifal* (1877–1882) bars 29–30 (Ob., Cor. I, Tr. I, Vl. Ib, Vl. IIb/Cor. II: c2/f1 – b1/e1; between a melody and an inner voice. In the progression: F-rooted minor seventh chord in the 3rd inversion – E-rooted minor triad the written minor seventh is treated as an augmented sixth).

[290] Consecutive fifths in five-part *Satz* between a passing tone/chord factor and chord factor/chord factor (+/o – o/o): Overture to Parsifal (1877–1882) bar 76 (Cl. III, Fag. I/Cor. IV: c1/f – b flat/e flat; inner parts in A flat: II7–V7).

Consecutive fifths in multipart *Satz* between a passing tone/chord factor and chord factor/chord factor (+/o – o/o): Overture to Parsifal (1877–1882) bars 98–99 (Cl. II, Cor. I, Vl. IIa/Trbn. III, Vc., Cb: e1 flat/A flat – d1/G; an inner part and bass. The passing tone causes c: VI–V).

Consecutive fifths in five-part *Satz* between a passing six-four chord and sixth chord (o/+ – o/o): Overture to Parsifal (1877–1882) bar 75 (Fl., Ob. I, II/Ob. III, Cl. I; d2 flat/g flat – e2 flat/a1 flat; between A flat: IV and I6).

Consecutive fifths in multipart *Satz* between chord factors of root-position triads (o/o – o/o): Overture to Parsifal (1877–1882) bar 51 (Fag. I/Fag. II: a/d – c1 sharp/f sharp; in D–f sharp).

contains the simplest harmonies,[291] even successive root-position triads.[292] In these cases avoiding consecutive fifths would have posed no problem. This practice of Wagner had its effect on his followers. Yet not all Wagnerian and post-Wagnerian use of consecutive motions should be considered a new idiom, but rather an extension of the traditional vocabulary.[293] In general, only after the Romantic era did consecutive fifths appear as a feature of a new, self-consistent style.

8.2.1 CONSECUTIVE OCTAVES AND FIFTHS

In this study consecutive fifths and thickening by fifths is demarcated in terms of consistency. Two intervals of a fifth in succession are considered consecutive motion, while at least three or more of them in succession (as is the case in a thickening of root-position triads; see chapter 5.1) is considered parallel motion (see Fig. 10.4.1–1 [op. 104:II:160–162]).

In the traditional *fauxbourdon* the upper parts proceed in parallel fourths. Sibelius sometimes favours open position in *fauxbourdon* where the upper parts proceed in parallel fifths (see Fig. 5.1.3–1 [op. 63:IV:179–209], Fig. 5.1.3–5 [op. 34:VIII:1–3]). In this kind of *fauxbourdon* an intervallic thickening is included in a chordal thickening.

In his soprano-bass *Satz* Sibelius uses consecutive fifths both between phrases and in them (see Fig. 8.5.3–1 [op. 12:II:51–76], Fig. 10.4.1–1 [op. 104:II:162]), though less than Wagner (see section 8.2).[294]

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[291] Consecutive fifths in four-part writing between chord factors (o/o – o/o): Parsifal (1877–1882) Act I bars 147–148 (Vle./Vc.: f/B flat – g/C; in F: II six-five–V7).

[292] Consecutive fifths in four-part writing between root-position triads (o/o – o/o): Lohengrin (1845–1848) Prelude to Act I bars 74–75 (Vl. soli III/IV: a2/d2 – e2/a1; in A: IV–I), Overture to Parsifal (1877–1882) bar 60 (Fl. II, Ob. II, Cl. II/C. ing., Cor. I: e2 flat/a1 flat – g2 flat/c2 flat; in a flat–C flat), 63 (Vl. II/Vc.: f1/b flat – a1 flat/d1 flat; in b flat–D flat), Act I bars 452–453 (Trbn. III/Tba.: e flat/A flat – B flat/E flat – C flat/F flat; in C flat: VI–III–IV), 453 (Trbn. I/Tba.: c1 flat/F flat – G flat/C1 flat; in C flat: IV–I. The song and horn parts in bars 452–453 are heterophonic).

[293] Cf. Piston 1978:288 (Ex. 18–25; Mahler).

[294] According to Cherniavsky 1975:173 "In the opening movement of his Sixth Symphony, the second theme (Ex. 31) is accompanied by a harmonic progression of three consecutive triads, descending step by step in root position; otherwise Sibelius does not use consecutive fifths …". Sibelius indeed does also use consecutive fifths elsewhere; see e.g. Andantino op. 24 no. 7 (1899) bars 37–38. See also Fig. 7.2.1–2 [op. 39:I:108–111]. In op. 104:I:67–71 there is "a harmonic progression of three consecutive triads, descending step by step in root position" in the Harp part and in the string parts. Yet Cherniavsky has not taken into consideration the Clarinet part (in B flat) that below them in op. 104:I:68–69 and 70–71 also introduces the sevenths B flat and A flat to the C- and B flat-rooted triads. These added-root seventh chords in the 3rd inversion – amongst the above-mentioned triads – make the progression sequential.

In Sibelian types of *Satz* (see chapter 5.1.2) consecutive fifths and octaves may take place between line and tardy line, or between collateral line and tardy line. These components are rhythmically and melodically so distinct that any consecutive motions between them do not take away their identity or disturb their individuality (see Fig. 8.5.4–2 [op. 82:I:81–90]). It has already been noted in the case of dissonance treatment how the releasing motions were essential in preserving the shape of the components (see Fig. 5.3–1). In consonant situations, consecutive motions allow the components to freely utilize the same *contrapuntal paths* without need of altering their shape.

Between components, melodically and rhythmically similar consecutive motions may take place between different layers, whereas each layer as such is correct with regard to the traditional norms of voice-leading (see Fig. 7.1.1–1 [op. 49:160–161]).

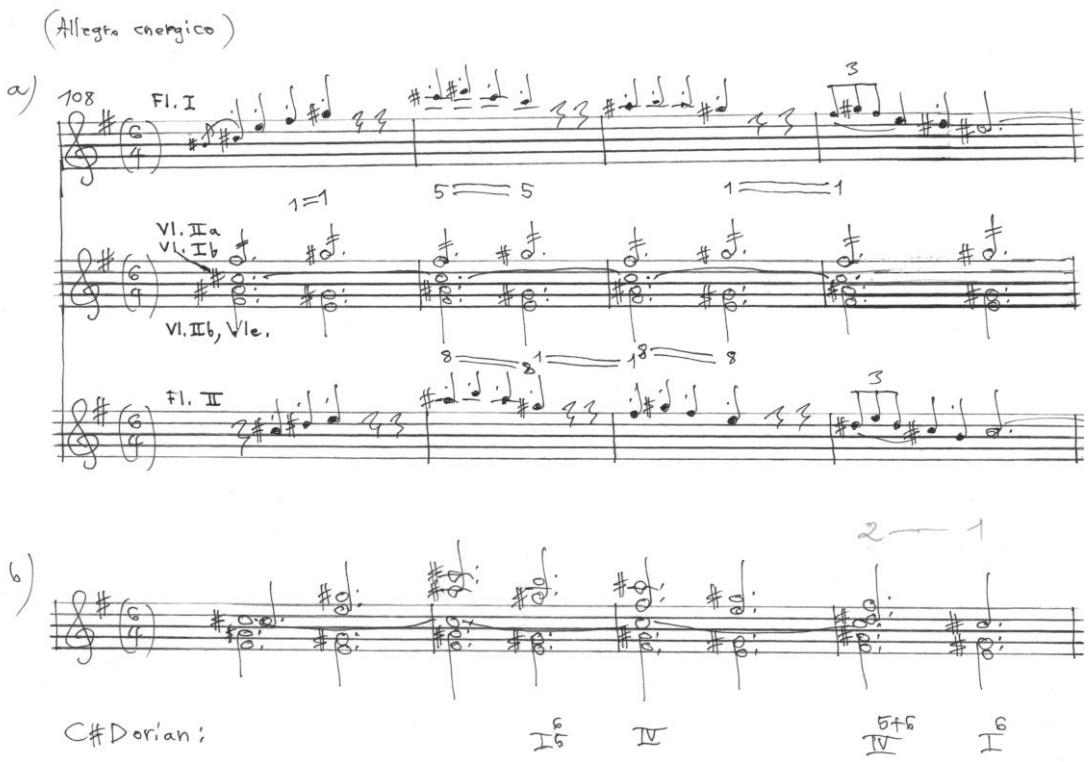
In Fig. 8.2.1–1a in bars 108–111 there is a thickened line (Fl.) that in line-pedal *Satz* (see chapter 5.1) proceeds against two undulating tardy lines (Vl. IIa), the lower one of which is thickened by thirds (Vl. IIb, Vle. div.). Locally these components establish an alternation C sharp Dorian: IV–I6.[295] During its course the line (Fl. I) forms consecutive unisons between the upper plain tardy line (Vl. IIa) in bar 108 and in bars 110–111, consecutive octaves between the lower tardy line (Vl. IIb, Vle. I) in bar 110, as well as consecutive fifths between the collateral tardy line (Vle. II) in bar 109. The collateral line of the thickening (Fl. II) forms consecutive octaves between the lower tardy line in bar 109, consecutive unisons between the upper plain tardy line in bars 109–110, and consecutive octaves between the collateral tardy line in bar 110.

Taking into consideration the number of these 'violations against the rules of voice-leading', and also the fact that Sibelius had studied the subject for several years, it is dubitable that these consecutive motions are 'mistakes'. It seems as if in line-pedal *Satz* the components are individually thought in relation to the pedal point and not to each other.

In the level of reduction the thickened line appears as a thickened tardy line that – in the octave-register used by the harp (here eliminated) – proceeds through the undulating one. Irrespective of octave-registers in this process *fusion* and *division* are combined (Fig. 8.2.1–1b). Regarding dissonance treatment in bars 109–110 there is a six-five chord resolved (C sharp Dorian: I six-five–IV) and in bar 11 an added-sixth triad released (C sharp Dorian: IV5+6 – I6) by motion 2–1 (cf. Fig. 5.3–2a).

[295] According to Normet 1965:55 "It is difficult to say, whether [C sharp] Dorian or [F sharp] Mixolydian prevails here. The F sharp major chord lays stress on Mixolydian, but the *staccato*-theme of the flutes bears a likeness to Dorian." [J. A.]

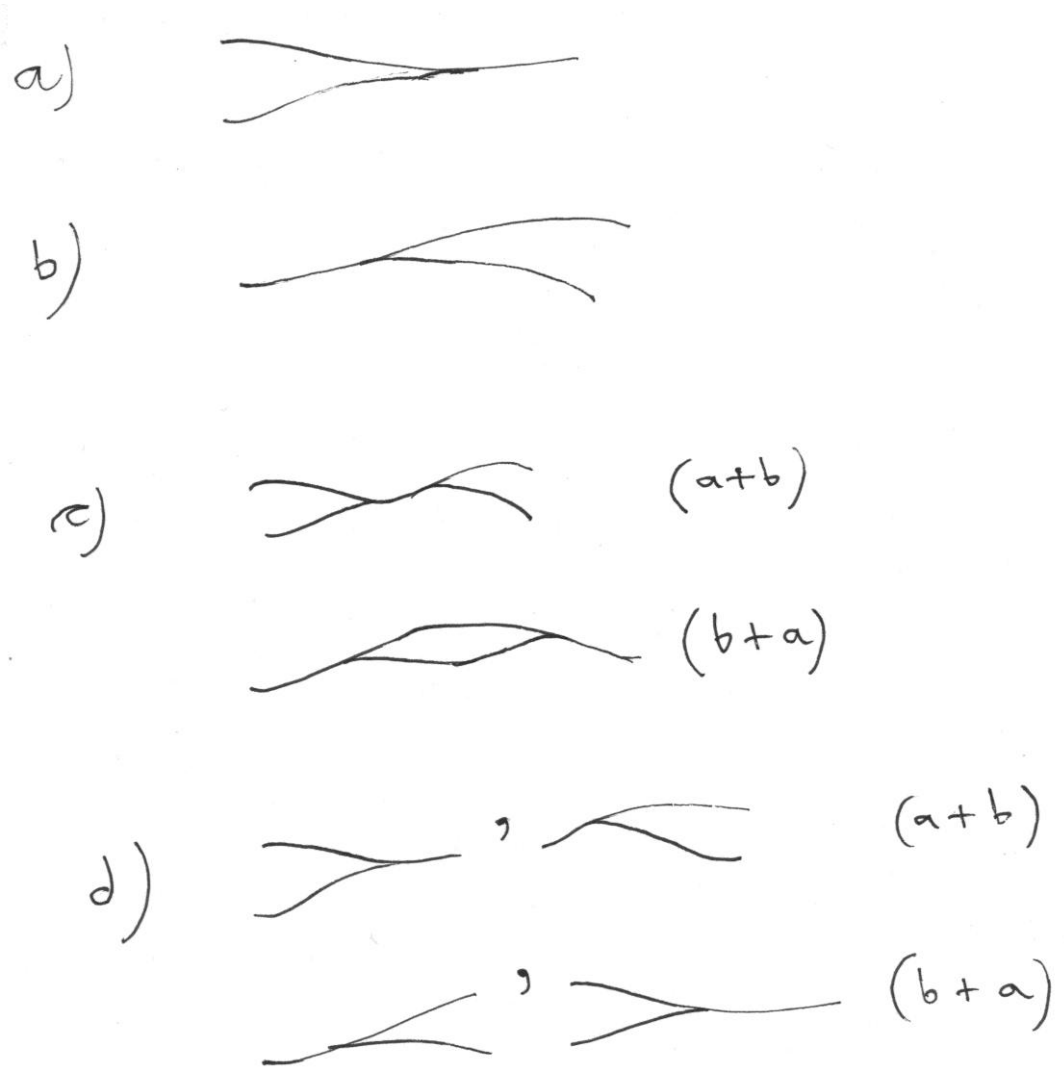
Fig. 8.2.1–1 a–b. Consecutive fifths and octaves not avoided in Sibelian *Satz*. First Symphony op. 39 (1899/1900) 1. mvt. bars 108–111.



8.2.2 FUSION AND DIVISION

Besides instances between different components, in Sibelian types of *Satz* (see chapter 5.1.2) consecutive unisons or octaves may also take place between changing parts (see Fig. 8.1.2–4c [op. 82:II:209–212]) and similar components (plain or thickened; see Fig. 8.2.1–1b [op. 39:I:108–111]). Consecutive unisons or octaves between components appear to be *fusion* (two components fuse into a doubling of another of them; Fig. 8.2.2–1a). Correspondingly departing from consecutive unisons or octaves appear to be *division* (a doubling of a component divides into two components; Fig. 8.2.2–1b). Combined devices (fusion + division, or division + fusion) may occur either during a phrase or incise (Fig. 8.2.2–1c), or between them (Fig. 8.2.2–1d).

Fig. 8.2.2–1 a–d. Fusion and division between lines.



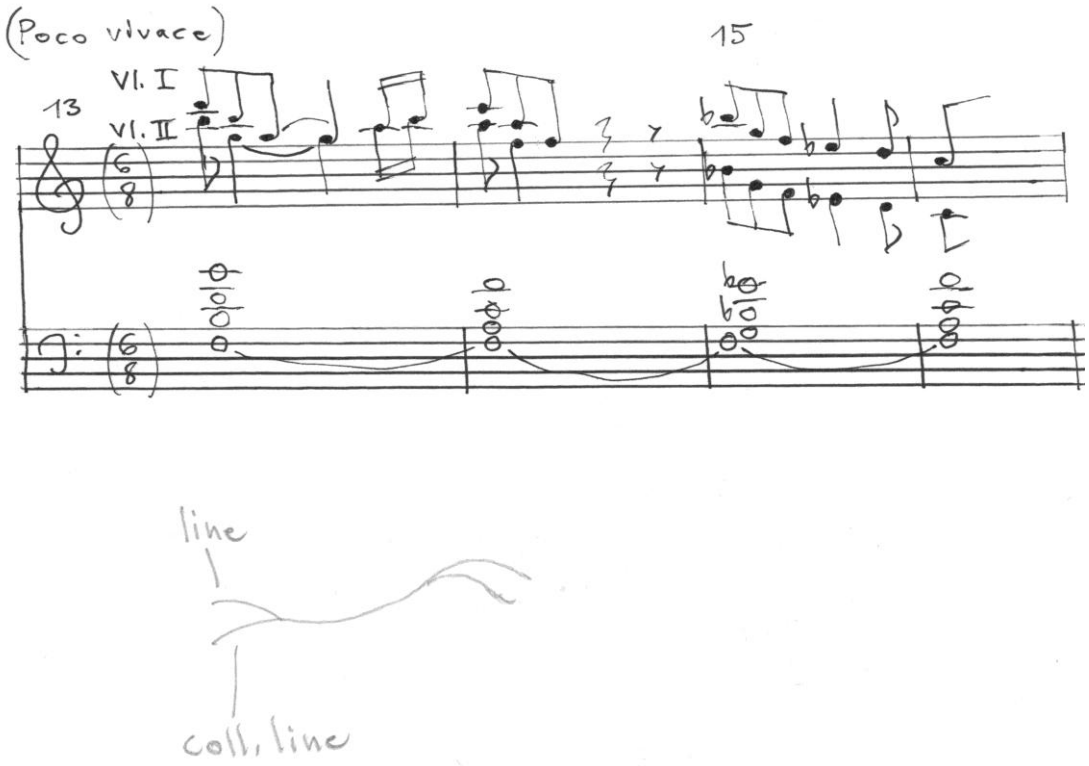
Even before Sibelius division was used in obtaining more parts for *Satz* in climactic passages. Contrariwise fusion was used in connection with a diminuendo. Yet in the domain of traditional *Satzlehre* consecutive unisons or octaves were forbidden. This prohibition prevents the different components from using similar melodic motions simultaneously. This keeps the parts out of each other's way and ensures their independent profile. Thus in music before Sibelius fusion and division were not tools for four-part writing, but for designing its orchestration.

With Sibelius there is none of this kind of hierarchy. In Sibelian *Satz* fusion and division may take place even between the most crucial parts (see

e.g. op. 49:7–8). This often makes it difficult to decide the number of parts, because in fusion and division it keeps changing. Thus in the music of Sibelius consecutive motions and fusion are the two sides of the same coin. In *Satz* where these are bound to occur, the same *contrapuntal path* is opened for more than one part. As result of this the separate parts are not totally independent, but are also – more or less – different versions of each other. By means of fusion of an assisting bass and bass a three-voice framework (see chapter 4.3) may lead to a two-voice framework (see Fig. 8.5.2–1 [op. 9:30–49]). By means of division the opposite process is possible.

In Fig. 8.2.2–2 there is fusion and division between the line and the collateral line. The harmonic dimension and dissonance treatment of this passage has already been dealt with (see Fig. 5.5–4 [op. 104:III:13–16]). In bar 13 a collateral line (Fl. II, Vl. II) fuses into the line (Fl. I, Vl. I) in unison. Then in bars 13–14 there is division into line and collateral line. In bar 14 the line and collateral line meet in unison. This does not mean a fusion again, but only counterpoint between line and collateral line (cf. Fig. 8.1.2–2b). All these devices are conducted in order to accommodate the thickened line to the harmonies (cf. chapter 5.1). After the rest the following incise in bars 15–16 does not result from fusion. It is merely an orchestral doubling in octaves.

Fig. 8.2.2–2. Fusion and division between a line and a collateral line. Sixth Symphony op. 104 (1923) 3. mvt. bars 13–16.

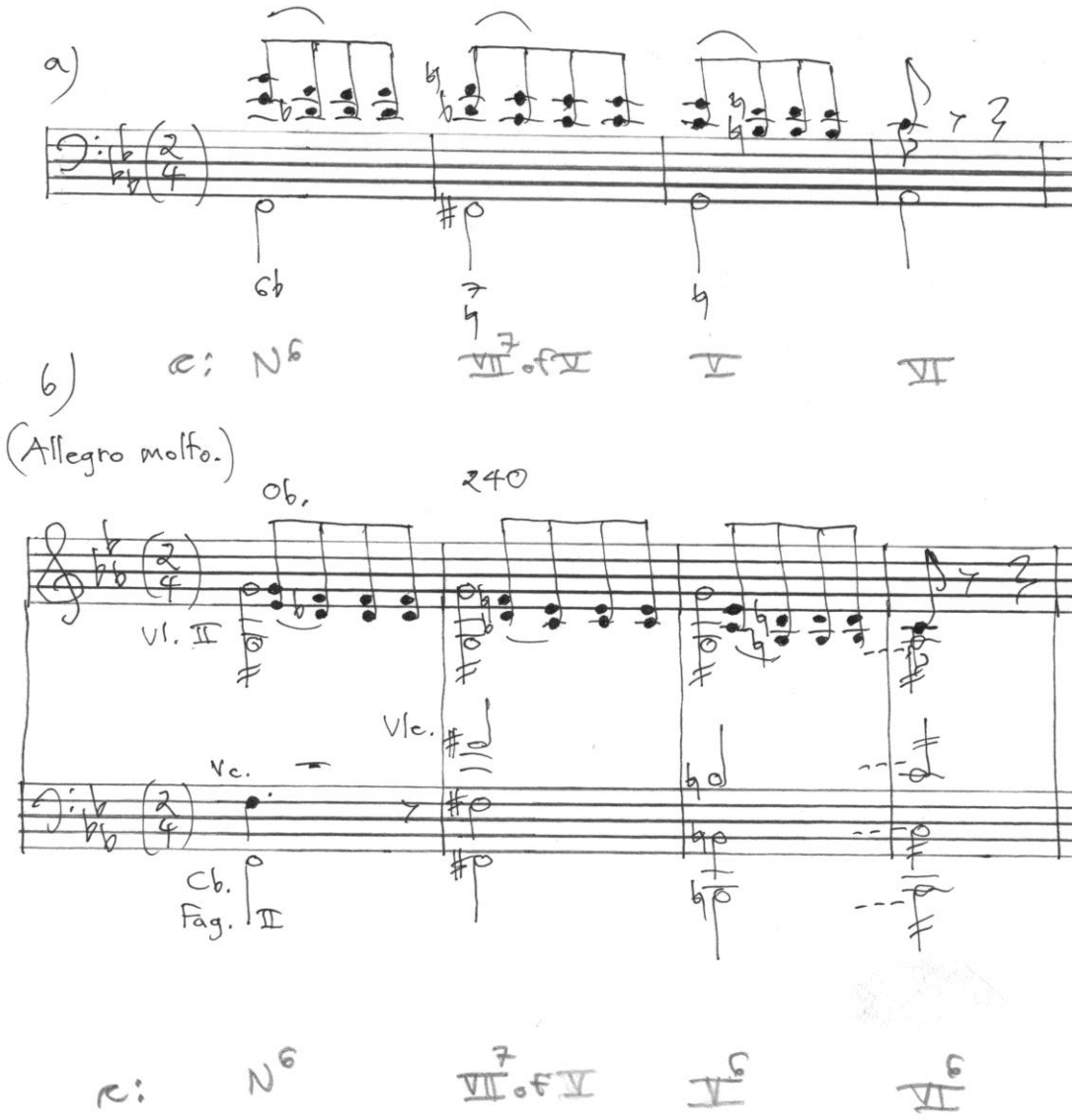


In Fig. 8.2.2–3 a collateral line of the melody fuses into the bass line. This takes place in a deceptive cadence in C minor in a two-voice framework (see

chapter 4.3). The traditional bass motion according to the harmonies c: N6–VII7b of V–V–VI would have proceeded as F–F#–G–Ab (Fig. 8.2.2–3a). Yet the written bass part F–F#–B–C (Fag. II, Vle., Vc., Cb. II) modifies the harmonies into c: N6–VII7b of V–V6–VI6 (Fig. 8.2.2–3b). This modification, which may be considered a type of *de-patternization* (see chapter 10.1), does not affect dissonance treatment. Also, in the previous bars (221–238) a collateral line (Ob. II) has thickened the line (Ob. I) by thirds. Still in bar 241, at the cadential chord, the second oboe seems to thicken the line. Only at the moment of the caesura chord in bar 242 does it becomes obvious that in bars 241–242, between the cadential and caesura chords, the second oboe has doubled the bass line (b/B1–c1/C) and thus fused into it.

From the point of view of space it is noteworthy that in bar 240 – at the chord of preparation (see chapter 5.4.2) – the topmost octave-doubling of the bass line (Vle.) exceeds the thickened line (Ob. I, II). The bass part thus sporadically encloses the line.

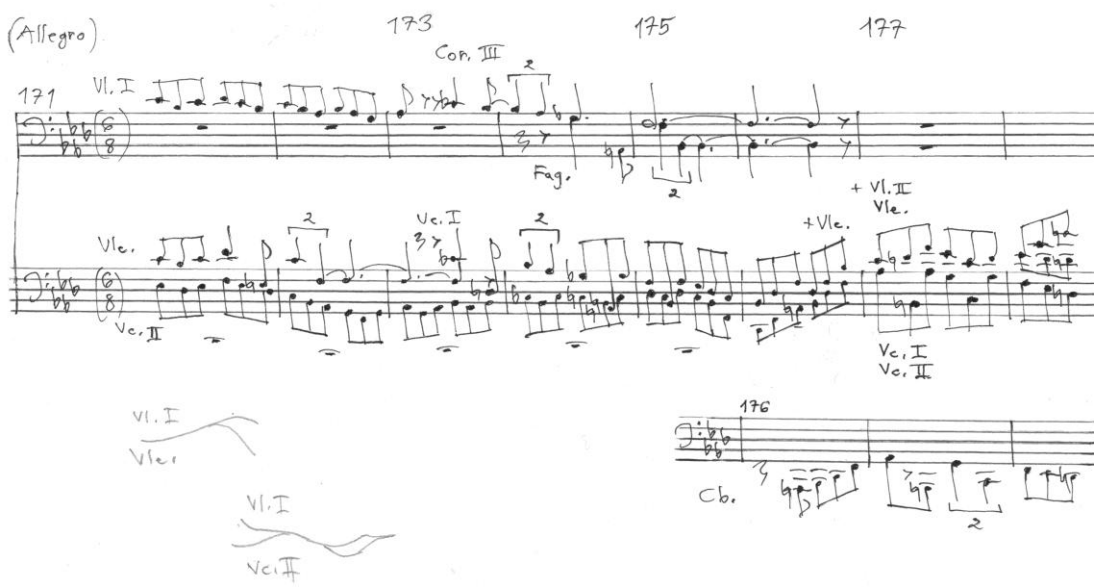
Fig. 8.2.2–3 a–b. Fusion between a collateral line and the bass line. Fifth Symphony op. 82 (1915/1916/1919) 3. mvt. bars 239–242.



8.3 FUSION AND DIVISION WITH HETEROPHONY

Heterophony may be combined with texture modulation (cf. chapter 8.1.2), as well as with division and fusion (cf. chapter 8.2.2). These combined devices continuously change the number of parts. Therefore in some passages written by Sibelius it is difficult to define the quality of *Satz*.

Fig. 8.3–1. Division and fusion of lines with heterophony. Third Symphony op. 52 (1907) 1. mvt. bars 171–177.



In Fig. 8.3–1 in bar 171 there is division, a part (Vl. I, Vle.) divides in two. At first in bars 171–172 these bars form an adjustment of contrapuntal heterophony (see section 7.6). The same device also takes place in bars 176–177 between Vc. I and Vle. At the same moment in bars 176–177 there is also fusion between Vc. I and Vc. II. In this process the Vc. I cease to double the Vle. and begin to double the Vc. II.

In bars 171–173 there are two parts (Vl. I/Vc. II) that at first proceed by parallel sixths, then fuse and divide and fuse again. It could also be said that in bars 171–172 a line and a collateral line fuse into a line.

In bars 173–175 there is some imitation where a motive that emerged in bars 171–172 (in F minor), is presented in bars 173–174 in E flat minor (Vc. I) and in bars 174–175 in B flat minor (Fag.). In the version of the motive in bars 173–174 there is no falling fifth and instead of traditional counterpoint against the bassoon theme in B flat minor, in Vc. I a heterophonic version of the bassoon theme follows in bars 174–175. The horn part (Cor. III) in bars 173–175 is heterophonically related to both thematic entrances.

In bars 176–178 a line (Vc. II, Cb.) divides into a line (the motive in C minor) and its heterophonic version that then again fuses into the line.

8.3.1 CONTRAPUNTAL AND ORCHESTRAL HETEROPHONY

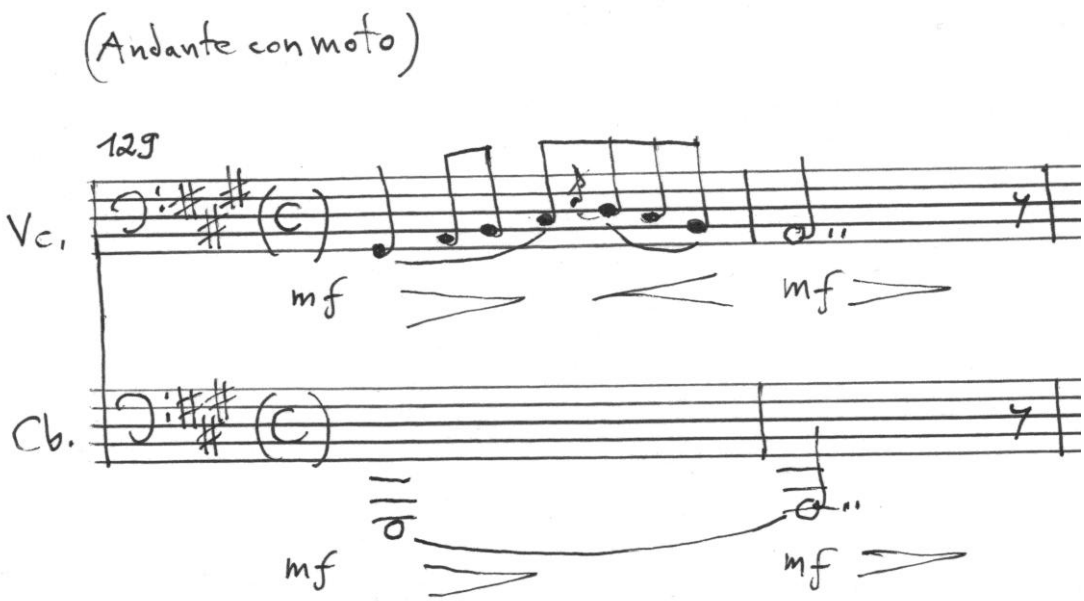
Both species, ornamental and non-ornamental (see chapter 7.6), are used in the domain of *contrapuntal heterophony*, as well as in the domain of orchestral artificial pedal effects, i.e. *orchestral heterophony*. How can contrapuntal heterophony be discerned from the orchestral one, especially

when both are spatially alike? In the music before Sibelius this was not a major problem, because heterophony was, so to speak, a by-product that was connected to a part in four-part writing. On the other hand, in Sibelian *Satz* even the most important components may be related heterophonically (see chapter 7.6).

Contrapuntal and orchestral ornamental heterophony can be discerned on the grounds of the relative rhythmic densities of the lines in the heterophonic adjustment. In most cases it is easy to make a distinction based on formal context, which of the lines in a heterophonic adjustment is intended to be heard as the *basic line* (in Fig. 7.6–1a the topmost line is the basic line).

When with the basic line a part occurs that is rhythmically denser and also melodically more furnished than the basic line, one is dealing with contrapuntal heterophony including the *basic* and *ornamental* lines (as in Fig. 7.6–1a where the lower part is the ornamental line). When a part occurs with the basic line (in Fig. 8.3.1–1 the basic line is the Vc. part) that is rhythmically not so dense and – in case of ornamental heterophony – melodically more sparse than the basic line, i.e. presents a *reduced version* of the basic line (as in Fig. 8.3.1–1 in the Cb. part), then one is dealing with orchestral heterophony including the *basic* and *reduced* lines.

Fig. 8.3.1–1. A reduced version of the basic line as orchestral heterophony. Second Symphony op. 43 (1901–1902) 2. mvt. bars 129–130.



Yet these two species of heterophony are not mutually exclusive. In a *Satz* where the tardy line is heterophonically related to the line, the tardy line inevitably functions as an artificial pedal for the ornamental line, yet also possesses a contrapuntal dimension of its own (see Fig. 7.6.1–1 [op. 82:III:439–442], see also Fig. 10.4.1–1 [op. 104:II:160–162]).

8.3.2 ARTIFICIAL PEDAL EFFECTS BY MEANS OF HETEROPHONY

Orchestral artificial pedal effects in the domain of orchestra fulfil the same function as the sustaining pedal on the pianoforte.[296] These effects may be created by means of various kinds of doubling. These repeated tones in the melody are connected to a single sustained tone in another part. This type of doubling presents a kind of sound-board for the melody. Orchestral artificial pedal effects may also be achieved by means of heterophony, either ornamental or non-ornamental.

The artificial pedal effects utilizing ornamental heterophony can be classified into three species according to the degree of reduction in the reduced version of the basic line. The reduced line may lack non-harmonic line tones (see Fig. 7.4.4–1 [op. 104:IV:130–131]), as well as some harmonic tones besides the non-harmonic tones, or even lack most of the harmonic tones of the line (see Fig. 8.3.1–1 [op. 43:II:129–130]). The above classification only serves the purposes of consistent execution. In music these various species may be used not merely in pure, but also in mixed form even in different parts of one and the same phrase.

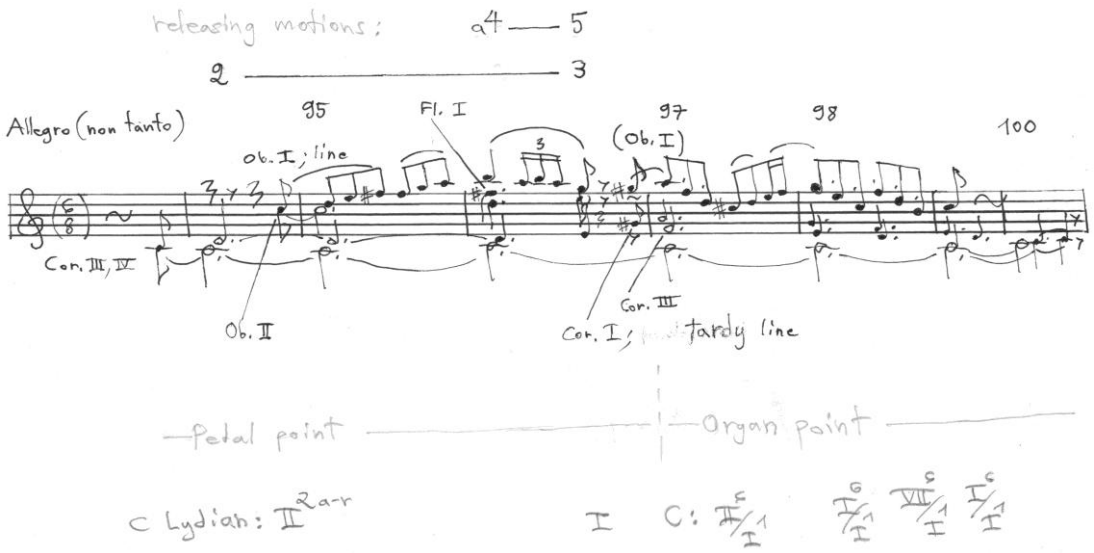
In Fig. 8.3.2–1 a line and tardy line are heterophonically related in bars 97–98. The tardy line (Cor. I) lacks most of the harmonic tones of the line (Ob. I). Below these components there stands sustained tonic tone C (Timp., Cor. IV), which firstly functions as a pedal point in bars 94–96 during the C Lydian mode (C Lydian: II2 added-root – I) and then as an organ point in bars 97–100 during C major in line-organ point *Satz* (see chapter 5.1.2). In the Lydian characteristic progression the releasing motions 2–3 (cf. Fig. 5.3–5a) and a4–5 (cf. Fig. 5.3.2–1e) take place in bar 96.

In bars 95–96 a changing part that begins as the doubling of the pedal point C (Ob. II, Cl. II) fuses into the tardy line (Cor. III). Another tardy line enters in bar 96 (Fl. I, II). In bars 96–97 it becomes doubled (Cor. I). This newly entered tardy line in bars 97–99 in the horn part forms a reduced line in a heterophonic adjustment for the melody (Ob. I). Both the tardy lines then fuse into the organ point (see chapter 8.2.2) and thus become changing parts (see chapter 8.1.1).

In this line-pedal *Satz* (see chapter 5.1.1) the tardy lines (Cor. III, Cor. I) in bars 97–99 are also doubled by some woodwinds (Fl. I&II, Ob. II) in rhythmically differentiated ways. These are left out here.

[296] Sibelius said to von Törne: "The orchestra, you see, is a huge and wonderful instrument that has got everything – except the pedal" (von Törne 1937:30).

Fig. 8.3.2–1. Ornamental heterophony as a means to an artificial pedal effect. Third Symphony op. 52 (1907) 3. mvt. bars 94–100.



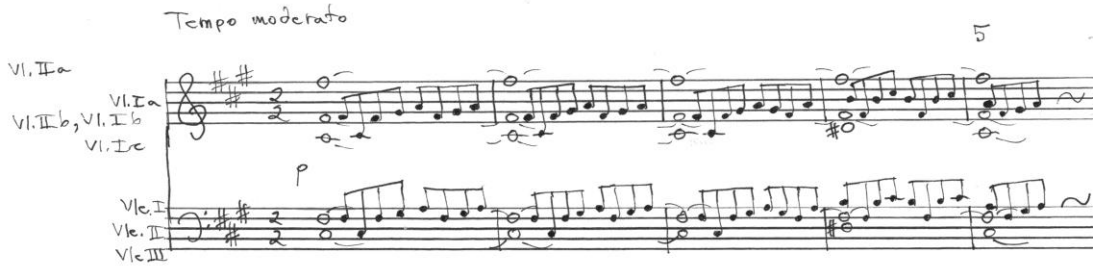
8.4 SIBELIAN *SATZ* IN MUSICAL SPACE

The above figure (Fig. 8.2.1–1a [op. 39:I:108–111]) as well as some other ones (see Fig. 5.1.1–1 [op. 25:I:13–20], Fig. 5.1.3–1 [op. 63:IV:179–209], Fig. 5.1.3–4 [op. 56:II:1–10], Fig. 5.7–1 [op. 52:I:60–67]) already illuminate the spatial quality of Sibelian *Satz* (see chapter 3.4). These same features will also be encountered later (see Fig. 11.9.1–1 [op. 82:I:274–298]). A spatial feature not hitherto specially focused on is *crossing of the parts*. This crossing may be either contrapuntal (see Fig. 8.5.7–1 [op. 112:105–144], Fig. 7.4.2–1 [op. 112:436–455]), or it may result from octave-doublings (see Fig. 8.2.2–3b [op. 82:III:239–242]). Below there is a special case that illuminates the spatial elbow-room of the components in Sibelian *Satz*.

In Fig. 8.4–1 there is a reduction of line-pedal *Satz* (see chapter 5.1). The line (Vl. Ia, Vle. I), pedal point (Vl. Ib, Vl. II, Vle. II) and tardy line (Vl. Ic, Vle. III) form F sharp Dorian: I six-four–IV6–I six-four chords. The tonic six-four chord that begins the composition and ends the phrase is used as a consonant six-four chord,[297] i.e. as a six-four chord not used as a suspension (cf. Fig. 8.5.2–1 [op. 9:48–49]). The line occupies two octave-registers, as does the tardy line (C#–D#–C#) that proceeds lowermost. The tonic pedal point that sounds topmost occupies three octave-registers, but yet does not frame the *Satz*. The vertical order of the components in this kind of doubling (from top to bottom) is p/l/p/tl/l/p/tl. The summary of it may be considered p/l/tl.

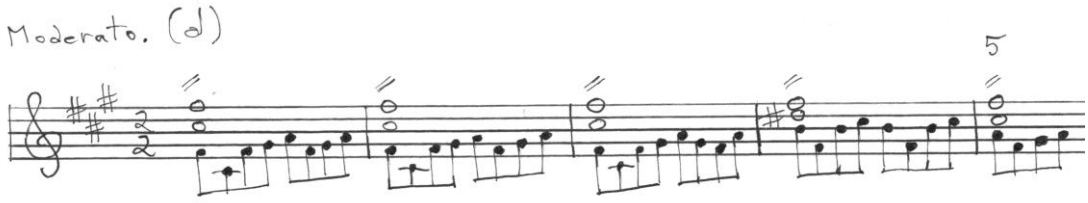
[297] See Kirnberger 1982 [1771]:71–75.

Fig. 8.4–1. The components of line-pedal *Satz* octave-doubled; the tardy line as the lowermost. *Luonnotar* op. 70 (1913) bars 1–5.



However, a reduction from the piano reduction later made by the composer shows another kind of spatial solution (Fig. 8.4–2). The same line-pedal *Satz* now encompasses a single octave-register. The vertical order of the components within it is p/tl/l. This renders the progression to F sharp Dorian: I–IV–I6. The tonic pedal point still sounds topmost, but the line now proceeds lowermost in the middle register. Technically the line, originally the melody, now functions as a bass theme (see chapter 3.4).

Fig. 8.4–2. The components of line-pedal *Satz* not octave-doubled; the line as the lowermost. *Luonnotar* op. 70 (1915) bars 1–5.

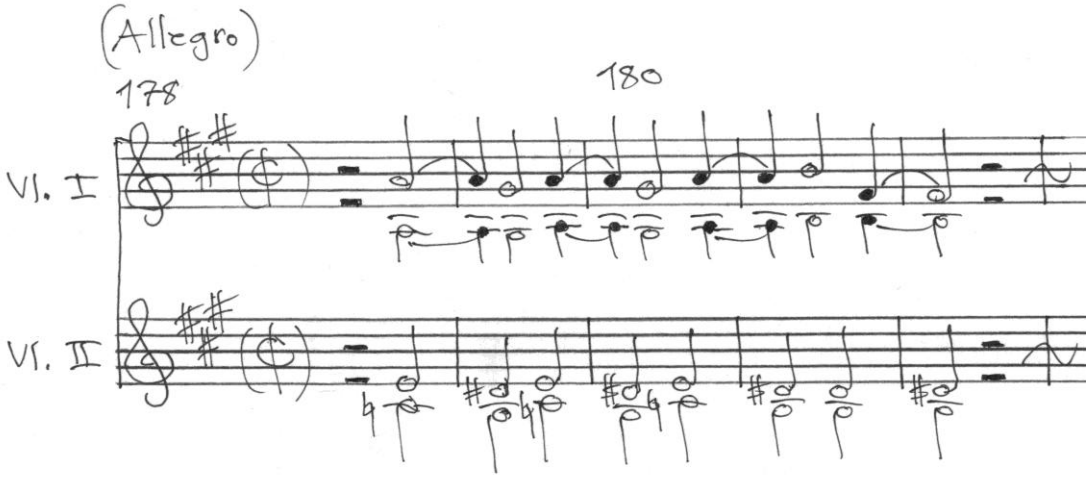


In both cases the spatial order of the components is thought of in terms of the instruments required. This spatial manner where the vertical order of the components is not fixed (see also Fig. 11.5–2 [op. 52:II:95–102]), may even affect the way Sibelius writes soprano-bass *Satz* (see Fig. 8.2.2–3b [op. 82:III:239–242]).

In Fig. 8.4–3 there is a thickening in which line (Vl. Ia, Ib) is syncopated, whereas the collateral lines (Vl. IIa, IIb) of it are not. The spatial feature peculiar to Sibelius is that the line is octave-doubled and this doubling frames the collateral lines in bars 178–180. In bar 181 the octave-doubling activates into a counterpoint (cf. Fig. 8.1.2–1b). It also forms the interval of unison (b/b) with the lower collateral line. In the complete line-pedal *Satz* (see Fig. 7.2.1–1 [op. 63:IV:178–182], cf. also Fig. 5.1.3–1 [op. 63:IV:179–191]) this partly syncopated thickening functions as an upper layer. For the sake of convenience in analysis alternating sixth-chords may be preferred to alternating root-position triads (cf. Fig. 7.4.1–1 a–b [op. 106:IV:8–12]). Therefore the assisting bass of this layer in bars 178–180 may be considered

the lower collateral line (Vl. IIb), although spatially it is not the lowest component of this layer.

Fig. 8.4–3. An octave-doubling frames a thickening. Fourth Symphony op. 63 (1911) 4. mvt. bars 178–182.



8.5 MACRO-COMPONENTS

All the types of *Satz* and their components hitherto discussed can be examined within the span of a phrase. In the music of Sibelius there are also components that can be perceived only over the course of several phrases. These are here called macro-components, including macro-motives (section 8.5.1) and macro-tardy lines (section 8.5.2).

An organ point is already perceived in the span of the phrase, so it does not fit into the criterion laid above. However, there is some resemblance to a macro-component in an organ point (or pedal point) that lasts for several phrases. Thus this kind of case may also be included among macro-components. Another example of a resemblance to a macro-component is a canvas made of an accompaniment figure that keeps repeating during changing themes. These too were already written in *Satz* before Sibelius. This kind of canvas may also be built of several simultaneous ostinati. It may here be termed a macro-ostinato (section 8.5.3). In particular, when the beginning or the end (or both) of a macro-component deviates from the prevailing phrasal rhythm, it has a distinct shape of its own (see Salmenhaara, chapter 2.1.5).

If in a line-pedal *Satz* (see chapter 5.1), or in a line-tardy line *Satz* (see chapter 5.1.1) there is even one macro-component, this is enough to turn the whole situation into a macro-polyphonic one. It is true that in macro-polyphony (sections 8.5.5–8.5.7) the layers themselves are mostly "homophonic" in the traditional sense of the term. Yet the term "macro-

polyphony" is justified, because in this large-scale polyphony a macro-component has a 'destiny' of its own, even though the macro-polyphony can only be perceived from a bird-like perspective.

8.5.1 MACRO-MOTIVE

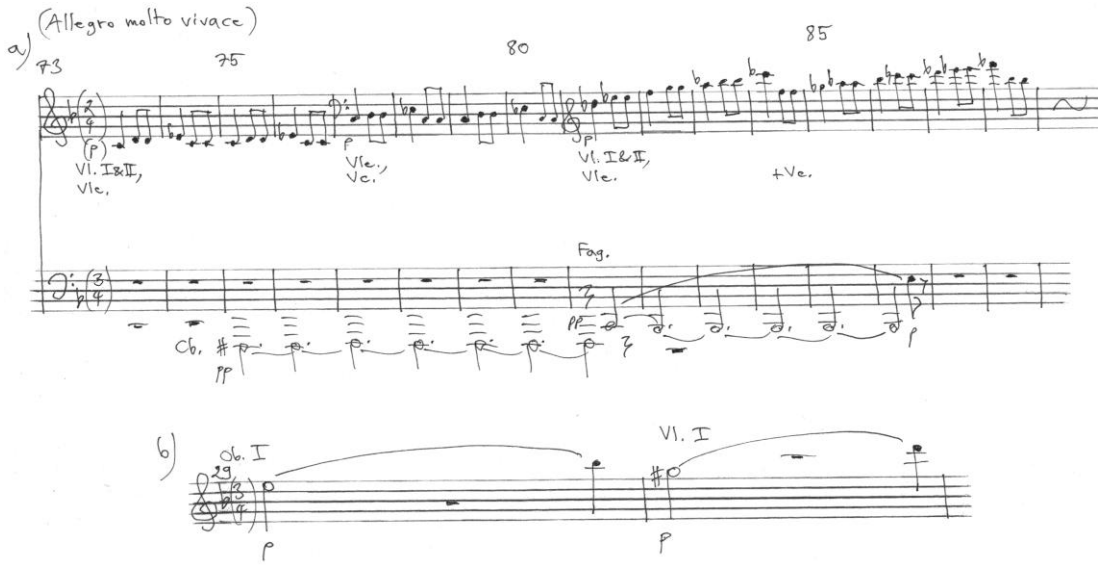
An augmented version of a motive heard previously in its original shape (cf. Fig. 5.1.3–2 [op. 82:III:105–165]) may last for several phrases. In this *macro-motive* all the tones of the original motive may be augmented, or only some tones of it. If all or most of the tones are augmented, this leads to a macro-motive that in the span of a phrase may resemble a tardy line. If only some of the tones of the original motive are augmented, while others remain intact, then in the macro-motive in the span of a phrase the line and sustained tones alternate in the manner of a changing part (see section 7.1.1). Yet in both alternatives the original motive may not be perceived as such in audible form at all, but only by perusal of the score.

In Fig. 8.5.1–1a the macro-motive played by the bassoons and double-basses in bars 75–86 appeared for the first time in bars 29–30 where its intervals of a diminished fifth were tossed between the oboe solo and the first violins (Fig. 8.5.1–1b). In order to present the macro-motive as clearly as possible the timpani part has been eliminated. The emphasis on augmenting falls to the first and third tones (dim. 5th – dim. 3rd – dim. 5th now written as dim. 5th – major 2nd – augm. 4th). The first and second tones of the macro-motive also overlap in bar 81 due to the instrumentation. In this (basically) two-part *Satz* the macro-motive functions as a counterpoint.

This macro-motive appears again in bars 101–110 as a counterpoint to a different music, whereas in its third appearance in bars 276–287 and fourth appearance in bars 316–327 despite the line-pedal *Satz* (see chapter 5.1) and rhythmic modification of the components the contrapuntal adjustment is basically the same as the first time.[298]

[298] Tor Mann's suggestion to remove the ties before the second *rfz* of the augmented motive (Cor., Vle., Cb. in bars 326–327) in the corresponding passage in bars 316–325 destroys the shape of the macro-motive. Mann's proposition is also illogical, because he does not suggest a similar removal earlier in the corresponding bars 286–287 (see Mann 1994:49).

Fig. 8.5.1–1 a–b. A macro-motive derived from a motive. Fourth Symphony op. 63 (1911) 2. mvt. bars 73–88.



8.5.2 MACRO-TARDY LINE

In Sibelius' music one can find components that by their melodic quality resemble tardy lines (see chapter 5.1.1), but whose tones (or at least some tone in them) may last as long as a phrase, or even longer. These kinds of formation may be called macro-tardy lines. Thus a tone that belongs to a macro-tardy line may in the span of a phrase function as a pedal point, a collateral pedal point (see Fig. 7.3–2 [op. 112:593–601]), or a pedal point chord.[299]

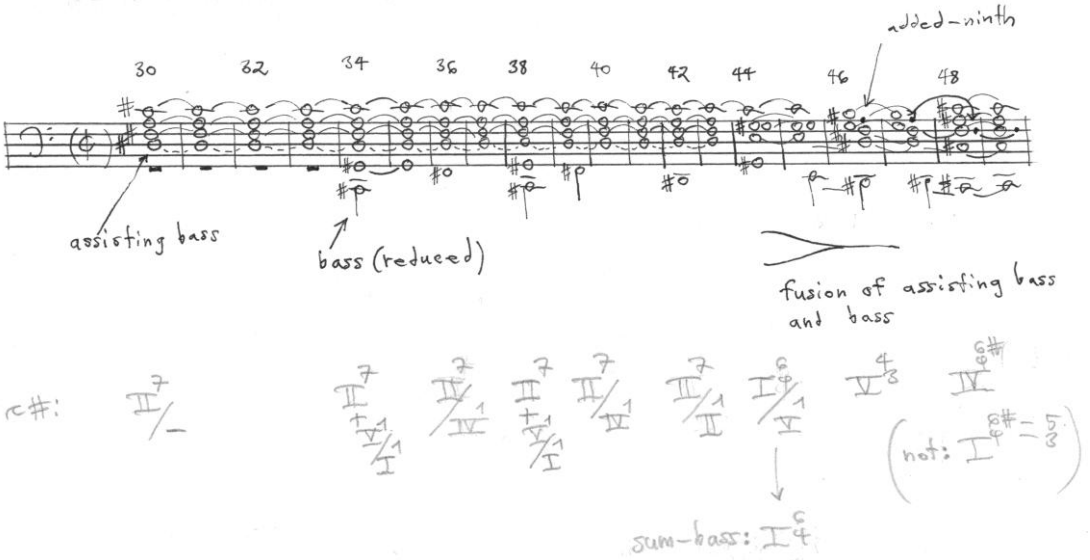
Earlier a bass theme was encountered (see Fig. 5.2.3–2 [op. 9:30–37]) that proceeded under an arpeggiated accompaniment (Vl. I, II, Vle.) that at first seemed to be a dissolved pedal chord. Initially this passage seems quite loose in terms of voice-leading. Yet the regular reduction of it (Fig. 8.5.2–1) reveals its strict linear structure. It appears that what on the level of a single phrase seemed a pedal point chord, on a large scale turns out to be part-writing in the domain of an assisting bass involving several macro-tardy lines. In relation to the assisting bass (d#–e–d#–c#) of the regular reduction, these form a progression: c sharp: II7–(passing I six-three)–V four-three. As the sum-bass this progression is c sharp: II7–(passing I six-four)–V four-three. The dominant chord (c sharp: V four-three) in bars 46–47 is here considered without the added-ninth (A) due to its separate leaping

[299] A description by Howell in connection with *En saga* "… the slow-moving, background pedal points act as an anchor" against faster "surface events" (Howell 2001:41), fits with the behaviour of macro-backround lines. As such the description is contradictory, because by definition a pedal point is immovable.

treatment from a diminished fifth (a) to a fourth (f sharp) in bars 46–48 (see chapter 5.3.4). Because of this macro-aspect the first chord (c sharp: II7 in bars 30–43) was earlier viewed as an inverted seventh chord (see Fig. 5.2.3–2 [op. 9:30–37], Fig. 7.3–3 [op. 9:30–37]), not as a root-position added-sixth triad (c sharp: IV5+6) that it may locally seem to be. In bars 44–49 the assisting bass (e–e–d#–c#) and the bass (G#–E–D#–C#) fuse (see section 8.2.2).

The caesura chord in bars 48–49 is a C sharp Dorian: IV six-four chord that is not followed by I five-three.[300] This whole linear structure does not exist in the 1892 version, it is only written in the 1902 version.

Fig. 8.5.2–1. Several macro-tardy lines, one of which functions as the assisting bass. *En saga* op. 9 (1892/1902) bars 30–49.



8.5.3 MACRO-OSTINATO

The most complex macro-component is perhaps *macro-ostinato*. The complexity arises from the fact that during a macro-ostinato, qualitative texture modulations may take place. In the course of a macro-ostinato these are mostly found at its beginning and end; in longer macro-ostinati in the middle of it also.

In a macro-ostinato the figure to be repeated in the span of a phrase is often firstly presented as a more free melodic shape, which only then 'settles down' and starts to act like a proper ostinato. The initial motive may be

[300] In the following harmony at the beginning of the next phrase G sharp and E indeed occur (as if they were the goals of the would-be motions of 6–5 and 4–3). Yet in bars 50–53 these tones E and G sharp do not function as the third and fifth, but as the root and third of an E-rooted dominant-type seventh chord.

separated from the following (immediately repeated) motives by a rest, or by a free melodic turn corresponding structurally to the rest. When a macro-ostinato begins without this kind of preparation, the initial motive may be either shorter or longer than the following ones. Furthermore, only the first tone of the initial motive may be shortened, or elongated. These various ways may also be combined.

In the middle of a macro-ostinato there may be an interruption. This interruption may be a rest, a removed tone (or tones) in the ostinato motive (which may shorten the pattern, if the removed tones are not replaced by any other tones), or an inserted tone (or tones). The interruption in the pattern may also be achieved by transposing the motive (a shift which does not necessarily indicate a modulation), or by slightly varying the motive. Interruptions may also take place more than once in the course of a macro-ostinato.

The ending of a macro-ostinato may show similar devices to the beginning of it. The ending may depart (melodically or rhythmically) from pattern-like formations. At its last appearance the motive may be shortened. The concluding tone (or tones) of the shortened or un-shortened motive may be lengthened. The ostinato motive may, at its conclusion, be transposed once or several times. The ostinato may be melodically varied, or followed by a more free melodic progression. In addition to these devices the motive may also be echoed even after a longish rest, or echoed after a free melodic turn that structurally corresponds to the rest.

Usually these means are not used all together, but selectively. There are many combinations: e.g. a macro-ostinato that begins mechanically may end freely, or one that begins freely may end mechanically, i.e. without variation.

8.5.4 SPATIAL QUALITY OF MACRO-COMPONENTS

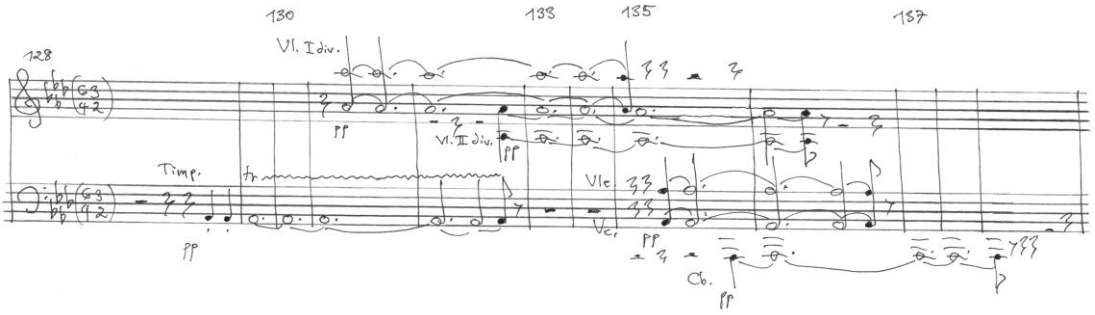
The spatial width, ambitus, of a macro-component may change. It may either expand (see Fig. 8.5.1–1 [op. 63:II:86]) or contract. Expansion or contraction is often applied to the accompanying layer (cf. section 8.5). Expansion may be done by changing the ambitus of the figuration itself, or by doubling the figuration in octaves, perhaps with some other instrument groups. In contraction the means are the opposite. During its course a layer may undergo several phases of spatial expansion or/and contraction.

If expansion and contraction are counterbalanced, an accompanying layer may spatially move from one octave-register to another, or alternate between different octave-registers in a wave-like fashion. The spatial envelope of a macro-component is thus a factor in macro-polyphony. These spatial devices may also be applied to differentiated doublings of a sustained tone.

In Fig. 8.5.4–1 there is a reduction of a differentiated octave-doubling of an organ point starting and ceasing at different times, detached from the

remaining *Satz*. The component with its arch-like contour has a spatial direction typical to a macro-component.

Fig. 8.5.4–1. An octave-doubled organ point as a macro-component. Third Symphony op. 52 (1907) 2. mvt. bars 128–139.



8.5.5 TEMPORAL RELATION OF COMPONENTS IN MACRO-POLYPHONY

In macro-polyphony (see section 8.5) the components usually do not enter and cease simultaneously (cf. chapter 2.1.5, Salmenhaara). Some of them may enter or cease when others proceed or enter (overlapping). A macro-component may also last longer than all the ordinary ones (enclosing). The temporal structure of macro-polyphony is inevitably linked with quantitative texture modulation (cf. section 7.).

8.5.6 MACRO-POLYPHONY AND COUNTERPOINT

Macro-polyphony (see section 8.5) does not prevent the composer from using contrapuntal means in a layer that takes part in macro-polyphony. The relation between two macro-components may seldom be considered imitational. It is more likely that in the background of the aural perspective a macro-motive is used as counterpoint to different foreground events (see Fig. 8.5.1–1a [op. 63:II:73–88]).

8.5.7 MACRO-POLYPHONY AND HARMONY

In the span of a phrase the components of macro-polyphony (see section 8.5) take part in harmony, or harmonies, similarly to other components of a

normal scale (see chapter 4.3.1). Yet in the span of macro-polyphony something may emerge that could be coined as "macro-harmony".[301]

In Fig. 8.5.7–1 there is a reduction of *Satz* that is based on two layers, a chordal one played by the woodwinds and an intervallic one played by the strings. Although these layers cross each other (both in this reduction and in the score), the lowest part of the woodwind layer mostly stands lower than that of the string layer. Therefore the lowest part of the woodwind layer is here considered the bass and the lowest tone of the string layer the assisting bass. The woodwind layer is dealt with first.

Before bar 106 the ruling mode is B Aeolian-Ionian. In the level of harmonic basis the woodwind layer is sequential. In the initial pattern of a harmonic sequence (bars 106–121) there is firstly a dissonant thickening that descends by major seconds (cf. Fig. 7.1.2–2b). Then in qualitative texture modulation the thickening in bars 116–117 turns to two-part *Satz* (cf. Fig. 7.1.2–4b) that in bars 117–118 further divides into three-part *Satz* (cf. section 8.2.2). This concludes the initial pattern in bar 120. The first dyad of the two-part *Satz* in bar 117 may be considered the dominant of B Aeolian-Ionian (b: V6 without third from the bass). The second dyad in bar 117 and the caesura sixth chord in bars 118–120 constitute a progression c: VI6 without third–V6, i.e. a half closure.

This modulating initial pattern (from b: VII six-four+3 to c: V6) is then in bars 122–133 transposed a minor second higher (the second pattern from c: VII six-four+3 to c sharp: V6) and in bars 134–142 again a minor second higher (the third pattern from c sharp: VII six-four+3).

The half closure of the third pattern, however, differs from the previous ones. Instead of d: V6 B Aeolian-Ionian: V2 occurs in bars 143–144. The mode at the beginning of the initial pattern in bars 106–111 is thus re-established. The chord in bars 140–142 that precedes the third half closure can afterwards be seen as B Aeolian-Ionian: VI six-four+3.

The thickened macro-tardy line played by the strings begins in bar 105 (or already in bar 104). The dyads of this macro-tardy line function either as organ points (i.e. outside of the harmonies; see chapter 4.6.1), or they function as added-roots (e.g. f1 sharp as an added-root in bars 106–111 and an added-root ninth chord B Aeolian-Ionian: V9+1 in the 3rd inversion in bars 106–111), or added-dissonances (e.g. f1 sharp as an added-seventh in the first half of bar 117) that increase the different harmonies of the chordal layer into wider sum-chords. The dissonances always descend or ascend by step, which result in either parallel motions or else resolving or releasing (see chapter 5.3).

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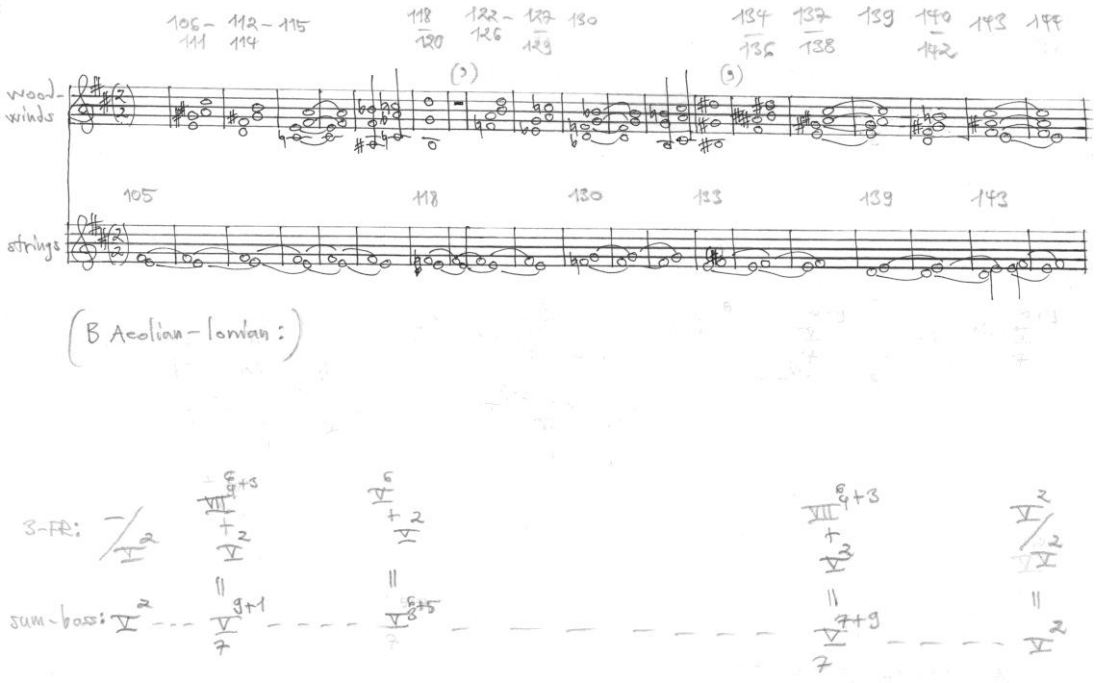
[301] Tymoczko 2011:15 defines his term macroharmony in the following way "If a scale is a musical ruler, then a *macroharmony* is the total collection of notes used over small stretches of musical time. Typically, macroharmonies are also scales …". In this study by macro-harmony (with a hyphen) I mean quite the opposite: not a scale, but a chord used (surface level), or at least imagined (deep level), over long stretches of musical time.

The macro-tardy line proceeds differently from the sequence-pattern. Sometimes the dyad of the macro-tardy line starts simultaneously with the chordal layer (bars 117–118, 129–130, 132–133), sometimes not (in bars 134–144). Therefore the sum-chords in each transposition of the pattern become different. Only in bars 130–133 is the harmonic relation between (the second) half closure of the pattern and the macro-tardy line similar to the case of the first half closure in bars 115–120, in bars 130–133 it is merely transposed upwards by a minor second.

In itself the macro-tardy line circulates around the dyad F sharp/E. This circulation may be considered an ornamentation of a thickened organ point F sharp/E. In bars 106–111 this organ point-dyad takes part in B Aeolian-Ionian: V9+1 in the 3rd inversion. In bars 137–138 the organ point-dyad takes part in B Aeolian-Ionian: V7+9 in the 3rd inversion and from bar 143 on it is included in B Aeolian-Ionian: V2. Thus this dominant harmony may be considered a *macro-harmony* that embraces the whole passage.

Fig. 8.5.7–1. Macro–harmony. *Tapiola* op. 112 (1926) bars 105–144.



8.6 CONCLUSIONS

The difference between a steady thickening and a de-patternized one where there is unison at the beginning and at the end (see Fig. 7.1.2–2) is outwardly somewhat akin to the difference between strict and free organum, although in harmonic terms these techniques, Sibelian and medieval, lie worlds apart from each other. A textural difference also exists, because in Sibelius a

thickening usually does not occur by itself, but rather forms the *Satz* together with other component(s).

In Baroque music there is a device, called collateral part,[302] which sometimes may bear resemblance to de-patternized collateral line. Yet the context of collateral part differs from that of a collateral line. Collateral part may be considered an ingredient of polyphonic web, while the environment of a collateral line is mostly non-polyphonic.

If one takes into consideration that, in the words of Tawaststjerna, "a return to 'history' does not match to his [i.e. Sibelius's] artistic standpoint",[303] it is unlikely that the apparent similarity to the medieval (or baroque) devices is a deliberate one, particularly when it is known that Sibelius regarded his own working methods as non-traditional (cf. chapter 1.3).

Sibelius said to Jalas: "With the exception of the classics, I have studied other composer's scores very little" (I understand the word "classics" to mean Haydn, Mozart and Beethoven).[304] Tawaststjerna's statement presented above may thus be slightly modified; although a return to "history" on the whole was not in Sibelius's line, the composer might well have returned as far back as the Viennese classics (an era which might have represented, for him, the historic backwoods).

Nevertheless, the occurrence of techniques resembling medieval (or baroque) techniques in the music of Sibelius may be explained otherwise. In intellectual history there seem to be built-in ways of thinking. These ways may reappear after fairly long periods of oblivion, one again seeming fresh and laying themselves open to re-interpretation, only to disappear when they start to appear worn. This kind of process also applies to e.g. the re-employment of Gregorian modes.

In analyzing music this warns us not to take for granted the norms of a certain period in the history of Western music. Those thickenings that contain more than one collateral line should especially be considered layers in a new kind of counterpoint, instead of merely neglecting their existence, or explaining them as anomalies in all-embracing four-part writing, or – worst of all – trying to coerce dissonant thickenings (see e.g. Fig. 7.5.1–2 [op. 70:173–208]) into the domain of four-part writing e.g. by deducing them from 5–6 motion. Several examples from the output of Sibelius (see Fig. 5.1.3–2 [op. 82:III:105–165], Fig. 5.3.4–1 [op. 70:107–111], 6.1.3–4 [op. 66:I:27–32], Fig. 6.3–4 [op. 56:V:254–259], Fig. 7.3–2 [op. 112:593–602], Fig. 7.5.1–2 [op. 70:173–208]) are in accordance with Downes's observation in connection of the Fourth Symphony: "… sometimes the basses seem to hang under the chordal mass which floats above them" (see chapter 2.1.1). To

[302] "A *collateral part* is a part that does not double a melody at the unison or octave but follows along with it, often in thirds or sixths, with minimal rhythmic or contour differentiation from the principal melody" (Piston 1978:85).

[303] Tawaststjerna IIF:215, IIS:167 missing; see IE:xiii, IE:247 missing.

[304] Jalas 1988:9.

an analyst who only takes into consideration those norms of voice-leading and dissonance treatment that ruled in the middle of eighteenth century, Sibelian *Satz* whispers: ’I do not follow your preconceived opinions‘.

9. STRUCTURES CONCERNING HARMONIC BASIS

Thus far in this study in analysis two structural levels have been discerned, the surface level and the deep level i.e. the level of harmonic basis (see chapter 4.1, 4.2.2). In the level of harmonic reduction the voice-leading of the harmonic basis is shown. In this chapter a third level below these is introduced, *the level of scheme*. In the level of scheme the material of the harmonic basis can be summarized and shown as a plan. The level of scheme is not (necessarily) related to the deep and surface levels through voice-leading.[305]

Yet before introducing this third concept there remains a question not hitherto addressed. This concerns the relation between the two topmost structural levels. Structures in the level of harmonic basis (i.e. deep level) may be considered either the results of surface level procedures, or as causes of them. The former point of view considers the surface level structures to be real ones and the deep level ones to be merely abstractions, while the latter point of view regards the structures in harmonic basis as being fundamental to musical thought. In this study I do not try to settle this controversy on the deep level as the result or as the cause. In my opinion both views may be supported by different kinds of music-example. This problem, as well as the compromise for it offered above, may also be extended to concern the third deepest level, the scheme.

9.1 SURFACE LEVEL DEVICES IN THE DEEP LEVEL

In the above text the components were defined according to their melodic and rhythmic qualities in the surface level (see chapter 5.1 and 5.1.1). Earlier we have witnessed, how the number of components in the surface level may differ from that in the deep level (see Fig. 5.1.3–2 [op. 82:III:105–165)], Fig. 5.1.3–4 [op. 56:II:1–9)]) and how even the type of *Satz* may change depending on what structural level is under scrutiny (traditional in the surface level, Sibelian in the deep level; see Fig. 5.1.3–1 [op. 63:IV:179–209]). Yet even in these kinds of cases the dissolving motions in the surface level may exactly follow the contour of the deep level structure.

Various devices were also firstly examined above in the surface level. In this chapter the situation where a surface level device is applied in the deep

[305] It was earlier noted, that in relation to Schenkerian concepts *Vordergrund–Mittelgrund–Hintergrund* (foreground–middleground–background) both the surface and the deep level discussed in this study stand in *Vordergrund* (see chapter 4.1). Here it must be added, that the suggested third level beneath these two does not correspond to the Schenkerian *Mittelgrund* or *Hintergrund*.

level is initially discussed. This kind of device is e.g. converging and diverging (section 9.2; see chapter 8.1.2).

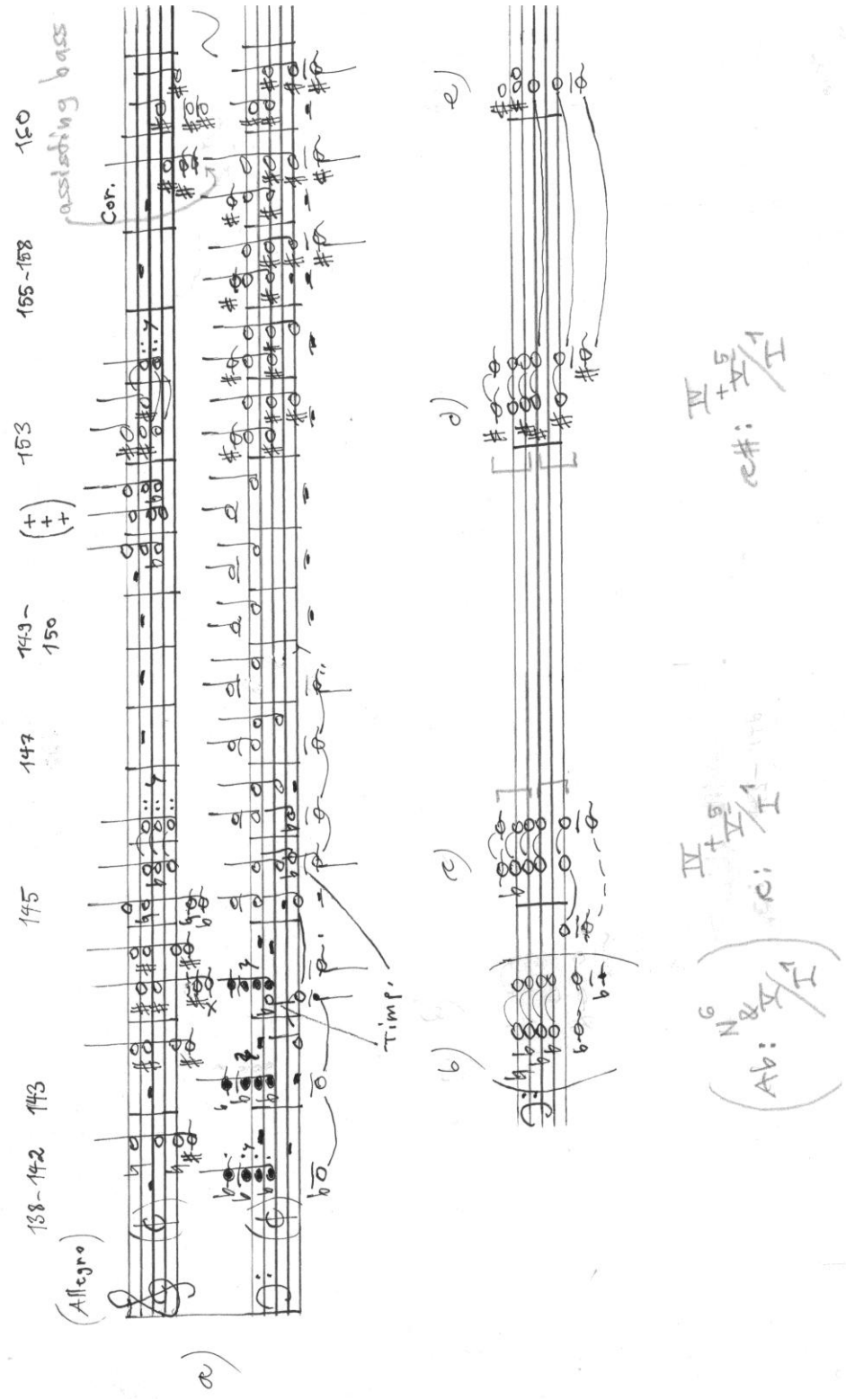
Secondly the situation where a surface level device (e.g. systematic contrary motion) is applied in the deep level is examined, but where this device does not manifest itself in the surface level. In other words, on the grounds of the surface level the deep level device is not obvious. There thus seems to be incommensurability between the surface and deep levels. In the domain of voice-leading this means that the dissolving motions in the surface level appear not to be based on those that can be found in the level of harmonic basis.

Thirdly the situation where a surface level phenomenon (e.g. paralel motion or scale) operates in the level of scheme is examined (sections 9.4 and 9.5). The different levels in connection with heterophony are examined separately (section 9.6). The possible connections between scheme and form are not touched on in this study (cf. chapter 3.7).

9.2 CONVERGING AND DIVERGING IN THE DEEP LEVEL

In the surface level the devices of converging and diverging can be observed in connection with thickenings (see chapter 8.1.2). In the deep level these devices take place between chordal layers that converge into a parallel motion and again diverge into different layers. In the deep level the devices of converging and diverging offer an elegant means to achieve structural changes.

Fig. 9.2–1 a–e. Converging and diverging in the deep level. Fourth Symphony op. 63 (1911) 4. mvt. bars 138–162.



In Fig. 9.2–1 in bars 138–143 the alternating E flat-rooted major triad and A-rooted major sixth chord over a pedal point D flat (Fig. 9.2–1a) may be

considered – assuming an enharmonically equal C sharp for the pedal point – alternating Neapolitan and dominant chords in G sharp minor (g sharp/A flat: V2–N6–V2). After a transitional bar 144 where these same chords – only now without A natural – proceed over an open fifth G natural/C natural (Fag./Vc., Cb.) in bars 145–146 a formation appears that has the structure of G-rooted dominant sum-eleventh chord over a tonic organ point (i.e. C).[306] The layers in this formation (c: IV6+V5/I1 = V11/I1; Fig. 9.2–1c) manifest themselves by means of orchestral colour: the topmost F-rooted minor sixth chord in bars 145–146 is played by the higher woodwinds (in the upper staff), the open fifth by the higher strings and the organ point by the lower ones (in the lower staff). If the previous alternating tritone-related triads (in bars 138–143) were presented as a simultaneous E flat-rooted combination, this would also be a sum-eleventh chord, though with an augmented eleventh (Fig. 9.2–1b). In the level of scheme a parallel motion thus occurs (cf. section 9.4). Even a posited tonic-related organ point tone A flat below the E flat-rooted dominant sum-eleventh chord in Fig. 9.2–1b appears in bars 145–146 (Timp.), although over the organ point C, and only during the next G-rooted sum-eleventh chord.

In bars 147, 148 and 151 segments of this formation (Fig. 9.2–1c) cease and enter, until in bar 153 there follows a G sharp-rooted dominant-type sum-eleventh chord under which there occurs a corresponding tonic–type organ point C sharp in bar 155. The orchestral colours in this formation (c sharp: IV6+V5/I1 = V11/I1; Fig. 9.2–1d) are distributed in almost the same way as before. This organ point C sharp is not to be considered an entering tone, but merely a continuation of the lowest component (C natural–C sharp) after a rest. An auxiliary chord by woodwinds in bars 151–152 in the surface level ornaments this deep level parallel motion.

In bars 159–160 the assisting bass of the sub-sixth chord (Cor. II, IV; also doubled in the Vle. part) proceeds to a root-position triad (c sharp: IV6–V) by the motion a–g sharp (Fig. 9.2–1e; see also Fig. 5.5–1 [op. 63:IV:155–162]). By this means the parallel of the sum-eleventh chords diverges into another type of *Satz*. There is now three-part *Satz* over a sustained dominant-supertonic (c sharp: II1/V1) under which the tonic organ point remains as the third sustained tone (see chapter 5.2.3).

In bars 165–168 there follows an authentic cadence in E flat major that seems to settle the earlier dispute in bars 121–134 between the principal key A major and the subordinate key E flat major in favour of the subordinate key.

[306] Cf. Tawaststjerna, Fig. 2.1.1–3.

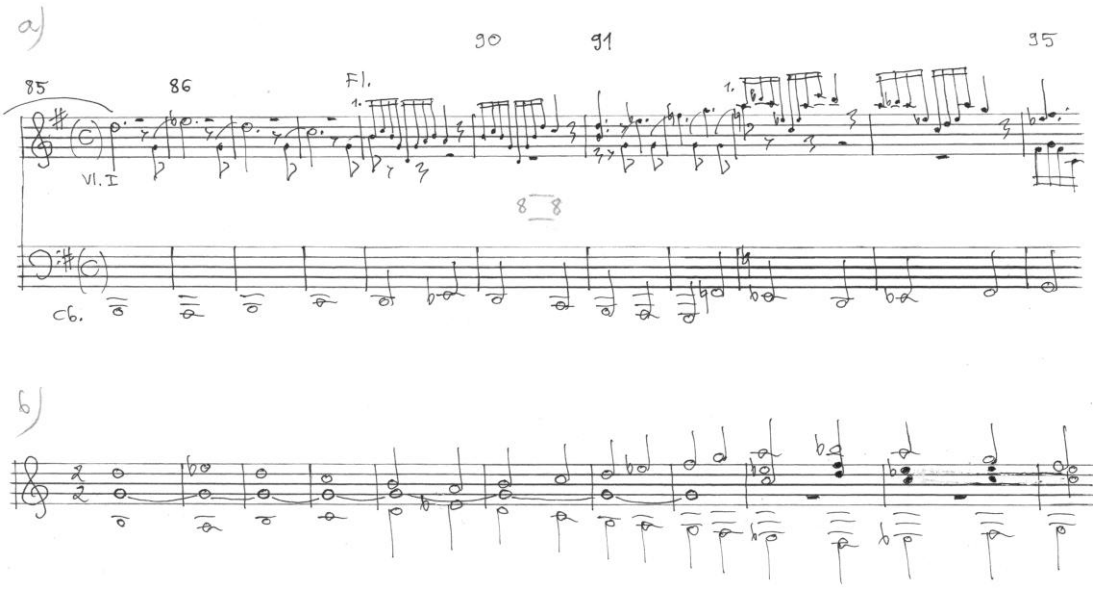
9.3 SYSTEMATIC CONTRARY MOTION IN THE DEEP LEVEL

In the deep level the principle of systematic contrary motion when connected with thickenings most surely creates a harmonic foundation for other components. Yet in the deep level it may also be applied in connection with plain components.

In Fig. 9.3–1a in the surface level there is a thin texture containing only soprano and bass (Cb.). They proceed by similar, contrary and oblique motions. In bars 85–92 there is G Ionian-Aeolian mixed mode (cf. Fig. 4.2.1–2a). Yet this *Satz* is not quite an orthodox one. There are consecutive octaves in bar 90 between d2/D and c2/C, as well as later in bars 96–97 between d2/D and c2 sharp/C sharp. The upper voice is divided between two groups of instruments (Vl. I, Fl.). Because of the slight lengthening of the last tones played by each group, a kind of intermediate form between two- and three-part textures is obtained.

The harmonic basis of this *Satz* (Fig. 9.3–1b) contains two different successive structures that both utilize systematic contrary motion (in the reduction the blackened note-heads in bars 93–94 are inferred on the grounds of surroundings). In bars 85–92 there is systematic contrary motion – naturally without any consecutive motions – between the two deep level tardy lines that proceed in both sides of a deep level tonic pedal point G. Between bars 86 and 91 this deep level structure is also palindromic (see chapter 7.4 and Fig. 7.4.1–2 [op. 82:III:77–96]). In bars 93–94 there is systematic contrary motion between the lower plain tardy line and the upper tardy line thickened into *fauxbourdon*. In bars 94–95 only the framing parts proceed in contrary motion.

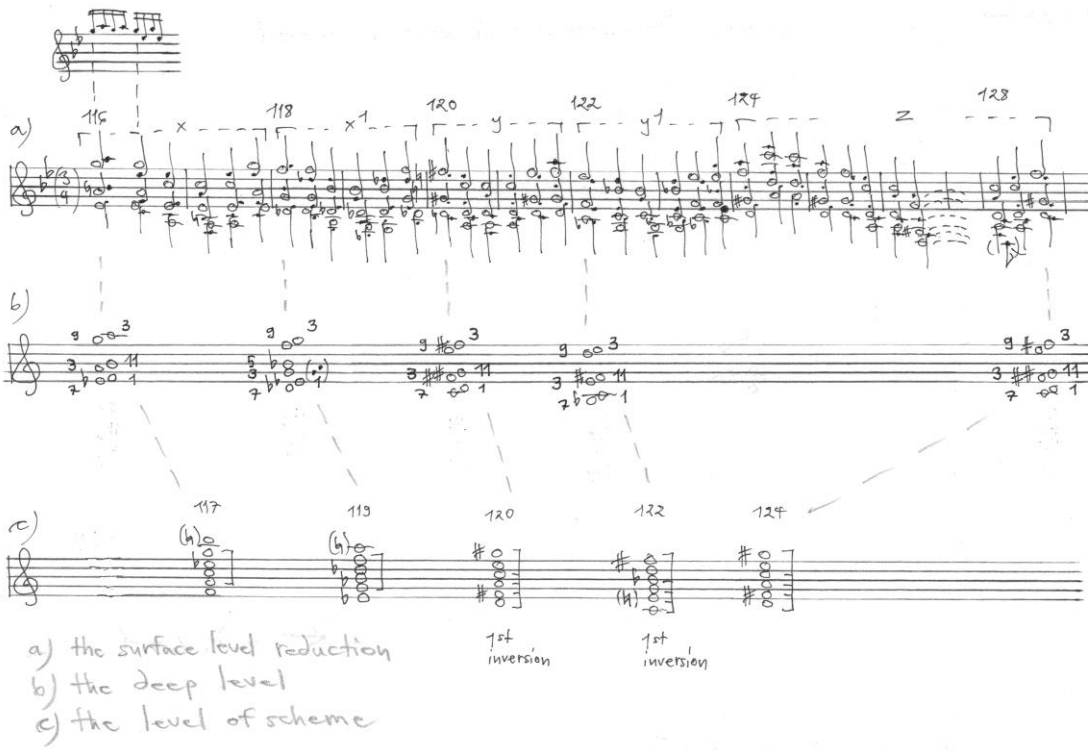
Fig. 9.3–1 a–b. Systematic contrary motion in the deep level. Third Symphony op. 52 (1907) 1. mvt. bars 85–95.



9.4 PARALLEL MOTION IN THE LEVEL OF SCHEME

Earlier a *Satz* was encountered in which harmonic basis was merely a thickening (see Fig. 5.1.3–5 [op. 34:VIII:1–3]). In that case the thickening was traceable both in the surface and deep levels. Yet parallel motion can be traced in the level of scheme, even when it is not obvious in the surface or deep levels.

Fig. 9.4–1 a–c. Parallel motion in the level of scheme. Sixth Symphony op. 104 (1923) 2. mvt. bars 116–128.



In Fig. 9.4–1a in bars 118–119, 120–121, 122–123 for the span of two bars the procedure is somewhat similar to bars 116–117 where an including layer with two sub-seventh chords dissolve an irregular sum-eleventh chord in similar motion (see Fig. 6.4.2–1 [op. 104:II:116–117]).

In bars 116–128 the above-mentioned three chordal layers always occur in the same vertical order (at the end of bar 119 and at the beginning of bar 120 the key signature changes from two flats to one sharp). Also, here they are reduced into three *dissolving thickenings* (see chapter 5.1). In order to save space in the surface level reduction (Fig. 9.4–1a) the stressed tones in the figuration are marked by minims and the non-stressed ones by crotchets. In bars 118–119, 120–121, 122–123 for the same span of two bars the roots of the successive chords change. However, the dissolving figures do undergo some changes. In bars 116–117 and 118–119 the contour, according to the beats of the topmost part leans on pure fifths (x: g2–c2–g2 and x1: f2–b1 flat–f2), while in bars 120–121 and 122–123 on augmented fourths (y: f2 sharp–c2–f2 sharp and y1: e2–b1 flat–e2). In bars 116–123 all the chords are different (i.e. ABCD), but in bars 124–128 the third chord returns (i.e. ABCDC). It lasts for four bars and the melodic contour of the dissolving figuration expands (z: f2 sharp–c3–f2 sharp–c2–f1 sharp–c2–f2 sharp). Only at the end of the figuration (in bar 128) the same adjustment of the dissolving parts as at the beginning of bar 120 is re-established.

In the deep level in bars 116–128 a progression can be found of irregular augmented eleventh sum-chords with major ninth (Fig. 9.4–1b). These are rooted on the tones F, E flat, D, C and D. Root positions are touched at the beginning of bars 117, 119 and 124. Due to the changing figuration in the surface level the third (in bars 120–121) and fourth (in bars 122–123) of these chords become inverted (the 1st inversion is touched at the third crotchet of bars 120 and 122). Also after the first crotchet of bar 118 the augmented eleventh (it should be a1 natural according to the pattern) is in the figuration (Vl. IIb) replaced by the fifth (b1 flat).

In the level of scheme (Fig. 9.4–1c) a parallel motion of root-position dominant-type sum-eleventh chords (with augmented eleventh) may be suggested. In the surface level reduction (in bars 120, 122), as well as in the deep level (the second chord in Fig. 9.4–1b) this supposed parallel motion in the level of scheme is *de-patternized* (see chapter 10.3).

9.5 ROOT-PROGRESSIONS IN THE LEVEL OF SCHEME

In harmonic analysis the chords may be reduced to their roots and the succession of these roots may be described as a root-progression. By means of the Roman numbers I–VII that correspond to the steps of a heptatonic scale, various diatonic root-progressions can be presented in the running text without any need for staves (cf. chapter 4.5.2). In the level of scheme the roots can be collected and arranged into a scale. In the tonal era this scale inevitably was either major or minor. In the music of Sibelius a larger storage of scales (cf. chapter 4.2.2) manifests itself in the level of scheme.

When analysing dense chromatic harmony, Roman numerals may not be serviceable, unless modulations between heptatonic scales are assumed. Also, in dense chromaticism the keys may change so quickly that sticking to heptatonic degrees seems merely a formality and one starts to seek some other organizing principle that would be more direct.

In Sibelius' music the device of polymodality makes a situation possible whereby in the surface level and in the deep level different heptatonic scales operate (see Fig. 4.2.4–3 [op. 63:I:6–12]). In the music of Sibelius there is also the possibility that (especially in a chromatic passage) in the level of scheme the collected roots can be arranged into a non-heptatonic scale that in the melodic surface is perhaps not even used. This non-heptatonic scale in the level of scheme may be called a *guiding scale*.

The collected roots of a passage may form a guiding scale ascending or descending, or contain some of the degrees of the scale more than once, or contain only a selection from the guiding scale. Yet in the music of Sibelius there are also chromatic passages that cannot be explained by means of a guiding scale (see op. 104:I:238–266).

9.5.1 GUIDING WHOLE-TONE SCALE BEFORE SIBELIUS

In the Classic and Romantic eras the device of a guiding whole-tone scale may be encountered in the span of modulatory plans, i.e. in the level of scheme,[307] but not in the span of collected roots of a passage (in the level of scheme). The nearest situation to this is a device in which in a harmonic sequence involving the bass of every other chord (e.g. secondary tonic in a two-chord initial pattern) falls to degrees that collect themselves into a whole-tone scale.

9.5.2 WHOLE-TONE SCALE AS A GUIDING PRINCIPLE

In the music of Sibelius all the above-mentioned resources may be found. Thus the whole-tone scale may guide successive keys, as well as the goal chords of sequences. Besides these inherited resources Sibelius has also used the whole-tone scale as a guiding principle in the most rigid way, where all the roots of the chords in a passage belong to a whole-tone scale. Yet in the surface level the chords in these kinds of passage may be dissolved by means of heptatonic scales, or merely by their pentachords.

9.5.3 ON THE CONTEXT OF A GUIDING WHOLE-TONE SCALE

A guiding whole-tone scale may include the first degree of the principal or subordinate heptatonic key, or not. If it is included, a guiding whole-tone scale extends the region of the principal or subordinate heptatonic key. If it is not included, a guiding whole-tone scale is a resource for tonal contrast. Usually in the level of harmonic reduction a guiding whole-tone scale is preceded or followed by a degree that does not belong to it. This alien degree thus confines the area of a guiding whole-tone scale. An alien degree may launch another guiding whole-tone scale, or it may belong to a heptatonic scale that at that moment also operates in the surface level (cf. Fig. 10.4.1–1 [op. 104:II:160–162]).

Yet there is also a third alternative. Sometimes an alien degree together with the degrees of a whole-tone scale in the level of scheme adds up a heptatonic mixed mode, namely Phrygian-Ionian (cf. Fig. 4.2.2–3a). In these kinds of case it seems as if the collected roots of the whole-tone scale were merely degrees from the II to the VII of the Phrygian-Ionian mode that are finally followed by the tonic.

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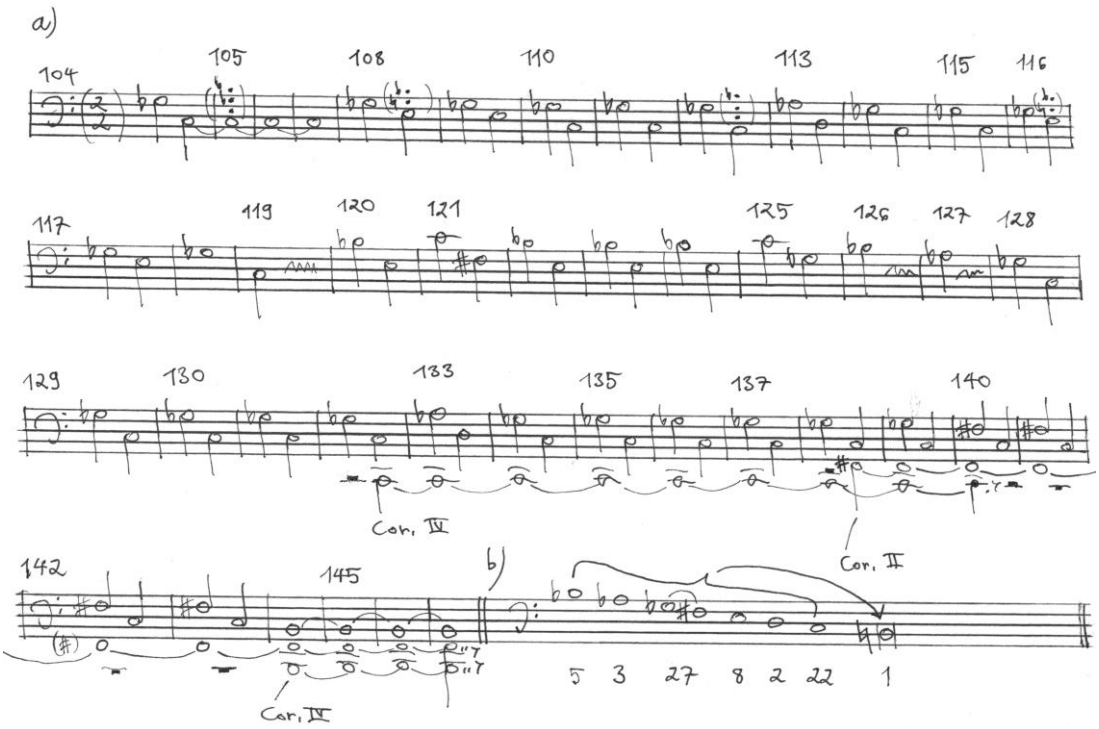
[307] Whole-tone scale guiding the modulations: Chopin: Nocturne in G major op. 37 no. 2 (1840) bars 29–66 (C: – E: – f sharp: – a flat: – B flat: – D:), bars 84–121 (E: – G sharp: – a sharp: – c: – D: – F sharp:). Both sections lean on the same whole-tone scale.

Fig. 9.5.3–1 a–b. Guiding whole-tone scale and its modal context. Sixth Symphony op. 104 (1923) 1. mvt. bars 104–147.



In Fig. 9.5.3–1a there is a reduction of a section in which in bars 104–143 all the roots of the chords belong to a whole-tone scale C–D–E–F sharp/G flat–G sharp/A flat–A sharp/B flat. The chords are mostly major triads and dominant-type seventh chords – the latter ones sometimes with flattened fifth – in various inversions. Some non-stressed passing chords with the duration of a quaver are not included. These are leading-tones related to the chords that are a minim in length. In bars 119, 126 and 127 the minims in the reduction are possible to consider as breves, if the last quaver in these bars is taken as the return of these roots. (This consideration is in accordance with Baroque practice.)

Before this section in bars 76–103 the caesura chords of the closures and cadences were rooted on C (in bars 88 and 92), A flat (in bar 100) and G flat (in bar 103). In bars 104–147 the most frequent root (occurring 27 times) is G flat. That pitch as an enharmonically equal F sharp is the dominant of B Phrygian-Ionian. In the level of scheme this scale (B–C–D–E–F sharp–G sharp–A sharp–B) can be considered completed when the B natural appears in bars 144–147 (Fig. 9.5.3–1b). At this tone B another section begins that is guided by the other whole-tone scale (see op. 104:I:144–161).

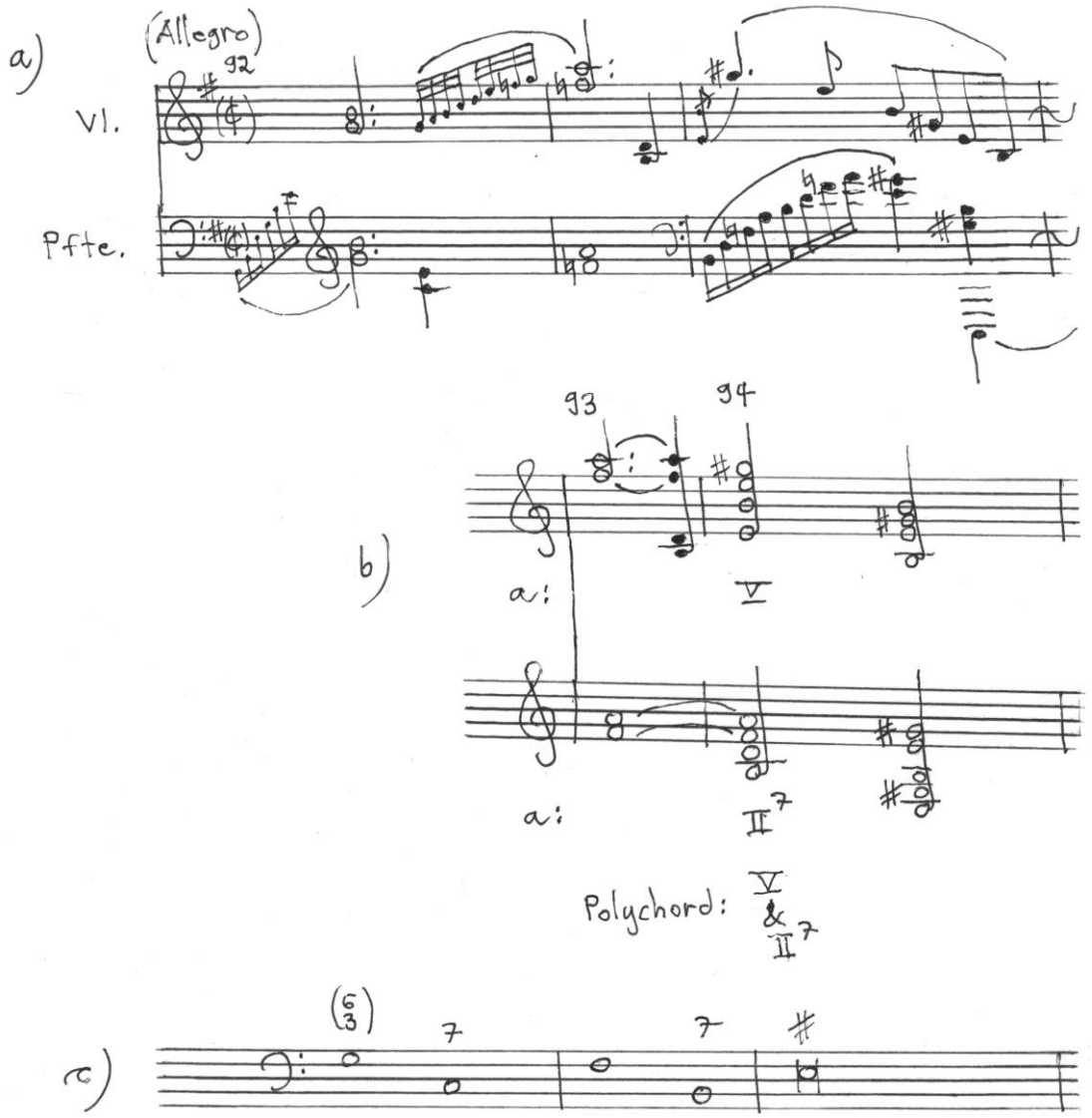
9.6 DEEP LEVEL HETEROPHONY

There can be two kinds of deep level heterophony. Firstly, in a three-voice framework (see chapter 4.3) the relation between the frameworks may be heterophonic. In this situation resolutions of dissonance may emerge that are harmonically similar yet not simultaneous. This device may be called *multiple treatment of dissonance*. It is here perused in connection with the deep level, but multiple treatment of dissonance may also be found on the surface level (see Fig. 5.5–2 a–b [op. 49:17]).

Although possible in terms of a two-voice framework (see chapter 4.3), multiply treated dissonances in connection with a melodic line may sometimes suggest a four-voice framework (see chapter 4.3) where the assisting bass and bass coincide and where the relation of the soprano and assisting soprano is that of non-ornamental heterophony (see section 8.3). Multiple treatment of dissonance is a phenomenon of the style of mature Sibelius; he begins to use them from the Fourth Symphony (completed in 1911) onward.

In Fig. 9.6–1a there is multiple treatment of dissonance. These result in a polychord (see chapter 6.3) in bar 94. The origin of the polychord is a sequence pattern that begins in bar 92 and contains alternating falling fifths and ascending fourths (9.6–1c). The first bass tone (G) in bar 92 does not bear a mere major third as does the bass tone F in bar 93, but rather a minor sixth chord G–B–E instead. This sequence is thus also de-patternized (see chapter 10.2) in that way. The two last chords in it *accumulate* (see chapter 2.1.3; Normet) into a polychord a: V&II7 in bar 94 (9.6–1b; the key used here is only a passing one). In the violin part the seventh (a2) of the soprano and the diminished fifth (f2) against b are resolved to g2 sharp/e2 in the progression a: II7–V in bars 93–94, while in the pianoforte the dissonant seventh (a1) – as the assisting soprano in a four-voice framework – and the diminished fifth (f1) against B are only resolved in a similar progression at the second minim in bar 94. This multiple treatment of dissonance thus brings the polychord to its dominant sub-triad (a: II7 – V&II7 – V/V) that also occupies the following bar 95. The last triad is written according to latent three-voice framework (see chapter 4.4). In bars 96–99 this process is varied and transposed to another passing key.

Fig. 9.6–1 a–b. Multiple treatment of dissonance in three-voice framework. Sonatina op. 80 (1915) 1. mvt. bars 92–94.



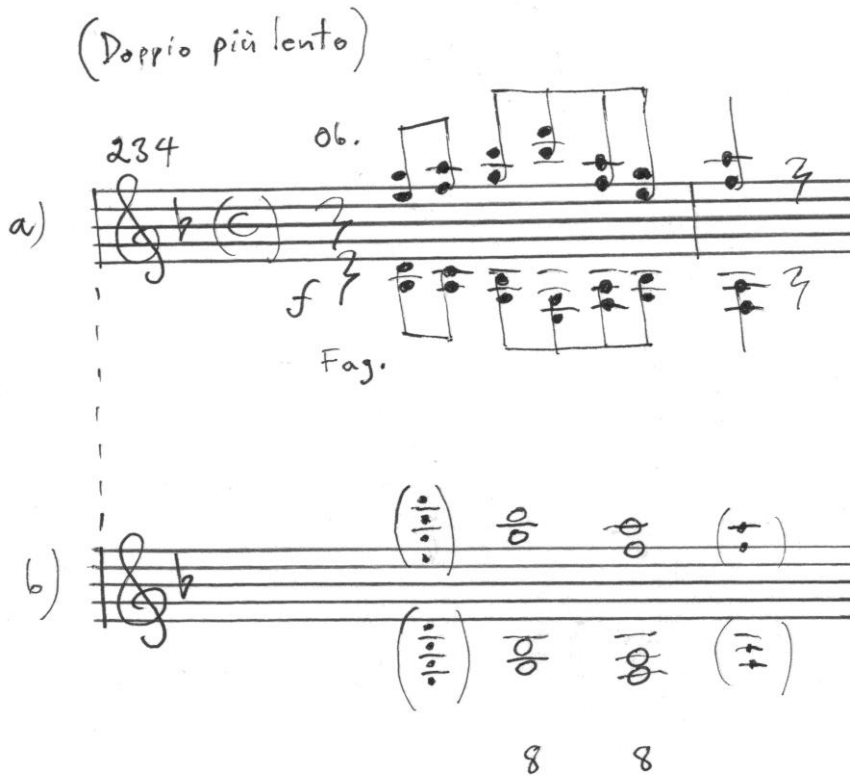
Secondly in a two-voice framework (see chapter 4.3), two components that in the surface level are not heterophonically related, may still be considered as such in the level of harmonic reduction.

In Fig. 9.6–2 there is two-part *Satz* (Fig. 9.6–2a). These bars in F major belong to an alternation of scalarly associated F major and D Aeolian in bars 219–235 (see chapter 4.2.2). At first glance the two thickenings by thirds seem to proceed according to inexact systematic contrary motion (see chapter 7.4). However, in the level of reduction both the thickenings proceed in parallel octaves (Fig. 9.6–2b). The relation between either of the surface level thickenings to the deep level thickening is that of ornamental heterophony, as if there were two simultaneous ornamentations of a (posited) third basic line.

Another sign of a non-traditional *Satz* is in bar 234 where in a passing added-seventh chord (F: VII3+7) the sum-seventh (d3; Ob. I) is neither resolved nor released, but instead leaps as a third of an upper sub-dyad (see chapter 5.3.4).

In bars 238–239 and 247–248 this *Satz* is similar, though its continuation is non-heterophonic.

Fig. 9.6–2 a–b. Components not related heterophonically in the surface level, yet related in that way in the deep level. Sixth Symphony op. 104 (1923) 4. mvt. bars 234–235.



10. DE-PATTERNIZATION

We have already encountered the term de-patternization (see chapter 7.4.4, 7.5.1, 7.6, chapter 8.1.2, 8.2.2, chapter 9.4) and even before launching the term, the phenomenon of de-patternization as well (see chapter 5.5, 5.6, chapter 6.4). The general assumption in this study is that a pattern in a simpler version is conceived firstly and then, if necessary, it is de-patternized to a more complex one. One cannot be sure whether or not Sibelius really proceeded in this way.[308] Nevertheless it is highly probable that human thought, taking its natural course, consciously or unconsciously would proceed from simpler formations towards more complex ones. Anyway, this assumption enables us to present the Sibelian idiom in a systematic way.

10.1 THE TERM DE-PATTERNIZATION DEMARCATED

The term de-patternization should not be confused with the term *de-formation*. Although these terms are not contradictory, still one should not be used instead of the other. Hepokoski uses the term de-formation in connection with forms. "By the last third of the nineteenth century there had arisen a whole arsenal of what I have termed 'deformations' of the *Formenlehre* (standard textbook) structures. Certain 'sonata de-formational' procedures became both common and readily recognizable".[309] … "These structures … as part of the perceptual framework within which they ask to be understood, they do depend on the listener's prior knowledge of the *Formenlehre* 'sonata'".[310]

A form is a totality, while de-patternization works on a smaller scale, concerning the details in the span of phrase or section. Also, de-patternization does not ask to be perceived as a device. De-patternization

[308] At least one incident may be supposed. In a diary entry of 17 August 1910 Sibelius writes: "Strukit hela genomföringen [op. 63, I]. Mera skönhet och verklig musik! Icke combinationer och dynamiska crescendis, med stereotypa figurer – " (*Dagbok 1909–1944*:51). In English: "Crossed out the whole of the development. More beauty, and more real music! Not combinations and dynamic crescendos, with stereotyped figures – " [the last sentence by J. A.] With regard to the English edition it seems that Sibelius strives for stereotyped writing: "Not just scoring or crescendos but stereotyped writing." (Tawaststjerna IIE:142). Sibelius's "med" is "with" in English, while Swedish "men" is "but". Thus Sibelius in an early stage of the development of op. 63:I found it stereotyped and therefore crossed it out. If Sibelius at that stage already used the polymodal two-part adjustments, it may be assumed that they originally followed each other sequentially, whereas in the final stage there are only few traces of this – assumed – pattern (cf. Fig. 4.2.2–4 [op. 63:I:72–74]).

[309] Hepokoski 1993:5.

[310] Ibid.:5.

may not be readily recognizable, but it primarily works in the level of harmonic reduction, or even in the level of scheme (see chapter 9.).

In this respect the term de-patternization should also be discerned from the term *variation*. These terms are not contradictory, but yet one should not be used instead of the other. Variation is a feature readily recognizable in the surface level. A pattern, e.g. a sequence pattern, may be varied in the surface level, while in the deep level this pattern may remain untouched, i.e. not de-patternized. That is why in connection with ostinato the term texture modulation was used instead of de-patternization (see chapter 8.5.3), because in the case of ostinato all variations of a pattern are recognizable in the surface level.

Furthermore, in order to define what is varied one must compare it with what had preceded it either immediately or earlier (A ← A1). There are indeed cases of de-patternization that complete – or interrupt – a process that has been launched earlier.

This kind of case is for example one of alternating harmonies (ABABABA…) that are de-patternized through introducing a third chord (C) that either replaces one of the original chords (ABABACA…), or is inserted (ABABABCA…) between them (see Fig. 7.5.1–1 [op. 112:250–259]). A less straightforward type of this kind of de-patternization is to alter the root by means of increasing a chord in alternating harmonies (ABABCBAB; see Fig. 5.5–2 [op. 49:15–18]), or chords (ABA1BA1CA; see Fig. 5.6–3 [op. 12:III:196–204].

Moreover, a de-patternization that completes a process that has been launched earlier, may in the deep level show a hidden connection with the preceding one (i.e. A ← A1), even if in the surface level there was no recognizable relationship (i.e. A – B).

Yet de-patternization can be put into practice even if the pattern in question had not existed earlier in a composition under scrutiny. These kinds of case are e.g. cadential formulas that belong to the types of patterns available for all composers (see Fig. 8.2.2–3 [op. 82:III:239–242].

This latter aspect in analysis is open to criticism, because in searching for a pattern that in one's mind seems to be de-patternized, in cases that are not as obvious as de-patternization of cadential formulas, one has to jump to conclusions. Thus, in order to characterize a thickening that both begins and ends with unison (see Fig. 8.1.2–2c), or a thickening whose line is ornamented (see Fig. 7.4.4–2 [op. 82:I:81–90]) as *de-patternized*, one has to assume that in the domain of thickenings a collateral line wherein the distance from the line remains unchanged and follows the rhythms of the line exactly, is the statutory pattern.

Even more far-fetched is assuming a pattern (e.g. a parallel) in the level of scheme (see chapter 9.). In these cases the deep level is considered to result from de-patternization (see Fig. 9.4–1 [op. 104:II:116–128]).

In some cases when assuming a pattern in the level of scheme, there is not only de-patternization in the deep level, but also re-patternization into

another kind of pattern. Thus the sequence in Fig. 6.4–1a [op. 104:IV:68–71] may be assumed to be based on a sequence of root-position half-diminished seventh chords in parallel motion (AAA, AAA, AA…) in the level of scheme. In de-patternization in the deep level the second member in each pattern is then replaced by a passing minor triad (ABA, ABA, AB…) and is thus re-patternized at the same time.

In all the cases above and below the process of de-patternization is deduced on the grounds of the written *Satz* only. Therefore there is no certainty that Sibelius really proceeded in this way, but of course this kind of assumption can rarely be confirmed (cf. chapter 12.5).

10.2 THE MEANS OF DE-PATTERNIZATION

As previously mentioned, the terms de-patternization and variation were not contradictory (see section 10.1). In de-patternization Sibelius employs the age-old means applied in the domain of variation, like *omission* and *addition*. *Replacement* may be considered a combination of these (omission of something + addition of something else in the same place). In *displacement* and *re-arrangement* nothing is omitted or added, but the original ingredients are preserved. Here displacement is considered a spatial term, while re-arrangement is a temporal one where the order is changed. The means of de-patternization may be applied either separately or in connection with each other.

Below de-patternization is scrutinized in order of increasing complexity. Firstly de-patternization is examined in the case of a layer. These layers are parallel motion (section 10.3), as well as sequence patterns (section 10.4). Then de-patternization is examined in the case of two simultaneous layers (section 10.5). Finally a case is scrutinised where two different kinds of pattern work together (section 10.6).

10.3 VOICE-LEADING ALTERED IN A PARALLEL MOTION

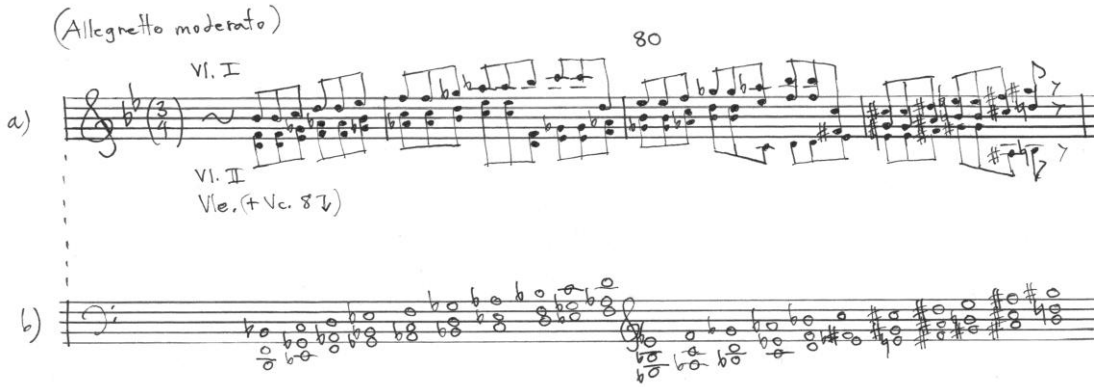
In a parallel the voice-leading may be altered, while the harmonies are kept intact. This alteration may be carried out by means of octave-displacement, or by means of spatial displacement using an interval. If the collateral lines in a thickening are octave-displaced at different points, a kind of *pseudo-polyphony* will emerge. In a parallel motion that produces alternating harmonies the voice-leading in various parts is undulating. Spatial displacement by intervals other than octaves removes the undulating motions and makes the parts more progression-like, while maintaining alternation.

In Fig. 10.3–1a a *fauxbourdon* (Fig. 10.3–1b) utilizing E flat Aeolian-Ionian (cf. Fig. 4.2.1–2d) in bars 78–80 is octave-displaced. Without this

there would have been a continuous ascending thickening. Octave-displacements where an ascending second is replaced by a descending seventh are carried out in different phases. In the line (Vl. I) the device takes place at the third triplets of bars 79 and 80. In this way an ascending thickening is bent to form a sequence-like structure.

In the second (octave-doubled) collateral line (Vle., Vc.) these octave-displacements occur slightly earlier at the second triplets in bars 79 and 80, as well as in bar 81. Regarding octave-displacements the first collateral line (Vl. II) in bar 79 proceeds according to the second collateral line (Vle., Vc.), but in the following bars according to the line (Vl. I).[311]

Fig. 10.3–1 a–b. A fauxbourdon de-patternized by means of octave-displacement. Sixth Symphony op. 104 (1923) 2. mvt. bars 78–81.



In Fig. 10.3–2a there is a thickening (Vl. I, II, Vle.). The modal nature of this de-patternized thickening is discussed later (see Fig. 10.5.3–1 [op. 82:II:182–185]).

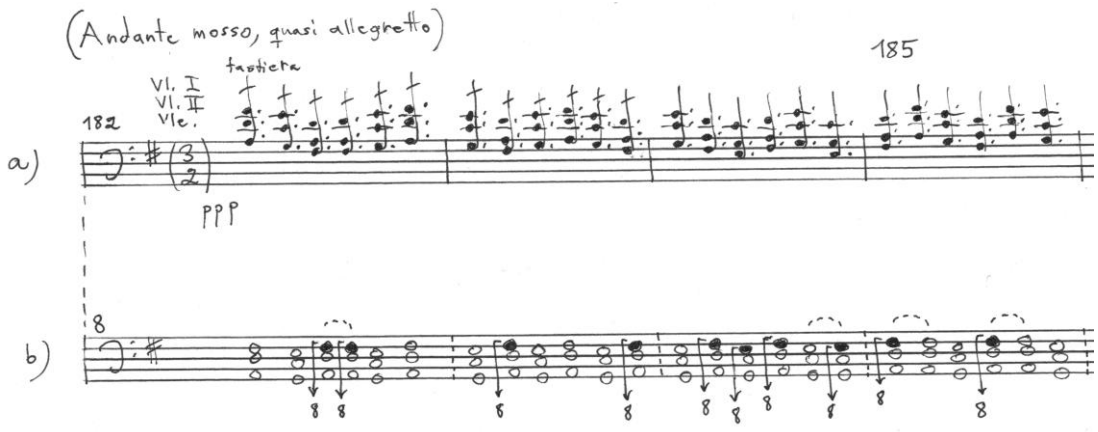
Here the line and the second collateral line (Vl. I, Vle.) proceed in parallel sixths, but the first collateral line (Vl. II) utilizes not parallel, but similar motion, where the would-be parallel tone B is replaced by the tone A and the would-be parallel tone A by the tone G (in bar 184). These replacements cause leaps of thirds that differ from the prevailing stepwise motions of the line and the second collateral line. Similar motion is usual in dissolving thickenings (see chapter 5.1). Yet in this passage similar motion in the first collateral line only results briefly from dissolving, once in bar 184 (c1–g) and twice in bar 185 (a–d1). Then the parallel of sixths also proceeds leapwise.

The reason for the dissimilarities to an ordinary thickening can be derived from de-patternization, more accurately from displacement. It can be assumed to be a thickening of alternating six-four chords (Fig. 10.3–2b). It is written an octave lower in order to avoid ledger lines; for this purpose an alto or tenor clef would have been the best solution. The alternating chord is

[311] In my opinion in Vl. I part the pitch f2 as the second quaver in the printed score in bar 80 is a misprint.

augmented four times from crotchet to minim (in bars 182, 184 and 185). The dissolving mentioned above was conducted during these minims (in bars 184 and 185). Elsewhere the alternation is de-patternized by displacing one of the chord factors an octave lower. This turns a six-four-chord into a sixth chord. This displacing is mostly adapted to the D-rooted chord, only once to the C-rooted one (at the end of bar 184).

Fig. 10.3–2. Alternation of harmonies, but not in the domain of voice-leading. Fifth Symphony op. 82 (1915/1916/1919) 2. mvt. bars 182–185.



Whilst in Fig. 10.3–1 [op. 104:II:78–81] the de-patternization rendered the melodic line itself more interesting, in Fig. 10.3–2 [op. 82:II:182–185] de-patternization of the thickening, which in the complete line-pedal *Satz* (see Fig. 10.5.3–1 [op. 82:II:182–185]) has the function of tardy line (see chapter 5.1.1), offers more melodic and independent counterpoint for the oboe line than the assumed 'original' thickening would have done.

10.3.1 REPLACEMENT OF A COMPONENT IN A PARALLEL MOTION

In de-patternizing a thickening a line or a collateral line may be replaced by another one that follows a scale different from other components of the thickening. This kind of de-patternization, *partial replacement*, may result in another kind of pattern, i.e. may cause a re-patternization.

In Fig. 10.3.1–1 an ascending *fauxbourdon* is shown that at the beginning (in bars 274–277) spatially encloses a pedal point G (Timp. in bars 266–283 and 294–298) that is also present in an ostinato (Timp. in bars 284–293) and terminates above it (cf. chapter 8.4). This *fauxbourdon* is ornamented with lower auxiliary chords (one crotchet in length) that are omitted here. Also in bars 274–280 in the string parts there is only a parallel of sixths. The thirds, which in Fig. 10.3.1–1a are shown by blackened note-heads, are taken from a horn part (Cor. II). This thickened tardy line begins (in bar 274) and

ends (in bar 290) with an A-rooted major sixth chord (d: IV1+V6 ----- V6+IV1 = V six-five added-root ----- V2 added-root).

The assumed original steady *fauxbourdon* is based on a Symmetric octatonic scale (Fig. 10.3.1–1a). In de-patternization the thickening is distributed into two adjacent groups. The two collateral tardy lines (Vc. II, Vle. II) keep proceeding according to this octatonic scale, while in the tardy line (Vc. I, later also Vle. I) the tones A sharp and E natural of the Symmetric octatonic scale are systematically replaced by the tones A natural and E flat (bars 274, 278, 282, 286, 290, [294]). This leads to another kind of octatonic scale that combines disjunctive A- and E flat-rooted major tetrachords (Fig. 10.3.1–1b).[312] In relation to the assumed tonic (d:) the A-rooted tetrachord A–B–C#–D should be considered the dominant tetrachord of D Aeolian-Ionian mixed mode (see Fig. 11.9.1–1 [op. 82:I:274–298]).

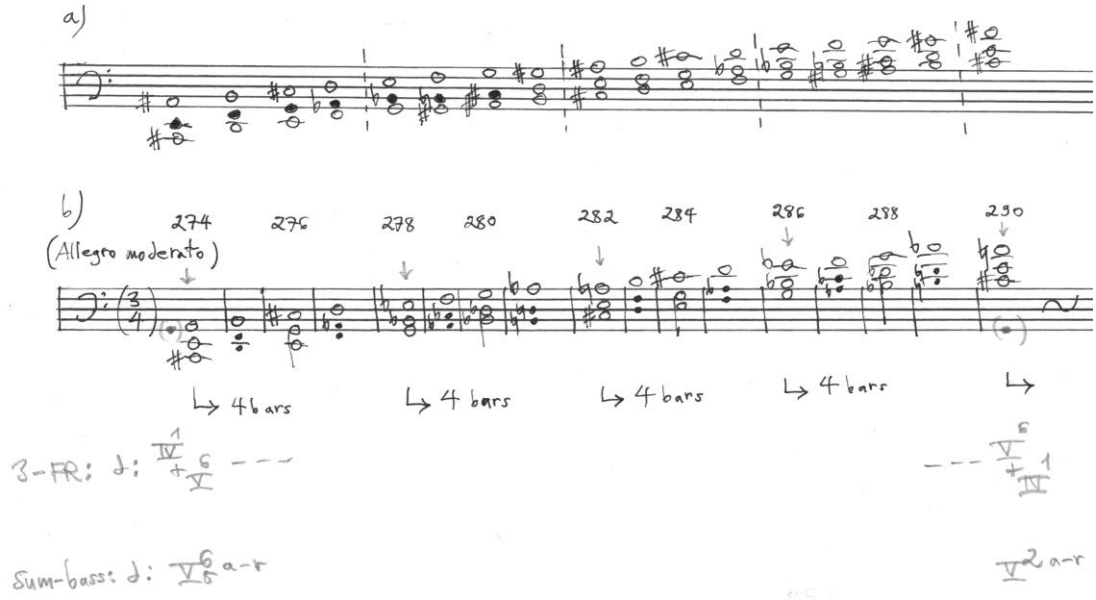
The assumed original thickening (Fig. 10.3.1–1a) only contains diminished sixth chords. For reasons of metrical stress the first and third bars in the four-bar pattern gain in importance. Together these successive stressed chords constitute a single diminished seventh chord (A#–C#–E–G) in various inversions and positions. The sixth chords between these may be considered passing chords.

In the de-patternized polyscalic (see chapter 4.2.2) thickening (Fig. 10.3.1–1b) there are A- and E flat-rooted major sixth chords at four-bar intervals (in D minor these would be V6 and N6). If the passing chords (partly marked by blackened note-heads) are eliminated, these major sixth chords (in bars 274, 278, 282 and 286) together with the C sharp- and G-rooted diminished sixth chords (in bars 276, 280, 384 and 288; partly marked by minims that indicate their sub-ordination in relation to the major sixth chords written as semibreves) constitute alternation of inverted A- and E flat-rooted dominant-type sum-seventh chords. This de- and re-patternization helps in maintaining the regular four-bar phrase-rhythm that already began in bar 242 and continues up to bar 361.

Furthermore, this alternation of A- and E- flat rooted sixth chords in regular four-bar phrase-rhythm seems to be a foretaste of the simultaneous combining of A- and E flat-rooted sixth chords in a three-voice framework (see chapter 4.3) later in bars 294–297 (see Fig. 11.9.1–1 [op. 82:I:274–298]).

[312] This second octatonic scale that contains the intervals tone, tone, semitone, semitone, tone, tone, semitone, semitone is the same as the 6th mode in the well-known list of "seven modes of limited transposition" by Messiaen, whereas the first octatonic scale where tones and semitones alternate, is the 2nd mode in that list.

Fig. 10.3.1–1 a–b. A pattern re-patternized. Fifth Symphony op. 82 (1915/1916/1919) 1. mvt. bars 274–290.



10.3.2 A CHORD ALTERED IN A PARALLEL MOTION

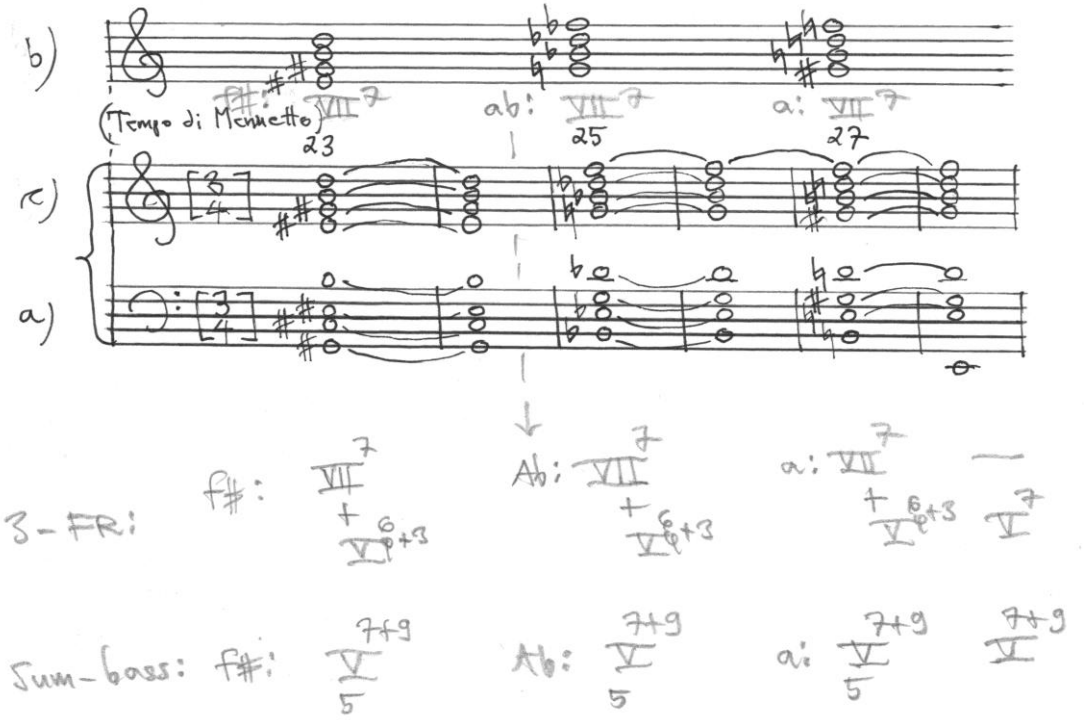
In altering a single chord in a parallel (AAAAAA…), a chord factor in this chord may be replaced by another one. Depending on the scale of change the de-patternized parallel may be considered either AAaAAA, or AABAAA. The change need not be limited to the sphere of harmony, thus the replacement of a chord-factor may have an impact on voice-leading. Parallel motion may be temporarily changed into a progression.

In Fig. 10.3.2–1 there is a combination of thickenings where one of them is supposed to be de-patternized. In the lower framework (pianoforte left hand) there is an ascending parallel of added-third six-four chords (cf. Fig. 7.1.2–2b). The roots of these are C sharp–E flat–E natural (Fig. 10.3.2–1a). In the upper framework (the violin part and pianoforte right hand reduced) the assumed original parallel contains diminished seventh chords (Fig. 10.3.2–1b) the roots of which are E sharp–G–G sharp. As sum-chords these layers would add up to a parallel of C sharp-, E flat- and E-rooted dominant-type minor ninth chords in the 2nd inversion.

Yet in the upper framework in the second sub-chord the assumed diminished seventh F flat (Fig. 10.3.2–1b) is replaced by minor seventh F natural (Fig. 10.3.2–1c). Now the middle chord in the upper framework is a G-rooted half-diminished seventh chord. Also there is no more parallel motion, but the minor seventh F is tied to the following diminished seventh F. During the last E-rooted sum-ninth chord at the end of bar 28 the violin presents the resolution F–E as a 9–8 motion (over a: V7).

From the point of view of the surface level melodic motions these sum-ninth chords function as dominants of F sharp minor, A flat major and A minor. The last of these keys is the principal key of the piece.

Fig. 10.3.2–1 a–c. A parallel motion de-patternized by replacement. *Danse champêtre* op. 106 no. 4 (1925) bars 23–28.



10.4 HARMONIC INCREASING IN A SEQUENCE

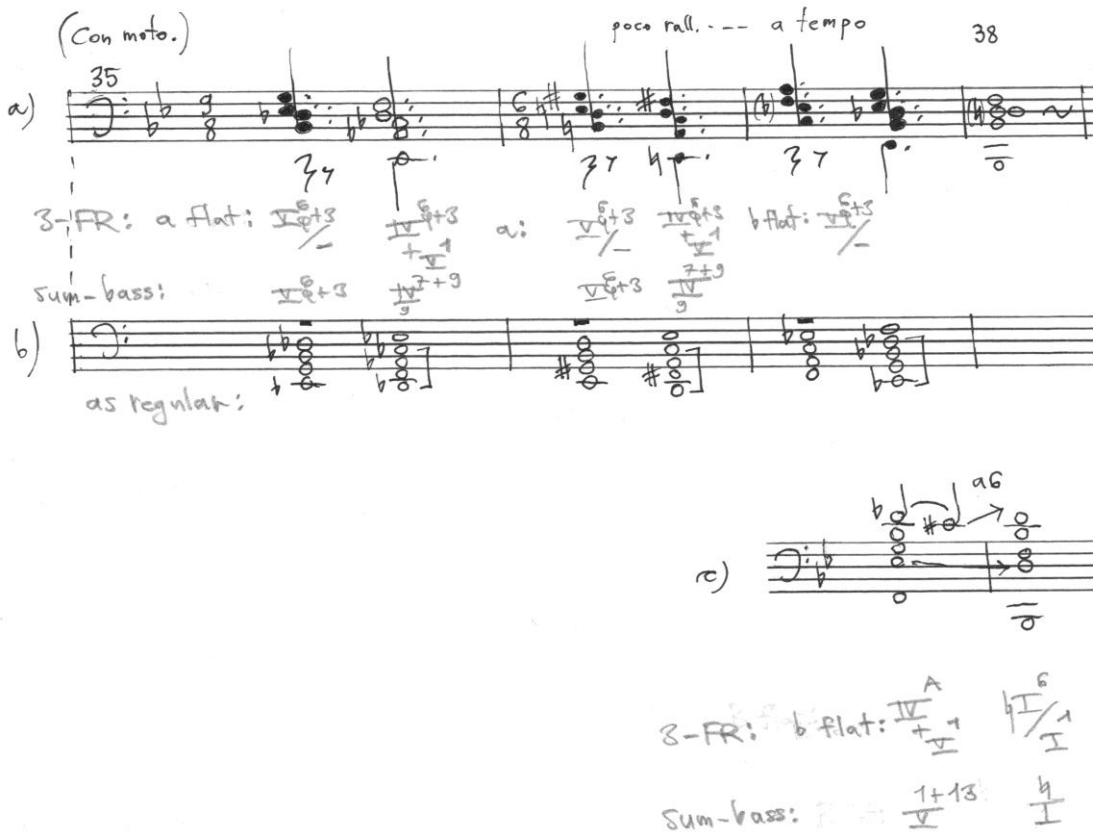
In de-patternization, harmonic increasing is mostly carried out by means of an entering bass. A harmonic sequence may be de-patternized by putting some chords or some repeated initial patterns below additional bass tones that increase the chord either upwards or downwards (see Fig. 6.1.3–3). At this moment the former bass works as an additional bass. The initial pattern in a de-patternized sequence may be a progression, or merely a parallel motion. If this vertical addition is carried out regularly, the process leads to re-patternization.

In Fig. 10.4–1a the supposed original initial pattern is a dissonant thickening of two added-third six-four chords (cf. Fig. 7.1.2–2b). This initial pattern then proceeds in the manner of a harmonic sequence. In bar 35 these chords are characteristic harmonies (cf. Fig. 5.4.1–2) to A flat Aeolian-Ionian (V six-four+3 – IV six-four+3). The pattern is then transposed upwards twice by minor second and the respective keys are A Aeolian-Ionian (in bar 36) and B flat Aeolian-Ionian (in bar 37). The tonal centre of this piece is B flat.

Every time an additive sub-tone – the sum-ninth – is added below the latter sum-seventh chord of the initial pattern (Fig. 10.4–1a). The regular reduction shows that the tone added below the pattern is a dissonance that increases the formation upwards into a sum-ninth chord (Fig. 10.4–1b). In the first two times in bars 35–36 the result of this is (in A flat and A Aeolian-Ionian mixed modes): V six-four+3 – IV six-four+3 + V1 = V six-four+3 – IV7+9 in the 4th inversion. The spatial arrangement of these sum-ninth chords comes near to the closest arrangement of a sum-seven-six-four-two chord (cf. Fig. 5.2.2–4b).

The sum-ninth chord is treated differently the third time, as a chromatic formation leaning on F, including an augmented sub-sixth chord on the IV degree of B flat major (Fig. 10.4–1c). It is enharmonically equal to a sub-seventh chord (B flat Aeolian-Ionian: IV7) in a dominant sum-thirteenth chord in that mixed mode (cf. Fig. 5.2.2–4e and –4d). The ensuing tonic is furnished with a Picardy third.

Fig. 10.4–1 a–c. A parallel motion de-patternized by addition (added-ninth). *Soft West Wind* op. 74 no. 2 (1914) bars 35–38.



10.4.1 DENSE ALTERNATION APPROACHING A SINGLE CHORD

Between alternating harmonies there is always a hierarchy. The harmony that is temporally the longer of the two, or in the case of equally long chords the one that is stressed metrically, may be considered structural and the other chord is thus ornamental. In a dense alternation of equally long chords the importance of the stressed chord grows so, that the effect of alternation approaches that of a single chord that is ornamented.

In Fig. 10.4.1–1 in bars 160–161 in the deep level there is a thickening that consists of root-position minor triads descending by step (cf. chapter 5.1, chapter 8.2.1). In the surface level these alternate with minor sixth chords. These can be considered systematic spatial displacement of root position minor triads that consist of combined lower neighbour notes (cf. Fig. 10.3–2 [op. 82:II:182–185]). In this slightly de-patternized alternation, the bass tone and the third of these ornamenting sixth chords may be considered upper auxiliary tones in relation to the root and the third of the root-position minor triads. However, the sixth of the sixth chord – in a motion as dense as here – may be viewed as a chord factor (an added-seventh), which as figuration is added to the root-position triad (see chapter 4.4).

The lowest component in this *Satz* (Cb. *pizz.*) undergoes *internal texture modulation* (see chapter 8.1). Up to the first crotchet E flat in bar 161 it functions as a doubly augmented version of a theme heard previously,[313] while from the last crotchet F in bar 160 it had already begun to function as a reduced heterophonic line that serves as an *orchestral artificial pedal* for the stressed root-position triads (see chapter 8.3.2). This latter function of the lowest component supports the added-seventh quality of the topmost non-stressed semiquavers.

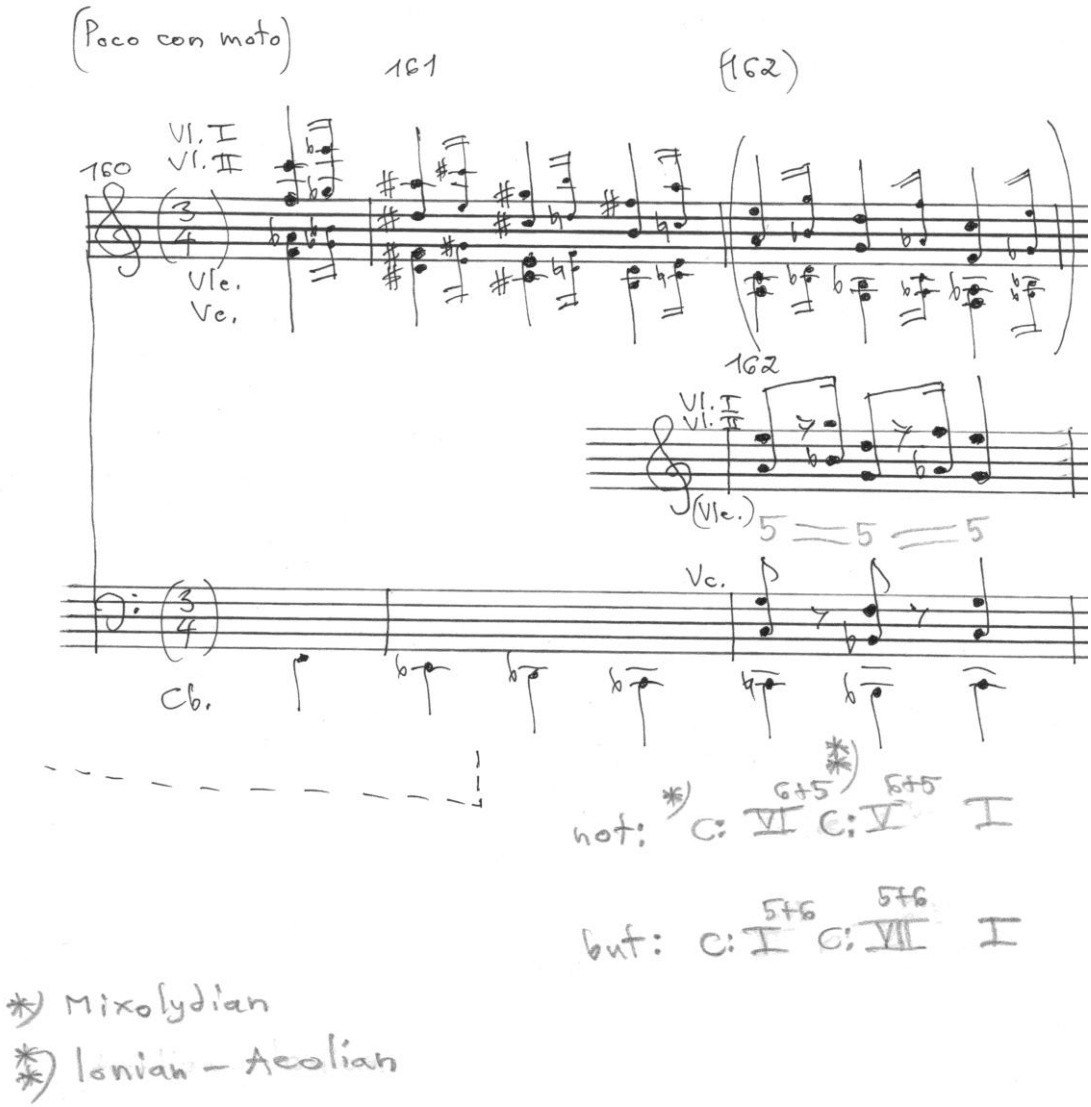
According to the pattern launched in bars 160–161, in bar 162 there should follow A- and G-rooted minor triads with respective ornamenting G- and F-rooted minor sixth chords (in the bracketed bar). In de-patternization that is again based on spatial displacement, the alternation is abandoned. The ornamenting interval of sixth is maintained, while its third is omitted (except in the Harp part in a different kind of figuration). In the stressed minor triads in bar 162 the thirds C (of the would-be A minor triad) and B flat (of the would-be G minor triad) are located lowermost. This alters the would-be bass line (–C flat=B–A–G) to C flat=B–C natural–B flat. In this spatial displacement the ornamenting sixths G and F now become stressed fifths from the bass tones. Their former quality as non-stressed chord factors is recognised in this de-patternization.

[313] See Maasalo 1964:153.

Along with this, the dissolved pentachords also turn from would-be A minor and G minor to C major and B flat major, i.e. from lower sub-triads to upper ones according to a regular stack of thirds (see chapter 4.3). Thus instead of *added-fifth sixth chords*, i.e. the first inversions of added-seventh triads (C Mixolydian: VI6+5 – C Ionian-Aeolian: V6+5 – I) these two de-patternized formations in bar 162 may be considered *added-sixth triads* (C Mixolydian: I5+6 – C Ionian-Aeolian: VII5+6 – I). Here we find interchange (see chapter 4.2.2) in the middle of a closure (cf. Fig. 5.4.2–3e [op. 70:21–22]). So de-patternization here prevents the whole-tone scale F–Eb/D#–C#–B–A–G–F from guiding all the harmonies (see chapter 9.5.2).

From the point of view of the tonal centre G of this movement in the following concluding bars 163–166 the caesura C major triad in bar 162 functions as a pivot chord G Aeolian-Ionian: IV.

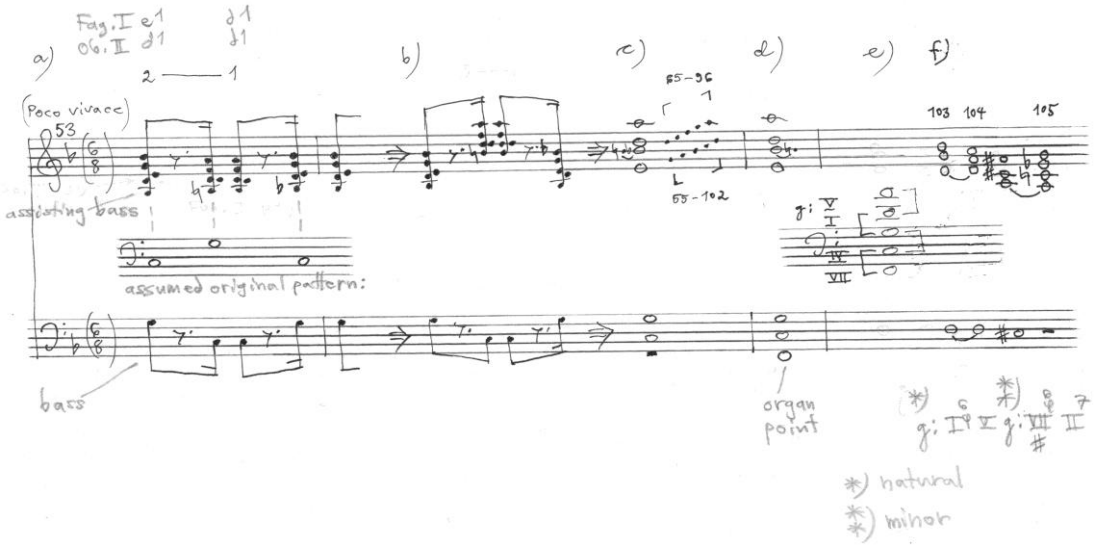
Fig. 10.4.1–1. Harmonic alternation de-patternized. Sixth Symphony op. 104 (1923) 2. mvt. bars 160–162.



10.4.2 TEMPORAL SHIFT BETWEEN LAYERS

In de-patternization of harmonic alternation the chords may be divided into two layers. Then the temporal relation of one may be changed in relation to the other. By this means alternation may approach a single chord in an entirely different sense than in the case of dense alternation (see Fig. 10.4.1–1 [op. 104:II:160–162]).

Fig. 10.4.2–1 a–f. Harmonic alternation re-patternized. Sixth Symphony op. 104 (1923) 3. mvt. bars 53–102.



In Fig. 10.4.2–1a in the upper staff there is an assumed pattern of an assisting bass where an E-rooted half-diminished seventh chord (in the 2nd inversion) and a B-rooted half-diminished seventh chord (in the root-position) alternate. Between Ob. II and Fag. I there is a releasing motion (2–1; cf. Fig. 5.3–2a) repeated in every bar. Below the assisting bass between the staves there is a bass where the tones G and C alternate. In this assumed original pattern both these bass tones increase the half-diminished seventh chords into dominant-type C- and G-rooted sum-ninth chords. These sum-chords may be regarded as the accompanying harmonies for G- and D-rooted melodic minor pentachords (seen in Fig. 10.4.2–1c). These pentachords indicate two different themes that, once announced, are subsequently both treated canonically. The G-rooted minor pentachord (Vl. I from bar 55 on) may be considered the upper sub-triad of a C-rooted sum-ninth chord (suggested in the middle staff in Fig. 10.4.2–1a), and the D-rooted minor pentachord (Fl. from bar 65 on) may be viewed as the upper sub-triad of a G-rooted sum-ninth chord (also suggested in this middle staff in Fig. 10.4.2–1a).

Yet in bars 53–64 there is a different alternation (the topmost and the lowermost staffs in Fig. 10.4.2–1a), which may be explained by de-

patternization. The two layers of the original pattern are *re-arranged* either by temporally delaying the tones C and G in the bass in relation to the upper layer, or by switching them. In both cases the result is a re-patternization to an alternation between an E-rooted half-diminished seventh chord (in the 1st inversion) and an organ-point formation (e.g. C: VII7/I1). However, due to the spacing of the bass tones (g and c) in the re-patternization, the lower of these (c) gains a dominating position, as if an interval of fifth g/c were sounding continuously beneath both harmonies (Fig. 10.4.2–1b).

Arranged in this way, the alternating chords are harmonically able to support the simultaneity of G- and D-rooted minor pentachords. At the moment the D-rooted minor pentachord enters, the layers of the alternation melt into one single harmony, a C-rooted dominant-type added-thirteenth ninth chord (9+13) ornamented with a chromatic neighbour note B natural (Fig. 10.4.2–1c).

In this multi-layered passage the organ point C represents a C–rooted major pentachord (d/g/C). Yet here the tone C should not be considered F: V1. In relation to the G- and D-rooted minor pentachords the pedal point C acts as G Dorian: IV and D Aeolian: VII. Before long (in bar 74) this three-layered sum-thirteenth chord is further complicated by the location of an organ point F fifth below the root c (d/g/C/F) in bars 74–76, 80–82, 86–88, and 91–102 (Fig. 10.4.2–1d). This lowest tone F (by Cb.) should not be considered F: I1, although there is a tonic-type organ point below a dominant-type chord (see chapter 5.2.3).

On the grounds of the continuation in bars 102–104 (g natural: I six-four–V – g: VII with #5 in the 2nd inversion–II7; Fig. 10.4.2–1f), in this multi-layered structure the most important pentachord may be considered the G-rooted one. According to the G-rooted pentachord the four simultaneous pentachords may be deciphered g natural: V/I/IV/VII (Fig. 10.4.2–1e; see chapter 11.3.5).

10.5 A LAYER DE-PATTERNIZES ANOTHER

Hitherto de-patternization has been observed in a component or in a layer. There are also cases when it may be reckoned that out of two simultaneous layers one of them de-patternizes another. Below three kinds of relation are scrutinised. One layer may erase another (section 10.5.1), may have an effect upon another (section 10.5.2), or it may immerse itself into another (section 10.5.3).

10.5.1 A LAYER NOW AND THEN ERASED

A layer that in its course is sequentially transposed may now and then be partly erased by another layer, but yet the overall ascending or descending

plan may be carried out irrespective of these interruptions. In de-patternization a part that is erased may be filled up by other thematic material from another layer.

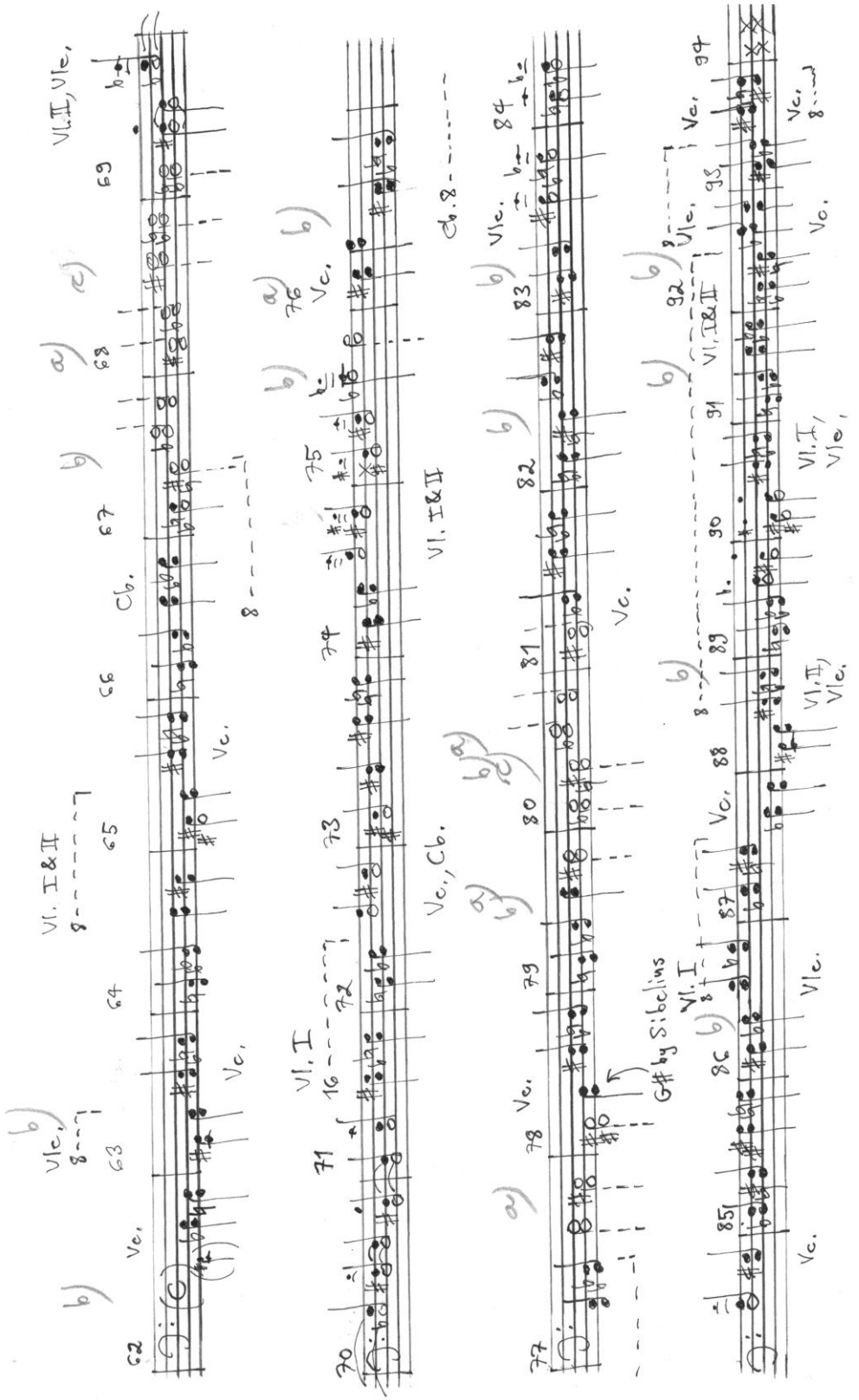
In Fig. 10.5.1–1 there is a reduction of a completed sequence founded on a four-note initial pattern (C–B–G#–A in bars 62–63) on which the battle music section in bars 62–93 of *Scena* op. 25 no. 2 (1899/1911) is based. It is presented mostly with crotchets in the various string groups and is thickened by thirds (C/Ab – B/G – G#/E – A/F in bars 62–63). In double counterpoint the line and collateral line change their places and then the chromatic four-note pattern turns into a parallel of sixths. Sometimes either in the line or in the collateral line one tone (bars 66, 67) or tones (bars 72–73) in the pattern are left out, or replaced by others (65, 78; in bar 65 the reason for replacement is that the second violins cannot reach the lower f sharp). In general the tones not realized in the pattern are marked by open note-heads, while the realized ones are marked by the blackened ones.

Besides this four-note pattern three other motives occur, shown by lowercase letters in the reduction. The first of them (motive a) is a descending segment of a chromatic scale that is settled in double counterpoint with the four-note pattern (strings *sul ponticello*).[314] The second (motive b) is a fanfare-like repetitive triplet + sustained tone-motive that may occur in one or more parts. In the latter case the result is a repeated interval. The third (motive c) is a fragment that is taken from the principal theme of the piece, originally occurring in bars 26 and 29. The second and the third motives are reserved for the wind instruments. In the reduction the motives b) and c) are marked every time, whereas the motive a) is only marked where the four-note pattern is not realized.

The four-note pattern appears mostly in medium, sometimes in low (F1) as well in high (g3 sharp) registers. When these various spatial locations are eliminated, it becomes clear that in every appearance the four-note pattern is repeated a minor second higher (the battle increases in vehemence). Sometimes the four-note pattern is erased by the motive a (in bars 77–78) or by motives a and b (in bars 75–76), or by the motives a, b and c (bars 67–69, 79–81) that elsewhere accompany the four-note pattern. A fact worth noticing is that every time after an interruption the four-note pattern returns at a pitch level determined by the ascending plan, as though the interruptions are not taken into consideration (cf. Fig. 10.5.2–1 [op. 82:I:18–24]).

[314] Tawaststjerna IIF:162, IIS:127–128, IE:221 (Ex. 188).

Fig. 10.5.1–1. A pattern now and then erased. *Scena* op. 25 No. 2 (1899/1911) bars 62–94.



10.5.2 A LAYER'S EFFECTS UPON ANOTHER

In layered *Satz* there may be two different kinds of pattern that are harmonically incommensurable. One reason for this may be that in different layers the harmonic rhythm is different, another may be that the scales in them differ from each other. In de-patternization one pattern maintains its appearance and affects another harmonically.

In Fig. 10.5.2–1a there is a line-pedal *Satz* (see chapter 5.1) where alternating harmonies in one layer de-patternize parallel motion in another. The melodic layer (Fl., Ob., Cl.) and the bass (Vc., Cb.) comprise an organ point *Satz* in which a Neapolitan chord and tonic succeed over a mediant organ point (B) in a subordinate key G major (G: N/III1 – I/III1) in bars 18–24. The deep level continuous organ point in the surface level is broken in two different ways into a ceasing and re-entering organ point B (in Vc. & Cb. and in Timp. here left out).

The chords G: N–I in bars 20–23 are distributed to woodwinds that present them as a dissolving plain line (Fl., Ob., Cl.). The woodwinds repeat this progression in bars 24–25 where the upper strings present a progression g: N six-four–I six-four–G: V2. In bar 25 the last of these chords is a sub-chord in a polychord G: I3&V2).

Besides the line and organ point, a thickened tardy line also proceeds between them. The upper strings (Vl. I, II, Vle.) play an ascending thickening that in the level of scheme (see chapter 9.) utilizes a Symmetric octatonic scale (D–D#–E# or F–F#–G# or Ab–A–B–C) where there is no G (Fig. 10.5.2–1b). All the chords sound as diminished triads in the first inversion, i.e. diminished sixth chords (cf. Fig. 10.3.1–1a [op. 82:I:274–290]). Due to orthography based on diatonicism some of these are written as root-position or inverted diminished seventh chords (Fig. 10.5.2–1a).

However, in the ascending thickening the diminished triads and seventh chords that contain G sharp would not support the triad G: I6. In order to achieve this, the octatonic *fauxbourdon* is de-patternized. Every time the low strings (Vc., Cb.) sporadically (in bars 18, 20, 22 and 24) play the tone B/B1, which is a common tone to both G major and the Symmetric scale, in the *fauxbourdon* the scale-tone G sharp (or A flat) is replaced by G natural. This causes G-rooted pentachordal linear structures in the tardy line (Vl. I: G–A–B–C–B–D in bars 20–22), as well as in the first collateral tardy line (Vl. II: G–A–B–C–D in bars 18–20, 22–24).

Whether in the tardy line, or in the collateral tardy line, the replacement G natural is always the sixth in G: I6 (shown by arrows in Fig. 10.5.2–1b). Mostly the low B stands as the bass of G: I6, but once in bar 20 the bass B takes part in a polychord with the sixth and root of the Neapolitan chord (G: N6&I6).[315] Elsewhere the two remaining tones G sharp (in bar 19) and A flat

[315] The dissolving motions in the score do not include the tone C that is the third in the Neapolitan triad. The third is thus only assumed in this polychord. By interpreting the low B as an enharmonically

(in bar 23; shown by dotted arrows in Fig. 10.5.2–1b) occur before and after the triadic G major content of the woodwind line in bars 20–23. Supported by the low bass B, in its present form the most prominent harmonies in the tardy line are G: I6 chords.

In this de-patternization in the tardy line the ascending assisting bass of *fauxbourdon* (Vle.) always descends and behaves like an inner voice in relation to the low B. After these spots of four-part writing the following chord is always presented according to the original octatonic scale in the form of ascending *fauxbourdon* as if nothing had obstructed the pattern (cf. Fig. 10.5.1–1 [op. 25:II:62–94]).

Although the de-patternization brought the octatonic *fauxbourdon* nearer to the harmonic content of the line, the polyscalic (see chapter 4.2.2) relation between the line and tardy line is still far from the traditional melody & accompaniment-relationship. The same applies to the rhythmic as well as the harmonic design. The chords in the ascending *fauxbourdon* usually change on weak beats irrespective of the harmonic changes in the woodwind layer. Only once (at the beginning of bar 22) in the string layer is there harmonic change on the strong beat. This takes place during a rest in the woodwind line. With regard to harmonic design the two layers also seem to be far from the traditional melody & accompaniment-structure. Organ point-formations, polychords or sum-chords between the line and thickened tardy line seem accidental. The emerging dissonances are everywhere treated by stepwise motions, i.e. either resolved or released.

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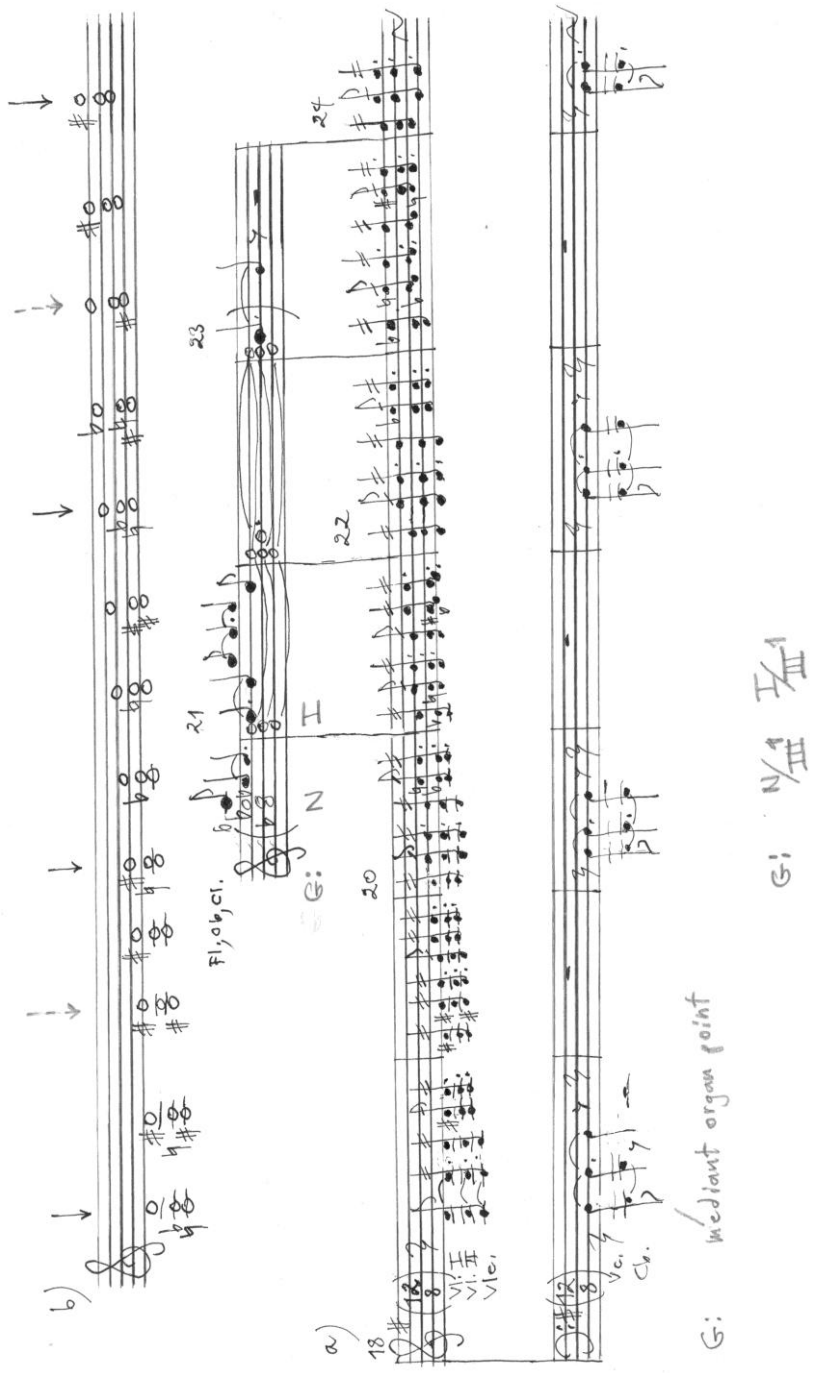
equal C flat, the sixth chord Cb–Eb–Ab (so-called minor Neapolitan) and G: I6 share a mutual bass tone in a different polychord.

Fig. 10.5.2–1 a–b. A heptatonic layer affecting to an octatonic one. Fifth Symphony op. 82 (1915/1916/1919) 1. mvt. bars 18–24.



10.5.3 A LAYER IS IMMERSED INTO ANOTHER

In cases in which different layers have different harmonic rhythm, several chords may occur in one layer against the single chord of another (cf. Fig. 10.5.2–1 [op. 82:I:18–24]). This means that in this another layer the

harmonic rhythm is denser. In the case of a dissolved longer chord each of these shorter chords covers fewer successive tones than the single dissolved chord.

For the layers to coexist there is also a solution that differs from erasing one layer (section 10.5.1), or from having an effect upon another (section 10.5.2). In this solution every (or almost every) tone in a dissolving line may be connected to a different chord of another layer. The longer harmony does not become realized as a layer (omission), but is permeated by denser chords.

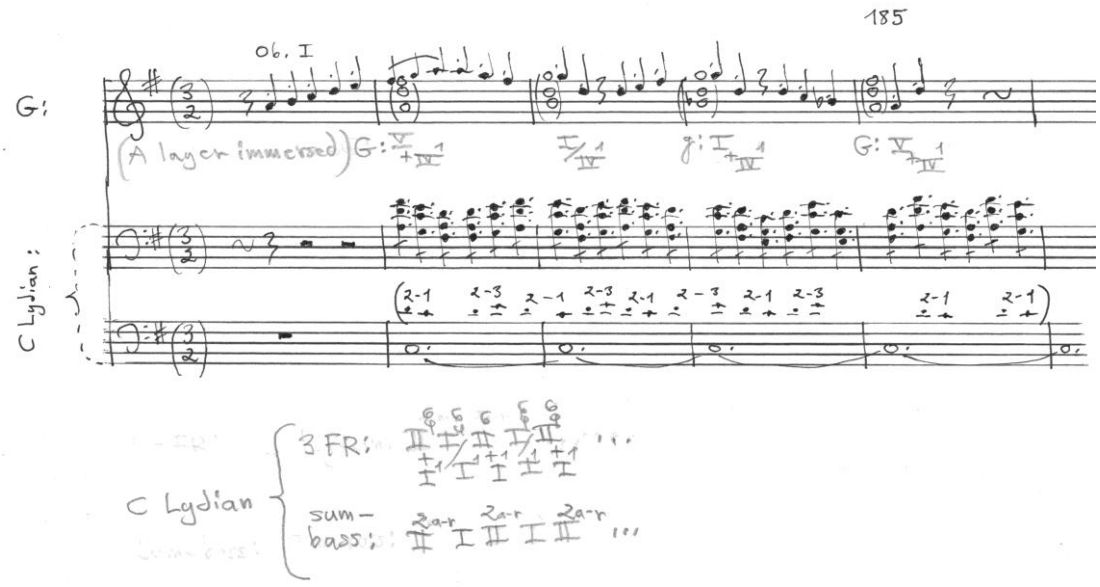
In Fig. 10.5.3–1 in bars 182–185 there is a line-pedal *Satz* (see chapter 5.1) where a melodic line (Ob.) proceeds over a sustained tone C (Vc., Timp.). Between these components there is a de-patternized thickening (see Fig. 10.3–2 [op. 82:II:182–185]). The dissolved harmonies of the line can be traced back to G major and minor after an interchange (see chapter 4.2.2). In relation to this G-centered melody, the sustained tone C should be considered a subdominant organ point. One organ point-formation (in bar 183) among sum-chords (G: V+IV1 – I/IV1 – g: I+IV1 – G: V+IV1) is enough to establish a line-organ point *Satz* (see chapter 5.1.2).

However, if this sustained tone C is considered to be the tonic, it shows itself as a *pedal point* (see chapter 5.1.2) against which the de-patternized thickening (Vl. I, II, Vle.) presents dense alternating C Lydian: II2 added-root – I harmonies. In this layer in the line (Vl. I) and in the first collateral line (Vl. II) releasing motions 2–1 (cf. Fig. 5.3–2a) and 2–3 (cf. Fig. 5.3–5b) occur. The harmonies of the different layers (in G major and in C Lydian) are thus derived from different fifth-related pentachords (G: and C:). The simultaneous alternatives for fifth-related ambiguity (see chapter 11.3.4) are thus I/IV and V/I. The former is primary from the point of view of form, whereas the latter is local (see chapter 11.9.2).

Each tone of the dissolved harmonies in the Oboe melody is a chord factor either of the C Lydian: II2 added-root, or of C Lydian: I. In this relation between the layers one alternative (I/IV) from the modally ambiguous combination of fifth–related pentachords thus becomes *immersed*. The dense alternation prevents the harmonies of the melodic layer (G:) from being established. Along with this immersion the G minor key in the interchange (in bar 184) should be considered G Aeolian-Ionian. In the string layer the corresponding interchange takes place between C Lydian and C Lydian-Mixolydian.

Yet this melodic layer, which in these bars has lost its harmonic stand for the local layer has a solid harmonic context. Before and after this passage G major may be considered the prevailing key that in bars 182–185 *encloses* the C-rooted mode (see chapter 11.9.2).

Fig. 10.5.3–1. A tonal layer immersed into a modal layer. Fifth Symphony op. 82 (1915/1916/1919) 2. mvt. bars 182–185.



10.6 OVERLAPPING PATTERNS

In the case of overlapping patterns there is a situation where two sequential patterns work simultaneously through a passage. The second chord of the first initial pattern is always the first chord of the second initial pattern and vice versa.

In Fig. 10.6–1 the first initial pattern is based on the two last chords of the preceding section (bars 201–210; cf. Fig. 5.1.3–1 [op. 63:IV:179–209]). The most obvious progression for an initial pattern would be g sharp: III1/V6 – I (Fig. 10.6–1a), but instead of the would-be tonic triad in bar 210 the dominant (with the third degree organ point B) is followed by a G sharp-rooted half-diminished seventh chord (Fig. 10.6–1b). The first initial pattern (bars 201–211) is thus based on a deceptive cadence where the resolution of the seventh (a sharp) is taken over by the bass (G sharp) that becomes an assisting bass at the moment of the entering A1 (Cb.).

This pattern is then sequentially conducted downwards through the keys F sharp minor and E minor. These keys are chosen in order to describe the initial pattern of this chromatic sequence as briefly as possible. The third time, in bars 216–218 the dominant is no longer followed by the same deceptive cadence, but by another kind, an incomplete dominant-type chord (C: V2). Interestingly enough the interval of a diminished fourth above the bass (that in bars 201–210 functioned as an organ point), is also included in the following patterns. The pseudo-organ point tone A in bars 212–213 is preceded by A1 in bars 210–211 where it (as an entering organ point) is located below the G sharp-rooted half-diminished seventh chord. The same

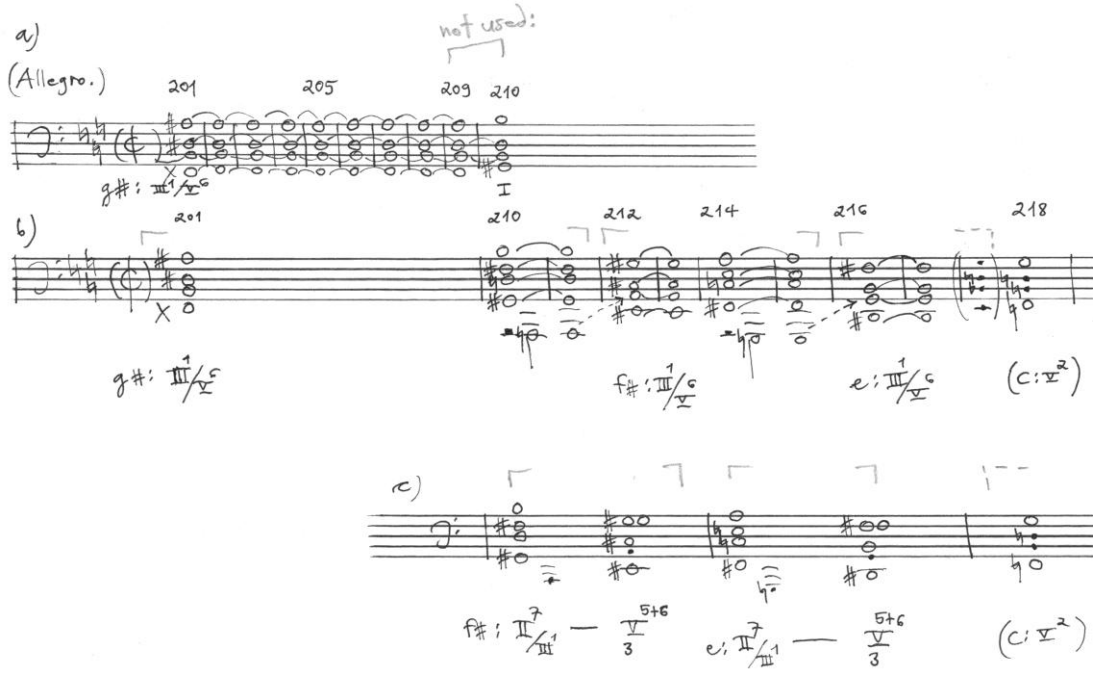
procedure is also carried out in connection with the pseudo-organ point tone G (in bars 216–217) and the entering bass tone G1 (in bars 214–215).

The initial pattern of the second sequence in bars 210–213 (Fig. 10.6–1c) is based on supertonic and dominant chords (f sharp: II7–V6). Again, the resolution of the seventh in these patterns is taken over by the bass. In this second pattern the formation that earlier resulted from a triad and organ point in bars 201–209 may now be considered a factor (i.e. an added sixth) of an inverted added-sixth triad. Thus the descending chromatic sequence f sharp: II7–V6 – e: II7–V6 turns to f sharp: II7 – V5+6 in the 1st inversion – e: II7 – V5+6 in the 1st inversion. During the II7 chords in bars 210–211 and 214–215 the organ point-formations (II7/III1) on the low A1 and G1 are similar to the organ point-formations VII7/I1 in a major key.

The key-scheme in bars 178–236 is e: – f sharp: – g sharp: – f sharp: – e: – C:. The guiding principle of it may be supposed as a segment of a whole-tone scale where the D-centered key is missing, or even a segment of A Aeolian-Ionian mixed mode (cf. chapter 9.5.2, 9.5.3).

Later in the first movement of the Fifth Symphony, Sibelius treated this kind of chromatic sequence (f sharp: II7–V6 – e: II7–V6) thoroughly and in a different way (see op. 82:I:353–486).

Fig. 10.6–1 a–c. Overlapping patterns. Fourth Symphony op. 63 (1911) 4. mvt. bars 209–218.



10.7 CONCLUSIONS

As a compositional principle de-patternization is not new. Some de-patternizing devices of medieval origin, like hoquetus, were never abandoned

in the course of music history, but (under different names) continued to be used by later composers, including the Viennese Classics which form the bulk of the musical heritage with which Sibelius was familiar (see chapter 7.6).

The de-patternization of thickening cannot be considered as something solely of Sibelius's invention. It may be also found in the music of other composers who used thickenings as an integral part of their compositional technique. Nor need one regard Sibelius as merely a follower of fashions set by other composers. Every composer who uses thickenings (or other kinds of pattern) as a compositional tool inevitably faces the need to de-patternize, because compositional practice imposes its own demands in terms of variety and subtlety.

In the domain of line-pedal *Satz* (see chapter 5.1) de-patternization may be seen as the result of an urge to refine resources to the utmost, up to the point where the pattern-based process of thought is no longer observable. Although it certainly was not Sibelius's goal to make his music "deliciously unclassifiable" (see chapter 1.2) through de-patternization, it has made it undeniably more difficult to seize upon his pattern-related ideas from an analytical standpoint.

Furthermore de-patternized components of the *Satz* may be used along with standard patterns in order to respond to the need for variation caused by aesthetic demands. Thus any device of *Satz* is never merely a textural matter, but always part of a formal design. In this respect the concept of de-patternization cannot be totally separated from the sphere of form (cf. section 10.1). The same applies to the simultaneous mixing of the traditional *Satz*-technique and the Sibelian *plein air* manner (see chapter 1.4). This blending may be considered the ultimate stage of de-patternization.

11. TONAL DIMENSIONS OF SIBELIAN *SATZ*

At the beginning of this study, the Sibelian device of superposed fifth-related triads that he presented in his lecture fragment was introduced (see chapter 4.1). We have seen that this device as a sum-chord permeates his output after the year 1896 (see Fig. 5.3.3–1 [op. 18:IV:1–5], Fig. 6.1.6–1 [op. 112:615–622], Fig. 7.3–2 [op. 112:596–597], Fig. 7.3–4 [op. 114:II:8–11], Fig. 7.4.1–1 [op. 106:IV:9, 10], Fig. 7.5.1–1 [op. 112:251, 253, 255, 257]). Yet up to this point we have mainly studied the realm of voice-leading. The tonal dimensions of a sum-chord have been touched only occasionally. As rewarding and fertile as the possibilities are for voice-leading of a sum-chord, it is really the tonal dimension that makes the Sibelian device peculiar to him. On the other hand, this postponement of handling the tonal dimension was necessary in order to avoid the accumulation of complex situations that would have caused inconvenience earlier when dealing with Sibelian *Satz*.

11.1 TONAL DIMENSIONS AND SCALIC SITUATIONS

The tonal dimensions of any *Satz* are inextricably connected with scales. We have already noted that in the music of Sibelius the components of the *Satz* may either utilize the same scale, or different ones. Hitherto tonality and modality were described where all the parts use a common scale and share a common key-note, and polymodality (see chapter 4.2.2), where there are different scales in the parts but they still share a common key-note. In this chapter other possibilities, namely modal ambiguity and bitonality, are explored.

In these the parts use scales that share a different key-note. The scales may either be scalarly associated (modal ambiguity), i.e. utilize the same set of tones (see chapter 4.2.2), or not (bitonality). According to these variables the different scalic situations and their respective tonal dimensions can be presented in the form of the following table.

	common key-note	different key-notes
common scale	A. tonality or modality, layered or not	C. modal ambiguity
different scales	B. polymodality, poly-scality	D. bitonality

In this table the terms in B., D. and C. deserve some reflection. As such the terms “modality” and “tonality” are very emphatic. Here they are used as postfixes (“-modality”, “-tonality”) in reference to certain transitory scalic situations.

In polymodal combinations (B.) in the music of Sibelius there are practically always two different scales that share the same key-note. Yet instead of the term "bimodality" I will – following the practice of Bartók – use the term *polymodality*.[316] This term will also be used when one of the scales involved is either a major or minor scale.

On the other hand, the term *bitonality* (D.) is also applicable, because in the music of Sibelius in bitonal situations there are almost always two different scales that have different key-notes. Therefore the term *polytonality* is not necessary. However, the term "bi*tonality*" is also used when one (or even both) of the scales involved is a mode.

Respectively the term "*modal* ambiguity" (C.) is used whether or not one of the scales involved is either a major or minor scale. According to its definition above, modal ambiguity means a scalic situation where the parts contain simultaneous scalarly associated modes that perforce have different key-notes.[317] Yet in this study in the domain of modal ambiguity some cases have also been included where the scales do not utilize exactly the same set of tones, i.e. the cases that according to the table above should be considered bitonal. The criterion for this deviation from the definition based on scales depends on the harmonic relations of the pentachords (see sections 11.3, 11.4).

In the text below modal ambiguity is dealt with firstly (sections 11.2, 11.3, 11.4 and 11.5) and then bitonality (section 11.6). These devices may also be connected (section 11.7). Finally there is a reflection on formal (section 11.8) and modulatory potentials of modal ambiguity and bitonality (section 11.9).

11.2 MODAL AMBIGUITY

As stated above, the tonal dimensions of *Satz* are resolutely connected with scales (see section 11.). Yet in modal ambiguity (C.) the scalarly associated modes only lay the foundation for it. The phenomenon furthermore leans on simultaneous different pentachords, in a sum-chord.

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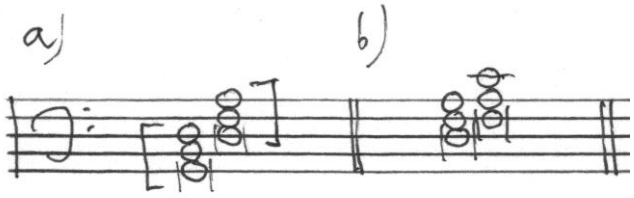
316 Bartók spoke about "bimodality or polymodality" (Bartók 1976:370, 376). He thus distinguishes the use of two simultaneous different modes having the same finalis from using more than two, but still used the term polymodality in connection with only two modes. After Bartók this practice has been followed (e.g. in Oramo 1977). I too have decided not to depart from this somewhat inexact practice.

317 Piston's General index (Piston 1978:585) includes the term "ambiguity", but excluding presenting "the Triad with Added Sixth" (Piston 1978:359–360, 363) he does not use that term in the same context as it is used in this study. On the other hand, Piston does recognize a modally ambiguous situation (according to our terms) where simultaneous G Mixolydian and A natural minor scales occur (Piston 1978:478–479 Ex. 30–34 by Stravinsky). Yet he says that either the tonal center in it is "uncertain", or that it is "comparable to bitonality".

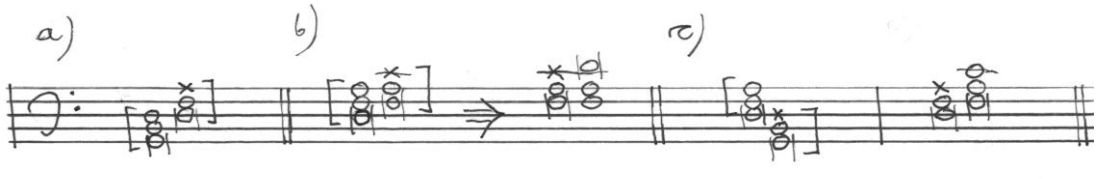
In Sibelius' music modal ambiguity may be achieved either by means of fifth-related pentachords, or by means of third-related pentachords. In an additive harmony (see chapter 3.5) the simultaneous combination of fifth-related pentachords makes a sum-ninth chord (Fig. 11.2–1a), while the sum of third-related pentachords is a sum-seventh chord (Fig. 11.2–1b).

Fig. 11.2–1 a–b. Fifth- and third-related pentachords as vehicles for modal ambiguity.



Those are the results in connection with complete pentachords. A short (see chapter 4.2.3) *upper* pentachord may decrease these sum-chords. (In connection with a short pentachord dealt with in chapter 4.2.3 the missing tone compared with a complete pentachord is denoted by a crossed note-head.) In fifth-related combinations a short upper pentachord results in a sum-seventh chord (Fig. 11.2–2a). In third-related combinations a short upper pentachord results in a triad in a regular stack of thirds. Ambiguity in this kind of combination can appear only if the layers are presented irregularly as a sixth chord (Fig. 11.2–2b; see section 11.4). On the other hand both in fifth- and third-related combinations a short *lower* pentachord can represent a sub-triad in the manner of a complete pentachord, because in fifth-related combinations the missing fifth, or in third-related combinations the missing third and fifth appear in a complete upper pentachord (Fig. 11.2–2c). For the sake of clarity the discussion below is based on complete pentachords, unless otherwise stated.

Fig. 11.2–2 a–c. Short pentachords in fifth- and third-related combinations.



In a sum-chord, the pentachords as sub-triads always form a *degree-combination*. In a non-ambiguous sum-chord only one degree-combination (e.g. I+IV) is suggested (see Fig. 11.3.1–2 [op. 112:68–72). Modal ambiguity lies in the fact that a simultaneous degree-combination may be grasped from

the point of view of either pentachord. Thus two different degree-combinations may simultaneously be perceived that coexist and compete without cancelling each other (e.g. I+IV=II+V; cf. Fig. 11.3–2c). This may be considered the mechanism of modal ambiguity.

This situation in some way resembles the position of a pivot chord in a modulation. There are still some differences. One difference is that in a traditional modulation there is always a chord instead of a sum-chord. Yet this difference is not decisive, because a sum-chord, even a modally ambiguous one, may be used as a pivot chord in a modulation (see section 11.9.1). The essential difference is, that under a traditional pivot chord the degree-alternatives (e.g. C: II6 = a: IV6) are on top of one another only on paper. In music the pivot chord is clearly a degree in a certain key and only after the modulation does its position as a pivot chord become obvious. However, in a modally ambiguous sum-chord the simultaneous competing degree-combinations are perceivable protractedly and after this modally ambiguous situation the prevailing key may be continued, i.e. ambiguity does not necessarily lead to a modulation.

The different coexisting degree-combinations are presented below in detail. Since in his lecture fragment Sibelius chose to draw attention to a fifth-related combination of pentachords, these are dealt with firstly (section 11.3), then the third-related ones (section 11.4). Finally the techniques of modal ambiguity (sections 11.2–11.5) and bitonality (section 11.6) are juxtaposed (sections 11.7–11.9).

11.3 MODAL AMBIGUITY BETWEEN FIFTH-RELATED PENTACHORDS

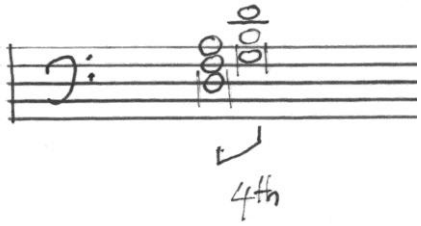
In the example in his lecture fragment the composer simultaneously combined a D-rooted minor pentachord and a G major triad below it (see chapter 3.5, chapter 4.1). In illuminating modal ambiguity they can still be used below – although Sibelius refrained from elucidating the harmonic context of those sub-triads, one of which does not lead to modal ambiguity (see “the first type” in section 11.3.1).

From the lecturer’s pulpit in 1896 it was made clear that the upper pentachord includes a dissolving melody, while the lower one appears as a sustained (or figurated) chord. The same is true in most fifth-related cases of modal ambiguity. The lower pentachord rarely contains the melodic thread (see Fig. 11.3.2–3 [op. 73:45–54]). In a three-voice framework (see chapter 4.3) the lower sub-triad may also be included in a wider lower sub-chord (see Fig. 11.3.1–5 [op. 7:II:93–96]).

Irrespective of the regularity or irregularity of the sum-ninth chord that contains the pentachords, their spatial intervallic relation is mostly that of a fifth. A spatial manipulation where the order of the pentachords is reversed (see chapter 5.2), i.e. they become fourth-related, is extremely rare (Fig.

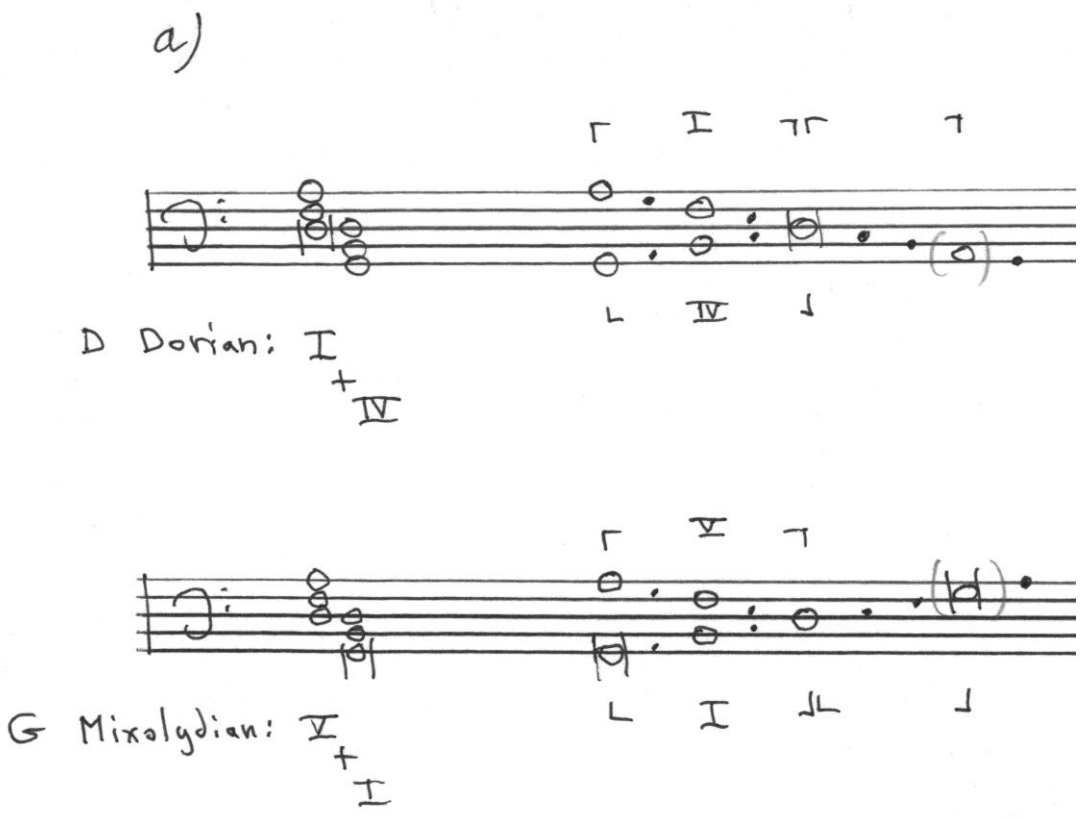
11.3–1; see Fig. 11.7–1 [op. 114:IV:11–26]). For the sake of clearness only fifth-related ambiguous degree-combinations are presented below.

Fig. 11.3–1. Fifth-related combinations of pentachords in a reverse order.



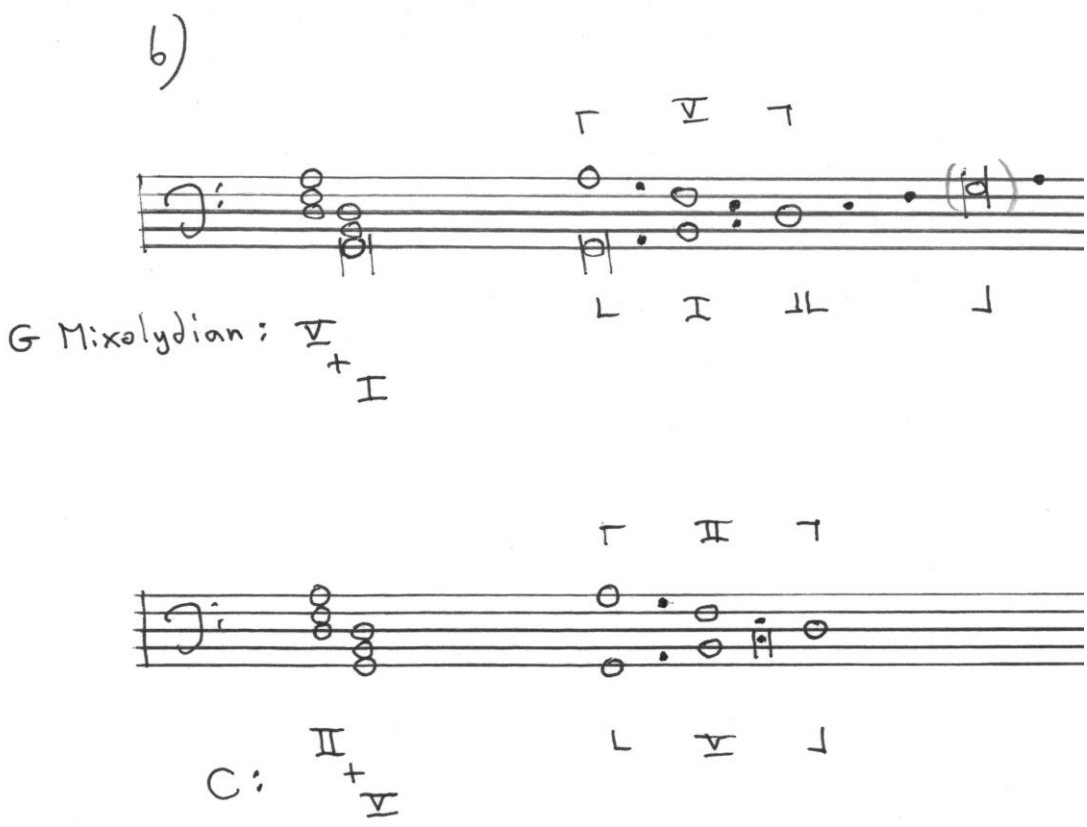
In the first alternative both the pentachords may be understood as tonic triads (I+IV=V+I). When the upper D-rooted pentachord is considered the I degree, in that key (D Dorian mode) the lower pentachord is the IV degree (degree-combination I+IV). When the lower pentachord is considered the I degree, in that key (G Mixolydian mode) the upper pentachord is the V degree (degree-combination V+I; Fig. 11.3–2a).

Fig. 11.3–2a. Coexisting fifth-related degree-combinations; upper and lower pentachords as tonics.



In the second alternative both the pentachords may be seen as dominant triads (V+I=II+V). When the upper pentachord is considered the V degree, in its key (G Mixolydian mode) the lower pentachord is the I degree (degree-combination V+I). When the lower pentachord is considered the V degree, in that key (C major) the upper pentachord is the II degree (degree-combination II+V; Fig. 11.3–2b).[318] The merely scalar association of heptatonic modes would suggest C Ionian, but on the grounds of harmonic content the key is to be considered C major (see chapter 5.4.2).

Fig. 11.3–2b. Coexisting fifth-related degree-combinations; upper and lower pentachords as dominants.

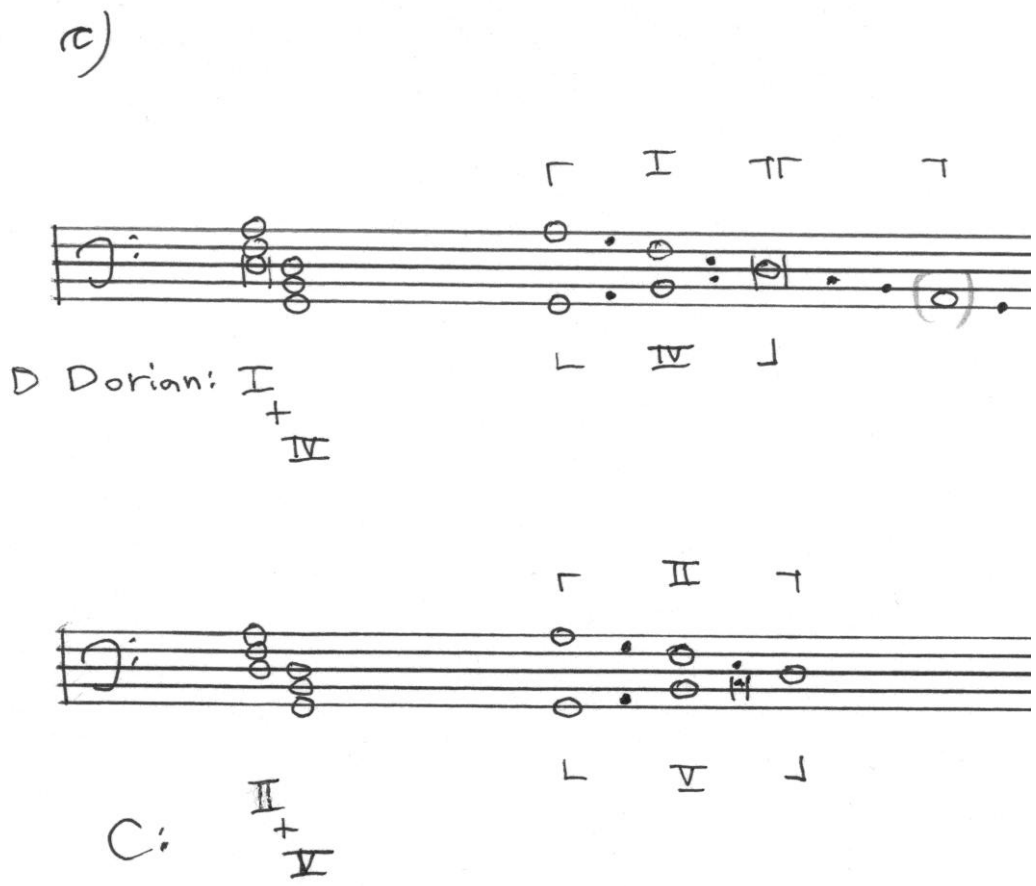


In the third alternative the above alternatives are selectively combined. In it the upper pentachord may be grasped as a tonic triad according to the alternative I+IV (in D Dorian), while the lower one as a dominant triad according to the alternative II+V (in C major). The competing degree-

[318] When touching on impressionistic harmony Piston considers "dominant major ninth ... as an adjunct to the triad in modal harmony. In the latter case the dominant major ninth owes the flexibility of its use to the dual dominant-nondominant nature of its structure, wherein its lower three factors support a dominant feeling but its upper three coincide with the supertonic triad" (Piston 1978:338). Here Piston finds the sub-chords V and II in major. He however does not connect them with the degree-combinations V+I or I+IV in other scales.

combinations are thus I+IV=II+V. (Fig. 11.3–2c). In this third fifth-related sub-chord alternative the competing *keys* are second-related (D Dorian/C major), while in the two alternatives above, both the sub-chords and the competing keys are fifth-related.[319]

Fig. 11.3–2c. Coexisting fifth-related degree-combinations; the upper pentachord as the tonic and the lower one as the dominant.



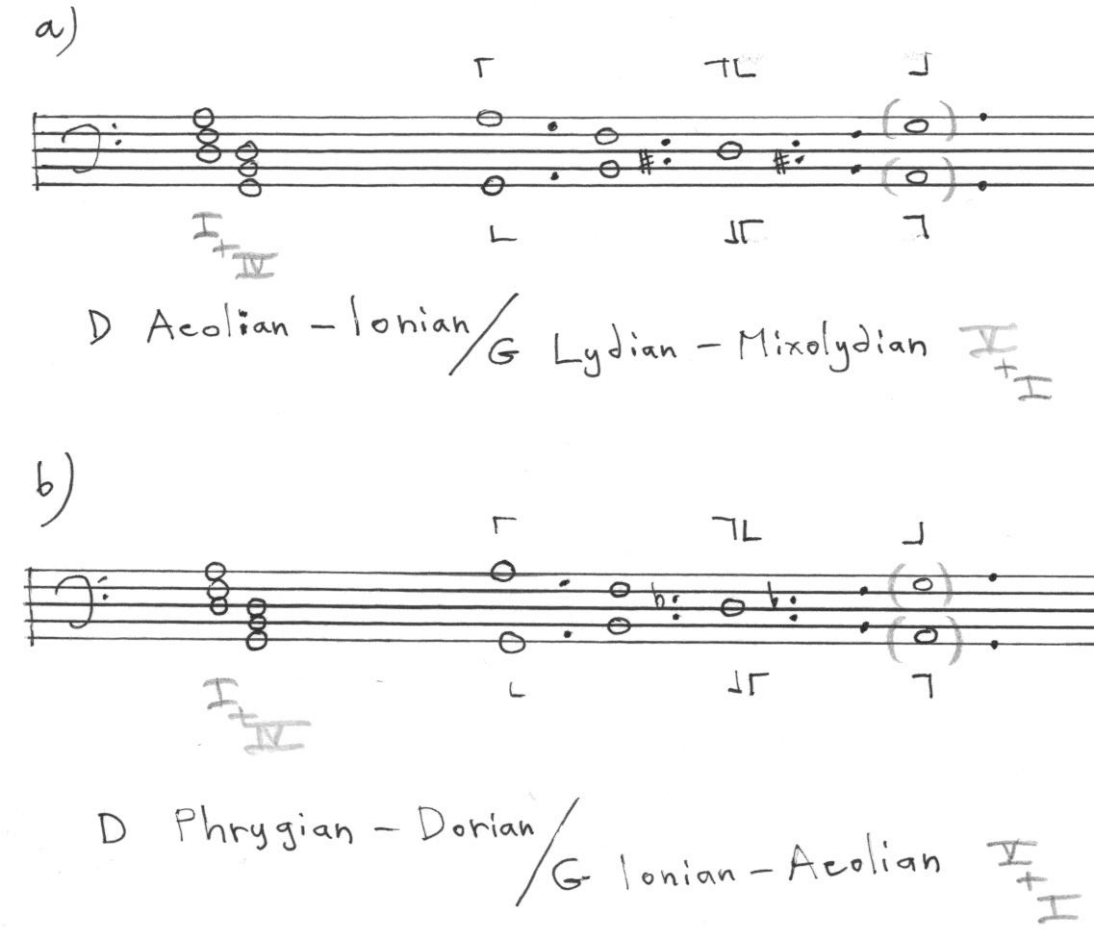
An imaginary fourth (selective) alternative – a reverse to the third one – where the upper pentachord is grasped as a dominant triad, while the lower one as a tonic triad (V+I=V+I), will not result in two degree-combinations but only in a single one, namely V+I in G Mixolydian, which already appeared in the first two alternatives (see Figs. 11.3–2a and –2b).

In the figures above, the competing degree-combinations were demonstrated by means of scalarly associated modes that originated from the

[319] In Fig. 8.2.1–1 [op. 39:I:108–111] the C sharp Dorian line is accompanied by alternating harmonies C sharp Dorian: IV–I6. In the span of the exposition of this sonata form, the principal key of which is E minor, this local Dorian combination of I and IV is to be understood as II and V, i.e. B Aeolian-Ionian: V–II6, as the theme of transition that leads to the dominant key-area. The tonic of this – as a six-four chord – is finally reached in bar 132–134 during the subordinate theme that has already begun in B minor.

two pentachords proposed by Sibelius (see chapter 4.1). Exactly the same degree-combinations will also occur in those scalarly associated mixed modes that contain the same two triads. Thus the degree-combination I+IV will occur also in D Aeolian-Ionian (Fig. 11.3–3a) and in D Phrygian-Dorian (Fig. 11.3–3b). Respectively the degree-combination V+I will occur in G Lydian-Mixolydian (Fig. 11.3–3a) and in G Ionian-Aeolian as well (Fig. 11.3–3b).

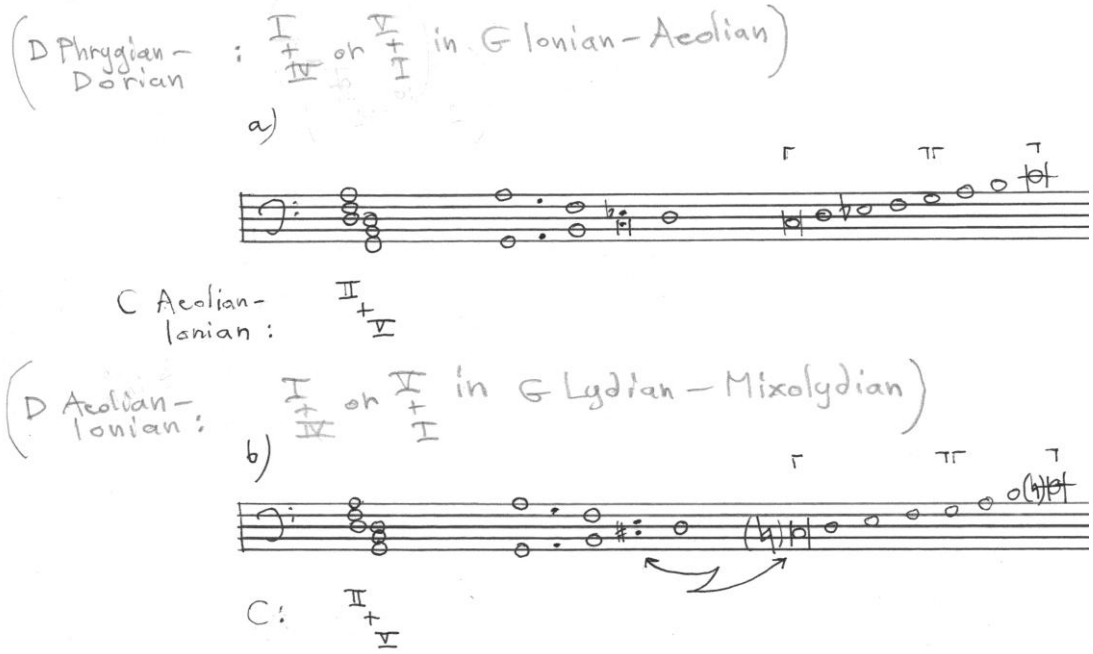
Fig. 11.3–3 a–b. Degree-combinations I+IV and V+I in some mixed modes.



In connection with the scalarly associated mixed modes D Phrygian-Dorian (the degree-combination I+IV in I+IV=II+V; cf. Fig. 11.3–2c), or G Ionian-Aeolian (the degree-combination V+I in V+I=II+V; cf. Fig. 11.3–2b), shown in Fig. 11.3–3b, the mixed mode bearing the degree-combination II+V will be C Aeolian-Ionian (Fig. 11.3–4a). However, with the scalarly associated mixed modes D Aeolian-Ionian (the degree-combination I+IV in I+IV=II+V; cf. Fig. 11.3–2c) and G Lydian-Mixolydian (the degree-combination V+I in V+I=II+V; cf. Fig. 11.3–2b) shown in Fig. 11.3–3a, the scale bearing the degree-combination II+V poses a problem. Furthermore, here – in leaving modal ambiguity (see section 11.3.2) – the sum-ninth chord (according to C:

II+V) keeps resolving to a C-rooted triad (i.e. to C: I). On account of this, the scale bearing the degree-combination II+V would be C major. Yet these two scalarly associated mixed modes include C sharp, D Aeolian-Ionian as the leading-tone and G Lydian-Mixolydian as the fourth degree (Fig. 11.3–4b).

Fig. 11.3–4 a–b. Degree-combination II+V in connection with mixed modes.



According to our definition above (see the table in section 11.1), the simultaneity of different scales that have different key-notes should be considered bitonality (D.). Yet here the two pitch-alternatives C sharp and C natural – forming an augmented unison – do not belong to either the sub-triads or to the sum-ninth chord. They are non-harmonic tones in both the surface and deep levels. Under these conditions this kind of scalic combination (where the scales are not scalarly associated) may be included in the realm of ambiguity. In the examples below only those cases where both the pitch-alternatives that form an augmented unison are chord factors of different sub-triads are considered bitonal (see section 11.6).

11.3.1 ON HARMONIC CONTEXT OF FIFTH-RELATED PENTACHORDS

Which of the above-presented competing degree-combinations will occupy a modally ambiguous sum-ninth chord depends on the harmonic context. At first, when scrutinizing the context of modal ambiguity, its appearances at either the beginning or at the end of a composition are excluded. Generally, a modally ambiguous sum-chord is surrounded by other chords that are non-additive (see chapter 4.1.1). These surrounding triads or seventh chords are

possible to describe in terms of a two-voice framework (see chapter 4.3), but also by means of a *latent* three-voice framework (see chapter 4.4), as it would be appropriate in connection with a sum-chord. Below, non-additive context is meant unless otherwise stated.

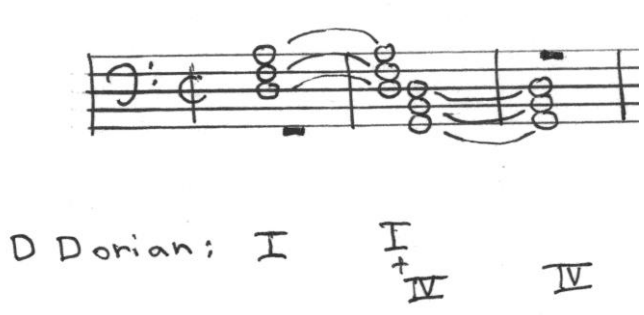
The same d+G combination of pentachords as above is still used in describing the context. Hereafter the terms “d-mode” and “G-mode” are used in order to cover all the D-rooted minor-like modes and G-rooted major-like modes in several scalic possibilities (see section 11.3).

In the ambiguous degree-combinations above (see section 11.3), at least one of the pentachords was always tonic or dominant (see Figs. 11.3–2 a–c). Usually in a modally ambiguous sum-ninth chord either of the sub-triads is indeed either the tonic or the dominant in the prevailing key (be it the principal key or a subordinated or a passing one). In this case one of the two competing degree-combinations is stronger, although the other is not a non-entity either.

In terms of the chordal context of a sum-ninth chord three types may be discerned. Two of these are favourable for modal ambiguity, while there is one that prevents it from emerging. The non-favourable type is dealt with first.

The first type is the context wherein the sum-chord is surrounded by its very sub-chords (e.g. I – I+IV – IV; Fig. 11.3.1–1). In this kind of columnal (see chapter 4.4) context the tonic in the sum-ninth chord is consolidated and simultaneous competing degree-combinations are prevented from emerging within it. Under these circumstances this sum-ninth chord is still layered, though not modally ambiguous according to our definition above (see section 11.2).

Fig. 11.3.1–1. A sum-ninth chord surrounded by its sub-chords.

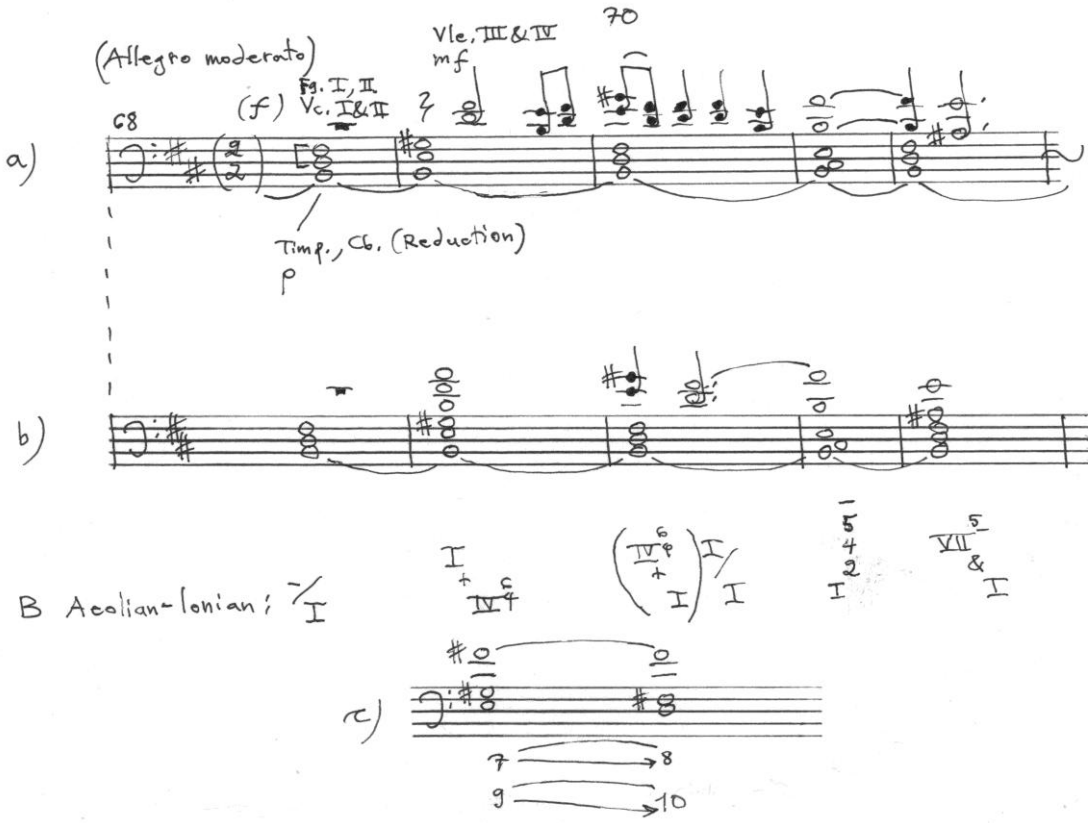


In Fig. 11.3.1–2a in bars 68–70 in the lower framework there is a progression B Aeolian-Ionian: I–IV six-four–I formed by the tonic organ point B (Cb.) and a tardy line thickened by thirds (Fag., Vc. div.). The thickened line (Vle. div.) in the level of reduction (Fig. 11.3.1–2b) functions as a tonic triad in the upper framework. Together these poly-dynamic layers (see chapter 6.1.7) in terms of the sum-bass form the progression B Aeolian-Ionian: -/I – I+IV six-four – I/I. In bar 69 the layers add up to a dominant-type sum-ninth chord

(B Aeolian-Ionian: IV5+9 in the 2nd inversion) where the degrees of the sub-triads are I and IV. In the level of reduction (Fig. 11.3.1–2c) there are the releasing motions 7–8 descending (cf. Fig. 5.3–2b) and 9–10 descending (cf. Fig. 5.3–4c).

Between the preceding and following tonic triads in bars 68 and 70 in the lower framework in bar 69 the auxiliary chord B Aeolian-Ionian: IV six-four can hardly be grasped as the tonic of E Lydian-Mixolydian mixed mode (which is the scalarly associated mode of a competing degree-combination V+I in I+IV=V+I; cf. Fig. 11.3–2a). It would be even more unlikely to understand this auxiliary six-four chord as the dominant of A major (i.e. as the lower sub-chord of degree-combination of II+V in I+IV=II+V; cf. Fig. 11.3–2c). This sum-ninth chord is thus non-ambiguous, though still layered.

Fig. 11.3.1–2 a–c. A non-ambiguous fifth-related degree-combination. *Tapiola* op. 112 (1926) bars 68–72.



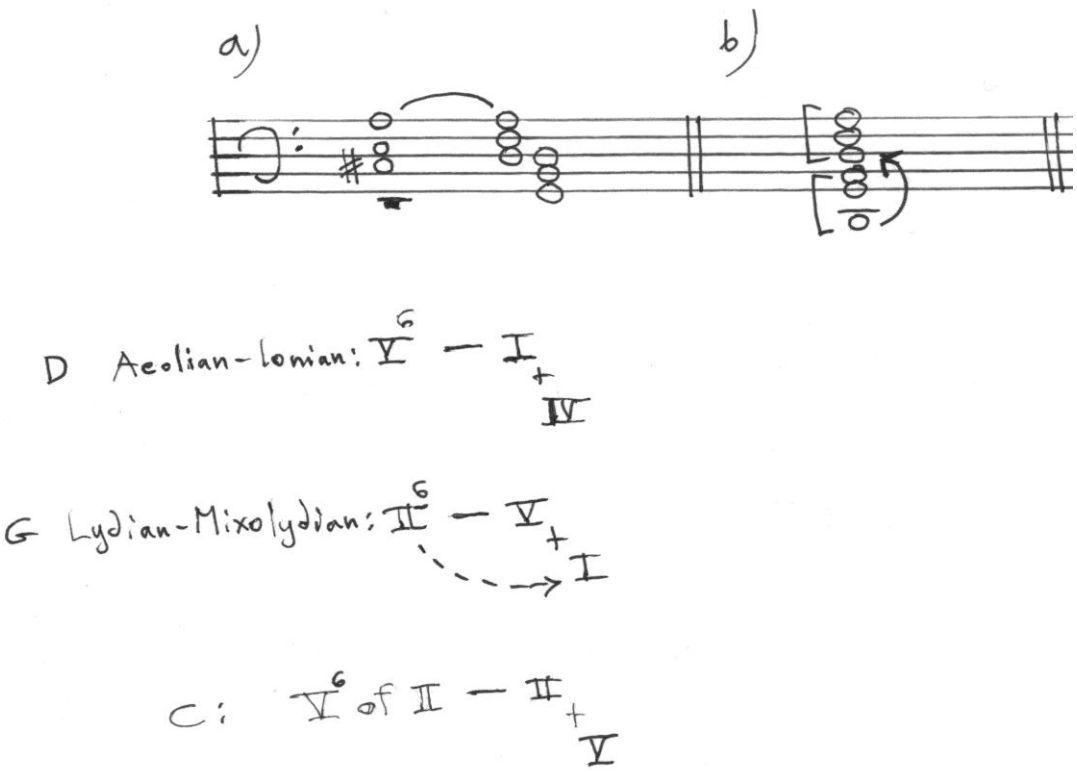
The second type is the context where within a prevailing mode or key a non-additive chord (cf. chapter 5.3.1) other than a sub-chord of the sum-ninth chord precedes it. This preceding third chord may be either dominant-related to the tonic sub-triad (e.g. V – I+IV), or tonic-related to the dominant sub-triad (e.g. I – II+V). These chordal relations I–V or V–I are characteristic progressions in minor or major keys (see chapter 5.4.1). They also occur in Aeolian-Ionian mixed mode (cf. Fig. 4.2.1–2d). These kinds of

progression including a third chord are perforce non-columnal (cf. chapter 4.5.3).

The essence of modal ambiguity is that this third chord (either dominant or tonic in relation to one of the sub-triads) takes part at the same time in a *modal* characteristic progression in relation to another pentachord. There are thus two simultaneous progressions (two threads, as it were) that have a non-additive chord in common.

In a case where the preceding dominant chord consolidates the upper pentachord as the tonic (e.g. in d-mode: V6 – I+IV), the competing degree-combinations are in G-mode: II6 – V+I and in C: V6 of II – II+V (Fig. 11.3.1–3a). The position of the upper tonic pentachord may be further emphasized by presenting the lower sub-triad in the second inversion (Fig. 11.3.1–3b). In this way the sum-bass is the same tone as the root of the upper pentachord.

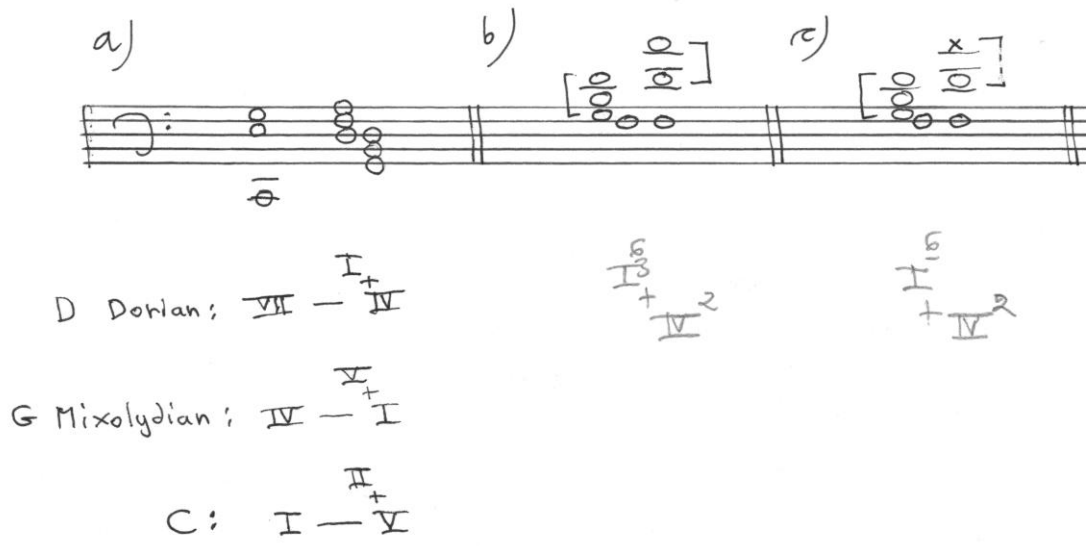
Fig. 11.3.1–3 a–b. The preceding chord consolidates the upper pentachord of the fifth-related combination.



In a case where the preceding tonic triad consolidates the lower pentachord as the dominant (e.g. C: I – II+V), the competing degree-combinations are in d-mode: VII – I+IV and in G-mode: IV – V+I (Fig. 11.3.1–4a). The position of the dominant pentachord may be further emphasized by presenting the simultaneous sub-chords (though not the pentachords) with a mutual bass, i.e. as a lower dominant-type seventh chord in the 3rd inversion with an upper sub-triad in the 1st inversion (Fig. 11.3.1–4b [op. 73:47–51]).

In the case of a short upper pentachord (i.e. an upper sub-triad without a fifth) the result of the simultaneous layers is a dominant-type seventh chord in the 3rd inversion (Fig. 11.3.1–4c). In the Mixolydian alternative this would be the tonic added-seventh triad in the 3rd inversion.[320]

Fig. 11.3.1–4 a–c. The preceding chord consolidates the lower pentachord of the fifth-related combination.



The third type is the context in which the prevailing key in relation to the sum-ninth chord is either uncertain or cannot be determined. In this third type the relation between a surrounding non-additive chord and the sub-chords of the sum-ninth chord is chromatic. In this chromatic context none of the sub-chords is consolidated as the tonic or dominant, but yet all the possibilities for competing degree-combinations are open.

In Fig. 11.3.1–5 there is a passage that in bars 95–96 could be considered the prototype for Sibelius when working out his audition lecture afterwards (cf. chapter 3.5, chapter 4.1). In the melody wider than an octave (see chapter 4.2.3) a G-rooted major pentachord (bars 93–94) and a D-rooted minor pentachord (bars 94–96) are included (cf. Fig. 11.3–3a). The accompaniment leans on a sustained G-rooted dominant-type sub-seventh chord (Fig. 11.3.1–5a). Thus in bars 94–96 a dissolved G-rooted sum-ninth chord emerges. The d-mode and G-mode were described in Fig. 11.3–3a.

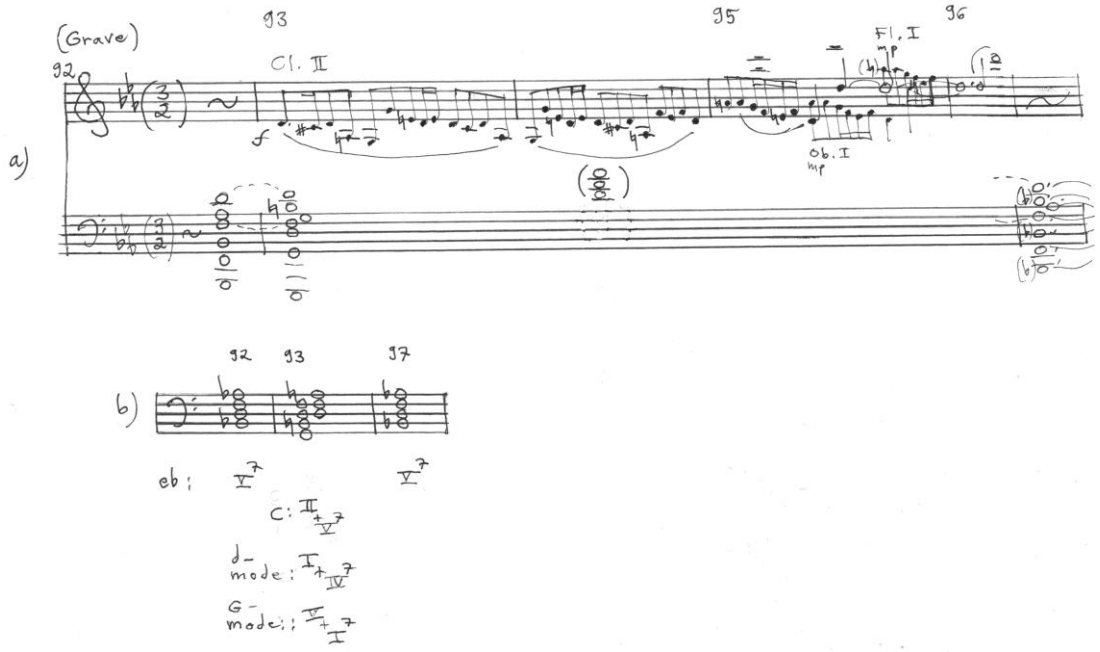
Yet the preceding and following chord is a B flat-rooted seventh chord. It includes B flat as its root and A flat as its seventh. In bars 92–93 this seventh A flat is resolved (a flat–g in Vl. II–Vle. I), whereas in bars 96–97 the seventh f (Vle. II) remains oblique and turns into a perfect fifth with the ascending

[320] A dominant-type seventh chord functions firstly as a Mixolydian tonic seventh chord and then as a secondary dominant in major: *Aquileja* op. 85 no. 4 (1917) bars 33–40 (A flat Mixolydian: I+7 below root in bars 33–39 as A flat: V2/IV in bars 39–40. Cf. bars 1–8 and 65–72 in A flat major).

bass motion G–B flat (Cb.; cf. Fig. 4.4–4b, see chapter 7.3). Being octave-displaced, the tones B flat and A flat form augmented unisons with the third of the lower G-rooted sub-seventh chord (B flat–B natural–B flat) and the fifth of the D-rooted upper sub-triad (A flat–A natural–A flat; Fig. 11.3.1–5b). There is thus no heptatonic key that could contain both these chords.

Yet the preceding (e flat: V7 in bars 91 and 92) as well as the following (e flat: V7 in bars 97–99 and 100) B flat-rooted dominant chord also suggests a secondary dominant-quality for the lower G-rooted sub-seventh chord in bars 93–96. According to the key of the supposed secondary tonic this would be C: V7. In this alternative the upper D-rooted sub-triad would be C: II and the degree-combination C: II+V7 (Fig. 11.3.1–5b). As such the two triads in the upper framework would form a characteristic progression either in d-mode (D Aeolian-Ionian: IV–I), or in G-mode (G Lydian-Mixolydian: I–V; Fig. 11.3.1–5a). These alternatives offer material for the competing degree-combinations I+IV7=II+V7 (d-mode/C major) and V+I7=II+V7 (G-mode/C major; Fig. 11.3.1–5b).

Fig. 11.3.1–5 a–b. The preceding chord not consolidating any of the pentachords of the fifth-related combination. *Kullervo* op. 7 (1891–1892) 2. mvt. bars 92–97.



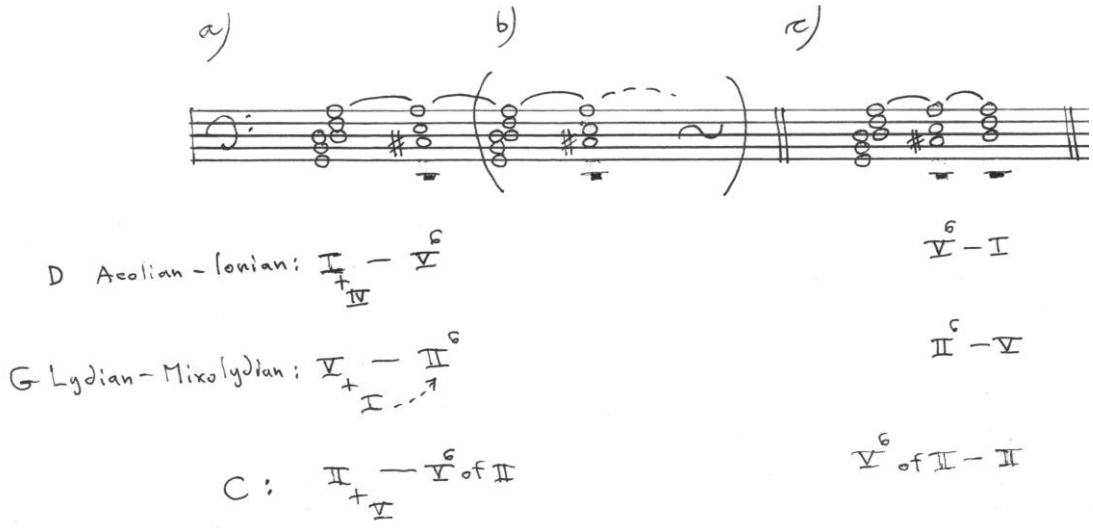
11.3.2 LEAVING FIFTH-RELATED AMBIGUITY

Above it was shown what kinds of harmonic context lead to modal ambiguity (see section 11.3.1). It is also appropriate to cast a glance on which ways modal ambiguity is neutralized. This is done everywhere except at the end of a composition and these ways also depend on the harmonic context.

In the first case of harmonic context outlined above there was no modal ambiguity to be left (see Fig. 11.3.1–2 [op. 112:68–72]). In the second case above the leaving of modal ambiguity can be done by means of a following third chord that takes into consideration the tonal implications of the sub-triads. These will be discussed below in detail. In the third case above (see Fig. 11.3.1–5 [op. 7:II:92–97]) modal ambiguity was left merely by ignoring these tonal implications. This ignoring in some way corresponds to the situation of a modally ambiguous sum-chord that concludes a composition.

Besides by using the preceding dominant chord, the degree-combination I+IV in d-mode can also be consolidated by the dominant chord that follows it (I+IV – V; Fig. 11.3.2–1a). After the consolidating dominant, the ambiguous sum-ninth chord may be repeated (I+IV – V – I+IV – V – I+IV… ; Fig. 11.3.2–1b; see also Fig. 7.3–4 [op. 114:II:8–11]). The possible simultaneous degree-combinations (V+I in G-mode and II+V in C major) also keep competing. The dominant to I+IV functions as the supertonic in V+I (in G-mode) and as the V6 of II in II+V (in C major; Fig. 11.3.2–1a). Only when this consolidating dominant chord (in d-mode) is followed merely by the tonic triad (I+IV – V – I; Fig. 11.3.2–1c), or by some other chord (I+IV – V – X), will modal ambiguity be left.

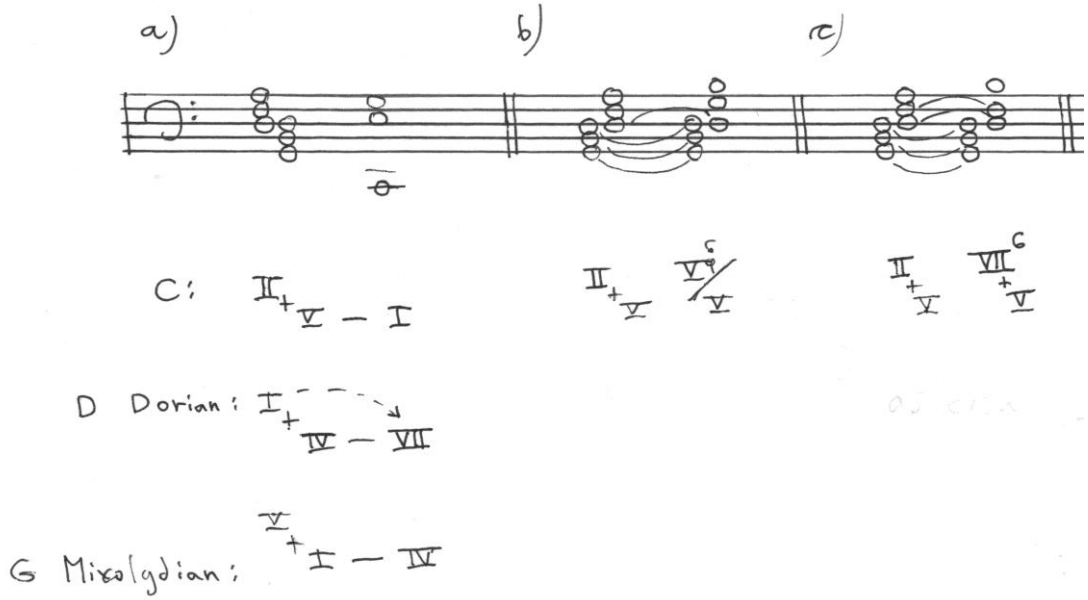
Fig. 11.3.2–1 a–c. The following chord consolidates the upper pentachord of the fifth-related combination.



However, by presenting the consolidating tonic after the degree-combination II+V in C major (II+V – I; Fig. 11.3.2–2a) a modally ambiguous situation is left. In the other possible simultaneous competing degree-combinations (I+IV in d-mode and V+I in G-mode) the tonic for II+V functions either as a subtonic triad (in d-mode), or as a subdominant triad (in G-mode). These degree-combinations still keep competing, because they include their tonic triads. Only the tonic after II+V leads the sum-ninth chord away from modal ambiguity. Thus this consolidating tonic decides which of the two competing

degree-combinations should be considered decisive. A resolution of II+V will be delayed if the lower sub-chord remains stationary while the upper one proceeds (II+V – V six-four/V – I; Fig. 11.3.2–2b, or II+V – VII6+V – I; Fig. 11.3.2–2c). Anyway, the tonic triad will follow.

Fig. 11.3.2–2 a–c. The following chord consolidates the lower pentachord of the fifth-related combination.



Even if the sum-ninth chord (i.e. II+V) were repeated after the tonic (II+V – I – II+V – I – II+V), after the tonal resolution a mere sum-ninth chord II+V would no longer establish modal ambiguity. This would emerge anew only if in the re-introduced sum-ninth chord the upper sub-triad were re-established as a dissolved upper pentachord.

This consolidating tonic (i.e. II+V – I; Fig. 11.3.2–2a) is the most common way to leave the competing degree-combinations V+I=II+V, or I+IV=II+V). This kind of leaving can be done even if the degree-combination II+V were not among the competing degree-combinations suggested earlier (in case of I+IV=V+I).[321] In the domain of the d- and G-modes this might introduce interchange (see chapter 4.2.2).

In Fig 11.3.2–3a a modally ambiguous sum-ninth chord is in the 3rd inversion (the regular adjustment is shown in Fig 11.3.2–3b). The (harmonically) upper and lower pentachords share the mutual bass B flat, which is the seventh of the lower C-rooted dominant-type seventh chord in the 3rd inversion and the third of the upper G-rooted minor triad in the 1st inversion. A feature not often met is, that here the principal melody (Cl.) occupies the lower C-rooted major pentachord, while in the G-rooted upper minor pentachord there is a counterpoint (Vl. I&II, Vle., Vc.; cf. section 11.3).

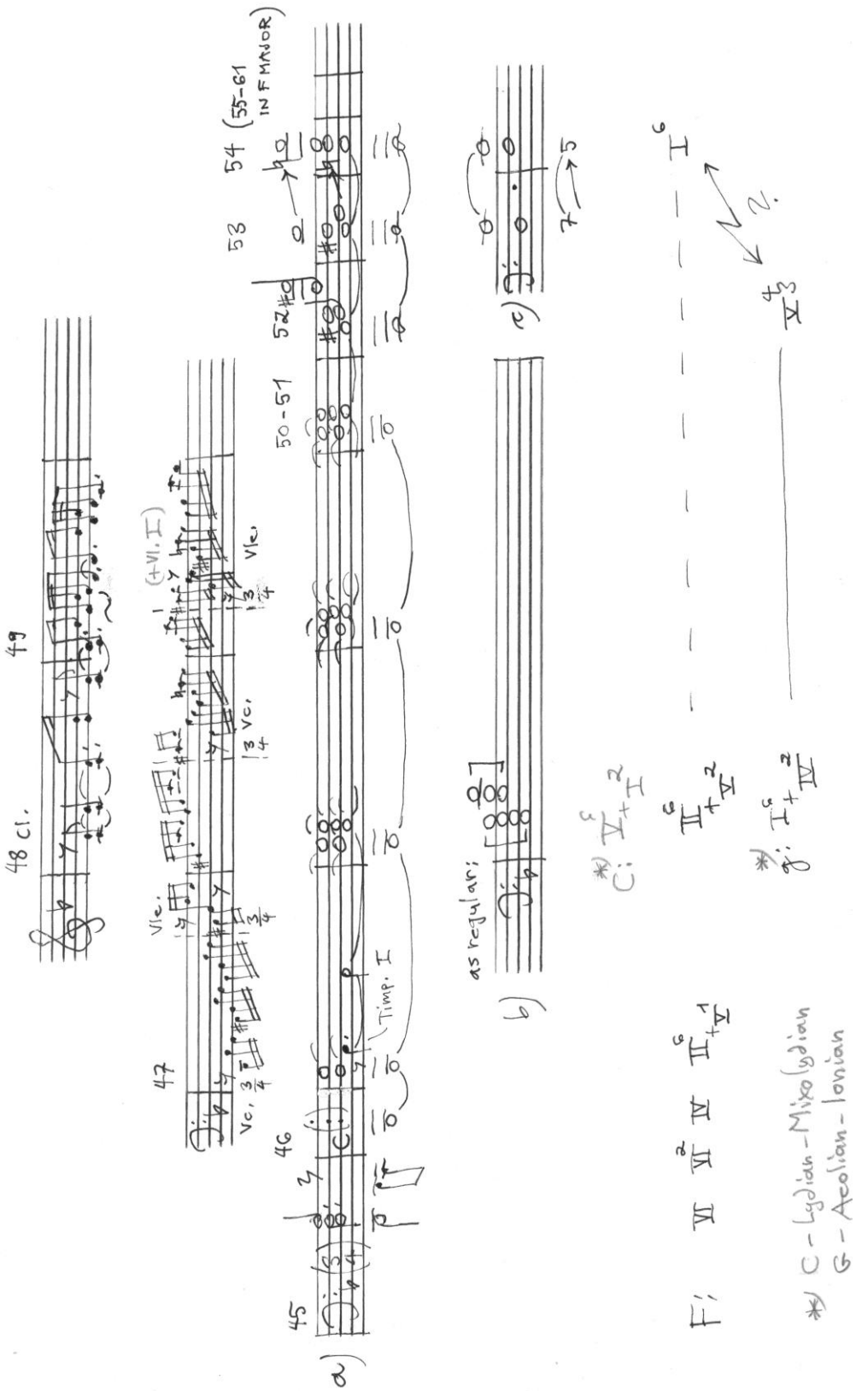
[321] Cf. chapter 2.1.4 Tolonen, note 94.

Therefore the competing degree-combinations in this sum-ninth chord may be considered G Aeolian-Ionian: I+IV and C Lydian-Mixolydian: V+I (i.e. I+IV=V+I; cf. Fig. 11.3–2a).

The following D-rooted dominant-type seventh chord in the 2nd inversion in bars 52–53 (the passing formation 5–6 over the bass tone B flat at the first crotchet of bar 52 has been omitted) is the II degree to the preceding C Lydian-Mixolydian: I2 (cf. Fig. 4.2.1–2g). It is also the consolidating dominant to the preceding G Aeolian-Ionian: I6 (cf. Fig. 4.2.1–2d). However, after this D-rooted chord in bars 54–55 an F-rooted major sixth chord follows. In bars 53–54 these two chords are connected via a filled columnal (see chapter 4.4) motion. Between the melody (Ob. I) and an inner part (Cor. II, Timp.) this decreasing motion – best described as a regular bass motion (Fig. 11.3.2–3c) – is octave-displaced (cf. Fig. 4.4–4c).

In terms of traditional tonal syntax this chordal succession is quite inexplicable. It is true that before the sum-ninth chord in bars 48–51 there has not been a dominant chord in F major, although the harmonies preceding it have been analyzed in F major. This was done because in bars 40–44 there was a passage of third-related modal ambiguity (F:/d:) that was left, however, in favour of the d-mode. In this context (F: II6+V2) the F major sixth chord is F: I6. After leaving the modal ambiguity by means of this sixth chord, the music continues in F major. In this rare case a modally ambiguous situation was followed by a consolidating chord and left by another one.

Fig 11.3.2–3 a–c. The following chords successively consolidate the upper and then the lower pentachord of a fifth-related combination. *The Oceanides* op. 73 (1914) bars 45–54.



11.3.3 COMPRESSED SEQUENCES

The progression II+V – I by which modal ambiguity can be departed from (see Fig. 11.3.2–2a) may be used as a pattern in connection with sequences where the roots (and often also the basses) proceed by alternating falling fifths and rising fourths. In this kind of sequence, some fifth-related chords that are successive are presented simultaneously as a sum-chord. Therefore this kind of sequence may be called *compressed*. Yet the harmonic logic of the sequence remains while during the separate sum-chords therein modally ambiguous situations may arise.

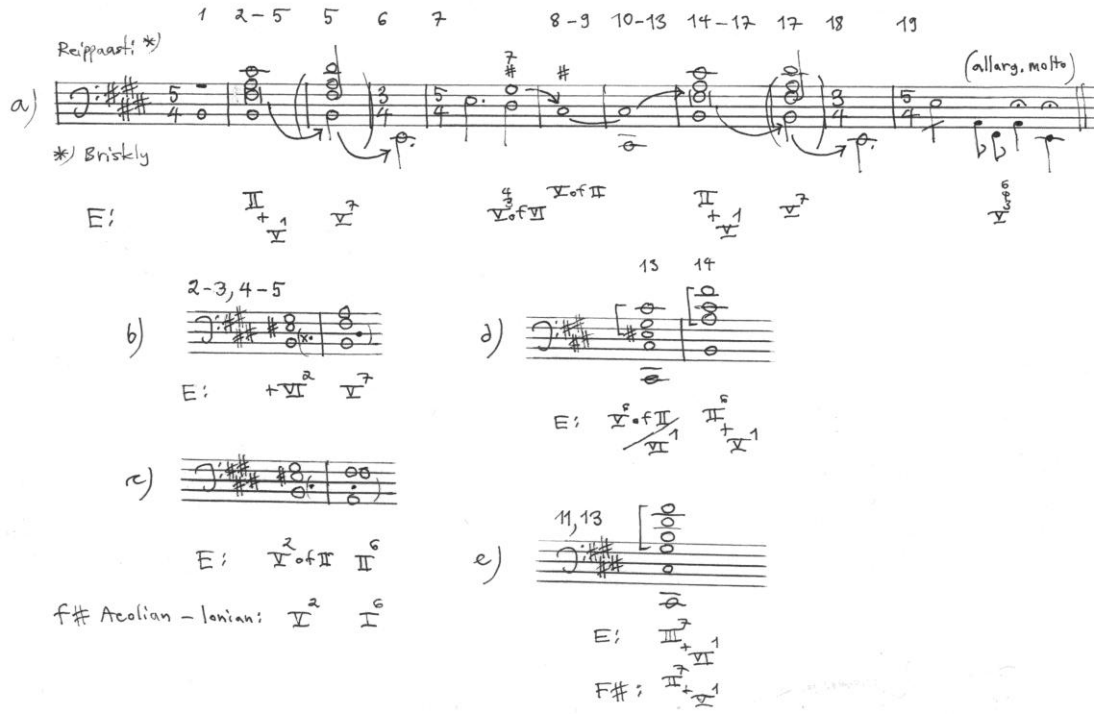
In Fig. 11.3.3–1 almost the whole composition is based upon two successive sequence-patterns. These patterns are f sharp–B–E in bars 2–7 and G sharp–C sharp–f sharp–B–E in bars 7–18 (shown by arrows in Fig. 11.3.3–1a). Before Sibelius these alternating falling fifths and rising fourths were typical to bass parts.

In bars 2–7 the sequence II–V–I is compressed into II+V – I. The F sharp-rooted minor triad (E: II) is at first treated as an upper pentachord (E: II+V; Fig. 11.3.3–1a). By means of a passing chord B–e sharp–g sharp in bars 2 and 4 (as well as in the respective bars 14 and 17), the sum-chord E: V1+9 becomes modally ambiguous. The competing degree-alternatives here are II+V=I+IV (E major/f#-mode). It is possible to connect this passing chord to both the lower and the upper sub-chords. In the major key the passing chord functions as an incomplete raised submediant E: II+V – #VI2 – II+V (Fig. 11.3.3–1b), whereas in the second-related minor-like mode as a consolidating chord F sharp Aeolian-Ionian: I+IV – VII six-four – I+IV. Merely the incompleteness of this passing chord ensures both ways of interpretation, since increasing it downwards to its hypothetic root C sharp would compel the bass to resolve by step (Fig. 11.3.3–1c).

In bars 7–18 the sequence G sharp–C sharp–f sharp–B–E (E: III#–VI#–II–V–I) is compressed into III# – VI# – II+V – I. In bars 8–13 some other passing chords are also used in order to prolong the chord E: VI#, i.e. V of II (Fig. 11.3.3–1d). In terms of the F sharp-rooted key one of these passing chords in bars 11 and 13 adds up to a sum-eleventh chord (F sharp: II7+V1 = V1+11 without third). According to the principal key E major the degrees are III and VI (E: III7+VI1 = VI1+11 without third; Fig. 11.3.3–1e).

During these compressed sequences dissonances are treated according to the traditional rules. In bars 5–6 and 17–18 the normally resolved authentic cadences (E: V7–I) include not-so-normal consecutive fifths between the tenor and bass parts (see chapter 8.2.1).

Fig. 11.3.3–1 a–e. Compressed sequence patterns. *Venematka* op. 18 no. 3 (1893).

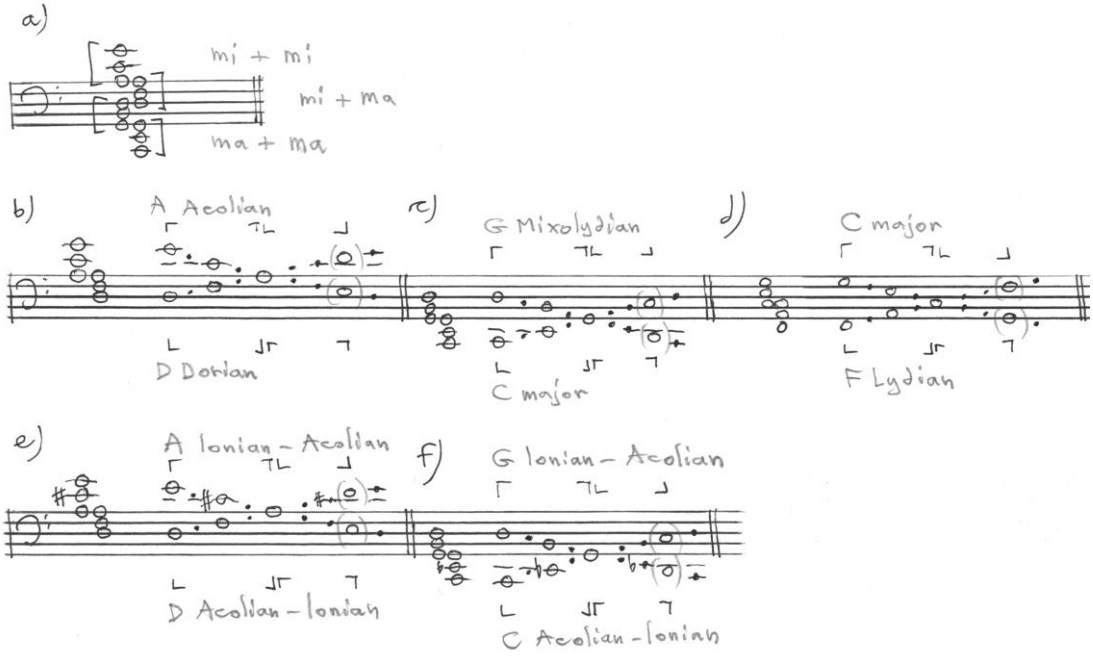


11.3.4 OTHER FIFTH-RELATED PENTACHORDS

In his lecture fragment Sibelius touched on only one possibility for combining fifth-related pentachords, namely minor+major. In the text below this is called the *original combination* in order to discern it from other ones. The three other possible fifth-related combinations of pentachords are minor+minor, major+major and major+minor (Fig. 11.3.4–1a). These may be obtained by means of superposition and supposition (see chapter 4.5.1).

The combination minor+minor results from A- and D-rooted pentachords. The respective modes are A Aeolian and D Dorian (Fig. 11.3.4–1b). The combination major+major results from G- and C-rooted pentachords. The respective modes are G Mixolydian and C major (Fig. 11.3.4–1c). Below this position another major+major combination is obtained by means of C- and F-rooted pentachords. The respective modes are C major and F Lydian (Fig. 11.3.4–1d; cf. Fig. 10.5.3–1 [op. 82:II:182–185]). The remaining combination major+minor does not arise from the scalic material that was offered in the original pentachords (Fig. 11.3.4–1a). Yet the combination major+minor can be reached by using some mixed modes that include C sharp (Fig. 11.3.4–1e; here D Aeolian-Ionian) and E flat (Fig. 11.3.4–1f; here C Aeolian-Ionian).

Fig. 11.3.4–1 a–f. Other ambiguous combinations of fifth-related pentachords.



In connection with these other fifth-related combinations the same competing degree-combinations as the original minor+major can be found (see Fig. 10.5.3–1 [op. 82:II:182–185]). In connection with the combination major+minor (Figs. 11.3.4–1e and –1f) the possibilities for ambiguity are limited, since the sub-chords strongly suggest the degree-combination V+I in minor (d: in –1e and c: in –1f), which comes very close to the traditional "five over one" (see chapter 5.2.1).

As an additive harmony (see chapter 3.5) the sub-triads in these other fifth-related combinations would result in non-dominant sum-ninth chords. However, this is only the situation in the level of reduction. In the surface level the pentachordal structure is seized through the contour of the layers. Instead of sum-ninth chords the outcome of the layers resembles a two-voice framework (see chapter 4.3) where a triad (i.e. the lower pentachord) is equipped with some chordal as well as non-harmonic tones (i.e. the upper pentachord; cf. Fig. 4.5.2–1).[322]

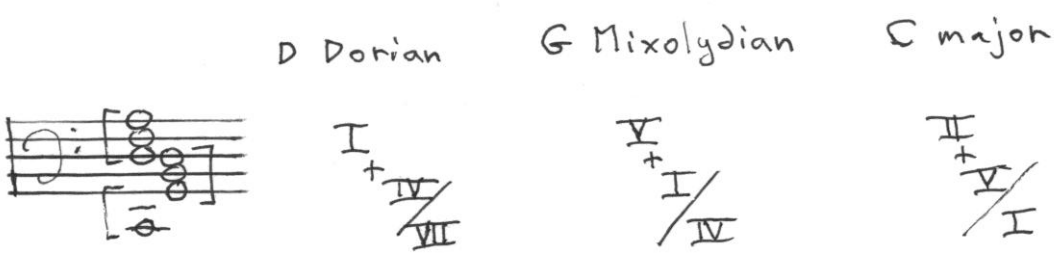
[322] In op. 43:IV:66–74 there is a combination minor+minor in which the upper sub-triad is an F sharp-rooted minor triad (dissolved by Vc. and Vle.; see chapter 8.5.3) and the lower sub-triad is a B minor triad without a fifth (sustained by Fag. I&II, Cor. I&II, but adorned by an Oboe motive in bars 72–73). The spatial arrangement of these is b: V+I6=f#: I+IV6; the respective scales are B Hungarian-Dorian and F sharp minor. For want of pentachordal approach the combination minor+minor is easily set aside for 'a B minor sixth chord furnished with some non-harmonic tones'.

11.3.5 FIFTH-RELATED PENTACHORDS STRATIFIED

In modal ambiguity, aside from two fifth-related pentachords, three or even four of them may also be stratified, i.e. combined simultaneously. Usually in these stratifications the original combination (minor+major) is the core to which other pentachord-combinations are connected.

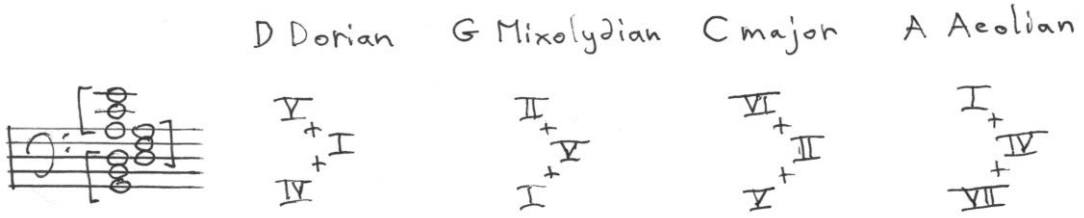
In the stratification minor+major+major there is an organ point representing the (major) pentachord beneath the original combination (Fig. 11.3.5–1; see chapter 5.2.3). An organ point does not increase the original sum-ninth chord (cf. Fig. 5.2.3–1). The possible competing degree-combinations are I+IV/VII (in d-mode), V+I/IV (in G-mode), or II+V/I (in C major).

Fig. 11.3.5–1. Coexisting degree-combinations in a stratified combination of three pentachords (minor+major+major).



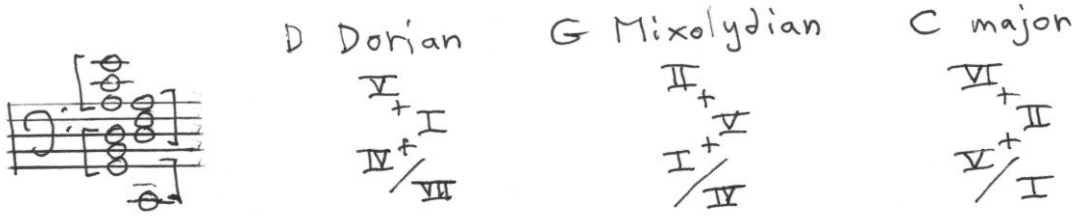
In the stratification minor+minor+major there is an additional (minor) pentachord above the original combination (Fig. 11.3.5–2). The possible competing degree-combinations are V+I+IV (in d-mode), II+V+I (in G-mode), or VI+II+V (in C major). From the point of view of the topmost pentachord the degree-combination is I+IV+VII (in A Aeolian or in any a-mode). Also in this kind of stratification the topmost (minor) pentachord does not increase the original sum-ninth chord into a sum-thirteenth chord, because the topmost pentachord is not presented as a sustained sub-triad. Therefore its relation to the original combination (minor+major) resembles those that were observed between the combinations that in principle (though not in practice) would have added up to non-dominant ninth chords (see section 11.3.4).

Fig. 11.3.5–2. Coexisting degree-combinations in a stratified combination of three pentachords (minor+minor+major).



The stratification of four fifth-related pentachords minor+minor+major+major may be considered a combination of the two above-mentioned stratifications (Fig. 11.3.5–3; cf. Fig. 10.4.2–1 [op. 104:III:53–102]). The competing degree-combinations are V+I+IV/VII (in d-mode), II+V+I/IV (in G-mode), or VI+II+V/I (in C major).

Fig. 11.3.5–3. Coexisting degree-combinations in a stratified combination of four pentachords (minor+minor+major+major).



11.4 MODAL AMBIGUITY BETWEEN THIRD-RELATED PENTACHORDS

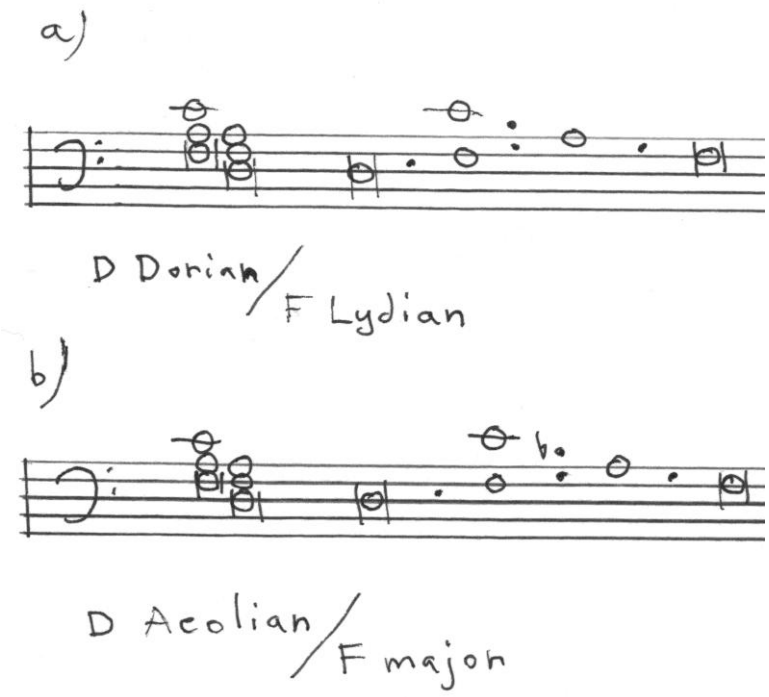
In modal ambiguity between third-related pentachords, there is much that is the same as in the case of fifth-related ones. In connection with third-related pentachords the mechanism of modal ambiguity may also be explained by means of competing degree-combinations. In establishing modal ambiguity the harmonic context is decisive, as well as when leaving it. In this section only those matters peculiar to third-related combinations are considered.

In illuminating modal ambiguity between third-related pentachords the D-rooted minor pentachord presented by Sibelius can still be used as a vehicle. It can represent the lower sub-triad in the most common modally ambiguous sum-chord, the minor sum-seventh chord (D–F–A–C). In a minor sum-seventh chord the third-related combination of pentachords is major+minor. In this combination an F-rooted major triad is the upper sub-triad (Fig. 11.4–1a). There are also other kinds of third-related combination that add up to different kinds of sub-seventh chord, but these are examined later (see section 11.4.3).

According to the same set of tones from which the fifth-related original combination grew, here the lower pentachord establishes the D Dorian mode and the upper one F Lydian (Fig. 11.4–1a). However, those scalarly associated modes that most often appear in connection with a modally ambiguous minor sum-seventh chord are Aeolian and major; here they are thus D Aeolian and F major (Fig. 11.4–1b). Mere scalar association would suggest F Ionian, but on the grounds of harmonic context usually encountered, the key should be interpreted as F major (see section 11.4.1). Therefore in order to cover all the D-rooted minor-like modes as well as F-rooted major-like modes, the terms “d-mode” or “F-mode” shall be used below. These may also be abbreviated as “d:” or “F:”.

In the case of simultaneous D minor and F major, there is also the possibility of simultaneity of C sharp and C natural. In third-related modal ambiguity these two pitch-alternatives may occur even simultaneously (thus forming a modally ambiguous clash). Yet the pitch C sharp does not belong to either of the sub-triads. Therefore in connection with third-related combinations the demarcation between modal ambiguity and bitonality is decided not according to the scalic situation, but on the grounds of the harmonic relations of the pentachords (cf. section 11.3).

Fig. 11.4–1 a–b. The most common combination of third-related pentachords (major+minor) with scalarly associated modes most often met.

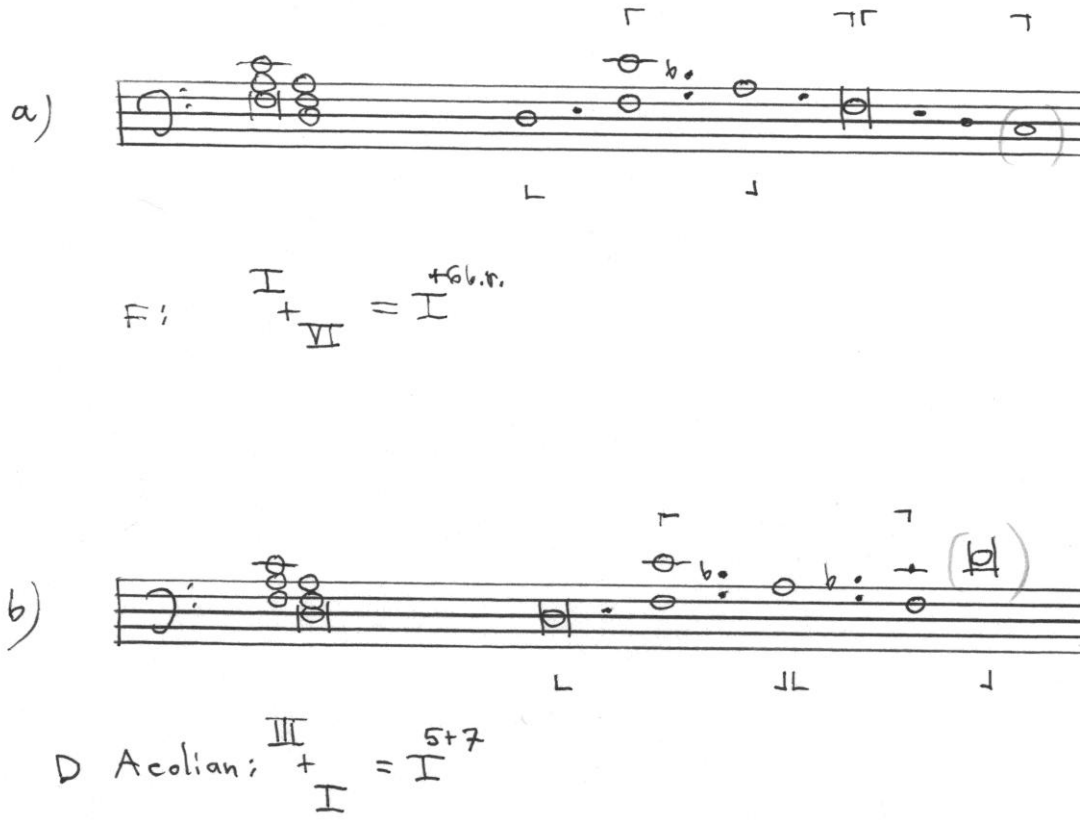


In a modally ambiguous minor sum-seventh chord both the pentachords may be grasped as tonic triads according to the principle of dual root (see chapter 5.3.2). When the upper pentachord is considered the I degree (according to the actual root), in that key (here F major) the lower pentachord is the VI

degree (degree-combination F: I+VI; Fig. 11.4–2a). When the lower pentachord is considered the I degree (according to the factitious root), in its key (here D Aeolian) the upper pentachord is the III degree (degree-combination d: III+I; Fig. 11.4–2b). In connection with a minor sum-seventh chord these competing degree-combinations I+VI=III+I (F:/d:) following from the principle of dual root are the most common modally ambiguous alternatives, though not the only ones (see section 11.4.3). Usually one of the simultaneous sub-triads is the tonic in the prevailing key.

From the angle of F major (Fig. 11.4–2a) the sum-seventh chord (F:/d:) is I+6 below root (added-sixth below the root of tonic triad, i.e. the 3rd inversion of tonic added-sixth triad; cf. Fig. 5.3.2–3d), while in terms of D Aeolian (Fig. 11.4–2b) the sum-seventh chord (F:/d:) is I5+7 (tonic added-seventh triad; cf. Fig. 4.4–5a).

Fig. 11.4–2 a–b. Coexisting third-related degree-combinations; upper and lower pentachords as tonics.



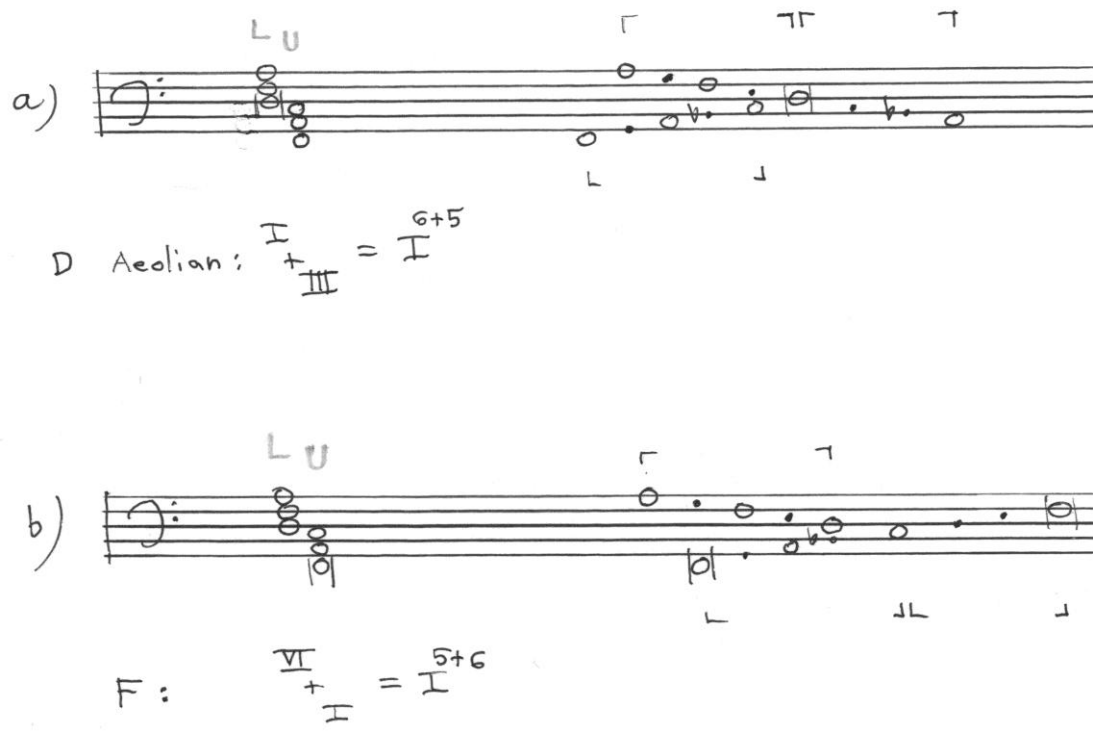
In this modally ambiguous minor sum-seventh chord (F:/d:) diversity can be achieved by spatial manipulation. When ordered in reverse (d:/F:), the third-related pentachords become sixth-related (see Fig. 11.4–3). The term "sixth-related" here is considered to be only a sub-species in the domain of third-related combinations. The latter term is used as a general term that also includes the sixth-related combinations.

In the sixth-related combination (d:/F:) the harmonically lower minor pentachord (d:) as the spatially topmost usually holds the melodic thread of the *Satz*, whereas in the third-related combination (F:/d:; see Fig. 11.4–2) it is mostly the harmonically upper (and spatially topmost) major pentachord (F:) that carries the melodic thread.[323] From the angle of D Aeolian (Fig. 11.4–3a) the sixth-related sum-seventh chord is I6+5 (tonic added-fifth sixth chord, i.e. the 1st inversion of tonic added-seventh triad; cf. Fig. 4.4–5b), while for F major (Fig. 11.4–3b) it is I5+6 (tonic added-sixth triad; cf. Fig. 5.3.2–3a).

Minor sum-seventh chords in the 1st inversion where the (harmonically upper) major pentachord (F:) rules melodically and harmonically (cf. Fig. 11.4–3b), are non-ambiguous added-sixth triads (see op. 82:I:11; E flat: I5+6 with minor 3rd; interchange). This holds good, even if the sixth-related minor pentachord (d:) were present as the collateral line in a thickening (see op. 46:V:2–6; A flat: I5+6). Also, the upper tetrachord (of d:) is not sufficient to replace the lack of the lower pentachord in an F-rooted added-sixth triad. Respectively, those minor sum-seventh chords in the 1st inversion where the (harmonically lower) minor pentachord (d:) rules melodically and harmonically (cf. Fig. 11.4–3a) are non-ambiguous added-fifth sixth chords.

[323] There are also cases when above the sixth-related combination (d:/F:) the harmonically upper major pentachord (F:) also holds the melodic thread of the *Satz* (op. 58:V:71–76; here the sixth-related pentachords are f:/A flat: and the major pentachord is rootless; cf. Fig. 4.2.3–1c and furthermore gapped, i.e. b1 flat–c2–[d2 flat]–e2 flat).

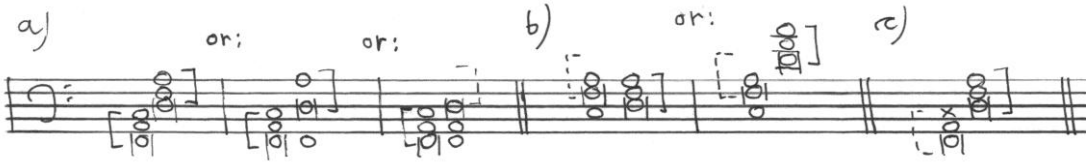
Fig. 11.4–3 a–b. Coexisting third-related degree-combinations reversed to sixth-related ones.



In the music of Sibelius the majority of modally ambiguous minor sum-seventh chords are presented either in the root-position, or in the first inversion. In a sixth-related combination (I+III=VI+I; d:/F:) the sub-chords need not be located exactly sixth apart from each other. They may as well share a mutual bass. In any case the distance of the roots of the pentachords remains as the interval of sixth (Fig. 11.4–4a).

Yet sometimes third- or sixth-related pentachords are arranged in such way that the major sub-triad appears as a six-four chord (Fig. 11.4–4b). From the angle of D Aeolian the sum-chord is I+7 below the root (i.e. the 3rd inversion of tonic added-seventh triad; cf. Fig. 4.4–5d), while in terms of F major it is I six-four+2 (the 2nd inversion of tonic added-sixth triad; cf. Fig. 5.3.2–3c). The dominant tone in the bass adds its own tendency to the competing degree-combinations I+VI=III+I (F:/d:).

Fig. 11.4–4 a–c. Sixth-related pentachords in various spatial arrangements.



There is a species of sixth-related pentachords where – due to a short pentachord – instead of a major sub-triad there is only a major third, or

merely its root. Instead of a minor sum-seventh chord either a tonic added-sixth triad without fifth (F: I3+6) from the angle of short major pentachord is the result, or a tonic sixth chord (d: I6) in terms of the minor pentachord (Fig. 11.4–4c). In Sibelius-literature this formation has been called the Sibelian minor sixth chord (see Fig. 2.1.4–3; Tawaststjerna).

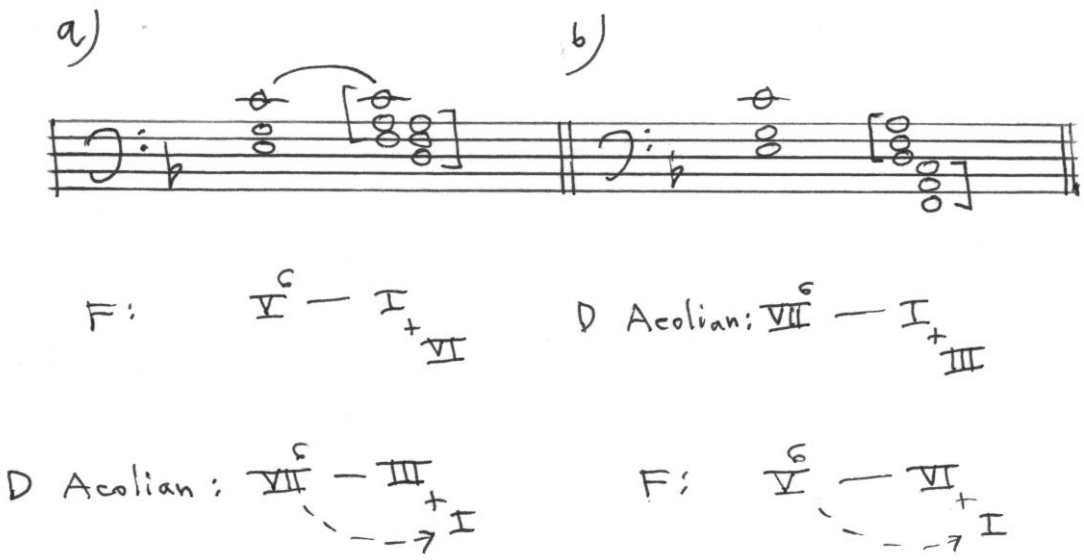
11.4.1 ON HARMONIC CONTEXT OF THIRD-RELATED PENTACHORDS

In exploring the harmonic context of third-related pentachords the same three types can be found as those observed in connection with fifth-related pentachords (see section 11.3.1). However, the first (columnal) and the third (chromatic) types are overlooked here in order to avoid tautology and only the second (consolidating) type is concentrated on.

In the domain of the minor sum-seventh chord (either F: I/d: I, or d:I/F: I) the most common third non-additive chord that consolidates the major pentachord as the tonic, is the dominant in terms of the F-mode (F: V–I, or V7–I). At the same time it is the subtonic in a characteristic progression of the d-mode (D Aeolian: VII–I, or VII7–I).

In connection with third-related pentachords (F:/d:) the consolidating progression takes place with the F-rooted melodic pentachord (Fig. 11.4.1–1a), while in connection with sixth-related pentachords (d: I/F: I) the F-rooted pentachord is the one located spatially lower (Fig. 11.4.1–1b) and the modal characteristic progression is emphasised.

Fig. 11.4.1–1 a–b. The preceding chord consolidates the upper pentachord of the third-related combination.

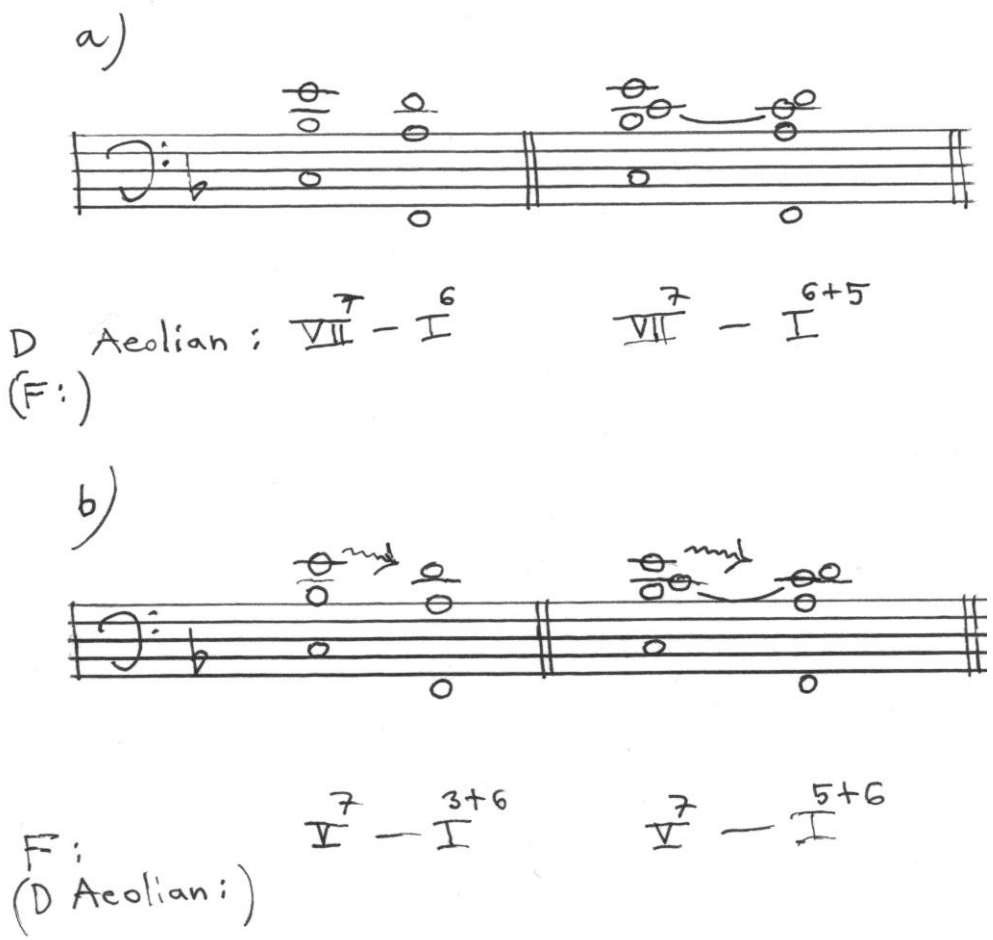


The latter kinds of progression can especially be found in closures wherein the caesura note in the melody and the caesura bass note mostly form an interval of a sixth. For this kind of *sixth- closure* there are two tonal contexts.

The first context is found in the (prevailing) minor key (Fig. 11.4.1–2a). In the closure the melody proceeds 2.–1. and the subtonic cadential bass proceeds to the mediant caesura bass (e.g. in D Aeolian: VII1–III1). In terms of the harmonies in a minor-like mode the closure is D Aeolian: VII7–I6. In case of fuller chords the closure is D Aeolian: VII7 – I6+5 (i.e. tonic added-fifth sixth chord).

The second context is found in the (prevailing) major key (Fig. 11.4.1–2b). In the closure the melody proceeds 7.–6. and the dominant cadential bass proceeds to the caesura tonic bass (e.g. in F: V1–I1). Regarding the harmonies, the closure is F: V7 – I3+6 (an added-sixth triad without a fifth, i.e. a Sibelian minor sixth chord). In the case of fuller chords the closure is F: V7 – I5+6 (i.e. tonic added-sixth triad).

Fig. 11.4.1–2 a–b. Two tonal contexts of a sixth-closure.

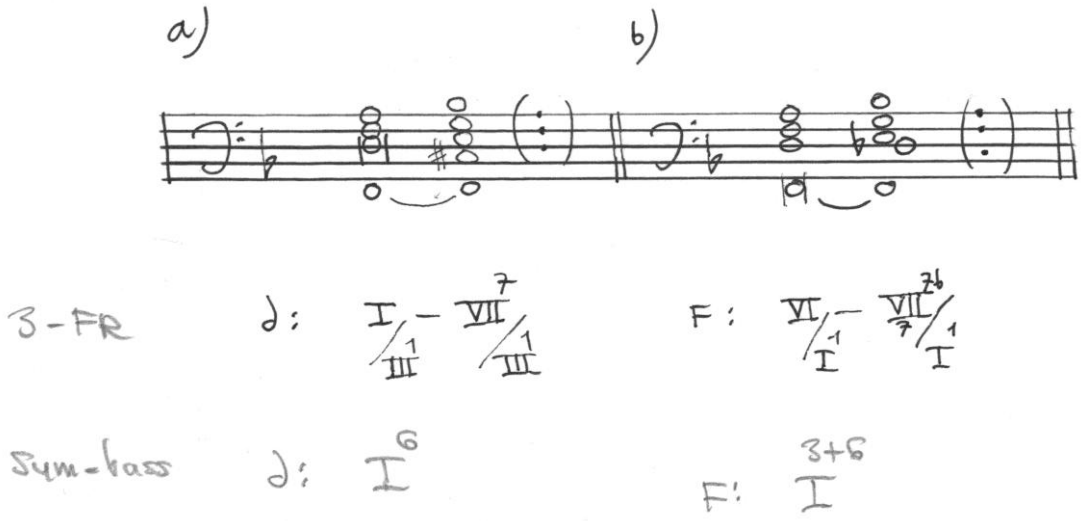


In terms of common-practice harmonic analysis this sixth-closure in its second context (in Fig. 11.4.1–2b) could easily be regarded as a deceptive cadence, though dissimilar to traditional ones. Yet the differences are telling. In a textbook deceptive cadence the leading-tone proceeds to the tonic, while the dominant bass does not and there is no modal alternative. On the other

hand, in a sixth-closure the leading-tone does not proceed to the tonic, while the dominant bass does. Both in the first and second context there is also an alternative to a relative key.

As we saw, in the case of a Sibelian minor sixth chord (d:/F:) the tonal consolidation is also used. Yet there is another consolidating chord that is serviceable only in connection with a Sibelian minor sixth chord. This is the VII7 chord of the minor (Fig. 11.4.1–3a). At the same time in relation to the stationary root of the short pentachord (F: I3) this is the VII7b in relative major, if enharmonic equivalency is applied (Fig. 11.4.1–3b). With regard to modal ambiguity it is vital that this (expected) major tonic does not arrive, because in that case the modal ambiguity would be left (see section 11.4.2).

Fig. 11.4.1–3 a–b. The following chord consolidating both the tonic sixth chord (d: I6) and the tonic added-sixth triad without fifth (F: I3+6).



A scalic variation of the above progression (F: V–I, or V7–I) emerges when the consolidating chord of the minor pentachord (D Phrygian: VII–I) offers a minor dominant triad for the major pentachord (F Mixolydian: V–I).

There is yet another context where the minor pentachord is consolidated by its dominant in natural minor (d natural: V–I). At the same time it is the mediant in Ionian (F Ionian: III–I).

11.4.2 LEAVING THIRD-RELATED AMBIGUITY

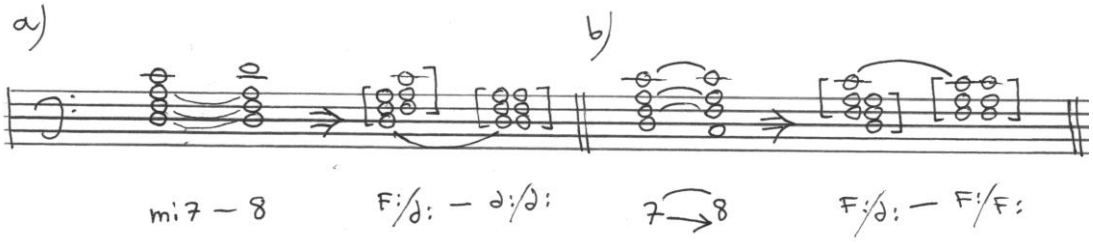
Third-related ambiguity is left everywhere, except at the end of a composition.[324] Since in the case of modally ambiguous third-related

[324] A passage of sixth-related modal ambiguity at the end of a composition: *In the Evening* op. 58 no. 5 (1909) bars 71–76 (there is either F Aeolian: I6 – I1/VII6 – I6 – I1/VII6 – I6+5, or A flat: I3+6 – VI1/V6 – I3+6 – VI1/V6 – I5+6. Cf. bars 1–3).

pentachords, both the sub-triads can be grasped as tonics (see section 11.4), there is also a columnal (see chapter 4.4) way of leaving that is not applicable to fifth-related pentachords.

The most straightforward method of leaving third-related modal ambiguity is to proceed from one pentachord to another. In this process the number of pentachords lessens from two to one. In the terms of a latent three-voice framework (see chapter 4.4) it proceeds either from F:/d: to d:/d:, or from F:/d: to F:/F:. In the sixth-related combinations there are of course the same processes (from d:/F: to d:/d:, or from d:/F: to F:/F:).

Fig. 11.4.2–1 a–b. Leaving third-related ambiguity through releasing motions.

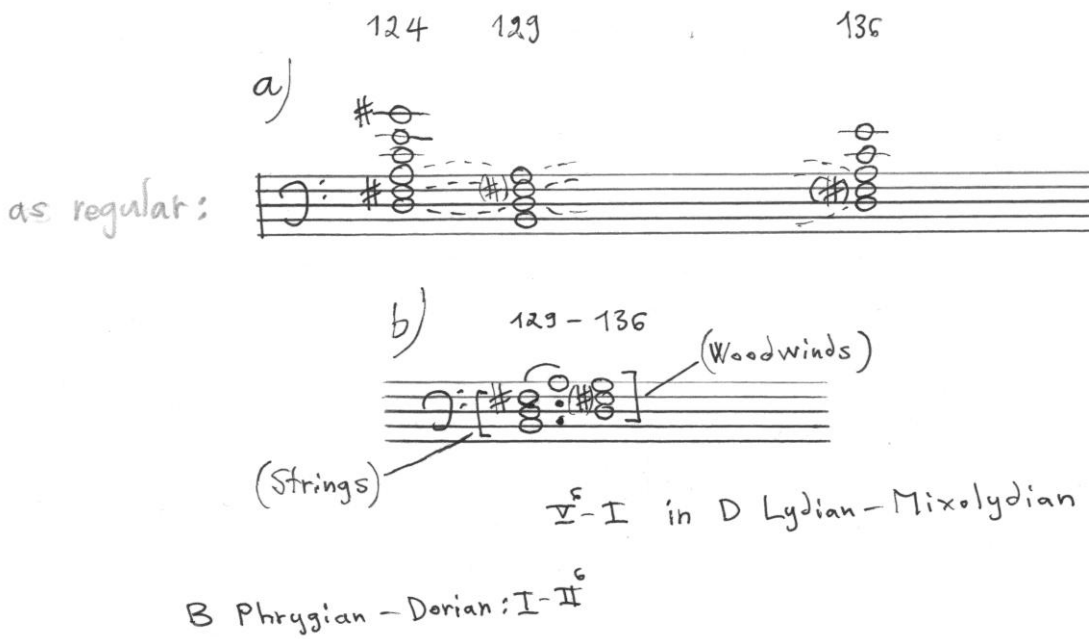


In this columnal type of leaving a sum-seventh chord may be released, either by the motion mi7–8 (Fig. 11.4.2–1a; cf. Fig. 5.3–3a), or by the motion 7–8 descending (Fig. 11.4.2–1b, cf. Fig. 5.3–2b). Tonally the releasing motion mi7–8 corresponds to dissolution 7–5 (cf. Fig. 4.4–2b), whereas the releasing motion 7–8 descending corresponds to its inversion 7–5 ascending (cf. Fig. 4.4–4b).

In releasing a modally ambiguous sum-seventh chord into its sub-triad, this sub-triad may also be included in a wider sum-chord. A Sibelian minor sixth chord cannot be resolved or released, but in order to leave its modal ambiguity proceeding to either of its sub-triads will suffice.

In Fig. 11.4.2–2a there is a reduction where the D-rooted sum-eleventh and sum-ninth chords that precede and follow the B-rooted minor sum-seventh chord are presented in regular form. In this reduction a columnal succession can be seen. The D-rooted upper major sub-triad of the modally ambiguous B-rooted minor sum-seventh chord (Fig. 11.4.2–2b) is the lower sub-triad in both D-rooted sum-chords that are not modally ambiguous. In the actual music the B-rooted minor sum-seventh chord does not stand a minor third below the preceding D-rooted sum-eleventh chord, but a major sixth above its root (see bars 128–129). This D-rooted sum-eleventh chord including an augmented eleventh G sharp was already under scrutiny earlier (see Fig. 9.4–1 [op. 104:II:124–128]).

Fig. 11.4.2–2 a–b. A third-related combination of pentachords as a part of a columnal succession. Sixth Symphony op. 104 (1923) 2. mvt. bars 124–136.

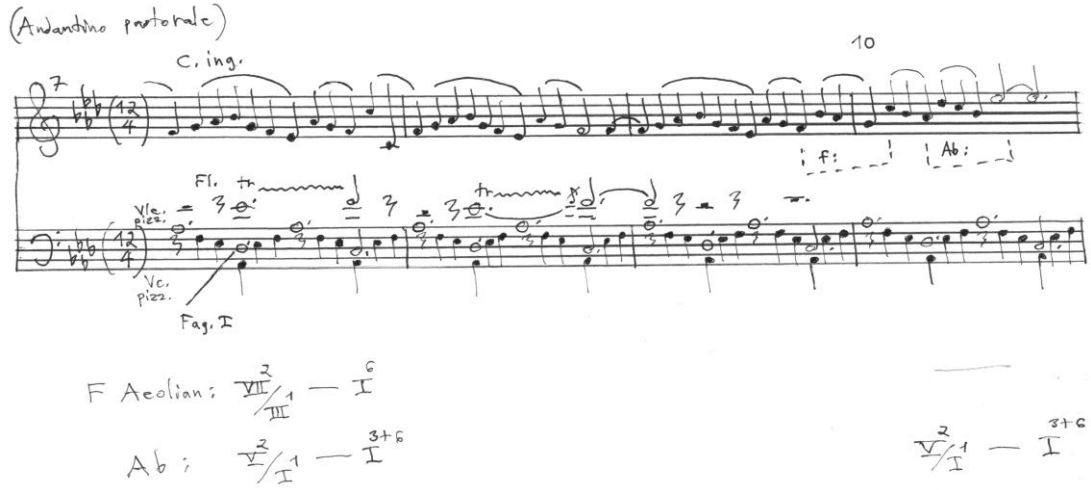


Another method of leaving third-related modal ambiguity is by means of a consolidating chord. Modal ambiguity is left if after the consolidating dominant only one of the previous two sub-triads of the sum-seventh chord returns (e.g. F: I/d: I – F: V–I). Modal ambiguity is also left when after the consolidating dominant a fourth ("X") non-additive chord appears (e.g. F: I/d: I – F: V–X).

It is also possible that the consolidating dominant may accompany a pentachord-succession (see chapter 4.2.4). In this combined leaving, the melodic pentachord-succession leads from a minor pentachord to a major one (from d: to F:) during the harmonic progression F: V(7)–I. During F: V7 the D-rooted minor pentachord would increase it to a dominant-type sum-thirteenth chord (F: V7+13). Even if the accompaniment held a sustained minor sum-seventh chord, in this combined leaving it would turn from d: I6+5/F: I5+6 to F: I5+6/I5+6.

In Fig. 11.4.2–3 the competing keys and their respective progressions are F Aeolian: VII2/III1 – I6 and A flat: V2/I1 – I3+6. In these the seventh (D flat) is resolved (cf. Fig. 5.1.2–1 [op. 46:V:7–8]). After concentrating on the F Aeolian pentachord in bars 7–8 the melody (C. ing.) in bars 9–10 returns to the previous A flat major pentachord (earlier in bars 3–6) and accompanied by the alternating harmonies it leaves the third-related modal ambiguity.

Fig. 11.4.2–3. Sixth-related ambiguity left by a pentachord-succession and a chord consolidating the major pentachord. *Pastorale* op. 46 no. 5 (1905) bars 7–10.

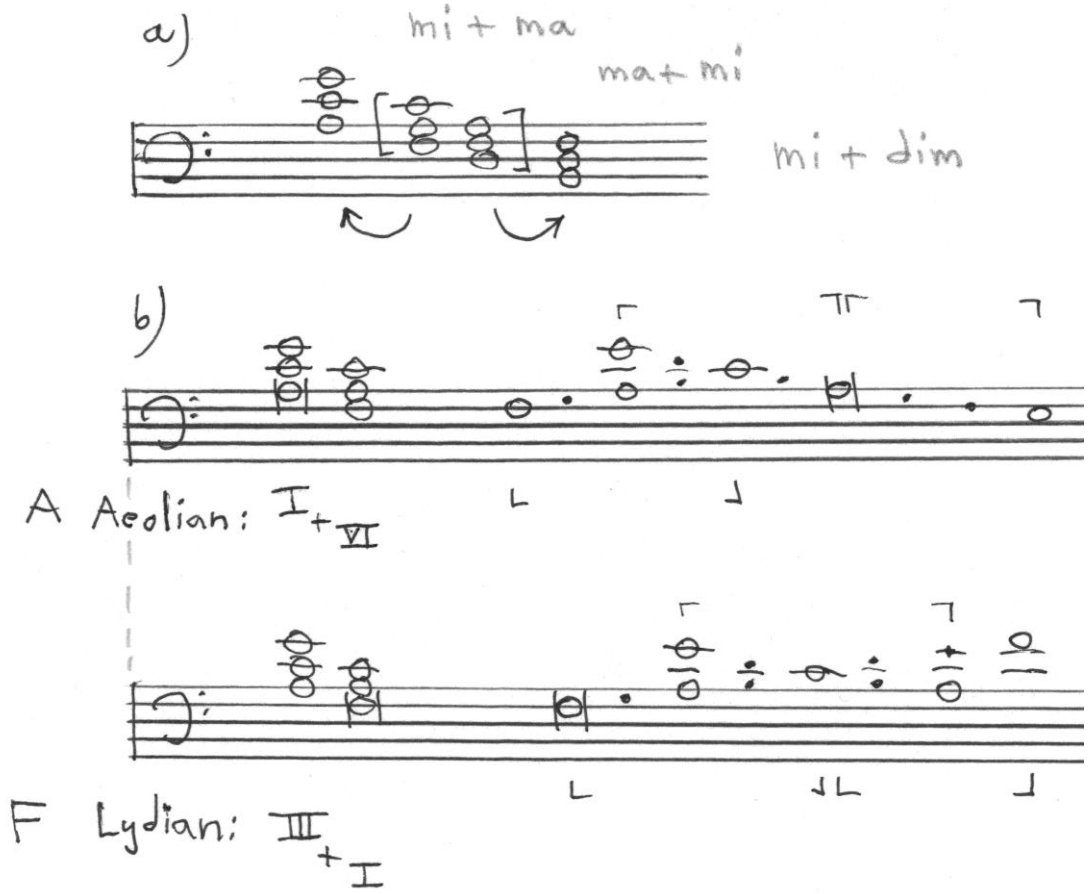


11.4.3 OTHER THIRD-RELATED PENTACHORDS

Besides the above-presented third-related combination (major+minor), there are two other ones: minor+major and minor+diminished (Fig. 11.4.3–1a). These may be obtained by means of superposition and supposition (see chapter 4.5.1). As additive harmonies (see chapter 3.5) these other third-related combinations will result in a major sum-seventh chord (Fig. 11.4.3–1b) and a half-diminished sum-seventh chord (see Fig. 11.4.3–2). Furthermore, aside from third-related, these other combinations of pentachord may be presented as sixth-related. The same types of harmonic context and leaving also exist.

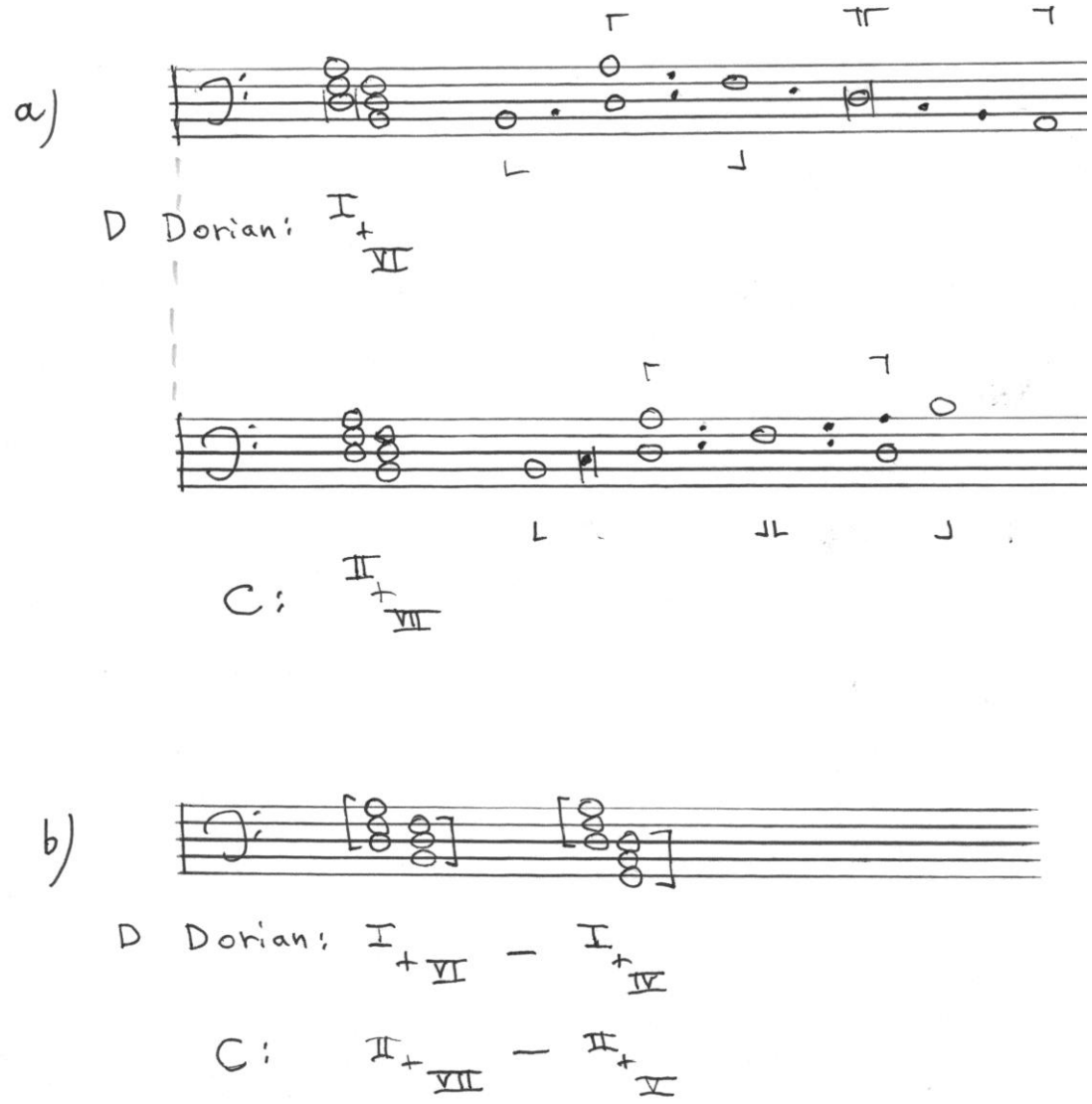
The combination minor+major results from A- and F-rooted pentachords. The respective modes are A Aeolian and F Lydian (Fig. 11.4.3–1b). In the case of a major sum-seventh chord the same competing degree-combinations as with the combination major+minor may be found (see section 11.4).

Fig. 11.4.3–1 a–b. Other ambiguous combinations of third-related pentachords (minor+major).



In the case of a half-diminished sum-seventh chord (Fig. 11.4.3–2a) the case is different. The combination minor+diminished results from D- and B-rooted pentachords. The respective modes would be D Dorian and B Locrian. The lower (i.e. diminished) pentachord cannot be consolidated as the tonic, because the Locrian tonic refers to a scalarly associated major key (in B Locrian to C: VII; see Fig. 5.4.2–3a), or minor key (in B Locrian to a: II; see Fig. 5.4.2–3b). Under these circumstances the Locrian diminished tonic triad in a scalarly associated major key can be considered a VII degree sub-triad in the degree-combination II+VII (Fig. 11.4.3–2a). The resulting competing second-related keys (D Dorian and C major: I+VI=II+VII; Fig. 11.4.3–2a) are the same as in an alternative in the fifth-related combinations (see Fig. 11.3–2c). Sometimes these third-and fifth-related combinations do indeed follow each other in a columnal succession (Fig. 11.4.3–2b; see op. 105:119–124).

Fig. 11.4.3–2 a–b. Other ambiguous combinations of third-related pentachords (minor+diminished).



11.5 MODALLY AMBIGUOUS SUM-CHORDS IN SUCCESSION

Above, the harmonic context was scrutinized where a modally ambiguous fifth- or third-related combination of pentachords was surrounded by non-additive chords (see section 11.3.1). This was done in order to avoid complexities at the outset. However, in the music of Sibelius a modally ambiguous sum-chord may be followed by another one. A fifth-related combination may be followed by another fifth-related combination, or by a third-related combination (see op. 82:II:182–186 and 187–194). Respectively a third-related combination may be followed by another third-related combination, or a fifth-related one. The degree-combinations in these

successive sum-chords depend on the prevailing key and whether the competing keys are fifth-, second-, or third–related.

There are two kinds of succession. Either the sub-chords may all be different, or one of them may be common to both of the modally ambiguous sum-chords. In the first alternative there are four different sub-chords. In the second alternative there are only three different sub-chords. In this case one of the sub-chords may remain stationary. In this second alternative this stationary sub-triad may harmonically be an upper sub-triad in one sum-chord and a lower sub-triad in another.

Below two figures are presented where one of the sub-chords is common to both modally ambiguous sum-chords. In both Figs. the most common third-related combination major+minor is connected with another third-related combination. These successions are presented according to the order encountered in the previous section (see section 11.4.3).

A superficial perusal may lead to considering the *Satz* in Fig. 11.5–1 as being in F major. There surely are strong elements of F major. In bars 1–3 (and in 4–16) the incomplete alternation in the principal key (F: #II2 without sixth–I) results from undulating tardy lines (Fl., Ob., Cl.). The alternation may be reduced to the ornamentation of a sustained triad F: I (Fig. 11.5–1a; cf. chapter 10.4.1). In this process some ornamental, not structural, consecutive fifths (bars 7, 10) are also reduced. In the minor sum-seventh chord the triad F: I functions as the (harmonically) upper major sub-triad.

It is yet possible in this *Satz* to analyse a connection of two third-related modally ambiguous combinations. Firstly in bars 4–10 there is a combination of sixth-related pentachords (d:/F:) where both the sub-triads in an inverted minor sum-seventh chord share a mutual bass tone F.

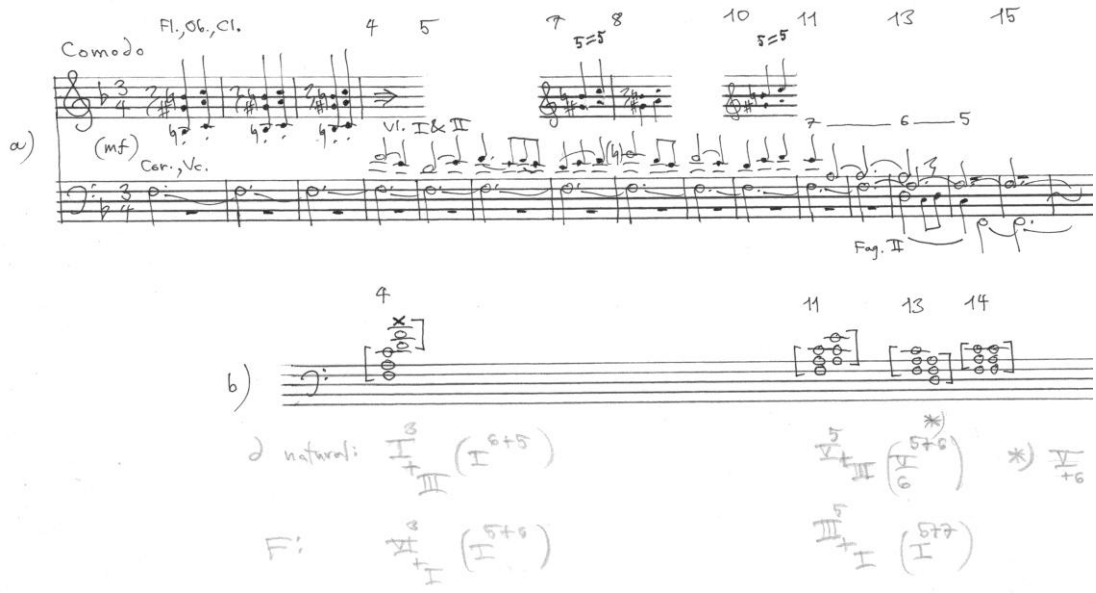
The melody (Vl. I, II–Fag. II) that enters in the fourth bar begins with f1 that easily may be considered the tonic therein. Yet for an F major melody the supposed leading-tone (e1) is treated in a non-traditional way. It descends three times (in bars 4–5, 6–7, 9–10) to the submediant, which in this melody gains more weight than is common in a typical F major melody. Furthermore in bar 11 the supposed leading-tone leaps downwards by fifth (e1–a). This again is a feature not typical to F major. However, all these curves are typical to a D-rooted minor tetrachord (cf. Fig. 4.2.3–2a), i.e. a short pentachord. In bars 4–10 the harmonic content of it is a dissolved (harmonically) lower minor third d1-f1 (d: I3). Seen in this way this sixth-related combination of pentachords (d:/F:) contains the competing degree-combinations I3+III=VI3+I (Fig. 11.5–1b). The respective sum-seventh chords are F: I5+6 on a tonic pedal point and d natural: I6+5 on a mediant pedal point.

The leap e1–a that in bars 11–12 follows in the melody (Vl. I&II) may be considered a dissolved dominant without the third (d natural: I–V). Against the sustained F major triad a new modally ambiguous third-related combination thus emerges (V+III=III+I; d:/F:). In this major sum-seventh chord the sustained F-rooted major triad functions as the lower major sub-

triad. The sum-seventh chord in the relative minor is an added-sixth triad in the 3rd inversion d natural: V+6 below root, while in the third-related major key it is an added-seventh triad F: I5+7.

In bars 13–15 the bassoon motive offers a segment in filled dissolution (cf. Fig. 4.4–4a) in bars 11–15 from the F-rooted added-seventh major triad via a passing sixth to the fifth (F: I5+7 – I5+6 – I5+5). In the relative minor the two first chords in bars 11–13 could still be understood as d natural: V+6 below root – I6+5. Yet in the continuation the D-rooted minor pentachord is abandoned (cf. Fig. 11.4.2–1b) and (d:/F:) modal ambiguity is thus left in favour of F major.

Fig. 11.5–1 a–b. Third-related combinations (ma+mi, mi+ma) in succession. *By a Spring in the Park* op. 46 no. 3 (1905) bars 1–16.



In Fig. 11.5–2a there are two successive modally ambiguous sum-chords, a G sharp-rooted minor seventh chord and an E sharp-rooted half-diminished seventh chord, which in the level of reduction do alternate. During both these sum-seventh chords a G sharp-rooted minor pentachord offers the melody (Cl., Fl.). Thus in bars 95–97 and 98–101 it may be considered the sustained sub-triad common to both sum-chords (Fig. 11.5–2b). Only in bar 97 is a dominant tetrachord (D#–E–F#–G#) added to this tonic pentachord, which decides the mode of the melody as G sharp Aeolian (see chapter 4.2.1).[325]

Beneath this line a tardy line proceeds (Cb.) that in bars 95–100 acts as an ostinato (Fig. 11.5–2a; cf. Fig. 8.1.1–3 [op. 52:II:92–109]). The tardy line in bars 93–97 and 100–101 is a component in line-pedal *Satz* (see chapter 5.1)

[325] Virtanen states that "The B section [from bar 94 on] begins in G# minor" (Virtanen 2005:103). Yet in bars 94–102 there is not a single F double-sharp, i.e. the leading-tone of G# minor. Virtanen admits the omnipresence of F#, but does not take the modal approach into consideration.

and in bars 98–99 and 102 a component in line-tardy line *Satz* (see chapter 5.1.1). This ostinato contains the tones F sharp and E sharp that both increase the melodic pentachord into different kinds of sum-seventh chord (Fig. 11.5–2b). Thus the subtonic F# is the most prominent tone in this tardy line and it gives a peculiar shadowing to the G sharp Aeolian melody.[326] Furthermore, when connected with the G sharp-rooted minor pentachord, the tardy line tones E sharp and F sharp build up a G sharp Dorian scale. The melody and the tardy line thus suggest different modes (G sharp Aeolian/G sharp Dorian). In this polymodal situation (see chapter 4.2.2) there however is no polymodal clash (see chapter 4.2.4) between E/E1 sharp (bars 96, 98, 100) and e3 natural (bar 97). From a harmonic point of view this means that in analysis G sharp Dorian may be used. Only bar 97 may be explained by means of the interchange (see chapter 4.2.2) G sharp Dorian – G sharp natural minor – G sharp Dorian. Over the bass tone G sharp the only dominant chord in this passage occurs (g sharp natural minor: V six-four/I1; Fig. 11.5–2c). Yet this Sibelian organ point-formation (g sharp: I sum-seven-five-two) may also be considered a passing phenomenon (cf. Fig. 5.2.2–1c, Fig. 5.2.2–3 a–c).

The prominent F sharp at the beginning of every bar with the G sharp-rooted minor pentachord adds up to the first third-related degree-combination (B:/g sharp: I+VI=III+I). This is included in a G sharp-rooted minor sum-seventh chord in the 3rd inversion (Fig. 11.5–2b). As a regular formation this may be considered a G sharp-rooted added-seventh triad and in it the G sharp-rooted melodic minor pentachord is the lower one. In this first third-related degree-combination the upper B-rooted pentachord is suggested by its fifth F sharp in the bass (Fig. 11.5–2b).

The second third-related degree-combination is included in an E sharp-rooted half-diminished sum-seventh chord (Fig. 11.5–2b) in bars 96, 98 and 100. Here the G sharp-rooted melodic minor pentachord is the upper one (Fig. 11.5–2b). In deciding the degrees in the second sum-seventh chord the competing keys (B:/g sharp:) of the first one can still be taken into consideration. As shown (Fig. 11.5–2b), the degree-combination in this second sum-seventh chord would be VI/IV=I+VI (B Lydian:/G sharp Dorian:).[327]

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[326] According to Virtanen 2005:103 "the underlying harmonic structure in mm. 92–102 is problematic". He characterizes it in negative ways, such as: "the strange, circulating bass figure alienates the music from harmonic stability".

[327] If the modal approach and the principle of layered *Satz* are admitted – instead of restricting oneself to a minor key and a two-voice framework – there is no need to propose an alternative *Satz* (Ex. 11–4; Virtanen 2005:105) where the dotted minims in the bass part appear a half bar later than with Sibelius. "In this solution, I think, the strong metrical position of the G#s in the bass would very much clarify the chordal hierarchy of this passage" (ibid.). Virtanen admits that his proposition causes parallel fifths between the bass and the melody, so "this hypothetical model cannot be called a standard solution from the viewpoint of voice-leading" (ibid.). In his own terms Virtanen thus faces a blind alley.

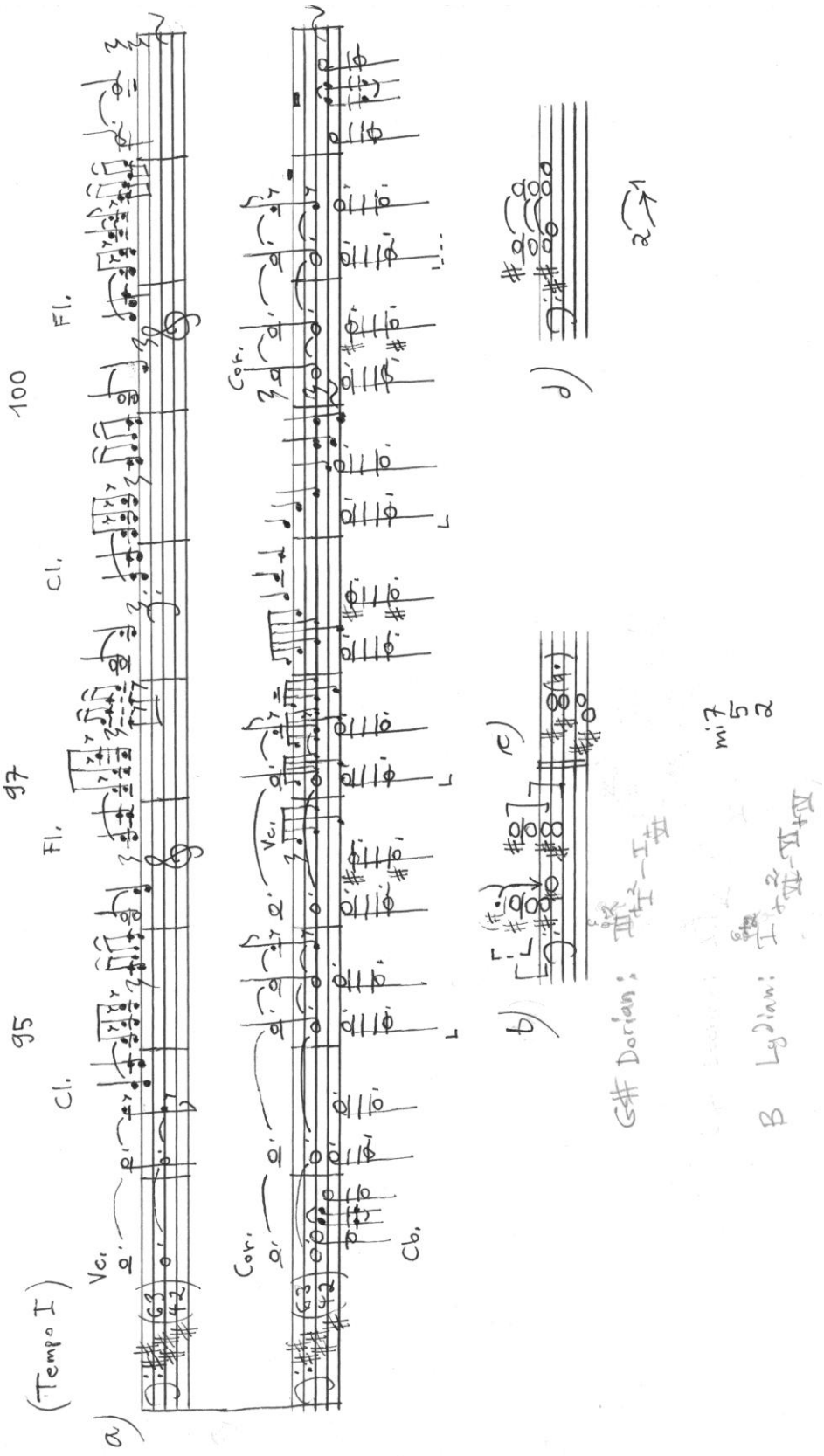
Taking into consideration the passing nature of the ostinato tone G sharp (bars 95–96, 97–98 and 99–100), the progression according to the melodic minor pentachord (G sharp Dorian: I+7 below root – I – I+7 below root – I+6 below root) may be reduced into a two-chord alternation (G sharp Dorian: I+7 below root – I+6 below root). The former of these is the 3rd inversion of a G sharp-rooted tonic added-seventh triad (cf. Fig. 4.4–5d) and the latter is the 3rd inversion of a G sharp–rooted tonic added-sixth triad (cf. Fig. 5.3.2–3d).

According to the upper B-rooted major pentachord the reduced progression is in a scalarly associated B Lydian: I six-four+2 – IV5+7 (i.e. the 2nd inversion of tonic added-sixth triad – E sharp-rooted subdominant added-seventh triad). During the G sharp-rooted melodic minor pentachord the tardy line thus circulates around the dominant F sharp of B Lydian (see Fig. 11.5–2a).

In bar 101 modal ambiguity is left by means of a releasing motion 2–1 ascending (cf. Fig. 5.3–3d) into the G sharp-rooted basic sub-triad. This is an octave-displaced version of the releasing motion mi7–8 (see Fig. 5.3–3c, cf. Fig. 11.4.2–1a).

In this passage the harmonic context does not give any support to the degree-combination F sharp: II+VII (in g sharp:/F sharp: I+VI=II+VII) in connection with the half-diminished seventh chord (see Fig. 11.5–2b). Only the first half of bar 102 may be understood as the vague tonic resolution of it. Yet a modulation follows immediately in bar 102 (F sharp: I6 → b: V6 – B natural minor VII6) that in bars 103–106 leads to the interchange B natural minor – B Dorian – B natural minor utilizing the same thematic material as in bars 95–98. Thus in the following section the tonic tone of the modally ambiguous alternative B Lydian in bars 95–101 is put into practice.

Fig. 11.5–2 a–d. Third-related combinations (ma+mi, mi+dim) alternating. Third Symphony op. 52 (1907) 2. mvt. bars 93–102.



11.6 BITONALITY

In principle the mechanism of bitonality (D.) does not fundamentally differ from that of modal ambiguity (see sections 11.3, 11.4). Bitonality is also based on heptatonic scales and is founded on competing degree-combinations that are possible to interpret from the point of view of either pentachord. Moreover, in bitonality either of the simultaneous sub-chords is usually the tonic or dominant in the prevailing key – and in its harmonic context it is consolidated as such. Bitonality inevitably includes the same three types in harmonic context as in modal ambiguity (see sections 11.3.1, 11.4.1). The methods of leaving bitonality are similar to those in modal ambiguity (see sections 11.3.2, 11.4.2). Yet there are also some differences that are listed below.

In bitonality, according to the definition (see the Table in section 11.1), the scales are not scalarly associated and their key-notes are different. It was mentioned above that in the domain of modal ambiguity this state of affairs could also emerge (see sections 11.3 and 11.4). The criterion of demarcation is that in modal ambiguity the pitch-alternatives forming an augmented unison (e.g. C and C sharp) are either both non-harmonic tones (+/+) or at least one of them is (+/o). In bitonality both the pitch-alternatives in an augmented unison are chord factors of different sub-triads (o/o).

An augmented unison between sub-chords indicates a polychord (see Fig. 6.3–5 [op. 70:204–208]). Yet an augmented unison (i.e. a bitonal clash) may be avoided, if at least one pentachord is presented as a short one (cf. Fig. 4.2.3–2). Then the sub-chords in bitonality will also result in a sum-chord.

As in modal ambiguity, in bitonality the pentachords are also related by a fifth or by a third. Yet in bitonality the interval of the fifth is diminished. Stratification of pentachords related by a diminished fifth would – enharmonically considered – only produce octave-doublings of the first and the second pentachords. Still, third-related stratifying meets no hindrances in bitonality (see section 11.6.3).

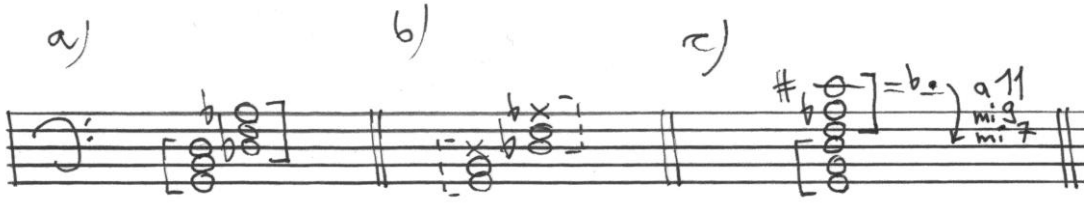
In bitonality at least one of the sub-chords is an altered chord from point of view of either heptatonic scale. Yet in some cases it is possible to include both pentachords into an octatonic scale. In this sense *bitonality* in terms of heptatonic scales would be octatonic *ambiguity*!

11.6.1 PENTACHORDS RELATED BY DIMINISHED FIFTH

In connection with pentachords related by diminished fifth, the combination major+major is the most common. Spatial manipulation where the order of the pentachords becomes reversed i.e. tritone-related, is also possible (see Fig. 11.9.2–1a [op. 63:IV:379–385]). The polychord that results from complete pentachords related by a diminished fifth is close to a sum-ninth chord with a minor ninth. The polychord only contains a diminished fifth

aside from the perfect one (Fig. 11.6.1–1a; cf. Fig. 2.1.1–5a, Normet). A narrower formation with short pentachords results in a sum-seventh chord with a lowered fifth. This is enharmonically equal to an augmented "French" sixth chord (Fig. 11.6.1–1b). There is furthermore the possibility to explain a combination of complete pentachords related by a diminished fifth as a sum-chord by means of enharmonic spelling. In this way the diminished fifth (D flat) would turn into an augmented eleventh (C sharp) in a sum-eleventh chord with an augmented eleventh and minor ninth (Fig. 11.6.1–1c; cf. Fig. 2.1.1–5b). Yet in his orthography Sibelius never takes this possibility into consideration.

Fig. 11.6.1–1 a–c. Complete and short pentachords related by a diminished fifth.

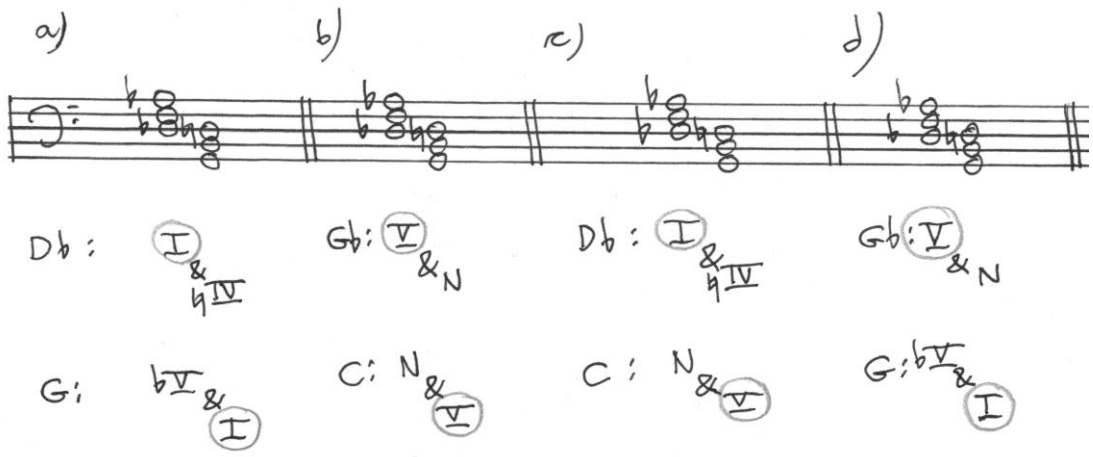


The pentachords in the combination major+major may be viewed as competing tonics (T&T), or dominants (D&D), or combinations of tonic and dominant (T&D or D&T).

In cases of competing tonics the degree-combinations are I&#IV, i.e. the raised fourth degree and bV&I, i.e. the lowered fifth degree (I&#IV=bV&I; Fig. 11.6.1–2a). In harmonic analytic notation the fourth degree is always marked as raised one, even when in the music there is a mode that contains an augmented fourth degree. In cases of competing dominants the degree-combinations are V&N and N&V (V&N=N&V; Fig. 11.6.1–2b). The dominant of one key is the Neapolitan of another and vice versa. In the case of competing tonics or competing dominants the keys are also related by a diminished fifth (or by a tritone).

In the case of a competing tonic and dominant the degree-combinations are I&#IV and N&V (I&#IV=N&V; Fig. 11.6.1–2c; cf. Fig. 11.9.1–1 a–b [op. 82:I:294–297]). The reverse case is V&N and bV&I (V&N=bV&I; Fig. 11.6.1–2d). In connection with these the keys are related by a minor second (or by an augmented unison).

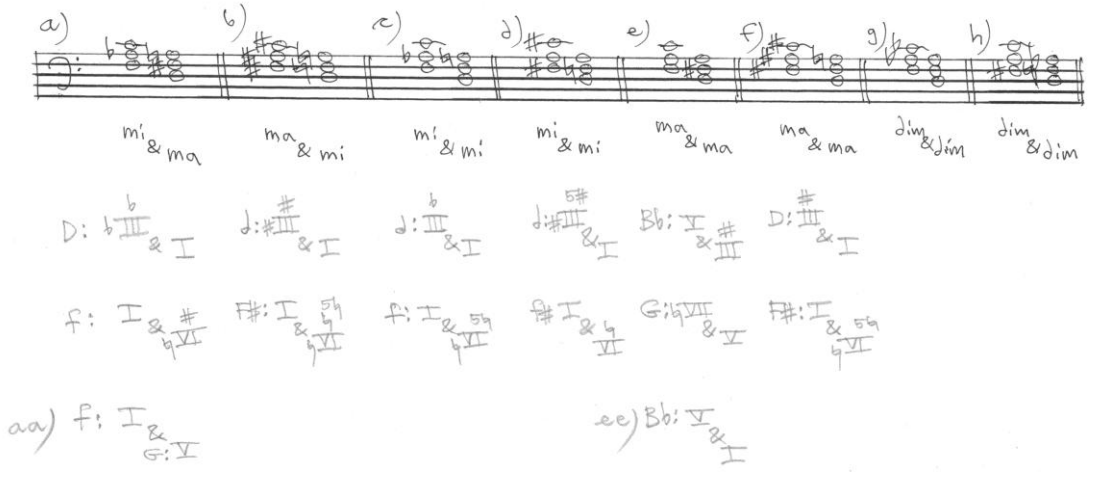
Fig. 11.6.1–2 a–d. Different coexisting degree-combinations in pentachords related by a diminished fifth.



11.6.2 BITONALITY BETWEEN THIRD-RELATED PENTACHORDS

Third-related combinations in bitonality may be related by a minor third or by a major third. Aside from their differences (Fig. 11.6.2–1a, –1b), the combined pentachords may also be similar: minor+minor (Fig. 11.6.2–1c, –1d) or major+major (Fig. 11.6.2–1e, –1f), even diminished+diminished (Fig. 11.6.2–1g, –1h). Moreover, in bitonality third-related pentachords may be spatially manipulated into sixth-related (Fig. 11.6.2–2 [op. 70:54–81]). When the pentachords are complete, the combinations minor+minor or major+major result in polychords. In these between the sub-triads a minor second or an augmented unison emerges. If a bitonal clash is eliminated, a sum-seventh chord will result.

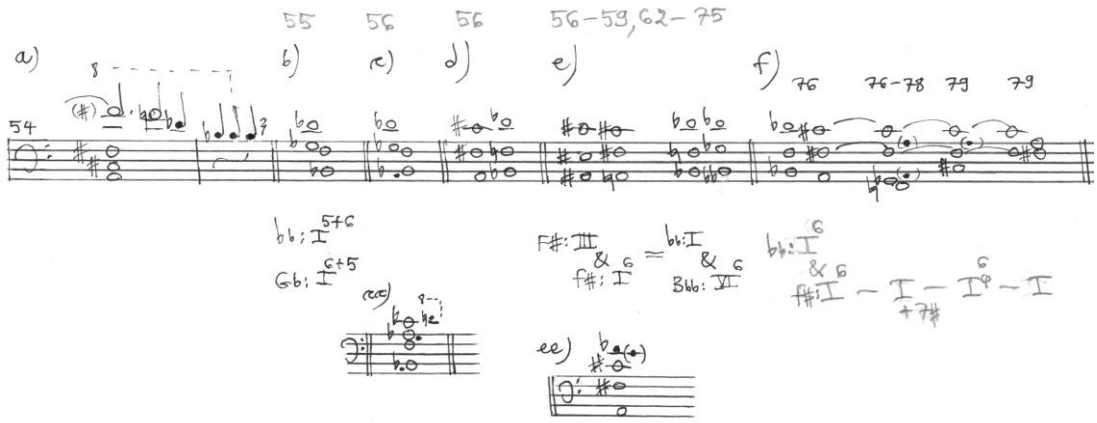
Fig. 11.6.2–1 a–h. Different coexisting degree-combinations in pentachords related by a third.



The pentachords in the third-related combinations may be considered competing tonics (T&T), or dominants (D&D), in which case the competing keys are also third–related. In connection with competing tonics the degree-combinations would be I&VI=III&I (cf. Fig. 11.6.2–1a, –1b; see op. 43:II:231–232). In connection with competing dominants the degree-combinations would be V&III and VII&V (cf. Fig. 11.6.2–1c; see Fig. 6.3–4 [op. 56:V:254–258]). The number and quality of alterations in connection with these degree-combinations depends on the particular keys that are in use.

The simultaneous degrees may also be interpreted as combinations of competing tonic and dominant. In the combination T&D the keys are second-related (cf. Fig. 11.6.2–1aa), while in the combination D&T the keys are related by a third (cf. Fig. 11.6.2–1ee).

Fig. 11.6.2–2 a–f. A bitonal third-related combination of pentachords established and left. *Luonnotar* op. 70 (1913) bars 54–81.



In Fig. 11.6.2–2 there is a pentachord-combination of minor+minor related by a major third (cf. Fig. 11.6.2–1d). Both of them may be viewed as tonics. At first in bar 54 there is only an F sharp-rooted minor sixth chord A–C sharp–F sharp (enharmonic equivalents D flat and G flat are also used in the score). F sharp has been the tonal centre of this composition so far.

In the Solo voice in bars 54–55 a dissolved B-flat minor triad appears as a curve f2–d2 flat–b1 flat (Fig. 11.6.2–2a). At the same time as the first b1 flat in bar 55, the F sharp-rooted minor sixth chord proceeds to a combination of adjacent open fifths B flat–f–g flat–d1 flat (Vc., Vle.). This formation (Fig. 11.6.2–2b) may be considered either a B flat-rooted added-sixth triad (b flat: I5+6), or a G flat-rooted added-fifth sixth chord (G flat: I6+5; cf. section 11.4).[328]

[328] Hepokoski 1993:25 explains a chord in "B-block" (e.g. in bars 55–59) of *Luonnotar* op. 70 (1913): "a static 'B flat minor' chord (blurrily juxtaposing five-three and six-three above the B flat bass)". He, however, does not take into consideration the tone A in the Harp part that renders the

In bar 56 the harps add a low A natural to this formation, which seems to be an added-note (Fig. 11.6.2–2c; cf. Fig. 7.5.1–2 [op. 70:173–175, 180–181]). This accumulated formation may now be considered a bitonal polychord (g flat = f sharp, d1 flat = c1 sharp, A) consisting of a simultaneous F sharp-rooted minor sub-sixth chord and a root-position B flat minor sub-triad (Fig. 11.6.2–2d). The F sharp-rooted minor sub-triad appears here as an *un-chord* A–g flat–d1 flat (see chapter 6.4). The competing degree-combinations (III&I=I&VI; f sharp:/b flat:) of two keys related by diminished fourth (= major third) are shown in Fig. 11.6.2–2e.

In bars 57–58 the Solo voice proceeds according to B flat minor and in bars 62–64 and 69–71 according to the B double-flat Lydian scale. In both cases in the voice part the melodic dissonances against the polychord are treated traditionally, i.e. stepwise. The orthography of B double-flat Lydian may stem from an assumed enharmonic equivalent G flat-rooted minor triad (Fig. 11.6.2–2e). B double-flat Lydian scale is enharmonically equivalent to A Lydian.[329] A scalarly associated mode of A Lydian is F sharp Dorian, the mode that opens this composition (see Fig. 8.4–1 [op. 70:1–5]). The relation between the F sharp minor sixth chord (F sharp: I6) and the A Lydian tonic pentachord is a modally ambiguous third-related one (I+VI=III+I; A:/f sharp:).

In bars 59, 66–67 and 73 the Solo voice adds the tone f1 flat (= e1 natural) to B flat minor and B flat natural minor scales, a tone that may be viewed as a sign of the fifth degree of B double-flat Lydian. This is more likely, since in bars 67–68 and 73–74 this added pitch (f1 flat/e1 natural) is not treated as a dissonance; it remains stationary, as if it was an added-fifth in A–f#–c1#–e1 (Fig. 11.6.2–2ee) and ceases during the ensuing whole-bar rest.

In bars 59–62 in the domain of assisting bass a progression takes place (G flat Dorian: I5–II3–I5) during the sustained fifth B flat–f (see Fig. 7.3–1 [op. 70:59–62]). In bars 60–61 two neighbour notes, a flat and c flat, result in a minor third that can be seen as an incomplete middle chord. This minor third (c1 flat/a flat) is not a dominant chord, but in relation to the open fifth G flat–D flat it can be considered a consolidating dyad, supplied with an added-note g natural (Arp. I; Fig. 11.6.2–2cc; cf. Fig. 7.3–1a [op. 70:60–61]).

The added-note excluded, this upper third against the lower fifth f/B flat adds up to a passing B flat-rooted dominant-type added-ninth chord (5+9) without a third (Fig. 11.6.2–2cc) to which the Solo voice adds the major third

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combination a polychord. This may be described in terms of a three-voice framework (see Fig. 11.6.2–2c and –2d).

[329] Maasalo 1964:172 considers these bars "Lydian A major" that is written as B double-flat major (see chapter 2.1.4). In his next page Maasalo presents a short arrangement for two staves (bars 62–64 not indicated) according to a notation of his own. In the upper staff of this music-example there is a key-signature bearing three sharps (D sharp in this "Lydian A major" is shown by an accidental in bar 63), while in the lower staff there is a key-signature bearing five flats.

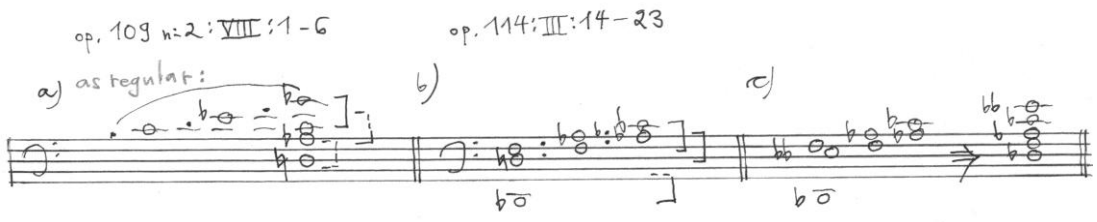
(d2 natural) in bar 61. Yet the harmonic context does not give any support to the key of E flat minor.[330]

In bars 76–79 the tones B flat and F (Timp. II) cease. Finally, from bar 79 on the position of the F sharp minor triad is restored (b flat: I/f sharp: I6 – f sharp: I+ma7 below root – I six-four – I (Fig. 11.6.2–2f). The ornamental six-four chord (f sharp: I six-four) is caused by an entering bass (Vle., Vc.). Thus in bars 54–81 the F sharp-rooted minor sub-triad temporally encloses the B flat-rooted minor sub-triad (see section 11.9.2).

11.6.3 THIRD-RELATED PENTACHORDS STRATIFIED

Bitonal third-related pentachords may be stratified as sub-triads that are piled up in the same way as those in connection with modal ambiguity (cf. Fig. 11.4.3–1a). In stratification two third-related pentachords are combined with a third pentachord related by some other interval. In these combinations the third-related pentachords are located topmost. In Fig. 11.6.3–1a [op. 109:2:VIII:1–6] the middle and lowest pentachords (a flat–e1 flat and d–a flat), marked by dotted lines, appear as a sub-interval (c1/a flat) and a sub-tone (d). The third (extended) pentachord (b+c1–g1 flat) overlaps the middle one. In Fig. 11.6.3–1b [op. 114:III:14–23] a pentachord-succession (see chapter 4.2.4) is also based on the two topmost pentachords (f–c1 flat and d–a flat). The third pentachord (D flat–A flat) is represented only by its root in the low register (though its fifth, as a flat, does belong to the topmost pentachord). This combination, which includes an augmented octave D flat–d natural, results in a polychord, but if this interval is read enharmonically as a minor ninth D flat–e double-flat, a dominant-type sum-chord results: an added-root ninth chord (Fig. 11.6.3–1c). In both the above stratifications the topmost pentachord is diminished.

Fig. 11.6.3–1 a–c. Bitonal third-related pentachords stratified.



[330] According to Maasalo 1964:172 ”the dominant ninth chord of E flat minor muddles the tonal image; it namely does not lead to E flat minor but reverts to the original chord of B flat minor…”. Only if one sticks to the syntax of tonal music ‘muddling’ emerges. Neo-modality has a syntax of its own.

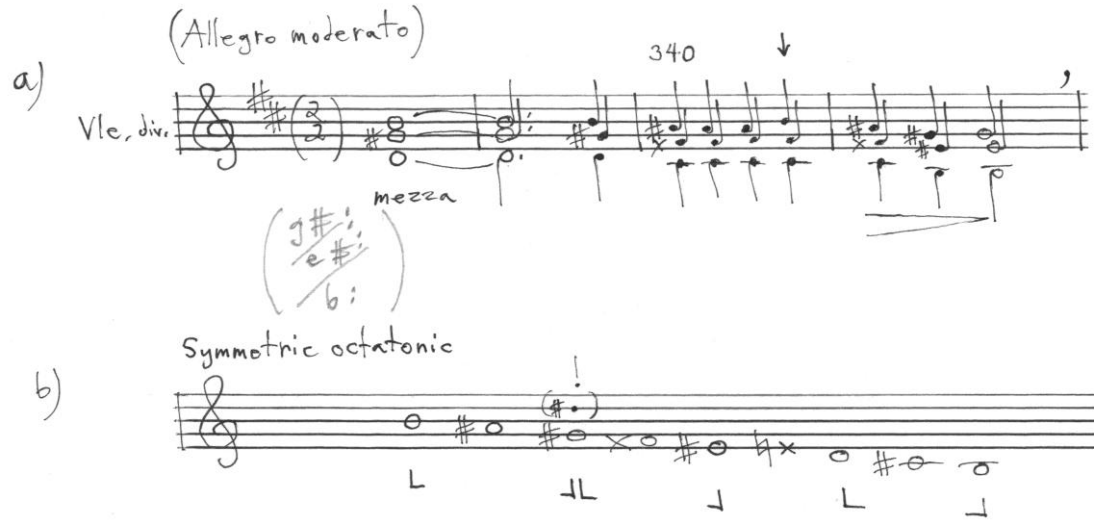
11.6.4 TRI- AND QUADRIMODIC THICKENINGS

In thickenings the simultaneous third-related pentachords as the line and its collateral lines may present exactly the same successive intervals (cf. Fig. 7.5.1–2 [op. 70:173–191]). This device leads to a chordal thickening that may include either three (trimodic thickening) or even four third-related pentachords (quadrimodic thickening). In this kind of chordal thickening by minor thirds the relation of every other pentachord is a diminished fifth. In a trimodic thickening where the components do not exceed the ambitus of a tetrachord, they together add up a symmetric octatonic scale.

In Fig. 11.6.4–1a there is a thickening through the use of diminished six-four chords (see chapter 7.1.2). In Fig. 11.6.4–1b there is the suggestion of three short pentachords (G sharp-rooted, E sharp-rooted and B-rooted trichords) on which this thickening is based. The sum of these trichords is a symmetric octatonic scale (G sharp–A sharp–B–C sharp–D–E–F/E sharp–G/F double-sharp), without an E (shown by a marker).

Earlier, in bars 318–322 the same G sharp-rooted trichord was treated modally, as is also the case later (cf. Fig. 7.3–2 [op. 112:593–597]). The accompanying sustained dyad (d3 sharp/d2 sharp/d1 sharp/b) during these four bars 338–341 has been left out in Fig. 11.6.4–1a. However, the pitch D sharp that does not belong to the symmetric octatonic scale is marked above it in Fig. 11.6.4–1b. In connection with the G sharp-rooted trichord the sustained D sharp (with all the other pitches available) suggests a heptatonic scale G sharp–A sharp–B–C sharp–D sharp–E sharp–F double-sharp–G sharp; i.e. G sharp Aeolian-Ionian mixed mode (cf. Fig. 4.2.1–2d). Due to the missing E natural the only difference between the scales in this polyscalic situation (see chapter 4.2.2) is the clash D sharp/D natural. In octatonic surroundings the additional D sharp thus enhances the modal weight of the G sharp-rooted line.

Fig. 11.6.4–1 a–b. A trimodic thickening. *Tapiola* op. 112 (1926) bars 338–341.



11.7 MODALLY AMBIGUOUS AND BITONAL FORMATIONS COMBINED

In the above explorations of harmonic context, modally ambiguous sum-chords and bitonal polychords were discussed separately. It is in a further type of harmonic context that these may be combined. Modal ambiguity and bitonality can be combined in two ways, simultaneously and successively. Simultaneous combining was already discussed (see Fig. 11.6.2–2 [op. 70:54–81]). Only successive combining thus remains to be discussed here.

In the domain of modal ambiguity successive third-related combinations may be utilized in axial tonality by minor thirds (e.g. D:/b: – F:/d:), if the principle of interchange is applied.

In Fig. 11.7–1a there is a reduction of a successive combination of a bitonal polychord (bars 11–17) and a modally ambiguous sum-chord (bar 21). In bars 11–17 (and earlier in bars 1–10) an F Lydian melodic pentachord extended by an upper octave-doubling of the tonic (cf. Fig. 4.2.3–5b) as a dissolving thickening (see chapter 5.1) is located in the middle of an accompanying dissolved B-rooted dominant-type seventh chord. In this seventh chord there is no fifth. In relation to the F Lydian pentachord the would-be fifth F sharp would have posed as a sharpened tonic. The missing tone, if added, would thus have blurred the bitonal situation instead of presenting it clearly.

The roots of the layers are related by a diminished fifth (f/B1). The competing degree-combinations are either I&IV in F Lydian-Mixolydian, or N&V in E minor (i.e. I&#IV=N&V; cf. Fig. 11.6.1–2c).

In E minor the Neapolitan triad includes the lowered II degree (e: N&V7 without fifth). The sum of the layers is a sum-ninth chord (e: V7+9 with lowered fifth). The leading-tone D sharp increases the Neapolitan sub-triad

into an augmented sixth chord (F–A–C–D sharp). Yet this piece is not based on the expectation of resolving this augmented sixth F–D sharp. It is only in bar 28 that in an inner part the (non-stressed) d1 sharp proceeds to (a non-stressed) e1 by the motion a6–6 during a modulation to an intermediate key of A minor (Fig. 11.7–1b). Nowhere in this piece is the statutory resolution a6–8 in contrary motion. Later in bars 42–43 (as well as in 56–63 and 63–72) the sustained augmented sixth D sharp is re-established. The piece also terminates on a sum-seventh chord B1–F–f–d2 sharp–a2 that includes the interval of an augmented sixth.

The assumption "F Lydian-Mixolydian" above was made on the condition that the tones D sharp (that, as we saw, is not treated according to text-books) and a sporadic incomplete neighbour note C double-sharp can be read enharmonically as E flat and D.[331] If this is accepted, these degrees complete the upper tetrachord of F Lydian-Mixolydian mixed mode (Fig. 11.7–1c). The sub-chords in F Lydian-Mixolydian: I+IV7 with a raised third in bars 15–17 add up to a sum-ninth chord F Lydian-Mixolydian: IV7+9 with a raised third (Fig. 11.7–1aa). At the end of this piece (in bars 67–72), of the degree-combinations I&#IV=N&V the one including the tonic proves to be the stronger (Fig. 11.7–1ee).

In bars 20–25 (and 50–55) there is a modally ambiguous C-rooted dominant-type sum-ninth chord (cf. Fig. 11.3–2c). It includes a fifth-related G minor melodic (Hungarian) pentachord with the raised fourth degree C sharp (G–A–Bb–C#–D). Together with the E natural in bars 23–25 and the previous F, the hypothetical upper tetrachord will be that of G Hungarian-Dorian scale (Fig. 11.7–1cc; cf. Fig. 4.2.2–2c). At first in bars 20–22 the G-rooted melodic pentachord and the accompanying interval of a fifth g1/c1 are spatially manipulated into a fourth-related combination that in bar 21 adds up a C-rooted sum-ninth chord (without the third) in the 3rd inversion (Fig. 11.7–1aa). Only later (in bars 23–25 and 53–55) the root position – with the third – is offered and the regular order of the combination (minor+major) of the pentachords appears (Fig. 11.7–1d).

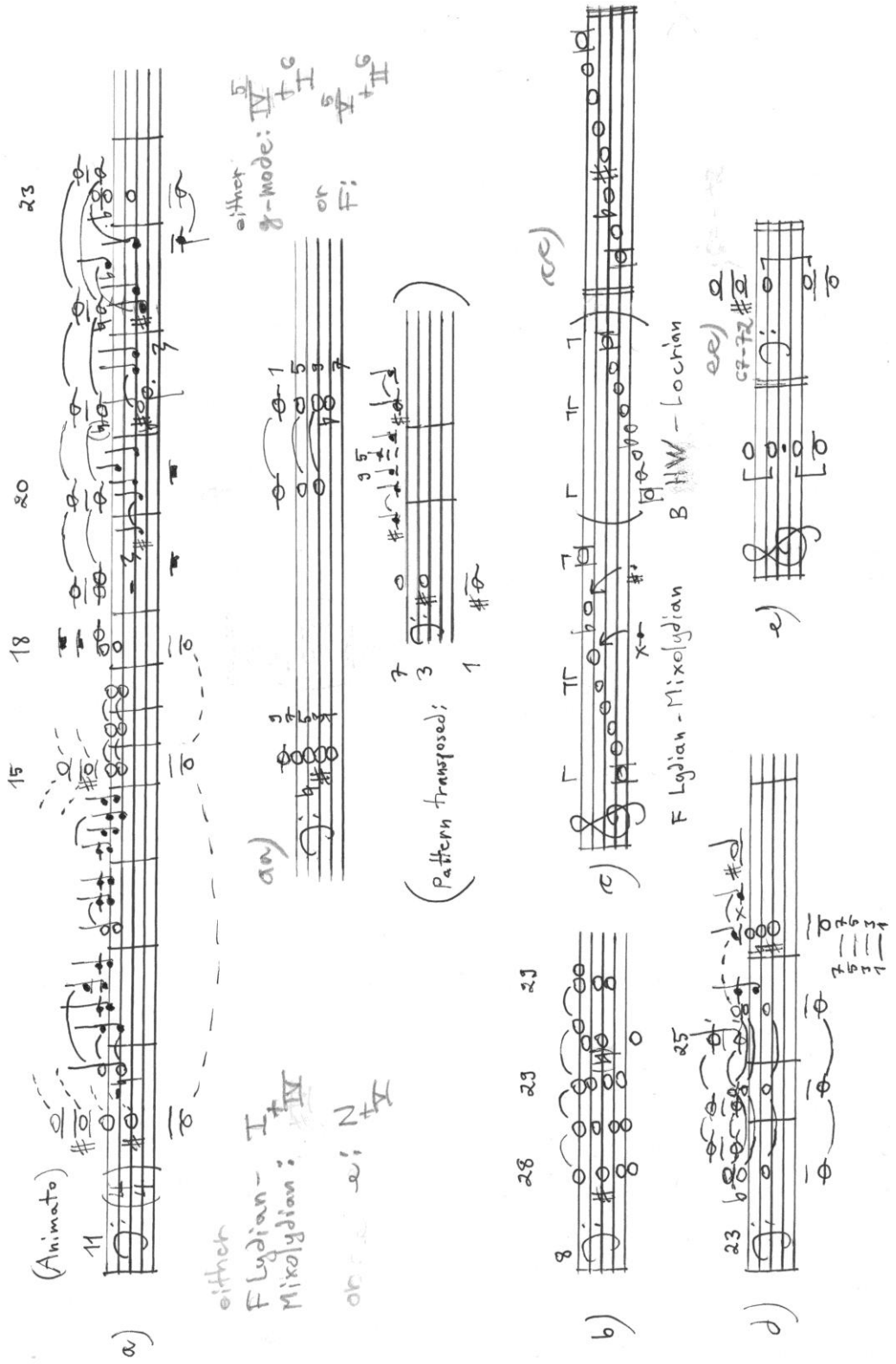
Assuming interchange, the competing degree-combinations within it can be described as I+IV=II+V (g-mode:/F:; Fig. 11.7–1aa). The tonal logic from the bitonal sum-chord to the modally ambiguous one is that of tonic (F Lydian-Mixolydian: I) to dominant (F: V) in bars 15–21 (Fig. 11.7–1aa) and from dominant to tonic again in bars 25–26 (Fig. 11.7–1d). In this process in bars 11–21 the tone C turns from a sum-ninth to a compound second (Fig. 11.7–1a; see chapter 7.3), whereas in bars 23–26 the sub-seventh chord proceeds in parallel motion to another one (b flat/e/C – a/d sharp/B1; cf. Fig. 7.1.2–4a) and the sum-ninth (d1) as an augmented sixth (c1 double-sharp) resolves to an octave (c1 double-sharp/e – d1 sharp/d sharp).

In the level of scheme (see chapter 9.) the roots of the four layers can be collected into a stack of fifths (B–F–C–G; Fig. 11.7–1e). In relation to this

[331] Cf. Murtomäki 2008:80, Ex. 10; the upper staff.

stack, the tonic A of the intermediate A minor key (in bars 30–35) is dictated by the principle of symmetry (cf. chapter 7.5.1)!

Fig. 11.7–1 a–e. Bitonal and ambiguous formations combined. *Song in the Forest* op. 114 no. 4 (1929) bars 11–26.



11.8 FORMAL POTENTIALS OF SCALIC SITUATIONS

In the realm of harmony, diversity is achieved through various chords that have different tensions. These tensions depend on the number of dissonances. Correspondingly it may be reflected that different scalic situations (see the table in section 11.) also have different scalic tensions. This tension is due to the number of augmented unisons between the pitch-alternatives of simultaneous scales. Tension in sum-chords and polychords is created by simultaneous competing degree-combinations. In this respect tonality or modality (A.) have the least tension. Polymodality (B.) and modal ambiguity (C.) contain more tension, but in bitonality (D.) it is at its strongest.

In the music of Sibelius there is a connection between tension and the occurrence of a scalic situation. The less tension there is in a scalic situation the more common it is, and vice versa. Thus tonality or modality is perhaps the most common scalic situation, polymodality and modal ambiguity are less common and bitonality is most seldom encountered. Generally bitonal situations are few and transient. However, there is a composition where the main idea itself is bitonally conceived and that also ends in a similar way, namely *Song in the Forest* op. 114 no. 4 (1929); cf. Fig. 11.7–1 [op. 114:IV:11–26].

In a composition, the tensions of different scalic situations may be utilized. One strategy is to arrange different tensions according to the rising curve of intensity. In a declining curve of intensity a composition may contain different pentachord-combinations at first and terminate in a non-ambiguous way. An example of a declining curve of intensity would be a motive that is firstly treated as a sub-chord of a modally ambiguous sum-chord (in a three-voice framework; see chapter 4.3), later returns as a non-additive chord (in a two-voice framework).[332]

11.9 MODULATORY POTENTIALS OF SCALIC SITUATIONS

Above the usability of a sum-chord in a modulation was briefly examined (see section 11.2). Elsewhere in this study modulation has been sporadically touched upon (see chapter 4.2.2, 4.2.4, chapter 5.4.1, Fig. 6.1.5–1 [op. 5:V:73–77], chapter 8.5.3, Fig. 8.5.7–1 [op. 112:105–144], chapter 9.5, 9.5.1). These various aspects are now brought together but the detailed descriptions of tonal architecture in the music of Sibelius are excluded from this study.

In connection with neo-modality *modulation between scalarly associated modes* was already mentioned (see chapter 4.2.2, 4.2.4). Its relation to other

[332] A modally ambiguous passage at the beginning returns as tonal (i.e. non-ambiguous) at the end: *Rakastava* op. 14 (1894/1911–1912) 3. mvt. bars 5–14 (d:/F:) – bars 117–123 (d:; cf. Fig. 12.5–1), *Danse champêtre* op. 106 no. 1 (1924) bars 1–2 (d:/G:) – bars 71–72 (d:).

types of modulation will be clarified if the table of simultaneous tonal/modal situations (see section 11.1) is applied to successive tonal/modal situations:

	common key-note	different key-note
common pitches	a. the mode remains, no modulation	c. modulation between scalarly associated modes
different pitches	b. interchange of modes	d. traditional modulation; diatonic, chromatic, enharmonic

In the alternatives a. and b. there is no modulation. In the modal era, modulation between scalarly associated modes (alternative c.) was a commonplace device. In the dawn of the tonal era it was by and by replaced with modulations between transposed major and minor scales (alternative d.). Yet modulations with scalarly associated modes were encountered again in the Romantic era when modes as enlargements were incorporated into the tonal system.[333] A well-known source of modulations incorporating scalarly associated modes (D Dorian–C major) is found in the first movement of the Sixth Symphony, but the same device is used already in the 1890s (E flat Dorian–D flat major; cf. Fig. 5.3.3–1 [op. 18:IV:1–5]).

Besides in proper modulations, Sibelius may utilize the alternative d. (different pitches, different tonics) in sudden shifts from tonic to tonic in which no pivot chords cannot be heard or detected (see Fig. 4.2.2–4 [op. 63:I:72–74]).

Modulatory potentials of scalic situations connected with a sum-chord may be grouped into two categories. Firstly a modally ambiguous sum-chord, or a bitonal sum-chord or polychord may be used as a pivot chord in a modulation (section 11.9.1). Secondly modally ambiguous and bitonal formations make the simultaneity of different keys possible. These may have their effects on a modulatory plan (section 11.9.2).

11.9.1 SUM-CHORD OR POLYCHORD IN A MODULATION

A modulation utilizing a modally ambiguous sum-chord as a pivot chord may take place between modes that are either scalarly associated or not. Between scalarly associated modes the sub-chords of the pivot sum-chord are really chords that are "common to both keys".[334] In modulations where the scales are not scalarly associated, this is not necessarily the case. Since a sum-chord

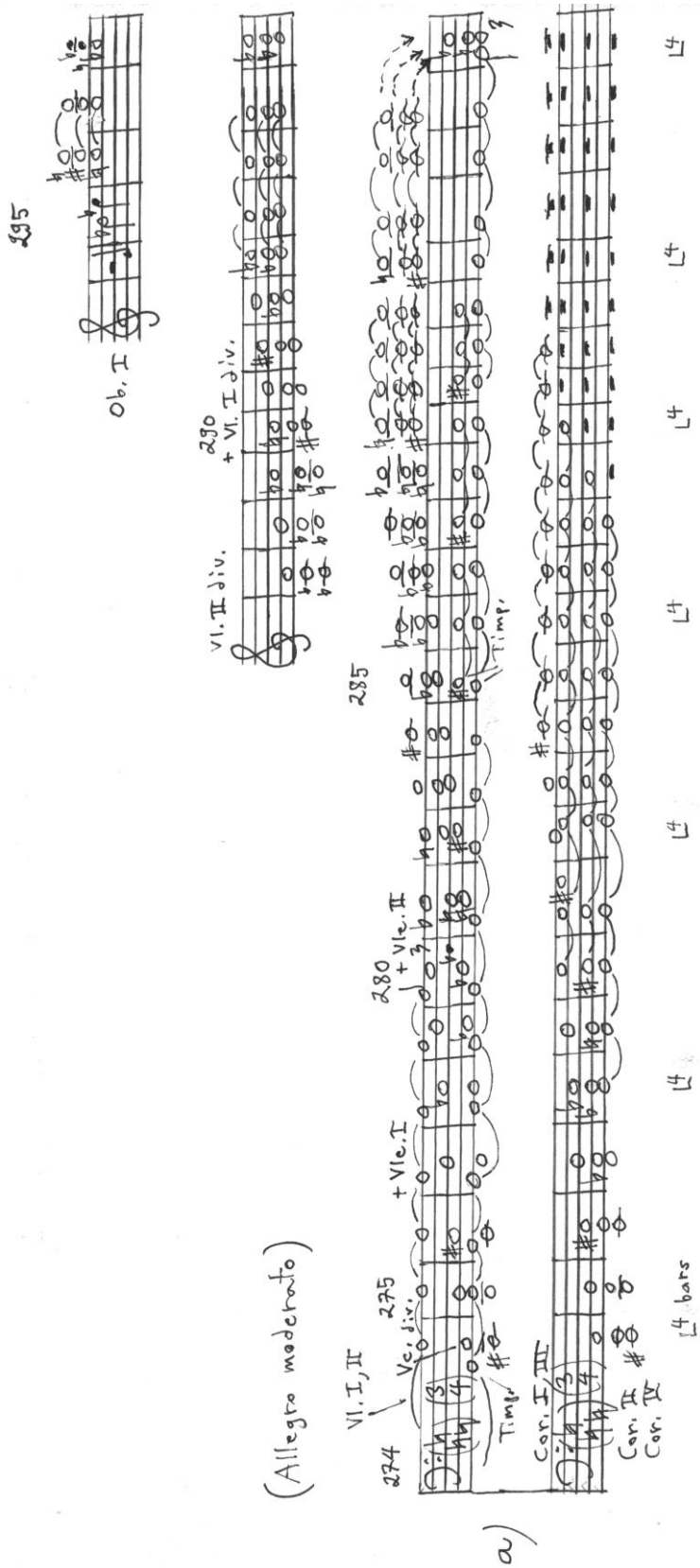
[333] Diatonic modulation without any altered tones: Chopin: Mazurka op. 24 no. 2 (1835) bars 1–4 (C major), 5–12 (A natural minor), 13–20 (C major), 21–36 (F Lydian: I–II six-five–V–I four-bar pattern repeated), 37–44 (A natural minor), 45–56 (C major).

[334] Cf. Piston 1978:214. A corresponding case may take place between keys, even if these are not scalarly associated; see op. 82:II:97 (g: I+VI=E flat: III+I).

(or a polychord) between modes that are not scalarly associated texturally works as a pivot chord in any case, that term is not abandoned.

In modal ambiguity one of the sub-chords is usually either the tonic or dominant in the prevailing key (see sections 11.3, 11.4). The same situation is also encountered in modulations. When a sum-chord is used as a pivot chord in a modulation, the competing degree-combinations therein will be suddenly re-interpreted. This kind of modulation is also a way of leaving modal ambiguity or bitonality (cf. sections 11.3.2, 11.4.2).

Fig. 11.9.1–1 a. A polychord as a pivot chord in a modulation. Fifth Symphony op. 82 (1915/1916/1919) 1. mvt. bars 274–298.

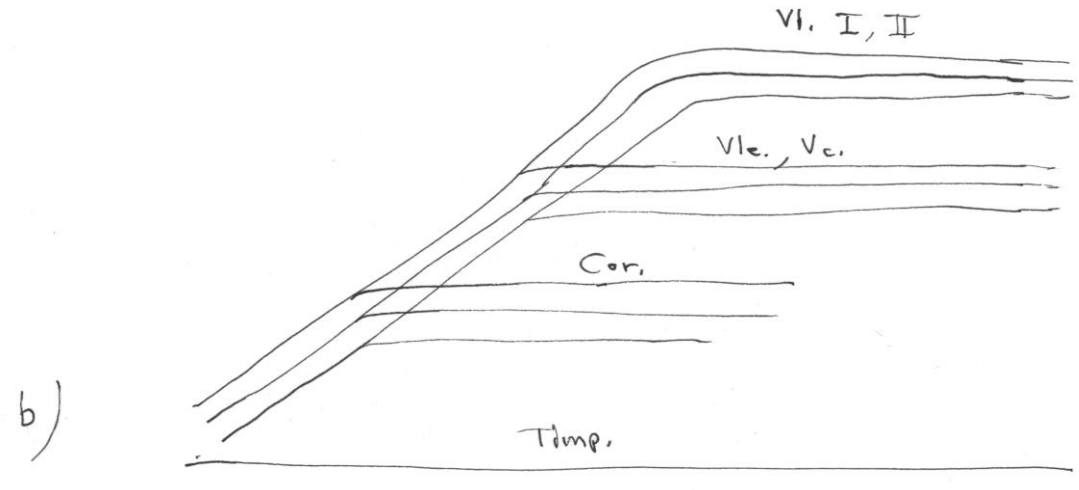


In Fig. 11.9.1–1a there is a modulation from a passing key (D minor) to the principal key (E flat major) of the composition. Before Fig. 11.9–1 in bars 266–273 this passing key contains merely two chords (an E-rooted non-dominant sum-ninth chord and an A major triad; the sum-ninth chord in bars 266–267 includes the sub-seventh chords E–G–B flat–D and G–B flat–D–F). On the grounds of these the non-present tonic (d: I) may be assumed (cf. Fig. 6.3–4 [op. 56:V:254–259]). In this passing key these two chords acting as a combined subdominant+supertonic and dominant make a half cadence. The latter chord (d: V6) of the half cadence in bars 272–273 is increased by a pedal point G (Timp.) to an added-fifth sixth chord (d: V6+5), i.e. to the 1st inversion of an added-seventh triad.

After the half cadence an ascending *fauxbourdon* follows in bars 274–289 that has already been under scrutiny (see Fig. 10.3.1–1 [op. 82:I:274–290]). Within it two chords (d: V6 and N6) may be considered to alternate over the span of four bars. Locally a minor-like mixed mode D Aeolian-Ionian operates. The pedal point G lasts during bars 266–298 in one form or another and after the ascending fauxbourdon has crossed the pedal point and risen above it, the sum-seventh chord turns from an added-fifth sixth chord to an added-seventh below the root of the triad (d: V+7 below root), i.e. to the 3rd inversion of an added-seventh triad (Fig. 11.9.1–1a).

Finally in bars 290–293 the *fauxbourdon* divides into two thickenings. One of these is the *fauxbourdon* that keeps ascending, while the other stagnates into a stationary A-rooted sixth chord below it. When the upper *fauxbourdon* reaches the E flat-rooted sixth chord, it stagnates. The whole division process is shown as a graph in Fig. 11.9.1–1b.

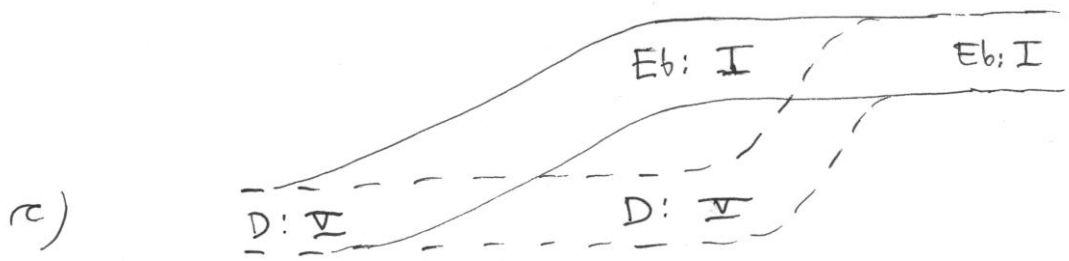
Fig. 11.9.1–1 b. A scheme of the division of parts during the modulation.



Thus the earlier dominant and Neapolitan chords of D minor accumulate into a polychord. This includes major sub-sixth chords related by a diminished fifth (e2 flat–a1), as well as the pedal point G that in a lower octave doubles the lowest tone of the E flat-rooted major sub-sixth chord (Fig. 11.9.1–1a). In its relation to the A major sub-sixth chord the pedal point continues the situation described above in connection with bars 272–273.

From the point of view of modulation this polychord includes the dominant of the preceding key D minor (d: V6) and the tonic of the following principal key E flat major (E flat: I6). The competing degree-combinations are thus N&V=I&#IV (d:/E flat:; Fig. 11.9.1–1c, cf. Fig. 11.6.1–2c).

Fig. 11.9.1–1 c. The modulation as a schematized three-voice framework.



Up to this point the E flat-rooted major sub-sixth chord has been no more than a Neapolitan chord in the supposed key of D minor (d: N6). In bars 295–298, however, a melodic fragment enters (Ob. I; Fig. 11.9.1–1a), which dissolves the progression (E flat: I5+mi7 – N – I). By means of interchange, the chords therein may be collected from various E flat-rooted heptatonic scales (E flat Mixolydian: I5+7 – E flat Phrygian: II – E flat: I).

In the entering Oboe part (Fig. 11.9.1–1a) a dissolved E-rooted intermediate sub-triad in bars 296–297 forms a passing polychord against the sub-chords of the E flat: I&#IV. Against the E-flat rooted major sub-sixth chord the E-rooted major triad (enharmonically equal to an F flat major triad) functions as the Neapolitan chord. The former E flat-rooted Neapolitan sub-sixth chord now receives the status of a tonic sixth chord (E flat: I6). Against the A-rooted sub-sixth chord, this new E-rooted major triad functions as the secondary dominant. Insofar as the A-rooted sub-chord can still be perceived as the dominant of D minor, the situation is bitonal (d: V2&E flat: I6; see section 11.6.1).

In bars 297–298 the dominant of D minor – or the raised IV degree in E flat major – is finally left when the A-rooted major sixth chord by leap proceeds to E flat: I6 (cf. Fig. 11.9.1–1c; see chapter 5.3.4).

11.9.2 ENCLOSING AND OVERLAPPING KEYS

Usually a modally ambiguous or bitonal passage (in a three-voice framework; see chapter 4.3) is preceded and followed by passages that are non-ambiguous or non-bitonal (in a two-voice framework). In this section the possible combinations of these two different kinds are examined. The following alternatives are also applicable when the sub-chords do not launch a key proper. This is the case in modal tonicalization.[335]

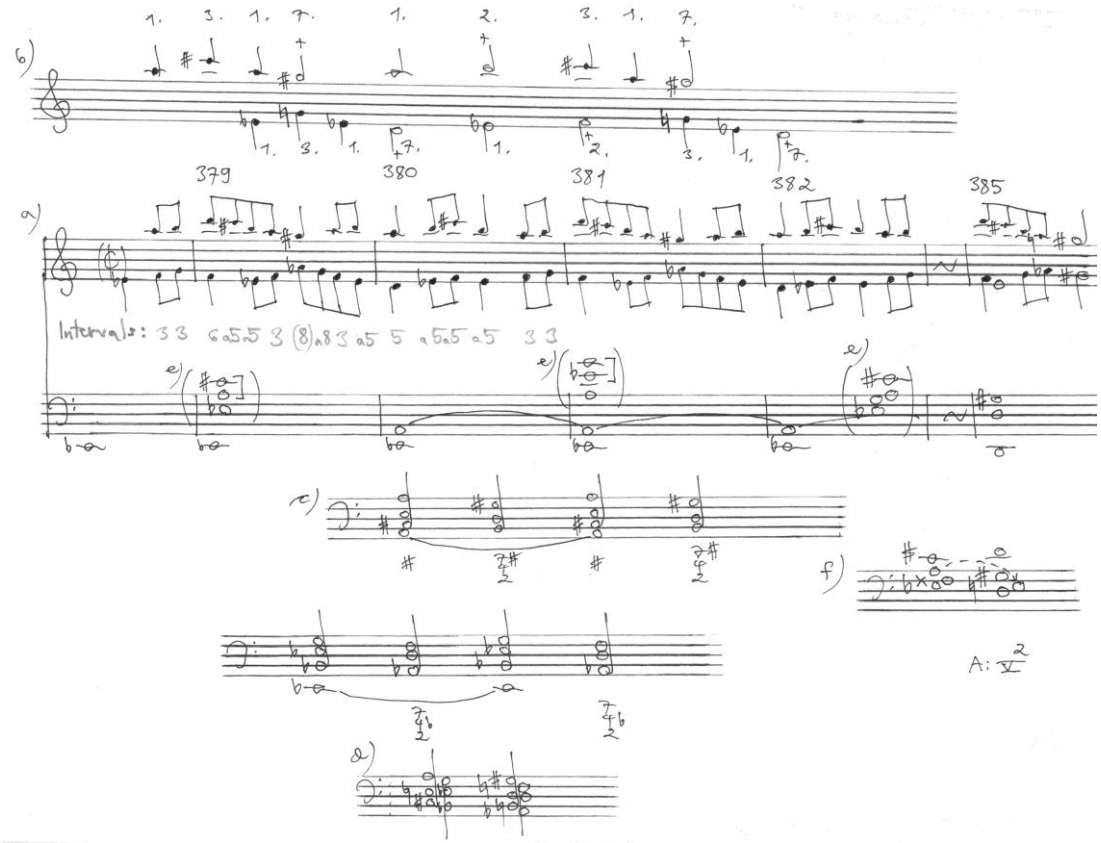
In the first alternative the surrounding key is different from those in a three-voice framework (i.e. Key A – Key B/Key C – Key A; cf. Fig. 11.3.1–5 [op. 7:II:92–97]). The surrounding keys may also be different (i.e. Key A – Key B/Key C – Key D).

In the second alternative the keys are *enclosed*, if one of the keys of a three-voice framework surrounds it (e.g. Key A – Key A/Key B – Key A; see Fig. 10.5.3–1 [op. 82:II:182–185], cf. Fig. 11.6.2–2 [op. 70:54–81]).

In the third alternative the key-areas *overlap*, if one of the keys of a three-voice framework precedes it, while another of the keys follows it (Key A – Key A/Key B – Key B).

[335] According to H. Schenker in tonicalization (*Tonikalisierung*) "the scale-step in question, without any ceremony, usurps quite directly the rank of the tonic, without bothering about the diatonic system, of which it still forms a part" (Schenker 1978:337–338, Schenker/Jonas 1980:256 Ex. 219 [285]). This means that a chord (e.g. the IV degree in C major) is dissolved by means of the F major scale. In modal tonicalization the same degree could be dissolved by some modal scale, e.g. by means of F Mixolydian. In a two-voice framework a tonicalized (or modally tonicalized) chord is followed by a chord of the prevailing key. In a three-voice framework this is also mostly the case.

Fig. 11.9.2–1 a–f. Overlapping keys in connection with bitonal tritone-related layers. Fourth Symphony op. 63 (1911) 4. mvt. bars 379–385.



In Fig. 11.9.2–1 there are overlapping keys where the principal key of the movement A major occurs in a layer during an intermediary key E flat major in another layer. Temporally the keys are thus overlapping.

In bars 379–384 there are simultaneous E flat-rooted (Vl. I, Vle., Vc.) and A–rooted (Fl., Ob.) tonic tetrachords that are extended by leading-tones (Fig. 11.9.2–1a; cf. Fig. 4.2.3–4a). Their melodic content may be extracted to a series of minims as the degrees (3.–7.–1.–2.–3.–7.– etc.; Fig. 11.9.2–1b). Besides these, two sustained tones E flat and A natural also occur, which in the surface level are embellished with lower auxiliary tones. In the context of the previous bars 349–378 the pitch A natural is to be considered the raised fourth degree in the intermediary key of E flat major.

In relation to that sustained tone that shares the same root as the line (E flat:/E flat or A:/A) the intervals of minims follow the pattern 3rd–7th–1–2nd–3rd–7th etc. (Fig. 11.9.2–1b). The dissonances are thus treated in relation to tonic organ points according to traditional counterpoint.

It is easy to imagine a traditional harmonization in relation to both organ points (Fig. 11.9.2–1c). This would consist of just two chords, the tonic triad and a seven-four-two chord (see chapter 5.2.1) in alternation (i.e. E flat: I – VII6/I1 – I – VII6/I1 ..., or A: I – VII6/I1 – I - VII6/I1). These progressions are connected in a way whereby the consolidating VII degree of an E flat-

rooted pentachord is always simultaneous with the I degree of an A-rooted pentachord, and vice versa. By applying enharmonic reading, each tonic chord sounds at the same time with its posited VII6.

It is interesting to note that these two progressions related by a diminished fifth could also have been connected in such way that the tonics together and VII degree chords together would have sounded simultaneously. In this arrangement the simultaneous E flat- and A-rooted pentachords would have derived their consolidating chords from a common diminished seventh chord D–F–A flat/G sharp–C flat/B natural (Fig. 11.9.2–1d).

In relation to the opposite organ point (E flat:/A or A:/E flat), there emerges – according to traditional dissonance treatment – two chord-formations C sharp–A–E flat (E flat: #IV3 + I1) and G–E flat–A (E flat: I3 + #IV1; Fig. 11.9.2–1e). Together these simultaneous combinations thus add up to a sum-augmented sixth chord E flat–G–A–C sharp that is sonorously equal to a French sixth chord.

In relation to the principal key of this movement, A major, the above formations would be A: I3+bV1 and A: bV3+I1 (Fig. 11.9.2–1e). In terms of the resolution (A: V2) of this bitonal formation in bar 385 (Fig. 11.9.2–1a), it can be decided that it functions as an altered chord, which as an enharmonically equal un-chord (E flat–F double-sharp–A–C sharp; see chapter 6.4) reaches the seventh and the third of the dominant chord of the principal key A major (Fig. 11.9.2–1f). The doubled seventh of A: V2 d3/D in bar 385 flashes in the framing parts (Fl., Cb.) of the ensuing two-voice framework (see chapter 4.3).

PART THREE: EPILOGUE

12. CONCLUSIONS

Hitherto in Part Two (chapters 3–11) the discourse on the *Satz* of Sibelius has been systematic. In this chapter of Part Three a glance is cast on historical and other aspects of it (in sections 12.2–12.7). After this some conclusions are offered (in sections 12.8–12.10). Yet before this it is appropriate to summarize the prospect of the previous chapters (section 12.1).

12.1 SIBELIAN *SATZ* AS AN INGREDIENT OF THE *SATZ* OF SIBELIUS

I hope that this study has proved valid the explanation-model that was offered at the beginning (see chapter 3.3–3.6) the kernel of which was the lecture fragment (see chapter 3.1). It can be seen that during this study all the non-traditional traits faced in the Survey on the literature (see chapter 2.1.1–2.1.6) have found their place as details of this model, like remote pieces in a jigsaw puzzle. This explanation-model – if accepted – has revealed the existence of the proper Sibelian *Satz*-idiom, its new way of textural thinking and organic character.

Both the traditional European and Sibelian *Satz* share principles that are firm and can be crystallized. Yet there is a difference in the principles and also in their application. Contrary to the solidity typical to central-European *Satz*-culture (especially to the German branch of it), Sibelian *Satz* may seem vague. In time and space it is in a constant state of change. In Sibelian *Satz* it is often hard to define the number of components because of the crossing, dividing and fusing (see chapter 8.2.2, 8.4) among them. The role of the components may also vary when the number of them stays constant. This kind of compositional approach: unemployment of clear-cut textural solutions and types, as well as the tendency towards de-patternization (see chapter 9) seem to be the very being of the compositional logic of Sibelius.

Furthermore, another reason for difficulties in classification is that the Sibelian *Satz* that was scrutinized in the main part of this study is not the only ingredient in the *Satz* of Sibelius. In the stock-in-trade of Sibelius there is also the traditional *Satz*, masterfully conducted when needed. These two species of *Satz* do not always exist in their pure form, but they amalgamate and thus form border-line cases where the characteristics of both species are displayed, either successively or simultaneously (see chapter 1.4, chapter 3.7, chapter 10.7).

The proportion between these two species of *Satz* is not fixed, but varies from composition to composition as well as sometimes varying between separate sections of a composition. In e.g. *In memoriam* op. 59 (1909/1910)

there is plenty of traditional *Satz* and only a little of the Sibelian one, while the case is the reverse in e.g. *Tapiola* op. 112 (1926). The Sibelian *Satz* is least utilized in the domain of piano music, while in his orchestral output it may play a prominent role. Although there is no self-evident connection between a compositional technique and an instrumental ensemble, it seems as if the Sibelian *Satz*-technique was thought of in terms of the orchestra. In orchestral works the Sibelian *Satz*-technique is often used and within them it helps to create structures that are orchestral in the deepest sense of the word. It is not difficult to understand why the composer called himself as "a man of orchestra".[336]

12.2 THE HISTORY OF SIBELIAN *SATZ*

Some traces of the new *Satz*-technique can already be found in early compositions.[337] The relatively late formal theoretical studies of the budding composer – Sibelius was twenty years old when he began to study under the guidance of Martin Wegelius (1846–1906) – may have encouraged the appearance of original traces.[338]

The new technique had its birth during the Vienna studying period (in winter 1890–1891). *Kullervo* op. 7 – "completely unlike anything else I have written up to now" as Sibelius wrote in a letter 20 April 1891 from Vienna to his fiancée – was like an explosion of the talent of the twenty-six year old composer.[339] In *Kullervo* – and after it – the classical heritage intermingled with the new way of thinking, the 'old' still combating (and sometimes reigning over) the 'new'.

The first symptoms of the next turning-point occurred in a journey to Italy (1901). In a letter to Axel Carpelan 4 April 1901 from Rome the composer wrote: "Here one gets strange thoughts about the essence of music".[340] These thoughts had already left their marks on the score of the Second Symphony. Still, in the Violin Concerto op. 47 (1903–1904/1905) the 'old' ruled, whereas *Pelléas et Mélisande* Suite op. 46 (1905) and *Pohjola's Daughter* op. 49 (1906) were the first major works in which the remnants of the traditional (and romantic) *Satz*-culture – which Sibelius never totally abandoned – had been subordinated to the 'new', Sibelian *Satz*-idiom. A

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336 von Törne 1937:29.

337 See Tawaststjerna IF:84–85, IbF:70–71, IS:64–65, IE:25 Exs. 7 and 9; Tawaststjerna IF:145, IbF:121–122, IS:109–110, IE:50 Ex. 24 (in the English edition the more characteristic of the original two music-examples has been left out), and also Tawaststjerna IF:142–143, IbF:118–120, IS:108, IE:48–49. These youthful traces were also illuminated by Lünenbürger 2008.

338 Cf. Tawaststjerna IF:88, IbF:74, IS:67, IE:26.

339 Tawaststjerna IF:240, IbF:206, IS:182, IE:94.

340 Dahlström 2010:79, Tawaststjerna IIF:202, IIS:156, IE:239 missing.

salient, convenient biographical landmark of this turning-point is the move to Ainola (1904).

Although this state of affairs basically never changed further, a few thresholds in this steady course can still be traced (see section 12.3). The Fourth Symphony (1911) called forth new techniques (see chapter 8.5.1, chapter 9.6). By the time of the Sixth Symphony (1923) tension between the two techniques, old and new, had totally vanished.

12.3 PERIODIZATION ACCORDING TO SIBELIAN *SATZ*

In terms of the history of Sibelian *Satz* the whole output of Sibelius can be divided into two large periods, the youthful period and the Ainola period. This general periodization into two phases was first proposed by Levas.[341]

Both major periods can be further subdivided. The youthful period can be subdivided into three phases: private studies in 1880–1885, studying years in Helsinki, Berlin and Vienna in 1885–1891 and the first proper compositional period in 1891–1904. The Ainola period can also be subdivided into three phases: the "Geselle" years (culminating in *Voces intimae* op. 56) in 1904–1909 (almost the same as the Lienau years 1905–1909), the years of the "new beginning" in 1909–1914 and the years "when the shadows lengthen" in 1914–1929.[342]

Although Levas may not have based his opinion on examinations of the *Satz*, our examination is in accordance with his point of view and supports it. The now widely accepted 'Beethovenian' division of Sibelius' music into three stylistic periods probably stems from Tawaststjerna, who suggested it a few years before Levas published his periodization.[343]

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341 Levas 1972:xvi. This matter is very briefly discussed in the English edition, but far more thoroughly in the Finnish edition; see Levas 1986:205 ("The Violin concerto was the last major work of Sibelius's first creative period." [J. A.]) and Levas 1986:223 ("Since the year 1905 Sibelius faced a new period which for good reason can be called the main period of his life." [J. A.]).

342 The last-mentioned expression was used by Sibelius for the first time in his diary in August 1914. Later he used it when characterizing the essence of his Sixth Symphony to a Swedish interviewer in Göteborg (Gothenburg) (Tawaststjerna IVF:172, IVS:164, IIIE:85–86).

343 See Tawaststjerna 1955:15–26. Tawaststjerna himself gives a correlation between his tripartition of Sibelius's output and the commonly accepted three periods of Beethoven (ibid.:18–19). Ringbom offers a basically similar tripartition of which the phases are limited in a different way (Ringbom 1955:4, 6 and 7). Maasalo 1964:130–132 agrees with Tawaststjerna. See also Wörner 1973:522. A tripartition suggested by Hepokoski is: from the early 1890s to 1903, from 1904 to 1912 and from 1912 to the early 1930s (Hepokoski 1997:418).

12.4 THE NEW COMPOSITIONAL TECHNIQUE IN INTROSPECTION

After the previous systematic scrutiny (chapters 4–11), it is possible to observe some introspection in some of Sibelius' diary entries as well as in his correspondence concerning the development of his new *Satz*-idiom and its relation to the older one. Some specimens are commented on below.

At the time of achieving his own *Satz*-idiom, in a letter to his fiancée on 18 December 1890 Sibelius evaluated the traditional as well as the contemporary *Satz*-culture that he had adopted in Helsinki from Wegelius and in Berlin from Albert Becker (1834–1899): "Afterwards I went to the Institute so as to learn modern technique which doesn't really serve my purposes at all".[344]

On the 17th of November 1902, after conducting the remodeled *En saga* op. 9 (1892/1902) in Berlin, Sibelius wrote to Aino Sibelius: "And also to know that one has mastered one's art".[345] Does it seem probable that in 1902 Sibelius eventually considered himself as having learnt those matters, which about a decade earlier had been taught to him by Martin Wegelius (1846–1906), Albert Becker (1834–1899), Karl Goldmark (1830–1915) and Robert Fuchs (1847–1927)?

On the 12th of November 1908 the composer wrote to Axel Carpelan: "I have lots of plans. I think that you will recognize that my art by and by will give an impression of being both convincing and 'hilarious' as far as technique is concerned. For I have suffered and learned a lot".[346]

On April 27th 1910 there is a diary entry: "Believe me, with the quartet [op. 56 (1909)] I have left the training ship and gained my master's certificate. Now I shall set course for the open sea. You've achieved something!"[347]

On the 18th of June 1910 there is a diary entry where Sibelius decides: "One must begin with polyphonic studies. At first no matter how little – 10 minutes".[348] This diary entry does not necessarily mean that Sibelius decided

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344 Talas 2001:99, Tawaststjerna IF:108, IbF:90, IS:83, IE:35.

345 Talas 2003:303, Tawaststjerna IIF:233, IIS:182, IE:259. Sibelius also on 19 May 1914 in a letter to Aino Sibelius says that he "nowadays" masters the art; see Talas 2007:257, Tawaststjerna IIIF:349, IIIS:338, IIE:265 missing.

346 Dahlström 2010:228, Tawaststjerna IIIF:125, IIIS:119, IIE:95 incomplete; only the first sentence of this passage is in the English edition.

347 *Dagbok 1909–1944*:43. Tawaststjerna IIIF:160, IIIS:152, IIE:117. In the English edition there is a wrong date "27 July 1909".

348 *Dagbok 1909–1944*:46. Tawaststjerna IIIF:192–193, IIIS:183, IIE:141. In the diary there reads "Måste börja med polyphona studier. I början med huru litet som helst – 10 minuter". The same stands in the Swedish edition, but both in the Finnish and English editions the word "counterpoint" is used

to write exercises of text-book counterpoint in different species (Ger. *Gattungen*). Instead I understand this to mean that Sibelius decided to begin his daily composing with some studies concerning polyphony. These studies may have directly concerned the themes of a composition at his desk (i.e. the Fourth Symphony).

After completing his Fourth Symphony op. 63 Sibelius wrote in his diary on the 18th of July 1911: "I am worried about my capacity to come with something really new. I even doubt my way of working – [this *plein air* manner] – so far removed from the kind of thinking of the German school! As far as I can see, they have made the art of composition into a science" (cf. chapter 1.3).[349]

From a letter on the 30th of May 1914 to Aino Sibelius it can be seen that Sibelius considered his Fourth Symphony the beginning of a new phase: "It is as if I find more and more of myself. The Fourth Symphony was the beginning. But in this, [*The Oceanides* op. 73 (1914)] there is even more".[350] In a letter to Carpelan from the USA (May 31st 1914) the composer considered the Fourth Symphony op. 63 (1911) and *The Oceanides* op. 73 (1914) to be "in the same style".[351]

On the 11th of July 1915 there is a diary entry: "In point of fact it is easy to me to compose nowadays".[352]

During the third and final version of the Fifth Symphony, Sibelius writes in the diary on the 18th of February 1916: "Am in slightly better spirits concerning work – that's to say, working methods."[353]

And finally in the diary on the 2nd of October 1918: "I see deeply nowadays what concerns my genius and skills."[354]

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instead of "polyphony". Furthermore in the English edition this citation is in the form of reported speech.

[349] *Dagbok 1909–1944*:84. In the diary there reads: "detta 'plein air'-sätt", i.e. this outdoor-manner. See also Tawaststjerna IIIF:274, IIIS:268, IIE:206–207. In the English version the characterization "this 'plein air' manner" is missing and I have added it afterwards.

[350] Talas 2007:266, Tawaststjerna IIIF:351, IIIS:340, IIE:271.

[351] Dahlström 2010:353, Tawaststjerna IIIF:351, IIIS:340–341, IIE:271.

[352] *Dagbok 1909–1944*:234. Tawaststjerna IVF:127, IVS:123, IIIE:60. My translation according to the diary entry on the 11th of July 1915: "Egentligen är det lätt för mig att komponera nuförtiden". In the English edition there reads: "Composition comes quite easily to me just at the moment".

[353] *Dagbok 1909–1944*:245. Tawaststjerna IVF:163, IVS:156, IIIE:80. The Swedish original for working methods is "arbetsmetoden".

[354] *Dagbok 1909–1944*:279. Tawaststjerna IVF:302, IVS:282, IIIE:136. This is my translation according to the diary entry of October 2, 1918: "Ser djupt numera vad mitt geni och kunnande angår". In the English edition there reads: "See now what burdens my genius and skill enjoin!". See also Tawaststjerna VF:170, VS:165, IIIE:245 missing.

12.5 THE NEW *SATZ*-IDEA IN REVISIONS OF COMPOSITIONS

The 'ease of composing' (see section 12.4) is moreover reflected in the fact, that the compositions of the second period (1904–1929) are far less frequently revised than those of the first period (1880–1904). Many compositions of the first period were revised later when the new *Satz*-idiom had become clear to the composer. There are only six large-scale works from Sibelius's first period which remained unrevised: *Kullervo* op. 7 (1891–1892) – the revision of which was intended but always postponed – *Karelia* Overture op. 10 (1893),[355] *Karelia* Suite op. 11 (1893),[356] *Skogsrået* (*The Wood-Nymph*) op. 15 (1893), an opera in one act *Jungfrun i tornet* (*The Maid in the Tower*) JS 101 (1896), and *King Christian II* Suite (1898).[357]

When revising an older work that was based on soprano-bass *Satz* Sibelius could treat it according to his new manner. In the original male choir version of *Rakastava* op. 14 (1894) that begins and ends in G minor, at the beginning of the third main section ("Hyvää iltaa lintuseni") there is a middle part baritone melody that is based on a pentachord-succession (d–F–a; see chapter 4.2.5). Together the combined D minor, F Lydian and A minor pentachords include the D Dorian scale (bars 93–99, 100–106). The harmonies of the three-, four- and five-part *Satz* are derived mainly from D minor, but also from D Dorian (Fig. 12.5–1a). In the next section of the 1894 version (bars 107–113, 114–120) F major and D minor alternate. From bar 121 on the principal key G minor rules.

In the later version for string orchestra (1911–1912) the original one-movement work in three sections is divided into three separate movements. The third movement now ends in D minor. At the beginning of it four-part writing is abandoned except in phrase endings in bars 11–13 and 24–26 (that correspond to bars 99 and 106 in the original version). Elsewhere the situation is different (Fig. 12.5–1b). The same D Dorian melody (Vl. solo) is now the topmost component. In the bass register it is accompanied by an F-rooted ostinato-figure F–c–d–c (Vc., Vle.) reinforced by a close interval A/F

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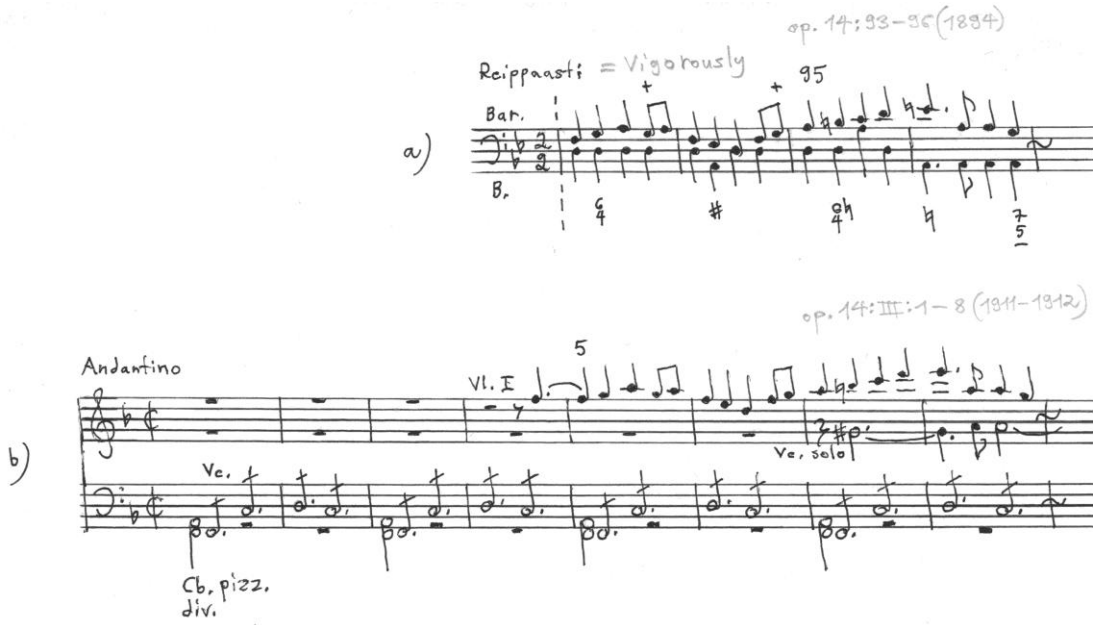
355 Printed in 1906; see Dahlström 2003:35.

356 Printed in 1897; see Dahlström 2003:37. On the 30th of August 1894 in a letter to Aino Sibelius the composer wrote about his intentions to re-orchestrate the *Karelia* Suite op. 11 (1893) which was conducted by Robert Kajanus in April 24, 1894 (Talas 2003:97, Tawaststjerna IIF:47, IIS:38, IE:161. This date is mentioned in Dahlström 1987:71, but not in Dahlström 2003:34). I do not know whether the re-orchestration was actually done, or if the *Satz* was also revised along with the instrumentation. In an e-mail on 04.12.2014 Professor emeritus Fabian Dahlström elucidated the reason for the omission. According to Dahlström 2003:34 the same four movements of the Suite, though in a different order, were already played in a popular concert on 23rd of November 1893 conducted by Sibelius. He also notes: "*Ilmeisesti Sibelius todella teki jotain sarjan soitinnukselle noin 1894, mutta varmuutta ei ole*" (Evidently Sibelius really did something to the orchestration of the Suite in about 1894, but there is no certainty [J. A.]).

357 Printed in 1899; see Dahlström 2003:124.

(Cb.) at the beginning of every other bar (see chapter 2.1.1, Wood). This extended F-rooted pentachord, which acts as *basso ostinato* in bars 1–40 (save the bars 11–13, 24–26 and 35–37), with the D Dorian melody renders the first section of this third movement to sixth-related (d:/F:) modal ambiguity (see chapter 11.4).

Fig. 12.5–1 a–b. An older composition revised according to the new manner. *Rakastava* Op. 14:93–96 (1894) – Op. 14:III:1–8 (1911–1912).



In the 1894 version the beginning (bars 93–120) of the third section in D minor concluded in the principal key G minor (bars 121–146). In the revision Sibelius has altered the principal key G minor to D minor. At the beginning of the first movement the melodic material is therefore transposed a fifth upwards. However, at the beginning of the third movement there was no transposition. Sibelius merely re-interpreted the original dominant key-area (i.e. D-rooted) as the new principal key. Now the third movement begins and ends in D minor. It may be reasoned, that in order to avoid too much tonal stability Sibelius introduced this sixth-related modal ambiguity (d:/F:) to somehow simulate the earlier tonal distance from the principal key at the beginning of the third section, which then became the third movement (cf. chapter 11.8).

12.6 LOGICAL PROCESS OF THE OUTPUT

From the point of view of *Satz*-technique the output of Sibelius forms a logical sequence of events – compositions – where there are neither sudden

and unpredictable leaps nor drawbacks. Of course this does not exclude ebbs and flows in intensity of work, as Tawaststjerna has shown.[358]

In this logical compositional process some of the usually undervalued minor compositions appear to be preparations to the major ones, or echoes of them afterwards. In the process of creating the style of a symphony which "in every case took a lot of time",[359] it is only natural that in this creation of style that usually occurred at the piano (see chapter 1.3), there were not merely the un-pencilled or pencilled efforts of the primary stage and the final result – a symphony – but also by-products of the stylistic and technical experiments in smaller compositions.

Sibelius has compositions where a certain technique is developed to its heights, derived to the utmost in this or that composition – e.g. stratification of ostinati (see chapter 8.5) in *Night Ride and Sunrise* op. 55 (1908) and chordal formations generated by means of the principle of symmetry in *Luonnotar* op. 70 (1913) – and then never again used to such an extent (see Fig. 7.5.1–2 [op. 70:195–208], Fig. 7.5.1–1 [op. 112:250–259]). The compositional process based on this gradually brightening technique thus leaves room for even more unique solutions. Sometimes a device used in this or that composition is never applied later; it remains an isolated phenomenon (see Fig. 5.1.3–2 [op. 82:III:105–165], Fig. 6.3–4 [op. 56:V:254–259], Fig. 6.4.1–1 [op. 52:III:77–86], Fig. 9.2–1 [op. 63:IV:145–158], Fig. 11.9.2–1 [op. 63:IV:379–385]). It is as if Sibelius by and by would explore all the possibilities inherent in his compositional technique(s).

12.7 SIBELIAN *SATZ* AND CONTEMPORARY *SATZ*

What is the position of the Finnish composer in relation to the composers of his time? Some of the contemporaries of Sibelius seem to be true kindred spirits. If we look at the scores of other contemporary and later masters – among them Debussy, Mahler, Ravel, Bartók and Shostakovich – we will find numerous phenomena, which could have been written by Sibelius. Of course it is clear that the *Satz* of other masters is not similar throughout to that of Sibelius; still there are plenty of similar devices.[360] It is quite paradoxical that

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[358] See Tawaststjerna IIF:57, IIS:45, IE:164. Yet Tawaststjerna also has the opinion that the stylistic development of Sibelius is not continuous from work to work (Tawaststjerna IIIF:72, IIIS:67, IIE:60 missing). The opinions of Tawaststjerna are not necessarily contradictory: the stylistic development can also be estimated according to different genres. In this respect simultaneous curves of stylistic development may appear that are different from each other.

[359] Levas 1972:87. In the English edition there reads: "Each of my seven symphonies has its own style, and their creation in every case took a lot of time". In the Finnish edition (Levas 1986:384) it becomes clear that it was the creation of style in the case of each symphony that "took a lot of time".

[360] A willing reader may consult the following specimens:

Debussy: *La Mer* (1905) 2. mvt. bars 44–45, 46–47.

the spiritual links are perhaps weakest with those composers whose *Satz* most strongly resembles that of Sibelius – and vice versa.

Was the Sibelian *Satz*-idiom an independent discovery or mainly based on continental influences? There are two citations that shed light on this matter. On the 3rd of March 1909 Sibelius wrote to Aino Sibelius: "I have something altogether new to say in my music. You will see. Have been cut off for too long and came away from Finland in the nick of time. It is absolutely vital for me to be abroad now. My artistic development necessitates it".[361] On the 27th of March 1909 he wrote to Axel Carpelan:

"I have seen and heard much here. It has done me a great deal of good – things that weren't clear to me before are so now. My personal meetings with Debussy and d'Indy, Bantock, Barth and Dale and other composers, together with many new works, among them Elgar's new symphony which I shall tell you about when we meet – also Bantock's *Omar Khayyam*, Debussy's new songs and the orchestral nocturnes, etc., have all confirmed my thoughts about the path I have taken, take and have to take".[362]

From the lecture fragment (1896), as well as on the grounds of the dates of several examples used in this study, it can be seen that Sibelius had already developed his new *Satz*-idiom independently, before he had received contemporary modern influences.[363] We have witnessed Sibelius's debt to his predecessors, most notably to Liszt and Wagner and to some Russian composers (see chapter 4.7). The contemporaries of Sibelius also shared the same heritage (though in Western Europe the Russian influence had a lesser effect). In his continuous self-development, finding "more and more" of himself (see section 12.4), Sibelius surely longed for an awareness of how

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Ravel: *Le Tombeau de Couperin* (1914–1917) IV *Rigaudon*, Moins vif, bars 1–9

Prokofiev: *Visions fugitives* op. 22 (1915–1917) XIV bars 1–6, 15–24, 25–32, XV bars 1–5, XVI bars 1–8

Stravinsky: *Petrouchka* (1910–1911) numbers 75–76 (in revised 1947 version); *Le Sacre du printemps* (1913) numbers 18–22, 49–53; Piano Sonata (1924) 1. mvt. bars 100–103, 111–114

Villa-Lobos: *Passa, Passa, Gaviao; Cirandas* no. 06 (1926)

Bartók: *Allegro barbaro* (1911) bars 1–57; *Divertimento* (1938) 1. mvt. bars 1–12

Shostakovich: VII Symphony (1941) 1. mvt. bars 12–15

Hindemith: *Ludus tonalis* (1942) Interludium VI–VII bars 5–7, 35–37; Interludium VIII–IX bars 1–4, 41–44.

[361] Talas 2007:117, Tawaststjerna IIIF:145–146, IIIS:139, IIE:108; according to the notes of the Finnish edition this is a diary entry, but the earliest entry in 1909 dates from 7 March. See also Tawaststjerna IIIF:19, IIIS:20, IIE:24.

[362] Dahlström 2010:234, Tawaststjerna IIIF:146, IIIS:139, IIE:108–109.

[363] According to Normet "The means of impressionists were partly used by Sibelius already in *Kullervo*, that is, even before the impressionists themselves had discovered them" (1970:30 [J. A.]). See also Normet 1965:52 and 1965:65.

other composers built on that heritage and what benefit he could derive from their experience. In 1909 the stimulation that Sibelius heard in England helped him to clear up his position in the technical and stylistic cross-swell of the first decade of the twentieth century.[364]

Assessing Sibelius's influence on other composers, contemporary and later, Finnish and foreign, lies beyond the scope of this study and deserves a study of its own.

12.8 SIBELIUS DELICIOUSLY CLASSIFIED

Although a detailed comparison of the *Satz* of other contemporary composers with the Sibelian one lies beyond the scope of this study, the comparisons offered above (see section 12.7) help us to identify the position of Sibelius in the history of music. We can now try to classify this "deliciously unclassifiable" (see chapter 1.2) composer.

In terms of his generation Sibelius belongs to the group of those composers who started as late-romantics and afterwards found their own expression. Thus Sibelius is a counterpart of e.g. Mahler, Richard Strauss, Rachmaninoff or Puccini.[365] Yet the craftsmanship of these composers basically leant on romantic heritage, although sometimes in their music one can also encounter other kinds of device. On the other hand, in the music of the innovators, such as Debussy, Scriabin, Bartók and young Stravinsky, the romantic heritage is left behind. On the grounds of craftsmanship Sibelius shares several devices typical to the innovators, although at the same time Sibelius did not abandon the expressive means typical to romantic composers. Thus Sibelius seems a solitary composer who does not belong to either of the two above-mentioned groups, but has his chair between them. In my opinion Sibelius cannot be grouped among those post-World-War-I composers who re-established the tradition in their own way, like Schoenberg,[366] Hindemith and neoclassicist Stravinsky.

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[364] Tawaststjerna IIIF:19–20, IIS:21, IIE:25. In the Finnish and Swedish editions Sibelius is paralleled with Strauss and Debussy, while in the English edition Sibelius is misrepresented as being influenced by the two composers.

[365] Hepokoski 1995:2 lists this generation according in order of birth "Elgar (1857), Puccini (1858), Mahler (1860), Wolf (1860), Debussy (1862), Strauss (1864), Sibelius (1865), Glazunov (1865), Nielsen (1865), Busoni (1866), and several others". Cf. Hepokoski 1997:417.

[366] Olin Downes said in connection with the fourth movement of the IV Symphony op. 63 that "polyharmonies and dissonances are brought about by means of logical development – and not in the least there are made concessions to current European twelve-tone theories" (Downes 1945:85). This remark could be generalized to concern the whole work. In this symphony (erroneously characterized as "bordering on twelve-tone system"; e.g. Normet 1970:30) there are neither any serial chains of notes nor anything 'atonal', but everything is thought of in terms of neo-modality (cf. Fig. 4.2.2–4 [op. 63:I:72–74]).

12.9 ADORNO TAKEN SERIOUSLY

One of Sibelius' adversaries – Adorno – once characterized the style of Sibelius as "manipulated classicism".[367] It was already mentioned that in the music of Sibelius there are numerous cases where the traditional and Sibelian *Satz* amalgamate (see section 12.1). In this sense in the music of Sibelius there really is plenty of "manipulated classicism" (see e.g. Fig. 8.2.2–2 [op. 82:III:239–242]).

Yet this saying – as most likely was the case – was meant to be taken negatively, i.e. that the style of Sibelius is "manipulated classicism", as though manipulation of classicism is a grave error. Against this (assumed) reproach it can be said that "manipulated classicism" is a hallmark of every so-called "great" composer that lived in the Romantic Era (from Schubert to Mahler). Their training was based on classical principles and the personal application of these principles meant their "manipulation".[368] With Wagner this "manipulation" goes deeper than with his predecessors (parallel fifths, leaping dissonances in the bass part), even deeper with Debussy (a journey to anti-German *Satz*), until the state of 'emancipated dissonance' is finally reached (a device not criticized by Adorno).

Adorno's characterization may also be negatively understood in another way, i.e. that whereas manipulating classicism is not wrong as such (at least on German soil), its manipulations by Sibelius cannot be accepted. Against this (assumed) reproach it can be said that in their manipulation of classicism some great composers of the Romantic Era (e.g. Wagner and Bruckner) in their works came to textural solutions that were similar or the same kind as those employed by Sibelius (cf. chapter 3.5, see chapter 4.5.1, 4.7, chapter 5.3.4, chapter 7.4.5).

With Sibelius and his predecessors the basis of "manipulation" is common. In the classic musical heritage there were already seeds for a different kind of *Satz*-idea. Those seeds – exceptional and extraordinary solutions – were not necessarily favoured by composers of the Classic Era, but they could still be used as the building-blocks of a new style. This new style – at least in the case of the proper Sibelian *Satz* scrutinized in this study – differs so much from the traditional idiom that characterizing it merely as "manipulated classicism" does not do justice to its true nature. Thus Adorno – without being aware of it – in his characterization inadvertently hit the mark; only he should have defined the content of his word "manipulation" (cf. chapter 3.2, footnote 158).

Adorno also had the opinion that for Sibelius "it was not allowed to write a chorale, or a proper counterpoint".[369] He failed to find any of those contrapuntal resources that others did find (see chapter 2.1.5). Sibelius does

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[367] "manipulierte Klassizität"; Adorno 1980:461.

[368] Cf. Murtomäki 1996:149.

[369] Adorno 1980 [1938]:461.

utilize imitation, canonic structures, double, triple and even quadruple counterpoint,[370] but these devices are not emphasised. He had already used these before his concentration on polyphonic studies in 1910 in forging the Fourth Symphony (see section 12.4). Yet this may be considered a turning-point in his subtle way of employing polyphonic resources (cf. Fig. 4.2.2–4 [op. 63:I:72–74]). It may seem lacking in *Choralsatz* or *Kontrapunkt* to those who compare them with the German orchestral polyphony from J. S. Bach to Mahler and Richard Strauss. Yet the subtle Sibelian counterpoint (e.g. the chromatic fugue, no. 11 in the incidental music to *Jokamies* op. 83 in 1916) does not surprise anybody who is aware of the "*plein air* -manner" of Sibelius, which is "so far removed from the kind of thinking of the German school" (see section 12.4).

There is no reason to blame Sibelius for technical incompetence, because in Sibelian *Satz* all the factors within it form a unified whole, just as it may occur in the domain of the older, traditional *Satz* (see chapter 1.1).

12.10 THE EPIGRAPH RESUMED

In the course of this treatise I have not been able to show the origins and essence of that "inexorable power that is the God-given voice" in the music of Sibelius – as a matter of fact, in any true music.[371] Yet I hope that I have managed to explain why his music – at least on the grounds of compositional technique – can never be tarnished.

[370] An example of quadruple counterpoint: III Symphony op. 52 (1907) 1. mvt. bars 127–129 (Fl. I, II, Ob. I, Cl. I, II; one and a half-bar adjustment).

[371] "Den obändiga naturkraft, som är gudsrösten i mina toner, kunna 'de' ej smutskasta." *Dagbok 1909–1944*:97. Tawaststjerna IIIF:275, IIIS:268, IIE:207.

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ISBN: 978-952-329-015-0 (PRINT)
ISBN: 978-952-329-016-7 (PDF)
STUDIA MUSICA 66 (ISSN 0788-3757)

UNIGRAFIA
HELSINKI 2015

SIBELIUS ACADEMY

UNIVERSITY OF THE ARTS HELSINKI

RESEARCH STUDY PROGRAMME
DOCMUS DOCTORAL SCHOOL