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## The Compositional Style of Francesco Geminiani: a Reflection of Theory and Practice in His Music and *Guida Armonica* Treatise

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The Compositional Style of Francesco Geminiani: a Reflection of Theory and  
Practice in His Music and *Guida Armonica* Treatise

by

Valerie R. Weber

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Masters of Music  
School of Music  
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University of South Florida

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## TABLE OF CONTENTS

List of Tables .....	iii
List of Figures .....	iv
Abstract .....	vi
Introduction.....	1
Chapter One: Biographical Sketch .....	5
Chapter Two: Treatise: <i>Guida Armonica</i> .....	11
Background.....	11
A Practical Application of <i>Guida Armonica</i> .....	13
Interpretation.....	18
Conclusions .....	26
Chapter Three: Analyses of Selected Works by Geminiani .....	28
Concerto Grosso, op. 3, no. 3, III.....	30
Background and Form.....	30
Harmonic Features.....	32
Motives and Structure .....	34
Other Unifying Features .....	37
Interaction of Elements .....	40
Violin Sonata, op. 4, no. 10, I.....	42
Background and Form.....	42
Harmonic Features.....	45
Motives and Structure .....	45
Other Unifying Features .....	49
Interaction of Elements .....	52
Chapter Four: Comparisons between Geminiani and Corelli.....	53

Form .....	53
Harmonic Features .....	55
Motives and Structure.....	60
Other Unifying Features.....	63
Interaction of Elements .....	64
Conclusions .....	67
Chapter Five: Relationships between the Treatise and the Music.....	70
Form and Phrase Structure.....	70
Harmony .....	72
The Nature of Motives.....	79
Conclusions .....	80
Chapter Six: Conclusions .....	81
List of References.....	88
Selected Bibliography.....	89
Appendices.....	122
Appendix A .....	91
Geminiani: Concerto Grosso, op. 3, no. 3, III ( <i>Andante</i> ) .....	92
Geminiani: Violin Sonata, op. 4, no. 10, I ( <i>Andante</i> ) .....	93
Corelli: Concerto Grosso, op. 6, no. 3, III ( <i>Grave</i> ).....	94
Corelli: Concerto Grosso, op. 6, no. 3, IV ( <i>Vivace</i> ).....	95
Corelli, Violin Sonata, op. 5, no. 1, I ( <i>Grave-Allegro-Adagio-</i> <i>Grave-Allegro-Adagio-Allegro</i> ) .....	96
Appendix B .....	101
Methodology .....	102
Database.....	104

## LIST OF TABLES

Table 2-1	Cadential Progressions with $i-ii^{\flat}_5-V-i$ .....	23
Table 3-1	Structure of Section A (op. 4, no. 10).....	43
Table 4-1	Structure of Corelli's Violin Sonata, Op. 5, no. 1, First Movement .....	54
Table 6-1	Progressions with VI Outside the Tonic Key .....	78

## LIST OF FIGURES

Figure 2-1	Prototypical Example from Guida Armonica.....	14
Figure 2-4	Examples of Unusual Chord Resolutions.....	20
Figure 2-3	Smooth Voice Leading in Progressions with $V^6$ — $vii^{\circ 6}_4$ /iv.....	20
Figure 2-4	Examples of Identical Bass Lines with Different Harmonies .....	21
Figure 2-7	Unclear Placement of the Dash in Fragment 33:E5.....	22
Figure 3-1	Form and Thematic Plan of Movement III (op. 3, no. 3).....	31
Figure 3-2	Harmonic Plan of Movement III (op. 3, no. 3).....	32
Figure 3-3	Violins, mm. 1-4 .....	35
Figure 3-4	Evolution of <i>Motive Two</i> .....	35
Figure 3-5	<i>Motive One</i> in Phrase Three, mm. 16-20 .....	36
Figure 3-6	Comparison of Sequences in 1732 and c. 1755 Versions.....	38
Figure 3-7	Harmonic Plan of Movement I (op. 4, no. 10).....	45
Figure 3-8	The Three Motivic Ideas of Movement I, and Elisions.....	46
Figure 3-9	Related Motivic Materials Concluding Section A and Beginning Section B, mm. 11-15.....	49
Figure 3-10	Repeated Pitch Reference—Descending Stepwise Motion from	

	the Same Note .....	50
Figure 3-11	Several Occurrences of the Rhythmic Motive .....	51
Figure 4-1	Harmonic Analysis from the First Phrase of Geminiani's Op. 4, No. 10, Violin Sonata (First Movement), mm. 20-27 .....	57
Figure 4-2	Analysis of mm. 10-13 in Corelli's Concerto Grosso, op. 5, no. 3 (Thrid Movement).....	58
Figure 4-3	Harmonic Analysis from the First Phrase of Geminiani's op. 4, no. 10 Violin Sonata (First Movement).....	59
Figure 4-4	Contrasting Nature of Motive Use in Melodies by Geminiani and Corelli.....	60
Figure 4-5	Contrasting Nature of Motives in Concerti Grossi by Geminiani and Corelli.....	61
Figure 4-6	Motives that Appear Repeatedly in Corelli's Work in an Excerpt from Op. 1, no. 3, I ( <i>Grave</i> ).....	62
Figure 5-1	Bass Line of Op. 3, no. 3, and Corresponding Treatise Fragments.....	74
Figure 5-2	Some Non-tonic <sup>6</sup> / <sub>4</sub> Harmonies in the <i>Guida Armonica</i> .....	76
Figure 5-3	Representative Treatments of VI in Music by Geminiani.....	77
Figure 5-4	An Example of VI in the Context of a Non-tonic Tonal Center .....	78

The Compositional Style of Francesco Geminiani: Theory and Practice as  
Reflected in His Music and Treatise, *Guida Armonica*

Valerie Weber

**ABSTRACT**

Francesco Geminiani was highly regarded as a violinist, composer, and theorist during the late Baroque era. During his lifetime he was considered equal in status to the foremost composers of the day; however, relatively little information is available regarding his life and works today. This lack of information is largely a result of controversy among his peers regarding the merit of his work, specifically in reference to melodic style, structural consistency and harmonic practices. Critical views of such authors as Sir John Hawkins and Charles Burney have been reflected in later historical writings, considerably suppressing further interest in the composer.

The first objective of this thesis is the examination of Geminiani's 1752 treatise, *Guida Armonica*, its content, and implications for potential harmonic and structural functions. The second objective is to identify specific characteristics of Geminiani's music that distinguish him from other composers of the period.



Comparative analyses of selected movements by Geminiani and his teacher, Arcangelo Corelli, identify traits unique to Geminiani. The third objective of this project is to explore possible relationships between the work of Geminiani and the content presented in *Guida Armonica*. It is the intent of this study to provide expanded information about *Guida Armonica* and Geminiani's compositional style, identify possible parallels between the music and treatise, and explore how the distinguishing stylistic details of his work may correlate with the criticisms he faced.

## INTRODUCTION

Francesco Geminiani (1687-1762) was a highly respected composer, violinist, and theorist during the late Baroque era. During his lifetime he was considered a masterful composer on the level of such illustrious individuals as Arcangelo Corelli (1653-1713) and Georg Frideric Handel (1685-1759). Geminiani's lasting reputation, however, affords him the rank of only a minor figure, and the literature available about his artistic and theoretical activities is scant and incomplete.

Controversy concerning the merit of the compositions and treatises of Geminiani has contributed considerably to the current lack of material and the obscurity of the works. The writings of historians since the early part of the eighteenth century have primarily reflected the unfavorable side of the debate, averting further interest in the composer. Charles Burney charged “. . . that his bass is not uniformly the most select; that his melody is frequently irregular in its phrase and measure; and that, on the whole, he is decidedly inferior to Corelli. .

.<sup>1</sup> Thomas Twining concurred in his correspondence with Burney: "His movements (especially in his solos) are wild, '*décousu*', & without symmetry; & this, joined to another great fault I have observed in him, a deficiency in *clear well measured accent*, produces great confusion sometimes & *bother* in his Allegros."<sup>2</sup> Potter, on the other hand, recognized the distinctive qualities of Geminiani's music in a positive light:

Geminiani was a composer of great taste and delicacy, his compositions may justly be reckon'd among the elegant. His taste is peculiar to himself, and we need not wonder at this, as he had a fine natural genius, and an acquir'd judgment equal to most; which raised him above the necessity of any borrow'd help from others.<sup>3</sup>

Such commentaries about Geminiani's style provide insight into the way his music was received by his contemporaries.

Theoretical treatises can provide a means to understand the processes and techniques practiced by their authors, and the writings of Geminiani are no exception. A few treatises by Geminiani are reasonably well-known by present-day musicians. *The Art of Playing on the Violin* (1751), for example, is considered among the first and most important of a group of eighteenth and early nineteenth century treatises explaining violin technique. While most treatises by Geminiani have been studied and described by scholars, *Guida Armonica* (1752) has been widely overlooked. The work is a compilation of thousands of short, figured bass segments. In this treatise Geminiani asserts that an entire work can

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<sup>1</sup>Charles Burney, *A General History of Music From the Earliest Ages to the Present Period (1789)*, with *Critical and Historical Notes* by Frank Mercer (New York: Dover, 1957), 208.

<sup>2</sup>John Potter, *Observations on the Present State of Music and Musicians* (London: Henderson, 1762), 54-55; quoted in Enrico Careri, *Francesco Geminiani (1687-1762)* (New York: Oxford University Press, 1993), 50-51.

be produced by stringing together the fragments as stipulated, realizing the accompanying harmonic figures. Often regarded as a very impractical guide to composing, it has been largely ignored since its publication. Even the printing of an explanatory supplement in c. 1756 failed to vindicate Geminiani's treatise. According to critics, Geminiani fell short in his attempt to provide a simple, all-inclusive method for the amateur or student composer; the *Guida Armonica* treatise, however, is not completely devoid of value.

An investigation of this subject has raised a number a research questions that will provide the foundation for this thesis. What are the characteristics of Geminiani's music that are indicative of his compositional style? How are these characteristics defined in his music, and how are they perceived by his contemporaries? Are there features that distinguish Geminiani from his contemporaries, especially Corelli? Are there concepts in the treatise that might suggest compositional style? Are there parallels between the compositional style of Geminiani and the treatise? To what degree do the specific instructions in the treatise reflect the characteristics of Geminiani's style?

In order to answer these research questions, three objectives will provide direction for this study. The first objective of this thesis is the examination of Geminiani's 1752 treatise, *Guida Armonica*, its content, and implications for potential harmonic and structural functions. The second objective is to identify specific characteristics of Geminiani's music that distinguish him from other composers of the period. Comparative analyses of selected movements by

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<sup>3</sup>Ibid., 47.

Geminiani and his teacher, Arcangelo Corelli, identify traits unique to Geminiani. The third objective of this project is to explore possible relationships between the work of Geminiani and the content presented in *Guida Armonica*.

## CHAPTER ONE

### BIOGRAPHICAL SKETCH

Francesco Saverio Geminiani was born in Lucca, Italy, in December of 1687. From the 16<sup>th</sup> century until the mid 18<sup>th</sup> century Lucca maintained a stable political relationship with its city-state neighbors in the Tuscan region of what is now Italy. Even former rival cities lived peacefully side by side as autonomous states. The peaceful social circumstances promoted the exchange of ideas among the various cities in the region. The wealthy members of the ruling oligarchy of Lucca were avid patrons of the arts, providing relative security to the city's musicians and nurturing artistic disciplines.

As the son of one of the leading violinists in Lucca, it is likely that Geminiani was formally introduced to music at a very young age. Geminiani took over his father's position in the *Cappella Palatina*, the city-supported musical ensemble of Lucca, in 1707, remaining there for only two years. It is difficult to trace the young violinist's activities during the three years prior to or five years after this appointment in Lucca. The research literature is full of conflicting

reports about the whereabouts of the young musician during this span. It is likely Geminiani spent time in Milan as a violin student of Carlo Ambrogio Lonati (c. 1645-c. 1710-15), and in Rome studying with Alessandro Scarlatti (1660-1725). It also would have been in Rome that Geminiani studied with the musician he highly revered and who influenced him the most, Arcangelo Corelli (1653-1713).<sup>4</sup> Geminiani clearly spent some time in Naples as well. A story related by Emanuele Barbella (1718-1777) to Charles Burney (1726-1814) tells of the damaging reputation Geminiani incurred because of his spirited, rhythmically erratic playing, being “demoted” from the concertmaster and group leader to the lowly position of a violist.<sup>5</sup>

The prominence of Corelli in Italy had spread to English society by the time of Geminiani’s arrival, and the younger composer benefited greatly from their association. In 1714 Geminiani left behind the reputations he had acquired in Italy, both the positive and the less favorable, and relocated in London. The young composer took advantage of the relatively low technical proficiency of violin playing in England and of his status as a student of Corelli. The elder composer was already a celebrated composer outside Italy as a result of the publication and distribution of his music in northern Europe. The performance and publication of Geminiani’s first set of violin sonatas, very much in the style of Corelli, substantiated his impressive musical pedigree and virtuosic abilities, and Geminiani rapidly attained standing as a highly regarded member of musical society in London. It seems that after his initial arrival, Geminiani was seldom

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<sup>4</sup>Careri, 4-5.

heard in performance in London. Instead, he became active in intellectual circles and focused his activities, whether by interest or financial necessity, on teaching and publishing. Attesting to his aptitude as a teacher, Matthew Dubourg (1703-1767), Charles Avison (1709-1770), and Christian Festing (?-1752), were some of his most successful students from this time.<sup>6</sup>

The opp. 2 and 3 concerti, published by John Walsh in the early 1730s, were well received by the public, though not particularly profitable for the composer. These compositions were, for the duration of his subsequently less stable career, the works that sustained his fame and upheld his status as one of the leading instrumental composers of his day. In *A General History of the Science and Practice of Music*, Hawkins stated:

Of his Concertos, some are excellent, others of them scarce pass the bound of mediocrity. The sixth of the third opera not only surpasses all the rest, but, in the opinion of the best judges of harmony, is the finest instrumental composition of the kind extant.<sup>7</sup>

Geminiani was offered, but turned down, an influential, financially secure position in 1727 as the Master and Composer of the State Music in Ireland. By most accounts, his refusal was due to his Catholic faith. In addition to his teaching income and patron support, Geminiani was active as an art dealer, an occupation not looked upon kindly by his contemporaries. According to Hawkins's account of his art-dealing activities, ". . . he not only suspended his studies, and neglected the exercise of his talents, but involved himself in straits and difficulties, which a

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<sup>5</sup>Ibid., 7.

<sup>6</sup>Careri, 19.

<sup>7</sup>Sir John Hawkins, *A General History of the Science and Practice of Music. With A New Introduction by Charles Cudworth* (New York: Dover Publications, 1963), 917.



small degree of prudence would have taught him to avoid.”<sup>8</sup> Burney charged that Geminiani “preferred the character of a picture dealer, without the necessary knowledge or taste in painting,”<sup>9</sup> and with the decline of his career in London, decided to “try his hand at buying cheap and selling dear; imposing upon grosser ignorance with false names, and passing off copies as originals.”<sup>10</sup> In Geminiani’s defense, Burney’s sometimes biased, sensationalist nature is underlined in a letter to Thomas Twining. In an expanded discussion of his opinions of Geminiani’s activity in the visual arts he writes of Italians in general, “...they w.<sup>d</sup> rather trick a Man out of a Guinea than get it fairly...”<sup>11</sup>

After an embittered legal dispute with Walsh over the circumstances surrounding the publication of his op. 2, Geminiani traveled to Paris in 1732, where the discipline of music engraving was more highly developed. A cluster of transcriptions and arrangements of his own and Corelli’s music appeared in publications likely self-financed by the composer. From this point on, Geminiani traveled frequently, seldom staying in any country more than a few years at a time. In 1733, the unsettled composer was in Ireland, associating with a patron there and offering a few public performances. He left for London the next spring, but later returned to Dublin for a three year stay.

Another phase of serious composition occupied Geminiani in the 1740s. He resided mainly in England, but traveled to Paris and the Netherlands to

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<sup>8</sup>Hawkins, 847.

<sup>9</sup>Burney, 993.

<sup>10</sup>Ibid., 994.

<sup>11</sup>Enrico Careri, “The Correspondence between Burney and Twining about Corelli and Geminiani” *Music and Letters* 72:1 (1991): 42.

publish his music. The acceptance of his music decreased as he leaned towards an more individualistic compositional style. The reception of op. 4 (violin sonatas), op. 5 ('cello sonatas), and the particularly experimental op. 7 (concerti grossi) was disappointing, and after 1748 a discouraged Geminiani largely gave up the art of composition. The only substantial exception was the 1754 *The Incharnted Forrest*. The work, a large form with the instrumentation of a concerto grosso, was written for a pantomime based on a part of Torquato Tasso's *Gerusalemme liberate* and directed by Giovanni Niccolò Servandoni (1695-1766). Public response to the pantomime, and to Geminiani's first and last attempt at programmatic music, was decidedly unfavorable.

Theoretical writing took the place of musical composition during the last part of his life. Two treatises on musical "taste" were published in 1748 and 1749. *The Art of Playing on the Violin*, 1751, was and still is among his most appreciated works. A treatise of similar nature, the 1760 *The Art of Playing the Guitar or Cittra*, was his last published work, but never attained the same popularity as its violin counterpart. The unique *Guida Armonica* appeared in 1752, although it is thought to have been written earlier. Four years later (1756) an explanatory supplement to this treatise was published, the same year the two volume work *The Art of Accompaniment* was printed in English (a French version was produced in Paris in 1754).

According to some accounts, the circumstances surrounding a final, never-published treatise was the cause of Geminiani's death. Hawkins tells us

that in 1961, while paying an extended visit to a favorite student in Dublin, a treatise to be published was stolen by a servant.

The greatness of this loss, and his inability to repair it, made a deep impression on his mind, and, as it is conjectured, precipitated his end; at least he survived it but a short time, the seventeenth of September, 1762, being the last day of his life, *which had been prolonged to the age of 96 [sic]*.<sup>12</sup>

The theoretical writings of a composer can reveal their conceptions of amusical phenomena such as aesthetics, structural features and compositional process. *Guida Armonica* is, in effect, an instructional manual for composition. The information in the treatise pertaining to compositional style and process is not presented in a direct manner. Consequently, chapter two will identify the content and procedure that was defined by the composer and evaluate the implications of the content as relevant to actual practice.

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<sup>12</sup>Hawkins, 917.

## CHAPTER TWO

### THE TREATISE: *GUIDA ARMONICA*

#### Background

While most of Geminiani's theoretical treatises are well known to modern scholars, *Guida Armonica* (1752) has rarely been examined in detail with the exception of the essay by Adam Serre, written a few years after the publication of the treatise. A controversial work from the time it appeared, the treatise was ultimately recognized as an inconsequential and ineffective guide to composing, and little has been published concerning the content of the work. The treatise is virtually absent from current research literature, which has resulted in limited investigation of the application and relevance

Geminiani composed *Guida Armonica* as a didactic work. He indirectly identified the amateur music student, or "Student of Harmony", as his target audience in the brief text portion of the treatise and asserted that by using the document any student, even "the most ignorant," could write a presentable piece,

and with additional study could gain from the treatise a proficient understanding of harmonic practice.<sup>13</sup>

Geminiani claimed in the treatise to augment what he considered the dull, narrow harmonic vocabulary used by other composers with his “more just and extensive System of Modulation.” Throughout his career, Geminiani expresses an interest in the expansion of harmonic practice. Ironically, this treatment of harmony became a frequent point of dissatisfaction among his contemporaries.

This *Dizionario Armonico* (Dictionary of Harmony) describes an intriguing method of music composition based on stringing together figured bass fragments.<sup>14</sup> A short introductory text gives basic instructions for use of the treatise, coaching the reader on fundamental concepts of rhythm and proper metrical placement of bar lines. There are 34 pages filled with short segments of figured bass line fragments ranging from two to six notes in length. Fragments are linked to one another by the overlapping of a matching, equivalently harmonized ending and beginning pitch. A number placed after each fragment represents the page on which such continuations are found. By linking these small segments and realizing the furnished figured bass symbols an entire piece could be produced.

A supplement to *Guida Armonica* was published in c. 1756 in response to extensive criticism of the original treatise. Geminiani had anticipated publishing a

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<sup>13</sup>Francesco Geminiani, *Guida Armonica* (London: John Johnson, 1752), third page of text.

<sup>14</sup>The treatise is universally referred to as *Guida Armonica*, but the full title as it appears on the title page is *Guida Armonica o Dizionario Armonico: Being a sure guide to harmony and modulation, in which are exhibited, the various combinations of sounds, consonant, and dissonant, progressions of harmony, ligatures and cadences, real and deceptive.*

supplement similar in design to the *Guida Armonica* in the major mode as an addendum to the exclusively minor mode of the original treatise. Instead, the resources for this planned publication were redirected to the supplement in order to respond to specific criticisms and defend his method:

Having been told frequently that my *Guida Armonica* is not commonly understood, and that it has been censured by some as being of little Use, because the Bass is there set down without Rules for composing the other Parts; I have resolv'd to explaine my Design more fully, and satisfy the Lovers of the Art, by Instructing them in the Method of making the intended Use of my Work.<sup>15</sup>

For further “particulars” the composer refers readers to his earlier treatise, *Art of Accompanying on the Harpsichord*. Following the short preface, Geminiani explains in some detail the realization of specific figured bass symbols and provides example passages, complete with melodies “implied” by realization of the figured bass, to illustrate more clearly the practical application of the treatise. Each example is accompanied by an explanation which provides guidance in generating melody from harmony and on voice leading principles.

### **A Practical Application of *Guida Armonica***

A study of the treatise without experiencing its direct application in a musical context can be misleading. In Figure 2-1, a short music example has been created using the complex procedures outlines by Geminiani in the treatise. This activity resulted in a prototypical example illustrating the procedures given in

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<sup>15</sup>Francesco Geminiani, *A Supplement to the Guida Armonica with Examples Shewing it's Use in Composition* (London: John Johnson, 1756), first page of text.

the treatise and provides valuable insight into compositional techniques reflected in the music of Geminiani.

The image displays a musical score for a string quartet and basso continuo, divided into two systems. The first system (measures 1-17) includes staves for Violin I, Violin II, Viola, and Basso Continuo. The Basso Continuo part features figured bass notation and chord symbols: d: i V i<sup>6</sup> i ii<sup>06</sup> iv<sup>6</sup><sub>5</sub> vii<sup>07-6</sup>/<sub>iv</sub> iv<sup>6</sup> III<sup>6</sup> VII<sup>4</sup> v<sup>6/5</sup> i<sup>9-8</sup>. The second system (measures 18-17) includes staves for Violin I, Violin II, Viola, and B.C. (Basso Continuo). The B.C. part features figured bass notation and chord symbols: F: I<sup>6</sup> VI v<sup>4-</sup> v<sup>3</sup> d: I III vii<sup>06</sup><sub>4</sub> i<sup>6</sup> ii<sup>06</sup><sub>5</sub> V i. The score also includes performance markings such as 20:J5, 16:K6, 7:J2, 7:D2, 6:I5, 3:I3, 4:K3, and 17:D1.

Figure 2-1: Prototypical Example from *Guida Armonica*

The first step given by Geminiani, writing clefs and time signatures on the staff, is the most basic. The duple meter recommended by the author in the introductory text of the treatise was used. Geminiani's written explanation of arranging notes of bass line to coincided with the meter confusing, however in practice it is surprisingly straightforward.

... you will find several Notes without any Perpendicular Lines (called Bars) between them. You must then add so many perpendicular Lines, that there may be one Note without a Tail (called a Semibreve) or two Notes with Tails (called Minims) between every two perpendicular Lines; so that where there are two Notes without Tails together, and no perpendicular Line between them, you may either add Tails to those Notes, or draw a perpendicular Line between them. After this if you find a little circular Line cross any Bar or perpendicular Line (called by Musicians a Ligature) you must take Care that the Note which precedes the Bar, or perpendicular line, may be either of greater or equal Duration with the Note following the Bar or Line, and never less.<sup>16</sup>

In copying the temporal values of the notes from the treatise the minims (half notes) are naturally paired up in many cases, so a majority of the measures already contain the correct number of beats. All that was needed in instances where the meter did not work out was to surround whole notes or pairs of half notes with the “perpendicular lines.” By adding stems to some of the semibreves (whole notes) in order to make them minims (half notes), more rhythmic variety and character was added to the bass line. In accordance with some of the examples from the supplement to *Guida Armonica*, half notes of the same pitch that were slurred within a measure were joined to produce whole notes. In one case where notes were tied over a bar line (mm. 9-10), Geminiani’s rule regarding “ligatures” was applied, assuring the note before the bar line was at least equal, if not longer than the one following it.

The process of fitting the treatise-generated bass line into a meter consequentially establishes harmonic rhythm and produces an outline

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<sup>16</sup>Geminiani, *Guida Armonica*, third page of text.



within which melodic contours and phrases naturally fit. After studying this system and using it a few times one would become more aware of effective rhythmic patterns.

The harmonic progressions that result from procedures in the treatise are often reflected the compositional works of the composer. In Figure 2-1, the line is quite traditional, although there are occasional surprises. For example, in m. 5 of Figure 2-1 the  $iv^6$  chord resolves to a  $III^6$ . In a more conventional setting, the pre-dominant function of the subdominant chord would traditionally prompt movement to a dominant-functioning harmony (V or vii), or to the tonic in a plagal treatment. Resolving to III, which has two tones in common with both i and V (or v), has a vaguely similar effect, and also presents a way to resolve to a major sonority (III instead of i or v) without raising the third of the dominant chord. It also potentially provides an unusual and unfocused means of entering the mediant (relative major) key, or portending the upcoming possibility of such (which is the case in this example).

Since Geminiani's music contains abrupt modulations, an effort was made to add a change of key to the example. F major, the relative key of the D minor treatise, was chosen. The important functional harmonies I, IV, and V in the key of F major are equivalent to III, VI, and VII in D minor, so harmonic segments in the treatise which contain these chords were deliberately selected. Geminiani provides many suitable fragments to create a change of key. The cadence of the first phrase (m. 7) is in D

minor, the tonic key, but it is preceded by a string of chords equally at home in F major. Immediately following the cadence, the tonal center moves to F major for three measures. The tonic triad of the new key doubles as III in D minor, providing a pivot chord at both sides of the F major segment. The C-sharp in m. 12 indicates the end of the F major section, and D minor is solidly maintained through the final three measures.

In realizing the figured bass for this example, the guidelines in the supplement to *Guida Armonica* were consulted. In the text of the supplement he indicates exactly which intervals are to be added above the bass note for several specific Arabic numeral figures. For example, the composer writes "...A Note with a 4th and 2d over it, should be accompany'd with a 6th. A Note with a 7th over it, is a Dissonant Harmony, and should in general be accompany'd with a 3d and 5<sup>th</sup> ..."17

A challenging factor in creating phrases was finding a fragment marked with a fermata to end a phrase. These are far too infrequent to serve as the source of every phrase ending and were instead reserved for marking the ends of larger sections. Intermediate phrase structures are suggested by naturally occurring shapes that result from rhythm and note choices in the earliest steps of the process. This procedure easily results in a rather asymmetric outline, calling to mind the uneven phrases for which Geminiani was so criticized during his lifetime. Motivic material

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<sup>17</sup>Geminiani, *Supplement*, second page of text.

contributes little in defining phrases in this process, instead being fashioned to fit into a pre-existing structural framework similar to pieces of a puzzle.

### **Interpretation**

The first step in studying the treatise involves gathering and interpreting the raw data in the *Guida Armonica* treatise. There are 66 fragments on each of 34 pages (with the exception of page 1), that appear to be unsystematically ordered within distinct sections. As a result, there are over 6000 fragments to consider. In order to understand Geminiani's guidelines for creating a bass line, it is necessary to organize the information in another manner. A database was developed to organize the material from the treatise into a manageable format. Information was entered into a Microsoft Excel spreadsheet. The completed database allows for simple searching and sorting of the information. This greatly simplifies the location, analysis, or comparison of specific features in the treatise, and facilitates assessment of possible stylistic implications associated with its use. The database and detailed information about its creation and design are found in Appendix B.

Specific information about individual chords, such as their frequency of occurrence, types of resolution, and function in harmonic progressions, is more accessible using this database. Some chords in the treatise seem to be given more weight than others based on the number of times they occur. For commonly used chords like I and V, a high frequency of occurrence is expected.

These harmonies appear in root position in *Guida Armonica* at least 1430 and 938 times respectively. In contrast, ii appears in all inversions, as minor, half-diminished, and diminished only about 116 times, excluding the much-favored  $ii^{\circ 6}_5$  which appears at least 215 times. The less conventional III chord appears, in all inversions, more than 351 times. As suggested by  $ii^{\circ 6}_5$ , there is also a preference for some inversions over others. While the number of root position V chords could sensibly be rounded up to 1000,  $V^6$  is not used more than about 30 times, and  $V^4_2$  appears in only 25 examples.

The *Guida Armonica* database, by facilitating the location of chords and the sorting of them into different orders, allows for an economical observation of the resolution of specific chords. Geminiani resolved most of the  $V^6_5$  chords, which number around 160, to a root position tonic triad; however, there are four exceptions. These four examples show  $V^6_5$  moving to  $III^7$ , iv, V, and VII. Similarly, the 155 instances of  $vii^{\circ 6}_4$  resolve to  $i^6$ . There is a small possibility that a few of these may resolve elsewhere when they link to a new fragment. The remaining  $vii^{\circ 6}_4$  chords resolve to i,  $V^6/iv$  (two times), or in single examples to  $ii^7$ ,  $vii^{\circ}$ , v,  $V^6/V$ , or  $vii^{\circ}/iv$ .

A number of nontraditional resolutions of individual harmonies are seen in the database. For example, instead of resolving the suspended tone in a  $V^4$  chord, Geminiani maintains the non-harmonic tone into the next harmony,  $V^6_5/iv$  instead of moving to the anticipated  $V^3$  (Fig. 2-2). In another example, instead of  $V/iv$  moving to the harmony it tonicizes, it moves to  $VI^7$ . The voice leading

provides a smooth transition, however the resulting harmonic progression is unusual.

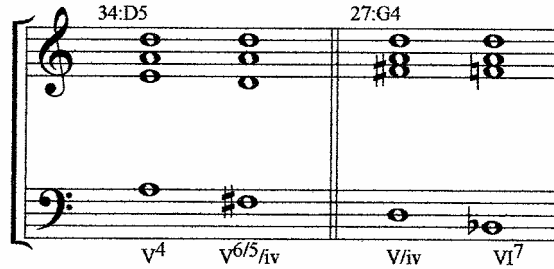


Figure 2-2: Examples of Unusual Chord Resolutions

With the use of the database, the treatments of specific chords within progressions can be explored. As an example, a comparison of the use of  $V^6$  and  $v^6$  (i.e. major and minor) follows. The possibilities for treatment of the major dominant chord are more limited than for the minor dominant chord. Most of the harmonies which move to  $V^6$  are predominant in function and traditional in common practice. The root position tonic triad,  $V^6$ , and  $V^7$  are the most frequent preceding chords. The other, less conventional option offered,  $vii^{\circ 4/iv}$ , is effective because of the root movement, D—C#—C and the common tone, A (Fig. 2-3).



Figure 2-3: Smooth Voice Leading in Progressions with  $V^6$ — $vii^{\circ 4/iv}$

Applications of the first inversion minor dominant are more varied. In *Guida Armonica*,  $v^6$  is approached and left by a larger variety of harmonies than the major dominant. Bass line movement that surrounds  $v^6$  contributes to the progressions. Unlike the mostly disjunct examples using  $V^6$ , every treatise fragment using the minor dominant chord displays either stepwise or chromatic motion in the bass.

By sorting the rows according to the note names of the bass line, different harmonizations of the same bass line can be located and compared. For example, two options are presented for the bass line segment G—F—E—A:  $iv—i^6—ii^7—V^7$  (14:F3), and  $vii^0_4—i^6—V^7/V—V$  (16:F2). This and a comparable instance are illustrated in Figure 2-4.

14:F3:	$iv$	$i^6$	$ii^7$	$V^7$	10:A5:	$V$	$vii^{06/5}_{/iv}$	$iv^4$	$iv^3$
16:F2:	$vii^{06/4}$	$i^6$	$V^7/V$	$V$	12:E5:	$V^7$	$i^{6/4}$	$ii^{06/5}$	$vii^{06/4}$

Figure 2-4: Examples of Identical Bass Lines with Different Harmonies

In searching the bass line by note name, occasional identical entries are encountered. When these entries are located in different sections, such as 1:F2 and 4:F5 (in the  $i$  and  $i^8_3$  sections respectively), it could be presumed this repetition was intentional on the part of Geminiani. However, when such

duplicate fragments occur within very close proximity, like 16:I3 and 16:J5, it is very plausible that the duplications may have been an oversight.

In a few examples, omission or unclear placement of important numbers and symbols may lead to inaccurate interpretation of the harmony. In some cases, figures that should clearly be present are omitted from the treatise fragments. Fragment 12:D2 is located in a section with the starting harmony  $A\sharp^7_3$ , but on this single occasion the 7 is omitted and  $\sharp 3$  is the only figure over the initial pitch. Other times it is unclear exactly what a marking refers to. In fragment 33:E5, it is uncertain just where the dash belongs (Fig. 2-5). Geminiani uses a dash to indicate notes maintained from the previous chord, although it is not always evident exactly which pitch is to be maintained. Here the dash could be over the G, as in the previous two fragments, indicating the same harmony is continued from the G immediately prior. However, the dash may also apply to the F. If the Bb and D from the iv chord on are held over the F, the harmony is  $VI^6_4$ . If not, F is the root of III.

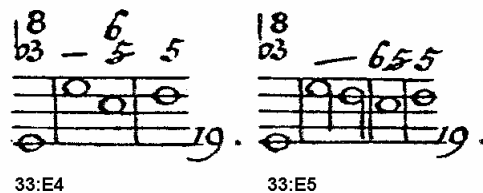


Figure 2-5: Unclear Placement of the Dash in Fragment 33:E5

The properties of cadential formulae can be explored by looking specifically at rows corresponding to fragments marked as possible cadence points (\* in the database). A reference to the list of final cadence progressions indicates the overshadowing presence of the typical  $i-ii^{\circ 6}_5-V-i$  progression. The exact progression appears less than ten times in the forty-seven relevant fragments, but slight variations of it increase this ratio to 25:47. These variations include using different inversions of  $i$ , inserting another harmony before the first  $i$ , replacing the first  $i$  with a different chord, and adding  $i^6$  between  $ii^{\circ 6}_5$  and  $V$  (table 2-1). The remaining final cadence examples are primarily combinations of the tonic in various inversions,  $V$ , and sometimes  $iv$ .

$i$	$ii^{\circ 6/5}$	$V$	$i$	
$i^{6/3}$	$ii^{\circ 6/5}$	$V$	$i$	
$i^{6/4}$	$ii^{\circ 6/5}$	$V$	$i$	
$iv$	$ii^{\circ 6/4}$	$V^{6-5/4-3^*}$	$i$	
$iv^6$	$ii^{\circ 6/5}$	$V$	$i$	
$iv^6$	$ii^{\circ 6/5}$	$V^{6-5/4-3^*}$	$i$	
$VI$	$ii^{\circ 6/5}$	$V$	$i$	
$i$	$ii^{\circ 6/5}$	$i^{6/4}$	$V$	$i$
$VI$	$ii^{\circ 6/5}$	$i^{6/4}$	$V$	$i$
$i$	$i^6$	$ii^{\circ 6/5}$	$V$	$i$
$i$	$VI$	$ii^{\circ 6/5}$	$V$	$i$
$III$	$i^6$	$ii^{\circ 6/5}$	$V$	$i$
$III$	$i^6$	$ii^{\circ 6/5}$	$V$	$i$
$V$	$i$	$ii^{\circ 6/5}$	$V^{6-5/4-3^*}$	$i$
$V$	$i^{6/4}$	$ii^{\circ 6/5}$	$V$	$i$
$V^7$	$i$	$ii^{\circ 6/5}$	$V$	$i$
$VI$	$i^6$	$ii^{\circ 6/5}$	$V$	$i$
$vii^{\circ}$	$i$	$ii^{\circ 6/5}$	$V$	$i$
$vii^{\circ 6/4}$	$i^6$	$ii^{\circ 6/5}$	$V$	$i$
$V$	$i$	$ii^{\circ 6/5}$	$V$	$i; i^{8/3}$

$$*V^{6-5/4-3} = i^{6/4} - V$$

Table 2-1: Cadential Progressions with  $i-ii^{\circ 6}_5-V-i$



Fragments marked as intermediate (half) cadences fall into four categories, with the majority ending with either  $i-V$  or  $iv^6-V$ . The most common progression ending,  $i-V$ , is almost always preceded by a dominant-functioning chord ( $V$  or  $vii^0$ ). Two of these substitute  $i^6_4$  for  $i$ , but the tonic harmony still follows a dominant one. In the second largest category, there is a wider variety of harmonies leading into a  $iv^6-V$  ending, although  $i$ ,  $III$ , and  $v^6$  appear most frequently. Only five fragments fall into the group ending with  $ii^{\emptyset 6}_5-V$ , and three fragments end with a VI-V deceptive cadence.

It is not clear why some progressions are marked as cadence points when other identical or very similar examples are not. In a few cases the range of the final note could have some bearing. 7:H4 and 8:A1 have identical harmonic progressions ( $iv^6-ii^{\emptyset 6}_5-V-i$ ), but only 7:H4, which ends an octave lower on  $d$ , is marked with a fermata. Fragments 22:E1 and 23:J1 ( $i-VI-ii^{\emptyset 6}_5-V$ ) are identical in range, yet only the former is awarded the status of an intermediate cadence. Furthermore, 2:B3 consists of the same progression with a tonic triad affixed to the end ( $i-VI-ii^{\emptyset 6}_5-V-i$ ) and is marked as a final cadence. In another case, two fragments are notated in a manner slightly different from one another, although both have the same effect. 19:G3 ( $III-i-V^4-V^3-i$ ) is considered a cadence, but 19:J6 ( $III-i-V^{4-3}-i$ ) is not.

The database is advantageous for locating unusual progressions, a task that would involve extensive study with the original format of the treatise. A fast survey of the database indicates that atypical progression are present, and

specific progressions are easily located using the “sort” or “find” options. Some of these progressions can be hypothetically explained. In the key of D minor, the bass line D—G—C—F—F reflects a circle of fifths progression, and in this case is supported by the progression  $i—iv^7—VII^7—III^7—i^6$ . The replacement of the first chord ( $i$ ) of the same progression with  $III^6$  (A in the bass) in an otherwise matching fragment in the treatise is a little harder to account for. If the unusual progression  $iv^6—v^{\emptyset 6}_5—V/iv—iv$  were analyzed in G minor instead of D minor, it would be a more comfortable  $i^6—ii^{\emptyset 6}_5—V—i$ . An example like 11:F4,  $V—i^6—vi^{\emptyset 6}—v$ , is difficult to rationalize beyond recognizing the satisfactory linear voice leading of the progression.

Many examples in the treatise suggest other keys, revealing the possibility that the work allows for changes of tonal center. The most often tonicized chord in *Guida Armonica* is  $iv$ , and indeed the relevant example in the previous paragraph illustrates the presence of progressions in the key of G minor. Other convincingly extended progressions in that key are present, but are less numerous than the tonicizations alone. Other keys represented in the treatise are F major ( $iv^6—III^6—iv^6_5—VII = ii^6—I^6—ii^{\emptyset 6}_5—V$ ), C major ( $i—III^6—V^6_5/VII—VII = ii—IV^6—V^6—I$ ), Bb major ( $III^6—III—VI = V^6—V—I$ ), and A minor ( $i^6—vi^{\emptyset 6}_5—V^{6-5}_4-3/V—v = iv^6—ii^{\emptyset 6}_5—V^{6-5}_4-3—i$ ). Some of the more conspicuous alternative analyses have been included in the database. Selecting consecutive fragments with matching key properties would definitely effect a change in key area.

## Conclusions

A close study of the long-neglected *Guida Armonica* treatise using a comprehensive, flexible database provides the ability to locate and observe characteristics of the thousands of fragments in *Guida Armonica*. Individual chords can be isolated and their relative frequency, resolution, and use in progressions identified. The ability to isolate chord progressions allows for the detection of unusual progressions, the inference of different keys, and cadential formulae. Searching for series of pitches can aid in finding multiple harmonizations for the same bass line or specific root movement. Contrary to critical assessments of *Guida Armonica* as incomplete, ineffective, and disorganized, the results of this database indicate the composer was surprisingly successful in compiling wide assortment of possibilities with many slightly varied alternatives. This treatise is perhaps the closest he could come to recording his entire vocabulary of harmonic usage without the organizational assistance of modern technology.

Assessment of the procedure and vast amount of content contained in *Guida Armonica* facilitates the identification of specific characteristics in the musical style generated by use of the *Guida Armonica* treatise. The method of stringing together numerous fragments results in a lengthy harmonic progressions. Because the designated cadential fragments are relatively infrequent, cadences that result from arbitrary choices of treatise fragments naturally divide progressions into unpredictable, asymmetric phrase structures. Progressions within the resulting phrases sometimes take the form of traditional

progressions, although intervening chords, tonicizations, unexpected resolutions, and shifts in tonal center yield less conventional progressions as well.

The essential, generative role of harmony in the procedure of *Guida Armonica*, is comparable to the function of harmony in the music of Geminiani. Several factors contribute to the long, asymmetric progressions that are characteristic of harmonic structure in the composer's music. Additional chords are added to the framework of traditional progressions, increasing their length and speeding up harmonic rhythm. The fast harmonic rhythm contributes to ambiguity of metrical structure. Unpredictable cadences divide the progressions into uneven, asymmetric phrase structures. Harmonic content in Geminiani's music is typically traditional. The progressions and choice of cadential formulae tend to be similar to those contained in the treatise. Frequent tonicizations and shifts of tonal area are present, and these harmonic "cells" are sometimes linked to the adjacent material or other cells in an overlapping fashion reminiscent of the compositional procedure of *Guida Armonica*. In order to understand Geminiani's distinctive compositional style and the important function of harmony within it, analysis of selected movements will be discussed in the following chapter.

### **CHAPTER THREE**

#### **ANALYSES OF SELECTED WORKS BY GEMINIANI**

Harmonic structure is the primary focus of *Guida Armonica* and is a significant feature that defines Geminiani's compositional style. In his music, form and phrase structure are determined by the construction of harmonic progressions. Structural pitches of the melody are arrived at through realization of figured bass, and the nature of motivic material is closely related to the characteristics of the space it fills. Since harmony is the generative feature for melody and form, there is a direct relationship to concepts presented in the treatise.

Within traditional movement forms, phrase structure is determined by harmonic progression. The fast, variable harmonic rhythm and unpredictable placement of cadences in these harmonic progressions yield asymmetric phrase and sub-phrase structures, and they create a disjunct, unstable musical effect. The irregular phrases are balanced by manipulation of motivic material and other unifying techniques instead of metrical symmetry.

Motives can often be described as conceptual shapes related to contour rather than definitive patterns. These patterns are connected to and gradually developed with compositional techniques such as elision, melodic contour, specific pitch reference, and sequence. A particularly noteworthy technique is the use of motivic content at the end of one phrase or gesture and the beginning of the next, providing an association between melodic components. Instead of developing melody with material from a theme which is varied and reduced to into smaller fragments, the movement is generated from extensions and variations of small motivic fragments which are free from larger thematic associations. The variety of ways in which small, flexible motives are pieced together, and the metric asymmetry of underlying structures, results in very different melodic contours in every phrase, producing a sense of disconnected, rhapsodic melody.

In this chapter, analyses of the third movement of the op. 3, no. 3 concerto grosso and movement one of the op. 4, no. 10 violin sonata movement will be discussed. This selection of pieces represents genres that contain a major portion of his creative output. A discussion of characteristic treatments in harmony, melody, and form is intended to define stylistic elements of the composer's work that are relative to the concepts presented in the treatise. The discussion of each piece is structured in five sections: background and form, harmony, motives and structure, other unifying techniques, and interaction of elements. A brief background and description of form is provided for each piece in order to place the composition in a historical context and provide an framework

for its musical context. A discussion of harmony, the most important aspect in comparison with *Guida Armonica*, is followed by a discussion of motivic features and their relationships to the harmony-derived metrical structures. The subsequent section identifies that provide underlying connectios to passages that initially seem more disjunct. While these techniques do not have direct associations to the treatise, their cohesive function in unifying the music is a vital part of Geminiani's compositional style. The interaction of form, harmony, and motivic content are considered. Scores for both movements are found in Appendix A. Conclusions from this chapter will be connected to features of *Guida Armonica* in chapter five.

### **Concerto Grosso, op. 3, no. 3, III**

#### **Background and Form**

Concerto Grosso in E minor, op. 3, no. 3, the third composition of six in the opus, is one of Geminiani's most acclaimed works. It has four movements organized in the traditional slow-fast-slow-fast pattern of the Italian *sonata da chiesa* established in the early eighteenth century. Geminiani's score of c.1755, a revised version and the one used in the following analysis, is written in four parts. The solo concertino parts are signified only by *solì* and *tutti* indications in the ripieno lines. The slow movements of op. 3 tend to be quite short. The first slow movement of the third concerto is six measures, barely long enough to establish the clarity of its musical properties. The third movement of the same

concerto, 26 measures long, is among the longer slow movements in the op. 3 collection. The relative clarity of structure and form in this movement, an *Andante*, is an exception to the composer's characteristically recondite style (Appendix A).

This movement contains three phrases arranged in an AA'B structure (Fig. 3-1). In phrase one (mm. 1-9) the melodic material is arranged in two contrasting segments (4+4), followed by a one measure cadential extension. The second phrase begins in m. 10 and lasts through the first two beats of m. 16. This shorter phrase is similar to the first, but the omission of three measures yields an ungainly 2+3 structure with a six beat cadential extension. The first two measures correspond to the first four measures of phrase one, and the next three measures correspond to mm. 5-8 of phrase one. The second half of m. 16 through m. 26 represents the third and final phrase, also the longest. This phrase is distinct from the first two in design and melodic nature, but it shares the presence of a phrase extension. The phrase extension consists of three measures of cadential material occurring after a cursory cadence in m. 24.

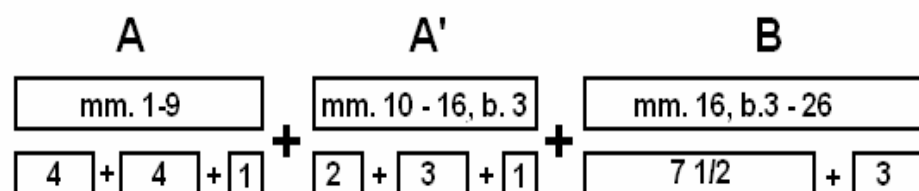


Figure 3-1: Form and Thematic Plan of Movement III (op. 3, no. 3)





the opening key of A minor before the half cadence of the one-measure phrase extension (m. 9).

The harmonic framework of the second phrase imitates the structure, but not the proportions, of phrase one. Beginning in m. 10, phrase two contains another transposition of the two-measure segment seen at the beginning of phrase one. The segment, which abruptly changes to E minor, is accompanied by the same progression of tonic and dominant harmonies. E minor only lasts for two measures, following the pattern set in phrase one. However, this time there is not a repetition of the same material in a new key.

The second part of phrase two is another series of tonicizations. This time the string of dominant-tonic progressions does not proceed in a circle of fifths motion. The remaining four and a half measures of the phrase contain a tonicization in this order: A minor, B minor, E minor, B minor and E minor. The phrase ends on B minor, although a weak harmonization of E minor takes place while the final melodic note is held over four beats, overlapping phrase three.

The beginning of phrase three is a continuation of the chain of tonicizations from phrase two. The progression in this phrase returns to the circle of fifths motion seen in phrase one. From m. 20 the phrase continues in E minor to the end of the movement, although the first root position, metrically-emphasized tonic triad does not occur until the cadence in m. 25. This ending in E minor is quite unusual given that the movement began in A minor. For the first time in the movement, the last six and a half measures introduce harmonies in addition to tonic and dominant chords in root position. The few inverted chords

before this point are found in the cadential extensions of phrases one and two. Despite the expansion of harmonic language, the progressions are still conservative and formulaic.

### Motives and Structure

In this movement, the use of intervallic motives generally coincides with structural framework more clearly than in many of Geminiani's works. The *Andante* contains two primary motives, the second one derived from the first, that are discussed in the following paragraphs. Each motive consists of four eighth notes that cleanly partition measures into equal parts. Consisting of scale fragments, the figures lack a distinctive motivic quality.

*Motive one*, a stepwise descending fourth, is the most prominent motive in the movement. It is introduced immediately in the parallel thirds of the violins (m. 1). The unaltered descending stepwise fourth appears frequently in all voices and phrases, serving as a central point of unification. The motive also appears in inversion, extended, rhythmically augmented and, on one occasion, decorated. In m. 1, the motive is immediately followed by its inversion, creating the shape of an inverted arch. This pattern is immediately repeated and followed by another two-measure segment transposed up a third (Fig. 3-3).

Figure 3-3: Violins, mm. 1-4

This two-measure segment is transposed once again at the beginning of the second phrase (mm. 9-10), and its appearance provides a parallel between phrases one and two.

*Motive two* evolves through the gradual transformation of an inversion of *motive one* (Fig. 3-4). The first alteration of *motive one* occurs in the second half of m. 4. Instead of completing a full ascent of a tetrachord, the final note descends one step. *Motive two* (m. 5) consists of an ascending stepwise fragment of a third followed by a descending leap of a third. This new figure dominates mm. 5-8, just as *motive one* controlled the first four measures. *Motive two* is treated with very little variation, appearing in retrograde less than five times in the movement and in retrograde inversion once.

Figure 3-4: Evolution of *Motive Two*

In phrases one and two the first and second parts are differentiated by the presence of the first or second motive. However, phrase two is different in size and proportion, and the smaller divisions are defined by the placement of motivic material. Instead of four-measure divisions, *motive one* is used in the first two measures, and *motive two* in the next three. The final measure is a cadential phrase extension.

In phrase three the motives do not partition structural segments. *Motive one* does not return in the form of the two-measure pattern that opens the first two phrases. Instead, *motive one* occurs in the stepwise scale fragment that appears as structural pitches in longer note values. In the first violin (m. 16), the tetrachord begins on the note b<sup>7</sup> and descends to F<sup>#</sup>, this time in half notes. This descending fourth is imitated in the second violin, beginning on the pitch C in m. 17, with the final note G (m. 20) delayed by a suspension. *Motive one* also appears in the continuo part, reinforcing the second violin in parallel intervals of a third (Fig. 3-5).

The image shows a musical score for four instruments: Violin I, Violin II, Viola, and Violoncello. The music is in G major and 3/4 time. The score spans measures 16 to 20. Annotations include 'motive 1 fragment' and 'mot. 1 extension' with arrows pointing to specific notes and intervals across the staves. The Violoncello part consists of whole notes, while the other instruments have more complex rhythmic patterns.

Figure 3-5: *Motive One* in Phrase Three, mm. 16-20

In the viola, the stepwise descent is extended to the interval of seventh, providing a filler between the first three structural pitches. Shorter fragments of *motive one* provide ornamentation to the extended, half note treatment of *motive one* in the violin parts. There are only isolated occurrences of *motive two* in the final phrase.

### Other Unifying Features

The cohesive function that is usually given to more distinct motivic material is achieved in this movement by other compositional techniques. Geminiani makes use of articulations, dynamics and scoring, sequences, repeated references to specific pitches, and general melodic contour to successfully create relationships and the sense of an organic entity.

Articulation is a very frequent unifying technique in this movement. *Motive one* is notated, from the beginning of the movement, with a pair of two-note slurs. In Geminiani's time these slurs would have had a distinctive swell and more separation due to the aesthetic preferences in period performance practice and the nature of the Baroque violin and bow. As a result of this treatment, the slurs independently acquire a motive-like function. Modern performance would result in a more legato interpretation, with less distinction between the slurred units and longer articulation on separate notes. The earlier interpretation would have provided elements of unity, particularly auditory associations between slurred but otherwise contrasting melodic material, which would not be experienced today.

A sense of unity is experienced by the listener when similar phrases contain the same textural arrangements. For example, the manner in which the composer scores the *Andante* affects unity, creates dynamics, and provides a level of excitement. Successive alternation of concertino and tutti scoring generates terraced dynamics, and indicates parallels between the first two phrases. Sudden changes in scoring delineate the beginning of new phrases.

In this piece, the use of sequences provides a varied statement of the same material, creating a sense of cohesiveness. Some sequences last for several measures, such as those that propel the second half of phrases one and two towards strong cadences. Shorter sequential events lend local coherence to individual parts. In the original version of op. 3, sequences are more numerous, consistent, and sometimes longer than in the revised version (Fig. 3-6).

The image displays two musical excerpts for Violin I. The top excerpt, labeled 'c. 1755' and '1732', shows measures 26-26. It features two staves: the upper staff (Violin I) has a treble clef, a key signature of one sharp (F#), and a common time signature (C). The lower staff (Violin I) has a treble clef, a key signature of one sharp (F#), and a common time signature (C). The bottom excerpt, labeled 'c. 1755' and '1732', shows measures 5-8. It also features two staves: the upper staff (Violin I) has a treble clef, a key signature of one sharp (F#), and a common time signature (C). The lower staff (Violin I) has a treble clef, a key signature of one sharp (F#), and a common time signature (C). Both excerpts show a sequence of notes in the upper staff that are mirrored or related in the lower staff.

Figure 3-6: Comparison of Sequences in 1732 and c. 1755 Versions

The repeated use of pitch sets provides a cohesive function by relating parts of the movement to one another in a number of situations. For example, in the first violin the first four notes (E-D-C-B) match the first note of each measure in the second half of the phrase (mm. 5-8), linking the contrasting parts of the phrase. In m. 8, the same set of pitches is inverted, ascending from the pitch B. Measure 12 contains the inverted pitches of m. 8. The pitch collection reappears again near the end of the movement (m. 25). Other recurrent pitch sets include B-A-G-F-sharp, and A-G-F(-sharp)-E.

A final compositional feature involving overall contour creates a concealed, compelling relationship between the three phrases. In phrase one the range of pitches (in relation to the first violin line) is rather narrow, with a very subtle arch-like contour. Phrase two has a more dramatic arch shape, starting low, rising for most of the phrase, and falling again right at the end. The third phrase begins quite high and the range falls. A transient rise in the middle of the phrase gives way to a final descent, an interval of an eleventh lower than the beginning of the phrase. The increasingly larger amplitude of contour in each of the three phrases gives a different picture of their relative weight in comparison to other musical features. For example, the ranking of the relative weight of phrases from longest to shortest duration is: phrase three, phrase one, phrase two. Ranked from most to least symmetrical, the order is: phrase one, phrase two, phrase three. In terms of the amount and size of fluctuation in melodic contour, phrase three shows the most activity, followed by phrase two and phrase one.



### Interaction of Elements

The intersection of motive and form, motive and harmony, and form and harmony contribute stability to the erratic structure of the movement. Geminiani makes use of compositional techniques that develop an effectual, cohesive movement, not just in isolation, but also in correspondence with one another.

The link between motive and form in the *Andante* has been discussed earlier. *Motive one* is the basis of the first part of each phrase. Phrase one establishes a two measure pattern of the motive and its inversion, which is immediately repeated. Phrase two begins with one occurrence of the pattern. In phrase three the first four measures are defined by the primary motive, here underlying all four voices.

The second part of the first two phrases is related to *motive two*. In phrase one this motive occurs in four measures (mm. 5-8). Phrase two features the new motive melodically in three measures (mm. 12-14), and in the viola in the following measure. In the second part of phrase three, the derived motive is less widespread but appears prominently in m. 20 and m. 25.

In phrase two, the expanded role of motive has a unifying function. The motive typically appears in the same manner as in the first phrase, and its function is the same with one exception. In m. 16 the descending fourth in the violin II and viola lines is less prominent melodically, instead it persists through the cadence and, in a sense, connects the two phrases by means of an elision.

The two motives are also linked to the style of harmonic progression used. In areas corresponding to alternation of the primary motive and its inversion, the

harmonic progression always consists of a simple alteration of root position tonic and dominant harmonies. Key areas last two measures and are followed by an abrupt change of key. The derived motive appears in conjunction with chains of tonicization, usually in sequence or following a circle of fifths progression. The final seven measures of the movement, during which both the primary and derived appear concomitantly, the harmonic material proceeds naturally and smoothly without modulation.

The link between harmony and form is especially noteworthy, with shifts of tonal area coinciding with the main divisions of structure. Phrase one, despite its instability, begins and ends in A minor. Phrase two is clearly separated from its antecedent by its unprepared beginning in E minor, and it cadences in B minor, a key different from that in which it began. The third phrase not only contains distinct melodic content, it also has a very different harmonic arrangement from the previous two. Beat one of phrase three falls on a weakly established E minor chord, the result of a tonicization one-eighth of a beat earlier. The first several measures do not settle into any key, passing through a compact circle of fifths progression. The rest of the phrase remains in E minor, ending on a half cadence. Despite the extended stretch of a single key, tonal instability is generated by the use of inversions, weak metric placement of the tonic. The conclusion of the movement in a key different from that in which it began epitomizes the peculiar, erratic plan of the movement in general.

Structural and harmonic parallels exist in the design of all three phrases. Phrases one and three both end with a half cadence in their opening key.

Phrase one and phrase two have a harmonically supported antecedent-consequent relationship that is echoed in the self-contained two-part structure of phrase three that results from its phrase extension. All three phrases are characterized by tonally stability or aurally well-organized harmony at the beginning and less settled harmonic content in the second part of the phrase.

### **Violin Sonata, op. 4, no. 10, I**

#### **Background and Form**

While a majority of the sonatas in Geminiani's op. 4 are written in the same four-movement, slow-fast-slow-fast form as the concerti grossi, this sonata departs from the Roman *sonata da chiesa* tradition by omitting the slow third movement. In light of the general brevity of the slow middle movements in op. 4, the three-movement model is not really a momentous departure from the form of the other sonatas.

The first movement, *Andante*, features an altered rounded binary form (ABA'), one of the most common forms employed by Geminiani in op. 4 (Appendix A). The A section, which is repeated, concludes in m. 14, and the B section follows in mm. 15-32. Section A', mm. 33-52, begins with the same material as A, but diverges after only four measures, alternating between ideas related to the A and B sections and new materials. The modifications of the standard ABA form in this movement are common in other works by the composer, although many similarly structured movements lack the repeat of the

first section. Because of the complexity of the music, the first A section will be discussed in detail and considered a reflection of the remainder of the movement, to be commented on at a more general level.

The A section consists of four capricious phrases, asymmetric in quality, and built from short, prominent motivic patterns that are combined, extended, and varied to produce thematic development. The phrases are arranged in two antecedent-consequent periods: period one, with phrases occupying mm. 1-5, and m. 6 to m.8, beat 1; and period two, with phrases in m. 8, beat 2 to m. 10 and mm. 11-14. The lengths of the phrases—16, 7, 8, and 12 beats respectively—are evidence of their unbalanced nature (table 3-1).<sup>18</sup>

<b>PERIOD 1</b> 23 beats			
Phrase 1 16 beats		Phrase 2 7 beats	
Sub-phrase 1 5 beats	Sub-phrase 2 11 beats	Sub-phrase 1 4 beats	Sub-phrase 2 3 beats
<b>PERIOD 2</b> 20 beats			
Phrase 3 8 beats		Phrase 4 12 beats	
		Sub-phrase 1 6 beats	Sub-phrase 2 6 beats

Table 3-1: Structure of Section A (op. 4, no. 10)

<sup>18</sup>Due to the difficulty of counting measures given the properties of the score, beats will be used as units in reference to smaller structures.

Further divisions within phrases reveal more asymmetry at the sub-phrase level. There are two smaller musical “gestures” within phrase one (mm. 1-5). The first gesture is five beats, and the second gesture, lengthened by an internal extension, is eleven beats including the empty beat at the end of the phrase. The consequent phrase of period one is much shorter than its antecedent phrase of seven beats. This second phrase is composed of two gestures, one lasting four beats, the other three.

The structural balance of period two is in contrast to that of period one. Whereas the first phrase is longer and the second phrase shorter in the first period, in period two the order is reversed. Phrase three is eight beats, while phrase four lasts for twelve. Only the final phrase of period two has internal gestures, both of equal length (six beats).

Phrase structures in the rest of the movement maintain the asymmetrical character established in section A. Section B has five phrases of unequal length. Saturated with persistent elisions, few of the phrase or period components in this middle section are distinguished by distinct boundaries. The A' section, as mentioned previously, is not a literal replication of the A section. The first phrase is repeated verbatim, with the exception of a diminution of the final two beats. The remaining material is essentially based on what has already been heard, but extensions, variations, and a multitude of elisions make the exact structural divisions ambiguous and erratic. A clearly delineated, nineteen beat phrase with a quantity of new material ends the movement.

## Harmonic Features

The harmonies and chord progressions in this movement are generally traditional, though the music passes through several key areas in close proximity (Fig. 3-7). The movement begins in A major and, predictably, modulates to the dominant key (E major) before the end of the first section. Section B does not remain in this key, but immediately returns to A major. The first measure of section B (m. 15), is melodically identical to m. 6 in section A, already recalling its original situation in the A major, and D natural imposed on the E major harmony in m. 16 solidly verifies the return to A major.

Section:	<b>A</b>	<b>B</b>						<b>A'</b>
Key:	<b>A</b>	<b>E</b>	<b>A</b>	<b>D</b>	<b>b</b>	<b>f#</b>	<b>c#</b>	<b>A</b>
Length (mm.):	(9)	(6)	(6)	(1)	(2)	(2)	(7)	(20)
					$V-i$	$iv-V-i$	$V-i$	$iv-V-i$
					$iv-V-i$	$iv-V-i$	$iv-V-i$	$iv-V-i$

Figure 3-7: Harmonic Plan of Movement I (op. 4, no. 10)

In the B section the stability of keys following the opening six measures in A major begins to weaken. A tonicization of D major in mm. 21-22, is immediately followed by an unprepared tonal area of B minor. B minor moves to F# minor two measures later using the chord progression  $iv - V - i$  (mm. 23-26). The B minor chord provides a link for a modulation to F# minor by serving as  $i$  in B minor and  $iv$  in F# minor. A similar  $iv - V - i$  progression in F# minor occurs from mm. 24-26, initiating a key change to C# minor. The progression in C-sharp

minor is traditional, with the exception of a short span in mm. 28-29. Here the somewhat unwieldy progression (VII—III—iv) may also be heard as a brief, inset A major deceptive cadence (I—V—vi). This suggestion of A major anticipates the sudden shift back to that key at the reprise in m. 33 for the remainder of the movement.

### Motives and Structure

The identification of formal structures in this movement is challenging largely because of the nature of motivic materials. Geminiani uses conceptual shapes as motives instead of specific patterns that create distinctive, familiar features in the music. Asymmetrical phrases are built from many small, uneven motivic pieces, and melodic patterns seem to have more local relationships than long-term ones. This somewhat abstruse construction and motivic treatment increases the difficulty of identifying the organizational relationships within melodic material.



Figure 3-8: The Three Motivic Ideas of Movement I, and Elisions

This movement contains three such conceptual motives (Fig. 3-8). *Motive one* can be characterized as descending stepwise motion. Treatments of the

motivic idea, including permutation, ornamentation, inversion, extension, and overlying another motive, make it more difficult to identify. *Motive two*, ascending arpeggiations, is usually associated with *motive one*. For example, in phrase one the first gesture consists of *motive one* (descending) appended by *motive two* (ascending). The same kind of relationship occurs in mm. 8-9, but is extended to a more dramatic range of over two octaves. *Motive two* is generally recognizable when it is varied through inversion and permutation. Although less prevalent, a third motive of neighbor group figures is also present. This motive operates primarily as a static element or a drone over which the first motive appears in inversion.

The way in which the three motives are combined is unpredictable and asymmetrical, resulting in phrases which are equally as irregular. The use of elision is one way in which ideas are linked, and one of the most distinctive features of the movement. The elisions occur between both small gestures and larger phrases. The first occurrence of *motive one* overlaps with the following occurrence of *motive two* on the final sixteenth of beat two, m. 1. The next gesture begins with *motive two* (m. 3), which elides another statement of *motive one*, and is appended by a longer chain of elisions (Fig. 3-8). In an elision at the beginning of phrase two (m. 6), two notes are shared. The first five notes, a descending stepwise fifth, represent *motive one*. The final two notes of this figure are also the first two notes of the initial occurrence of *motive three*.

Elisions between phrases are especially operative in the asymmetrical construction of the movement. An example is found between two phrases in



section B (mm. 18-20 and mm. 20-22). The cadence of the first phrase is ambiguous. The phrase cannot conclude on the thirty-second note immediately before m. 20 because the rhythmic placement is much too weak. The final statement of *motive three* (m. 19) does not represent the end of the phrase because the high G-sharp does not provide a resolution. Therefore, the high A on beat one of m. 20 represents both the end of the previous phrase, and the beginning of the next, creating a seamless, obscured connection between two otherwise unrelated phrases.

Geminiani's persistent use of another technique to relate melodic material is a distinguishing feature in much of his work. Motivic material that ends one unit is often employed at the beginning of that which follows, linking them together in a chain-like and usually asymmetrical fashion without the use of elision. Examples of this technique occur on the level of gestures, phrases, and sections. The first gesture of the movement concludes with a statement of *motive two*, while the following gesture commences with a very similar statement of the same motive. On the phrase level, the first phrase ends, and the second begins, with the descending figures of *motive one*, even reflecting the same high point on the pitch B. The same type of relationship occurs on the next hierarchical level, with section A ending and section B beginning with *motive one* material (Fig. 3-9).



Figure 3-9: Related Motivic Materials Concluding Section A and Beginning Section B, mm. 11-15

Equally compelling is the fact that the final phrase of section A and the first phrase of section B begin with a descending stepwise fifth using the same pitches. This relationship is disguised by the omission of the fourth degree in mm. 11-12, a parallel to the seemingly negligible grace note that serves as the fourth degree in the opening notes of the movement. Incidentally, both the second phrase and the second section of the movement begin with identical material.

### Other Unifying Features

Geminiani uses other compositional techniques to unify his diverse motives and create the feeling of a cohesive movement because of the erratic nature of motives and phrases. Melodic contours, fostered by the nature of the motives, give inconsistent structures a sense of balance on both local and large scales. *Motive one* generally descends by step, in effect falling forward or dropping. *Motive two* balances the first with its ascending motion, and *motive three* extends time with little motion and creates a static layer over which the first motive can build.

Repeated reference to specific pitches links materials that would otherwise be obscure and easily overlooked. In this movement, descending motion from a high B is especially prominent, and also important is stepwise descending movement from E to A, with ambiguity or omission of either the fourth or fifth degree (Fig. 3-10).

The musical score for Figure 3-10 is presented in two staves. The first staff contains measures 4-12, and the second staff contains measures 23-42. The key signature is D major (two sharps) and the time signature is 3/4. The annotations for the first staff are: mm. 4 and 35 (extended to a 7th), mm. 6 and 15 (trill, extended to a 7th), mm. 7-8 (permutation, extended to a 9th), mm. 11-12 (no 4th degree, trill, no 4th degree). The annotations for the second staff are: mm. 23-24 (shortened to a 4th), mm. 30-32 (ornamented, diminished fifth, ornamented, extended to a 7th), and mm. 41-42 (ornamented, extended to a 7th).

Figure 3-10: Repeated Pitch Reference—Descending Stepwise Motion from the Same Note

Sequences and articulations are used intermittently to define and add clarity to motivic relationships. The first sequence occurs in phrase one, with a complete measure restated one diatonic step lower. While creating an association between melodic statements, this treatment also gives rise to a phrase extension, creating the longest phrase in section A (Fig. 3-8). A second sequence takes place in the third and fourth phrases of section B. The initial measure of the third phrase (m. 20) is repeated a step higher at the beginning of the fourth phrase (m. 23), with the intervening material omitted. Within both of

these sequences the interval of a fourth, a span of *motive one* that maintains significance throughout the movement, is emphasized by a four-note slur.

In conjunction with the three melodic motives, Geminiani also employs a rhythmic motive to create relationships. This rhythmic pattern of a dotted note followed by three notes of faster value is especially important in unifying the movement. The first instance occurs in the four-note slurs of the descents from the pitches B and A in mm. 3-4. The rhythmic motive, and close variations of it, is used to relate similar motivic shapes, as well as dissimilar patterns (Fig. 3-11). The rhythmic motive is one of the strongest unifying devices employed because of its ability to relate otherwise disparate segments of the melody.

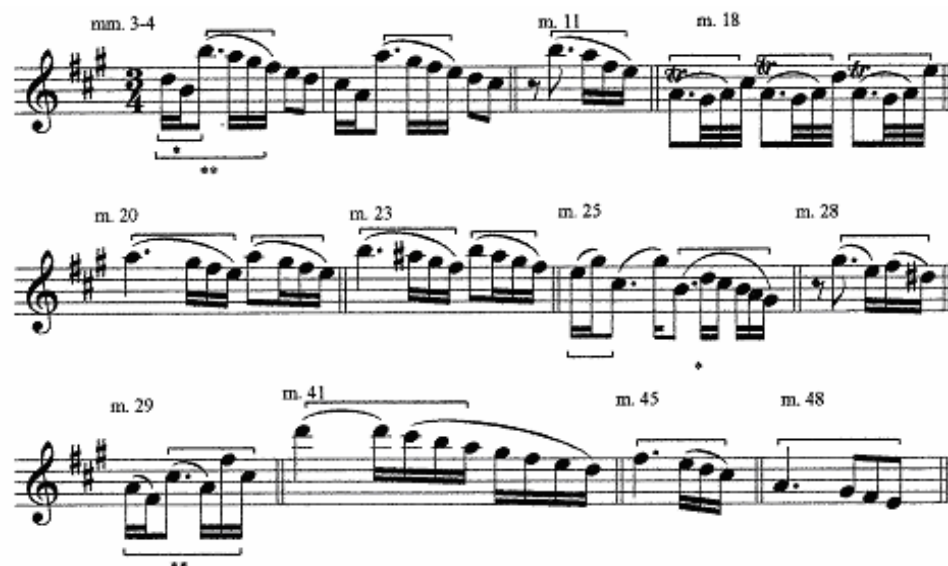


Figure 3-11: Several Occurrences of the Rhythmic Motive

### Interaction of Elements

The interaction of elements to create unity is less apparent in this movement than in others previously analyzed. Motivic material and harmony are generally independent from one another. One small relationship is found in section B. In m. 20 a descending stepwise fourth merges with the rhythmic motive, starts from A and appears over the tonic chord in A major. When the figure is sequenced a step higher in the following phrase (m. 23), the descent begins from B, and the key is transposed one step higher as well, to B minor. Some parallels exist between motive and form. *Motive one*, in the form of a descending fifth, marks many important points in the form, such as the beginning, phrases two and four, the start of section B, and the reprise. *Motive one*, as a descending stepwise fourth, ends section A and the movement, and highlights the related fourth and fifth phrases of section B. *Motive three*, in its strongest prominent form, is associated with section B. After four measures of the reprise in section A', the appearance of *motive three* in mm. 38-39 parallels mm. 18-19 and suggests a similarly abbreviated repeat of section B. Relationships of harmony and form are essentially traditional, with a shift to the dominant key before the second section, the majority of tonal center shifts in section B, and a return to the tonic at the reprise.

## CHAPTER FOUR

### COMPARISONS BETWEEN CORELLI AND GEMINIANI

A comparison of the sonatas and concerti grossi of Geminiani and Corelli will reveal common characteristics and distinctive features that define the respective styles of the composers. It is the intent of this discussion to recognize any unique elements in Geminiani's style that separate him from the influences of his teacher and the traditional practices of the late Baroque era. A comparative analysis of the two composers will consider elements discussed in the previous chapter—form, harmony, motive, and other unifying features.

#### Form

A distinct difference exists between Geminiani and Corelli in their compositional treatment of form. Most of the movements in Geminiani's music adhere to a one-part, binary, rounded binary, ternary, or rondo form, although the forms are often difficult to detect due to the almost rhapsodic nature of melodic and harmonic material. The sonata movement discussed in chapter three is classified as a rounded binary form, although the return of the truncated A

section is followed by additional material that is not found in the first section. In contrast, Corelli is innovative in his approach to movement form. In the first movement of his op. 5, no. 1 violin sonata, the complex composite design (ABCA'B'C'D) resembles two linked movements: a complex, six-part slow movement; and a fast, contrapuntal second movement (Appendix A). The distinct sections in this movement are distinguished from one another by the use of different tempi and time signatures (Table 4-1).

Large Section	Intermediate Section	Motivic content	Tempo	Meter	Principal Key(s)	mm.	Length
A	a	a	Grave	c	D Maj.	1-2	2
	transition		Allegro	6/8	D Maj.	3-9	7
	b	b <sup>1</sup> , b <sup>2</sup>	Adagio	c	A Maj.	10-14	5
A'	a'	a	Grave	c	A Maj.	15-16	2
	transition'		Allegro	6/8	A Maj.	17-23	7
	b'	b <sup>1</sup> , b <sup>2</sup> , b <sup>3</sup>	Adagio	c	E-D Maj.	24-35	12
B	c	xyz	Allegro	c	D Maj.	36-96	61

Table 4-1: Structure of Corelli's Violin Sonata, Op. 5, no. 1, First Movement

In phrase and sub-phrase structures within movements, the conservative inclinations of Geminiani are abandoned, while Corelli's style shows a tendency towards more regular structures. Geminiani often uses unconventional phrases based on asymmetrical motives and gestures, and he depends on auxiliary techniques to provide a satisfactory sense of equilibrium. The irregular phrases and gestures of the Geminiani sonata are illustrated earlier in Table 3-1. In the third movement of his op. 3, no. 3 concerto grosso, the motives and gestures of the first two phrases, are essentially symmetrical, as is the construction of phrase one (4+4+1). However, the symmetry in phrase two is obscured by using the

gestures in different quantities. The first gesture is repeated two times, not four, and the second idea occurs three times instead of four, contributing to the asymmetry. The final melodic note of the phrase is sustained into the next measure, causing phrase three to begin in the middle of the measure. Phrase three contains new and irregular gestures and elisions that make the phrase uneven and unpredictable.

Corelli's phrases are not always symmetrical, 4+4 structures either, but the rhythmic and melodic simplicity of the sub-phrases allows them to maintain clear relationships. The fourth movement of Corelli's op. 6, no. 3 concerto grosso is an excellent example of the way he creates associations between phrases (Appendix A). The first section of this movement is very regular, with a phrase structure of *aaa'a'aabb*. The second section, *cc'a"aa"cc'dd*, is less symmetrical. In contrast to the emphatic balance of the sixteen-measure double period of the first section, the second section begins with a nine-measure period distorted by phrase extensions and a chain of suspensions. A series of asymmetric phrases connected by elisions and a period with five-measure phrases and a cadential extension ends the movement. Within the asymmetrical form of the second half of the movement, a sense of clarity is achieved through extensive melodic relationships and metric regularity of the concise motives.

### **Harmonic Features**

Geminiani's treatment of harmony was the subject of much criticism, his expansion of harmonic principles purportedly beyond the boundaries of what was



familiar and accepted at the time. Corelli, on the other hand, was praised for his adept use of harmony.

The harmonic structures used by both composers are, in general, traditional and uncomplicated, though there are many exceptions. Fairly vast key schemes are found in many of Corelli's composite movements, such as the sonata movement illustrated in Table 4-1 (op. 5, no. 1, I). Key changes are numerous, and in some sections the shifts occur within a relatively close proximity. The key changes are quite logical in context, however, because the melodic material and structural divisions correspond closely with the key changes, the variety of key areas is limited to a few closely related tonalities (D major, A major, E major, and B minor).

Geminiani may use as many key areas in a simple movement as Corelli does in his large composite structure. The third movement of the concerto grosso by Geminiani contains a very unusual harmonic scheme that begins and ends in a different key (Fig. 3-2). Numerous tonal areas are suggested in the three phrases between the beginning (A minor) and the ending (E minor) sections. According to our modern conception of "modulation," tonal centers must be sustained for a period of time to be considered a true modulation. In the analysis of this brief movement, four modulations and two circle of fifths progressions occur. However, in seventeenth and eighteenth century practice much shorter sections, such as two chord tonicizations, were recognized

modulations.<sup>19</sup> In view of this perspective, the short movement could be deemed to contain as many as fifteen “modulations” resulting in a total of sixteen key area events. The variety of key areas represented is far greater than in the Corelli sonata.

Geminiani was admonished both for excessive modulations and for often abrupt, unusual transitions to those modulations. Some of the modulations are abrupt, such as the mediant related modulation which occurs in conjunction with a transposition of melodic material between mm. 2-3 in the op. 3, no. 3, III, concerto grosso. A rapid succession of keys occurs in the first movement of the op. 4, no. 10 violin sonata. Three key areas, A major, D major, and B minor, are stated in slightly over two measures (fig. 4-1).

The figure displays two staves of musical notation for the first movement of Geminiani's Op. 4, No. 10 Violin Sonata, measures 20-27. The first staff is in A major (one sharp) and the second staff is in B minor (two sharps). Chord symbols and key signatures are indicated below the notes. The first staff shows chords: I, I<sup>6</sup>, vii<sup>o6</sup>, I, I<sup>9</sup>, V<sup>4</sup><sub>2</sub>, i<sup>6</sup>, V<sup>4</sup><sub>3</sub>, i, i<sup>6</sup>, vii<sup>o7</sup>. The second staff shows chords: i, iv, iv, V, V<sup>7</sup>, V, i, i<sup>6</sup><sub>4</sub>, V, V<sup>4</sup><sub>2</sub>. Key signatures are indicated as A: and b:.

Figure 4-1: Harmonic Analysis of Geminiani's Op. 4, No. 10, Violin Sonata (First Movement), mm. 20-27

Corelli's modulations are virtually always prepared by pivot chords that are diatonic to both the old and new keys. Even many of his brief tonicizations

<sup>19</sup>Thomas Christensen, "The 'Regle d' Octave' in Thorough-Bass Theory and Practice," *Acta Musicologica* 64 (1992): 107.

exhibit smooth shifts, with a pivot chord common to both tonal centers. This treatment is illustrated in the third movement of his op. 6, no. 3 concerto grosso. In the key of F minor, the first change of tonal center occurs on a C minor chord, v in F minor and i in C minor. The next change, to A-flat major, involves a shared D-flat triad, VI in F minor and IV in A-flat minor. An F minor chord, i in F minor and iv in C minor, is shared in the next two tonal shifts to C minor. The only transition in the movement that does not have a pivot chord occurs before B-flat minor in phrase three (mm. 11-12), supporting the idea that the key areas in the final phrase do not represent a shift of tonal area as much as a cluster of tonicizations (Fig. 4-2).

Violoncello

4 6 4 6 6-5 9 8 7-6 9-8 6 9  
 V2 i V2 i V i V5 i b6 V i  
 C min B $\flat$  min F min B $\flat$  min

Figure 4-2: Analysis of mm. 10-13 in Corelli's Concerto Grosso, Op. 6, no. 3 (Third Movement)

Both Geminiani and Corelli rely principally on traditional chord structure and harmonic progressions. Corelli's uniformity of harmonic progression is illustrated in the first movement of the op. 5, no. 1 sonata (Appendix A). Sections A and A' austere assert the common I—IV—V—I progression. Both B sections employ a consistent I—ii—V—I progression, with the final tonic harmony

becoming the subdominant harmony of a new key. The fugato section is characterized by the progression I—ii—V—I—vi—ii—V—I.

Geminiani primarily uses traditional harmonic progressions, however he is more likely than Corelli to regard the patterns as a point of departure instead of a rigid formula. The progressions Geminiani uses in the violin sonata consist, for the most part, of the same familiar harmonies. However, the progressions are not consistent, the harmonic rhythm is variable, and standard progressions are interrupted by the interjection of extra chords or additional inversions of a repeated harmony. The nature of Geminiani's progressions can be observed in the sonata's first phrase (Fig. 4-3).

Violoncello

A: I IV<sup>6</sup> IV<sup>6</sup><sub>4</sub> I ii<sup>4</sup><sub>2</sub> V<sup>6</sup><sub>5</sub> I I<sup>6</sup> IV V<sup>6-5</sup><sub>4-3</sub> vii<sup>06</sup><sub>/V</sub> V<sup>6</sup>

Fig. 4-3: Harmonic Analysis from the First Phrase of Geminiani's Op. 4, No. 10, Violin Sonata (First Movement)

The first two and a half phrases of the concerto grosso by Geminiani (op. 3, no. 3, III) are comprised almost entirely of the fundamental i—V—i (or V—i) progression. The stable effect of the traditional progression, however, is undermined by the preponderance of tonicizations. Chains of V—i progressions provide a destabilizing effect by creating harmonic “cells” from various tonal centers.

## Motives and Structure

The motivic writing of Corelli and Geminiani contain definitive features that distinguish their styles. On a very basic level, the two composers seem to perceive differently the fundamental definition or function of the motive. For Corelli, a motive is a reasonably fixed figure which, in its recurring form, holds an importance throughout a piece. For Geminiani, a motive is a smaller, conceptual idea which may contain various configurations. In the discussion of his sonata, the motives were identified as a descending stepwise motion contour, ascending arpeggiation, and neighbor groups.

Motivic ideas used by Geminiani are usually shorter than those of Corelli. Whereas one motivic idea constitutes an entire phrase or sub-phrase in a work by Corelli, the younger composer's melodies are created cumulatively by stringing together multiple motives to fill the phrase (Fig. 4-4).

The figure contains two musical staves. The top staff is for Geminiani's Violin Sonata (Op. 4, no. 10, I) in 3/4 time. It shows a single phrase labeled 'Phrase 1' composed of several smaller motives: 'Motive 1', 'Motive 2', 'Mot. 2', 'Mot. 2¹', 'Mot. 1', and 'Mot. 2'. The bottom staff is for Corelli's Violin Sonata (Op. 5, no. 1, I) in 3/4 time. It shows two sections of a phrase: 'Phrase 1, Section a' and 'Phrase 1, Section b'. Section a is labeled 'Motive a' and section b is labeled 'Motive b¹'.

Figure 4-4: Contrasting Nature of Motive Use in Melodies by Geminiani and Corelli

As a result, each phrase in Geminiani's music may contain a different melodic configuration. This creates a more spontaneous musical line which does not have the predictable, organized character of Corelli's consistent melodies.

The motivic materials of Geminiani develop into melodies that are more dense and elaborate than those of Corelli. This contrast is illustrated by a comparison of the opening gestures in the slow third movements of the concerti grossi by both composers referenced in this chapter (Fig. 4-5).

The figure displays two musical staves for Violin I. The top staff is for Geminiani's Concerto Grosso (Op. 3, no. 3, III), showing a complex, rhythmic melodic line with 'Soli' and 'tutti' markings. The bottom staff is for Corelli's Concerto Grosso (Op. 6, no. 3, III), showing a simple, slow melodic line. Both are labeled 'Sub-phrase 1'.

Figure 4-5: Contrasting Nature of Motives in Concerti Grossi by Geminiani and Corelli

In Geminiani's music, note values tend to be faster, rhythmic durations mixed, performance instructions (i.e. ornaments, articulations, etc.) more detailed, and melodic contours more vigorous. Geminiani uses elisions frequently and unpredictably, shows little consideration for the traditional metrically strong and weak beats, and shortens or lengthens repeated passages. Small, motivic gestures may be whimsically inserted between broader structural pitches in the

phrase. All of these factors contribute to the ambiguity and asymmetry of structure in his music.

While Geminiani was accused of a lack of creativity, Corelli's melodies are far more structured and formulaic. Hawkins stated, in reference to Geminiani, "Notwithstanding the fine talents of a musician Geminiani possessed, it must be remarked that the powers of his fancy seem to have been limited."<sup>20</sup> A number of melodic and rhythmic motives appear consistently in almost all of Corelli's works (Fig. 4-6).

The image shows a musical score for an excerpt from Corelli's Op. 1, no. 3, I (Grave). The score is divided into two systems. The first system includes Violin I, Violin II, and Violoncello staves. The second system includes Violin I, Violin II, and Violoncello staves. Various motives are labeled with brackets and text: 'Cadence motive' (three instances in Violin II), 'Ornamented Chain of Suspensions (sequence)' (in Violin I), 'Cadence Motive' (in Violin I), and 'Rhythmic motive' (in Violin II).

Fig. 4-6: Motives that Appear Repeatedly in Corelli's Work in an Excerpt from Op. 1, no. 3, I (*Grave*)

<sup>20</sup>Hawkins, 916.

Many of these motives naturally define predictable phrase structures and inherently lead to strong cadences. The recurrent chain of suspensions pattern, which often appears as a decorated sequential passage, produces asymmetry through phrase extensions; however, the inevitable expectation and predictability associated with this motion adds clarity to the phrase structure.

### **Other Unifying Features**

Geminiani's use of motivic material does not intrinsically promote regular phrase structures, and he often varies his motives to the point that they are aurally obscure. At the same time, he uses other techniques to beget intelligible organization and aural coherence. These unifying features include elision, bowings and articulation, specific pitch relationships, dynamics, rhythm, sequence, and local and general melodic contours. Corelli makes use of the same compositional techniques, but they tend to enhance rather than create the cohesive character of the music. Cohesiveness in Corelli's works is achieved by more immediate relationships of melodic material.

Geminiani uses a compositional technique of linking motivic materials that is very characteristic of his work. Melodic ideas are related in a similar manner to the way harmonic progressions are successively connected in *Guida Armonica*. Motivic patterns that occur at the end of one gesture, phrase, or section are used at the beginning of the next; bass notes at the end of one fragment in the treatise overlap with equivalent beginning of the next fragment. The technique of using motives to link the beginnings and endings of phrases is not seen in the work of



Corelli. Geminiani either molds his small, detailed motives to fit into a pre-existing structure created by harmony, or lets the structure created by melody form randomly without consideration to metric regularity. Corelli works with larger, less detailed motivic units that spread out over the phrase.

### **Interaction of Elements**

The connections between harmony, form, and motive, are a vital factor in coalescing compositional fundamentals into organic musical works. In the Baroque era, the concept of thorough-bass or figured bass was commonly placed at the core of the compositional process. Thus, harmony became a powerful mechanism that intrinsically gave rise to form. In the presence of a strong framework of form and harmony, the melodic material could easily acquire a subservient role, filling in a preexisting framework instead of acting as the primary force for generating the structure.

The interaction of harmony, motive, and form in the music of Geminiani and Corelli contributes to the stylistic identity of the composers. Both composers use motivic material to some degree to define and reinforce movement forms. In the first movement of the op. 5, no. 1 sonata by Corelli, motives are used prominently to clarify form on a large scale. Each part of the compound form is represented by a distinct motive. This type of motivic scheme is not apparent in the simpler movements of Geminiani. Individual motives are not confined to particular sections of the form, and they are used to define and reinforce formal structures to the same degree as Corelli's. The material from the opening of the

movement returns in m. 33 as the reprise of section A, and formal parallels are suggested by the repetition of the beginning of phrase two to start section B after the repeat (m. 15).

In the compositions by Geminiani and Corelli cited in this chapter, both composers use motives to reinforce phrase structures. Geminiani's concerto grosso employs two different motivic patterns; one appears in the first half of the phrase, and the other in the second half. Phrases in the concerto grosso of Corelli are bounded by a specific motive. A second motive extends the length of the phrases, delineating and distinguishing each phrase.

In the concerti grossi of both composers, a comparable motive is used to link phrases in a remarkably similar parallel. Geminiani places a descending stepwise fourth motive in the second violin and viola, a forward-moving figure which ends in an elision with the next phrase, effectively creating an unbroken link between phrases two and three (mm. 15-16). Corelli uses a motive similarly to relate parts of his form. An extended and inverted statement of a descending stepwise fourth motive crosses over the silence between phrases one and two, producing an unbroken connection between them (mm.5-6).

The connection between form and harmony is clear in the work of Geminiani and Corelli, although the relationships between harmony and phrase tend to be more complex in Geminiani's music. Both composers unreservedly craft phrases that begin and end in different tonal areas. The first two phrases of Corelli's concerto grosso (op. 6, no. 3, III) begin in F major and cadence in C minor. A short excerpt from section B of the Sonata by Geminiani not only

illustrates two phrases beginning and ending in different keys, but also demonstrates how quickly he moves through key areas within single phrases (Fig. 4-1).

The way in which motivic material and harmonic features are related is a distinguishing feature between the music of Corelli and Geminiani. The concise motives of Corelli are often cleanly aligned with consistent harmonic progressions, and they appear together regardless of the tonal center in effect. For example, the fugue subject of section B in his sonata always appears in conjunction with the progression I—ii—V—I—vi—ii—V—I, regardless of its treatment or the key area in which it appears. No similar design is observed in the music of Geminiani. On occasion, very short fragments may appear more than once over the same chord progression. An example of such fragments, even appearing in different keys, can be seen in the Geminiani sonata (mm. 20 and 23). However, the unsystematic relationship between tonal areas, chord progressions, and melodic structure is exemplified in Figure 3-9. The unsystematic melodic material hints at the shifting tonal centers, but never decisively correlates with or cadences in most of them, even when chord progressions are similar.

The concerto grosso of Geminiani does reveal some level of connection between motives and harmonic features, though not with the consistent concentration of Corelli. The first motive is associated with distinctive two-measure segments that are distinguished by their different key areas and direct, unprepared key changes. *Motive two* appears in relation to strings of

tonicizations. When both motives occur simultaneously in the final phrase, the key remains consistent and includes only brief, isolated tonicized chords.

### **Conclusions**

A number of distinguishing characteristics of Geminiani's compositional style can be determined by considering comparisons and contrasts made in the course of this chapter. Geminiani is quite conservative with large forms. He generally uses recognized forms for movements as well, although slight alterations are often made. The formal structures can be disguised due to the spontaneity of melodic material. Phrases and sub-phrases are complex, unsystematic, and asymmetric, and the relationships between them are often unclear. His concept of a structural framework in form is based largely on metrically emancipated harmonic principles, not governed by the even configuration of phrases or the nature of melodic material.

Geminiani's use of motive is a unique aspect of his style. His motives are complex, and at times consist of conceptual, rather than fixed, ideas. Because of their instability, motives are often obscure, and their variable manifestations contribute to the unpredictable nature of the music. Geminiani pieces together melodies from these small, motivic bits like patchwork. Harmonic progressions generate form, and melodies subsequently fit into the harmonic structure. This technique is a significant contrast to the form-generating melodies of Corelli.

Cohesiveness in the music of many composers is primarily established by the motivic material. Since the intrinsic connections between Geminiani's

motives and gestures are less likely to create aural relationships, he relies heavily on other compositional techniques to create unity in his works. Such techniques include elision, bowings and articulations, reference to specific pitches, dynamics, rhythm, and local and large-scale melodic contours. One of these unifying techniques is especially characteristic of Geminiani. The linking of adjacent figures is accomplished by the placement of related motivic materials at the endings and beginnings of the adjoining musical units. Sequence is used more often to create localized relationships than as a means of orderly expansion.

While harmonic progressions by Geminiani are generally basic, he frequently departs from the conventional patterns in his work. Progressions are apt to be long and contain fast, inconsistent harmonic rhythm. Tonicizations and shifts of key or tonal area are common, and modulations are frequently unprepared or unorthodox. However, Geminiani does not completely abandon the smooth pivot chord modulations characteristic to the style of Corelli. Harmonic vocabulary is traditional, but progressions tend to be complex, diverse, and, unlikely to recur regularly. Geminiani often interposes additional elements into his protracted progressions, such as nonessential chords and harmonic cells from foreign tonal centers.

Analysis of representative music by Geminiani facilitates the identification of many significant characteristics of his compositional style. Comparison with the music of his teacher, Corelli, highlights unique characteristics of Geminiani's music, elements of his style which may be products of his individual musical

development. The specific musical elements emphasized in this thesis have been selected because of their correlation with the conceptual basis of the *Guida Armonica* treatise. In the procedure imparted by the treatise, harmony is the primary foundation for a piece of music, and out of that framework melody and form arise. With a similar information base established in both musical and theoretical formats of Geminiani, the approaches taken in his music and in *Guida Armonica* can now be compared.

## CHAPTER FIVE

### RELATIONSHIPS BETWEEN THE TREATISE AND THE MUSIC

With examination and analysis of music and treatise complete, results from the two activities will now be considered in order to determine if features of Geminiani's compositional style are demonstrated in or supported by *Guida Armonica*. This relationship determines if the treatise is a representation of Geminiani's compositional style, or whether it is a unique instructive approach to mundane compositional procedure. Relevant features to be examined include harmony, specific chord progressions, form and phrase structure, and the treatment of melodic material.

#### **Form and Phrase Structure**

The compositional method which Geminiani proposes in *Guida Armonica* does not intrinsically allow for regular, cognizant construction of formal divisions in music. The treatise, then, may reflect the asymmetrical way in which his phrases are structured. Cadences within chord progressions created using the

procedures in *Guida Armonica* naturally bring about phrase divisions, and the inclination of these phrase structures is towards asymmetry. This tendency was illustrated in the prototypical musical example created in chapter two (figure 2-1). Any work that is created using this compositional method is naturally predisposed to asymmetry from the foundation of its most basic framework. A parallel manifestation of asymmetry in the music of Geminiani suggests this effect is acknowledged, and possibly predetermined.

The melodies that are created over figured bass lines are equally predisposed to asymmetry because of their obligatory correspondence to the uneven phrase structures that arise from the process in the treatise. Geminiani does not provide a clear explanation of melodic procedure in *Guida Armonica*, a fact attested to by the publication of a supplement a few years later in response to criticisms. However, his own music can be explored for an indication of his approach to composing melodic material. In his work, the piecing together of small, motivic fragments within harmonic structures is like the fitting together of pieces within the frame of a puzzle. These motivic ideas are not pieced together in the same way each time they are used, resulting in contrasting gestures, sub-phrases, and phrases which are not frequently repeated. The often elaborate, usually asymmetric melodies that result are a distinguishing feature of Geminiani's compositional style, a feature implicitly related to the *Guida Armonica* treatise.



## Harmony

Harmonic progressions are undoubtedly the primary focus of *Guida Armonica*. They are also one of the most criticized elements of Geminiani's music. Beginning on a broad musical level, the use of remote tonal areas and modulations in the music of Geminiani and the treatise are easily compared. The treatise implies movement to the mediant (III), subdominant (iv), submediant (VI), and subtonic (VII) keys of a minor tonality. These key areas do seem to be the most prevalent in several minor movements. The relatively infrequent use of the supertonic key in the music of Geminiani is corroborated in the 1951 dissertation of McArtor.<sup>21</sup> The concerto grosso by Geminiani discussed in chapter three largely adheres to this collection of keys. The only exceptions are two tonicizations of the minor dominant in phrase two, the second of which resolves on a major dominant harmony (m. 15).

It is remarkable that Geminiani does not provide any figured bass fragments in the treatise which would effect a shift to the traditional, inevitable dominant key, and he includes only a handful of individual chords that tonicize V (or v). That Geminiani would have either knowingly or unintentionally overlooked the dominant key area, especially in a work intended as a fundamental, didactic compositional method, cannot be explained. It is possible that he would have expected student readers to already be familiar with and proficient in modulation to the dominant. However, Geminiani's intention for this manual to be a guide for

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<sup>21</sup>Marion E. McArtor, "Francesco Geminiani: Composer and Theorist" (Ph.D. diss., University of Michigan, 1951), 307.

the novice is indicated by his assertion that “By observing the foregoing Directions it is impossible for the most Ignorant to Err.”<sup>22</sup>

Parallels exist between the modulations found in the treatise and Geminiani’s music. For example, minor key progressions which prompt a shift to the relative major key (III) in music ordinarily appear in the treatise as well. The first modulation in the third movement of the op. 3, no. 3, concerto grosso is a direct, unprepared modulation to the relative major. The progression, i—III—VII (V/III), appears in the early pages of *Guida Armonica*. The V—I tonicization of the same key in m. 6 follows a V—I tonicization in d minor (iv). The same succession of harmonies, iv—VII<sup>7</sup>—III, is used in multiple treatise fragments. The major key of the op. 4, no. 10 sonata makes comparison with the minor key treatise more complicated and uncertain. However, the shift to the relative minor in this movement employs the progression IV—VII—iii, quite comparable to the IV—VII—III succession which appears multiple times in the treatise. The progression iv—ii<sup>o</sup><sub>5</sub><sup>6</sup>—III<sup>6</sup>—III appears in *Guida Armonica* and in the second movement of another sonata, op. 4, no. 9.

Determining of the existence and degree of direct relationships between Geminiani’s music and potential progressions derived from the treatise is one of the more intriguing questions in this research. It is also one of the more difficult to resolve. In light of the vast spread of repertoire involved, analysis for this project has been limited to a few examples from the most popular music written around the midpoint of Geminiani’s career, before the publication of *Guida*

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<sup>22</sup>*Guida Armonica*, third page of text.

*Armonica*. In examining minor-key movements of the opp. 2 and 3 concerti grossi, progressions can be traced back to the treatise with reasonable accuracy. However, when the tonal center of the music changes for more than a few chords, it often becomes harder, if not impossible, to match the progressions to the music (Fig. 5-1). Movement to major keys, placement of notes in different octaves, and confusion in separating non-harmonic or ornamental notes in the bass line further complicate analysis. The sonatas tend to be more idiomatic and soloistic, making them more difficult than the concerti to compare to the treatise.

Violoncello

1:B2-----4:F2----- (1:B2)----- (4:F2)----- 25:B1----- ???----- 8:I4----- 22:H3-----

Vlc.

10 1:B2----- 4:F2----- 3:F4----- ???----- 32:D1----- 8:I4----- 23:K5----- 30:G4----- 18:F1----- 20:D3----- ???-----

Vlc.

19 ???----- 28:C4----- (17:A2)----- 13:G5----- ???----- 11:K5----- ???----- 11:H2----- 8:J3----- (19:A3)

Figure 5-1: Bass Line of Op. 3, no. 3, III, and Corresponding Treatise Fragments

At times a short harmonic segment in the music cannot be directly linked to the treatise, although the segment is part of another very similar treatise fragment. This logically implies that the progression is acknowledged as a part of

the harmonic vocabulary, but that the treatise does not exhaustively record every harmonic possibility (as Geminiani admitted in the introductory text).

The representation of individual harmonies is impressively complete in *Guida Armonica*, much more so than suggested in the regrettably inaccurate tables of McArtor's 1951 dissertation.<sup>23</sup> The broad vocabulary of the treatise is in line with the forward-looking, permissive harmonic undercurrents of Geminiani's music.

A comparison between chord content of the treatise and the characteristic chord content of Geminiani's music is aided by observations made in the analysis for this thesis and by conclusions drawn in McArtor's dissertation.<sup>24</sup> According to McArtor, root position diminished chords are rare. This is true, although there are many exceptions. Such an exception is seen in m. 7 of the concerto grosso movement discussed in chapter three (op. 3, no. 3, III). In the second movement of the same concerto there are ten root position diminished chords, or almost 1/3 of the movement's total. *Guida Armonica* reflects the moderate proportion of root position diminished chords, with over 200 of the approximately 800 diminished harmonies appearing in root position.

Second inversion chords receive minimal attention. According to McArtor,  $\frac{6}{4}$  is used "almost exclusively" for the tonic.<sup>25</sup> As a broad generalization, this is true; however, exceptions in nearly all of Geminiani's works make this statement difficult to support. The third harmony in the op. 4 sonata analyzed in chapter

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<sup>23</sup>McArtor, 259-260.

<sup>24</sup>Ibid., pp. 120-122.

<sup>25</sup>Ibid., 121.

three is  $IV_4^6$ . In the second movement of the op. 3, no. 3, concerto grosso, four non-tonic second inversion chords appear even before the end of the exposition. The variety of  $\frac{6}{4}$  chords in the treatise is very limited. Almost all of the  $\frac{6}{4}$  chords listed in the *Guida Armonica* database are  $i$ ,  $iv$ , or  $vii^0$ , and the few exceptions can often be explained. For example, treatise fragment 26:K4 employs  $III$  in second inversion as a passing  $\frac{6}{4}$  to maintain a stepwise descending bass line (Fig. 5-2a). Several of the wayward  $\frac{6}{4}$  harmonies are  $i_4^6$  in another key (Fig. 5-2b).

a. A Passing  $\frac{6}{4}$  Chord in Fragment 26:K4

VI<sup>6</sup>    III<sup>6/4</sup>    ii<sup>06/4</sup>    V<sup>7</sup>

b. A  $\frac{6}{4}$  Chord as  $i_4^6$  in Another Key in Fragment 17:B1

d: III    vi<sup>06/5</sup>    V<sup>6-5/4-3/V</sup>    v  
 (v<sup>6/4</sup> — V/V)

a: VI    ii<sup>06/5</sup>    V<sup>6-5/4-3</sup>    i  
 (i<sup>6/4</sup> — V)

Figure 5-2: Some Non-tonic  $\frac{6}{4}$  Harmonies in *Guida Armonica*

McArtor points out the rarity of the progression i-VI, a point that is supported by findings in the treatise. Of the 117 appearances of the VI chord in *Guida Armonica*, only 17 are preceded by a tonic harmony. The percentage of the 89 inversions of VI that follow a tonic chord is only slightly higher, with 33 occurrences in all. Twenty-one of the 64 VI<sup>7</sup> chords are affixed to i.

Another congruence between the treatise and Geminiani's music is the way in which individual harmonies are used in progressions in relation to the surrounding chords. The VI chord will be further explored here as an example of this type of correlation. In the treatise, some chords resolve in a limited and very particular manner. Treatment of the sonority is similar in the music of Geminiani, inferring that the treatise complies with his own preferences in writing harmony. Options for use of the VI chord *Guida Armonica* are generally consistent with the music explored by this author (Fig. 5-3).

Op. 3, no. 3, III

a: V i v<sup>6</sup> iv<sup>7-6</sup> V  
(VI<sup>7</sup>-iv<sup>6</sup>)

Op. 3, no. 4, II

d: i<sup>6</sup> VI<sup>7</sup> ii<sup>6</sup><sub>3</sub> v<sup>7</sup>

Figure 5-3: Representative Treatments of VI in Music by Geminiani

Movement to VI falls almost exclusively into three categories. About half of the VI chords in the treatise follow a major or minor dominant harmony as a

deceptive resolution. A majority of the remaining VI chords follow i or III.

Progressions involving III often function in another key, with VI being tonicized by it (III = V/VI) or performing as part of a I—IV—V progression in the key of F major (d: III—VI—VII = F: I—IV—V). The most common chords following VI are iv,  $ii^{\circ 6}_5$ , and inversions of i. When tonal centers outside D minor (the key of the treatise) are used, VI chords resolve most often to III, IV (V/VII), VII, and  $ii^{\circ}$  (Table 5-1). These progressions are seen often in Geminiani's music (Fig. 5-4).

3:J3	d: F:	I vi	III I	VI IV	VII <sup>4-</sup> V <sup>4</sup>	VII <sup>3-</sup> V <sup>3</sup>
8:E5	d: F:	VI IV	III <sup>6</sup> I <sup>6</sup>	iv <sup>6</sup> ii <sup>6</sup>	VII V	
17:G6	d:	i <sup>6</sup>	v <sup>4</sup>	V <sup>6</sup> /VI	VI	
26:A3	d: F:	i <sup>6</sup> <sub>4</sub> vi <sup>6</sup> <sub>4</sub>	I vi	VI IV	VII V	
27:E1	d: F:	VII V	III I	VI IV	ii <sup>6</sup> <sub>5</sub> <sup>6</sup> vii <sup>6</sup> <sub>5</sub> <sup>6</sup>	i <sup>6</sup> <sub>4</sub> vi <sup>6</sup> <sub>4</sub>
27:I5	d: F: C:	v <sup>6</sup> iii <sup>6</sup> vi <sup>6</sup>	VI IV VII	IV <sup>6</sup> <sub>5</sub> (V/VII) V <sup>6</sup> <sub>5</sub> /IV V <sup>6</sup> <sub>5</sub>	VII <sup>4-</sup> V <sup>4-</sup> I <sup>4-</sup>	VII <sup>3</sup> V <sup>3</sup> I <sup>3</sup>
28:G2	d: F:	iv <sup>6</sup> ii <sup>6</sup>	VI IV	VII <sup>4-</sup> V <sup>4-</sup>	VII <sup>3</sup> V <sup>3</sup>	

Table 5-1: Progressions With VI Outside the Tonic Key

Op. 3, no. 4, I

d: III                  VI                  V/VII                  VII  
 F: I                      IV                  V/V                  V

Figure 5-4: An Example of VI in the Context of a Non-tonic Tonal Center

## The Nature of Motives

The distinctive style of melodic development in the music of Geminiani may also be related to the treatise. Instead of building melodic events in thematic units, Geminiani seems to string together, with different variations and compositional devices, small fragments of motivic content. These fragments are similar in function to the bass line units provided in the treatise, joined together to generate longer segments that function melodically in the piece.

Geminiani's motives are shaped within the asymmetric structures. The small, flexible fragments are sometimes based on conceptual shapes instead of distinct designs, giving Geminiani more freedom to adjust and vary motivic material. Although *Guida Armonica* does not intrinsically yield such motives, they may be seen as the composer's "solution" to the challenge presented in composing within the type of asymmetric harmonic framework the treatise promotes. The sometimes disjointed nature of melodies created in this manner necessitates the use of other unifying techniques as a means of relating, contrasting and balancing melodic material. In his music, Geminiani regularly employs features such as elision, bowings and articulation, specific pitch relationships, dynamics, rhythm, sequence, and local and general melodic contours. Unfortunately, he does not discuss these in the treatise, leaving his readers at a disadvantage.



## Conclusions

Parallels between Geminiani's compositional style and his controversial treatise *Guida Armonica* have not been extensively studied. Since the treatise was published with didactic aims, the possibility that such parallels exist is not guaranteed. Similar historical criticism of harmony directed toward the composer's music and treatise suggests that distinct harmonic concepts may be present in both formats. This study of the treatise reveals not only potential relationships between basic harmonic content and chord treatment, but also correlations between the nature of structure and melody. The asymmetric phrase structures that result from application of the treatise resemble the types of phrases that characterize Geminiani's compositions. The composer's approach to motives and the construction of melody may result from the nature of underlying harmonic structure, and therefore hold an indirect relationship to *Guida Armonica*. Although the treatise has many shortcomings in content and in the conceptual process entailed, it does bring to light the conscious use of distinct elements on the part of Geminiani, as well as an attempt to systematize and record concepts that are part of his unique compositional style.

## **CHAPTER SIX**

### **CONCLUSIONS**

The musical and theoretical works of Geminiani hold an important place in musical history. Today, however, he is a relatively unfamiliar figure, even among musicians. Geminiani was one of the several student “disciples” of Corelli who helped disseminate the Corellian tradition and the general Italian aesthetic of the time to other parts of Europe. Geminiani was given credit for raising the level of musical sophistication and violin technique in England. Often overlooked though, is his contribution through musical compositions and theoretical writings to the evolution of musical style. Hawkins, not as censorious towards Geminiani as Burney even concedes to his significance:

... Dr. Pepusch had prescribed to the students in harmony a set of rules, which no one was hardy enough to transgress; the consequence thereof was a disgusting uniformity of style in the musical productions of the time; ... and all improvement in the science of composition was at a stand.

That we are at this time in a state of emancipation from the bondage of laws imposed without authority, is owing to a new investigation of the principles of harmony, and the studies of a class of musicians, of whom Geminiani seems to have been the chief; and this consideration makes it necessary to resume the account of him, and to

relate, among other particulars, the efforts made by him towards the improvement of the science of harmony.<sup>26</sup>

It seems, after direct examination of Geminiani's music, that some of the injurious criticisms against the composer's music may have been overly harsh. The asymmetric internal structures and rhapsodic quality of melody in much of his music is indisputable. Harmonic shifts or cells of tonicization can be brief, and generally appear in higher concentration than in the music of Corelli. However, most aspects of Geminiani's music are generally traditional, sometimes even remarkably conservative. The legitimacy of attacks on his character cannot be judged, but it is possible that some of the more abrasive statements could be reflective of personal discords rather than musical ones.

The apathy with which the 1752 *Guida Armonica* treatise was met, and the speed with which it was dismissed may be a reflection both of the composer's sinking reputation and of the inherent weaknesses of the unique work. The apparent lack of organization is daunting for any reader, and the terse textual preface and instruction leaves much unexplained. Repeated entries and subtle inaccuracies and ambiguities bring into question the qualifications of the author. The supplement published four years later does shed more light on Geminiani's intent, but still falls far short of a comprehensive instructional method of musical composition.

The value of *Guida Armonica* has never been recognized; because it has received little impartial study, it is less well known and poorly understood in relation to Geminiani's other treatises. An approach to composition and the

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<sup>26</sup>Hawkins, 902.

features of a unique musical style is found in the thousands of figured bass fragments in the treatise, but the data is presented in an indirect manner which can only be interpreted through meticulous analysis. The database created for this thesis begins to reveal characteristics of the resultant compositional style of *Guida Armonica*, and it appears the content of the theoretical treatise and the nature of the method it proposes contain definite parallels to the controversial style of the composer's music.

The compositional style of Geminiani is a product of the time in which he lived, but like all composers, his music exhibits distinctive characteristics specific to his music. In the music of his teacher, Corelli, we find the source of such features as large forms, instrumentation, specific compositional devices, and general harmonic language. In his own music, the metric balance of phrase and melodic structure characteristic of Corelli is largely eliminated, and compensated by other techniques. Melody evolves from the piecing together of small, motivic units. The motives are often flexible, conceptual shapes, not the distinct, phrase- or sub-phrase-spanning melodic shapes of Corelli. Geminiani's harmonic language remains essentially traditional, but harmonic rhythm is accelerated, and progressions become longer and more complicated.

"Modulation" is one of the more controversial topics in regard to Geminiani's music. A shift in the definition of the word over time has complicated the issue today, with the exact meaning of term throughout history being somewhat ambiguous. Regardless of the definition chosen, the prevalence of prolonged key changes, shorter tonal deviations, and brief tonicizations to related

key areas is higher than in the music of Corelli. While many shifts in tonal center are traditional and prepared with pivot chords, a substantial number are abrupt or unconventionally approached.

Comparisons between Geminiani's music and the *Guida Armonica* treatise are practicable in several areas. Chord frequency in each is relatively simple to determine. Ways in which specific harmonies are approached and resolve can be seen in the treatise, and compared to similar passages in the music. The existence of various chord progressions, or identical bass line contours with different harmonizations, can be found in both the treatise and the music. Similar cadential patterns are found uses in his music and treatise. The sources of unusual progressions in the music may be traced to the treatise. Similarly, the inference of non-tonic tonal centers in the treatise and the means by which they are approached can be related to the controversial harmonic modulations in the composer's music.

Relationships between compositions and procedures in the treatise can be made as well. The resultant asymmetric harmonic structures of *Guida Armonica* strongly resemble those in the music of the composer. The realization of basic structural pitches from figured bass and the patchwork-like assemblage of small motivic fragments largely accounts for the irregular, rhapsodic effect of Geminiani's music.

In light of the preliminary comparisons carried out in this thesis, there does seem to be a correlation between the *Guida Armonica* and the music of

Geminiani in relation to multiple musical elements. The degree to which that relationship extends will need to be explored through further study.

Future research can take many directions, some specific to the treatise, and others directed more towards the wider *oeuvre* of Geminiani. It is not completely clear how the treatise might be applied when key changes in the music occur. In many cases, at least when chords are largely diatonic to both keys, preserving the previous key for chord analysis symbols is effective. In other situations this approach does not result in progressions that can be traced to the treatise, but chord symbols in accordance with the new key do provide a continuing course through the interlocking progressions of the treatise. The near absence of the dominant key area in *Guida Armonica* is a weakness in the treatise, counter to common practice of the period and to much of Geminiani's music. It may be that the few progressions leading to the dominant are sufficient to move to that key, and transposition of progressions to the dominant key would provide a convincing continuation. At times there are different paths through the treatise that result in the same underlying progressions. A catalogue of these progressions would provide a better understanding of the concept of larger progression spans. Those supplied directly in the treatise are only brief fragments. It is also unclear within the limited scope of this thesis if the range in which a pitch appears is obligatory, or if there is an option for octave displacement in using the treatise.

A lack of organization within the treatise sections has been pointed out by many critics. Preliminary observations, however, show that currently unidentified

organizational parallels between sections may be present. Many sections begin with similar or identical contours. All five sections beginning with a root position tonic harmony are initiated with a fragment with the root movement D—A—D, and are followed by a number of progressions moving from D to A. Sections with fragments beginning on A always begin with movement to D or A. In the first ten pages of the treatise, five sections out of twelve begin with the same contour: a descending third leap and a diatonic step up. Two more move to that contour after one or two intervening fragments. One section maintains the same basic contour but initially descends by a fourth. The descending third version contour is the third fragment of the section. Two sections beginning on the leading tone of the key must first resolve upward; immediately after the ascending half step the progressions early in the section move down by thirds and fourths, often followed by single step ascents. The two remaining sections begin on D, and therefore move to A.

A thorough study of Geminiani's later works, those in which his style becomes even more idiosyncratic and innovative, is an important project. These works, op. 5, and especially op. 7 and *Inchanted Forest*, were met by more trepidation, not only by music critics, but also the general public. The content and characteristics of these neglected works needs to be recognized and better understood in the context of general musical development of the period. Further study of these, as well as his earlier music, would demonstrate the function and vital importance of non-harmonic and non-motivic unifying techniques. In addition, the understanding of Geminiani's use of melodic contour as a means of

balance, a factor which has received little to no attention in the research literature, could be investigated and established. Most importantly, the existence of parallels between *Guida Armonica* and the more exotic harmonies and structures of these late works would dramatically increase the significance of the treatise for modern scholars.



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## **APPENDIX A**

CONCERTO GROSSO, OP. 3, NO. 3, III

Geminiani

First system of the musical score, measures 1-7. It features three staves: Violin I, Violin II, and Bass. The tempo is marked *Andante*. The key signature has one sharp (F#). The music includes dynamic markings *f* and *p*, and performance instructions *Soli* and *tutti*. The Bass staff contains figured bass notation: *f*, *p*, *f*, *\*3*, *b3*, *7*, *7*, *7*.

Second system of the musical score, measures 8-15. It features three staves: Violin I, Violin II, and Bass. The music includes dynamic markings *f* and *p*, and performance instructions *Soli* and *tutti*. The Bass staff contains figured bass notation: *5*, *7*, *5*, *\*3*, *b3*, *\*3*, *\*3*, *5*, *5*, *5*.

Third system of the musical score, measures 16-22. It features three staves: Violin I, Violin II, and Bass. The music includes dynamic markings *p* and *tutti*. The Bass staff contains figured bass notation: *5*, *9*, *5*, *9*, *9*, *5*, *9*, *6*, *b5*, *6*, *5*, *6*, *\*6*.

Fourth system of the musical score, measures 23-29. It features three staves: Violin I, Violin II, and Bass. The music includes dynamic markings *f* and *tutti*. The Bass staff contains figured bass notation: *\*3*, *5*, *\*3*, *5*, *\*6*, *4*, *4*, *\*3*, *4*, *6*, *5*, *6*, *4*, *6*, *\*3*.

VIOLIN SONATA, OP. 4, NO. 10, I

Geminiani

SONATA  
X

*Andante.*

7

14 (14)

21

28

36

43

CONCERTO GROSSO, OP. 6, NO. 3, III

Corelli

*Grave.*

Figured bass notation for the first system:

♭ 2 6 7 6 4 5 9 8 4 6 6 5 7 6 4 4 5 5 9 8 6 6 9 8 7 6

♭ 2 6 7 6 4 5 9 8 4 6 6 5 7 6 4 4 5 5 9 8 6 6 9 8 7 6

9

Figured bass notation for the second system:

4 4 6 5 5 4 6 4 6 6 5 9 8 7 6 9 6 9 8 4 5 6 5 6 6 4

4 4 6 5 5 4 6 4 6 6 5 9 8 7 6 9 6 9 8 4 5 6 5 6 6 4

CONCERTO GROSSO, OP. 6, NO. 3, IV  
(Concertino Violin I and Violoncello only)

Corelli

The image displays a musical score for the fourth movement of Corelli's Concerto Grosso, Op. 6, No. 3. The score is written for Violin I and Violoncello. It begins with the tempo marking *Vivace*. The music is in a minor key and 3/4 time. The score is divided into six systems, each with a measure number at the beginning of the first staff. The first system starts at measure 1. The second system starts at measure 7. The third system starts at measure 14. The fourth system starts at measure 21. The fifth system starts at measure 29. The sixth system starts at measure 36. The score includes various musical notations such as slurs, accents, and dynamic markings. There are also annotations in parentheses: "(chain of suspensions)" with the sequence "7 6 7 6<sup>♯</sup> 7<sup>♯</sup> 6" below it, and "(cadential pattern)" appearing twice. A "Violin II" staff is introduced in the second system and reappears in the sixth system. The score concludes with a double bar line and a repeat sign.



VIOLIN SONATA, OP. 5, NO. 1, I

Corelli

Violino solo. *Grave.*

Violone e Cimbalo.

*Allegro.*

Tasto solo.

*Adagio.*

*Grave.*

6 4 6 5

3

5

7

10

13

15

4 6 7 6

4 6 5 4

4 6

*Allegro.*

17

Tasto solo.

20

23

25

27

29

32

34

*Allegro.*

36

39

43

46

49

52

55

6 5 6 6 5 5 9 8

Detailed description: This system contains measures 55, 56, and 57. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a bass line with some rests. Fingering numbers are provided for the left hand.

58

4 3 9 8 4 3 7 5 8 6

Detailed description: This system contains measures 58, 59, and 60. The right hand continues with a melodic line, and the left hand has a more active bass line. Fingering numbers are provided for the left hand.

61

4 6 4 6 7 7 6 4 6 3 9 6 # 7 6

Detailed description: This system contains measures 61, 62, 63, and 64. The right hand has a melodic line with some slurs, and the left hand has a bass line with slurs. Fingering numbers are provided for the left hand.

65

*Arpeggio.*

7 6 5 # 9 6 # 9 6 #

Detailed description: This system contains measures 65, 66, 67, and 68. The right hand features arpeggiated chords, and the left hand has a melodic line. The word 'Arpeggio.' is written above the first measure. Fingering numbers are provided for the left hand.

69

9 6 # 9 6 # 9 6 7 3 9 6 7 3

Detailed description: This system contains measures 69, 70, 71, and 72. The right hand has arpeggiated chords, and the left hand has a melodic line. Fingering numbers are provided for the left hand.

73

9 6 7 4 7 6 5 3 6 7 7 7 4

Detailed description: This system contains measures 73, 74, 75, and 76. The right hand has arpeggiated chords, and the left hand has a melodic line. Fingering numbers are provided for the left hand.

77

5 3 6 5 3 5 # 6

Detailed description: This system contains measures 77, 78, 79, and 80. The right hand has arpeggiated chords, and the left hand has a melodic line. Fingering numbers are provided for the left hand.

80

4 2 6 4 2 6 6 5 3

83

# # # #

86

5 6 5 6 5 6 5 6 5 6 5 6

88

5 6 5 6 # 6 5 # 5 4 6 4 2 6 9 8 7 6 5 6

92

*Adagio.*

*Arpeggio.*

Tasto solo.

8 5 9 8 7 7 5 Tasto solo. 7 3

## **APPENDIX B**

## Methodology

Each figured bass example is represented in a single row on the spreadsheet. The examples are sorted into sections according to the harmony on which they begin—the same categorization used by Geminiani in the treatise. The first column (A) identifies the example by its position on a grid system with the formula [page number : row letter, column number]. The following column (B) shows the page number Geminiani places at the end of each example to direct the user to possible continuations of the fragment. The final column of the chart indicates the presence or absence of fermata signs under the final note of the example. Geminiani uses two fermatas to signal an indefinite cadence, and one fermata to signal a final cadence.

In the first section of five columns, the harmonic function of chord progressions is entered. Chord symbols have been entered horizontally with a slash between levels of Arabic numeral figures (e.g.  $i^{6/4}$  for the tonic chord in second inversion). The more complex example in Figure 2-2, since the treatise is in D minor, is notated  $vii^{o6/5-4/3}$ .



Figure 2-2: Harmony Notated  $vii^{o6/5-4/3}$  in the Database

In many cases, when the figured bass indicates voice leading over a single note, it can be interpreted as two separate harmonies. These are given in parentheses after the single-chord analysis (Fig. 2-3). Two examples (29:H1 and 32:A3) contain six bass notes—a fact overlooked by all consulted resources, which identify the longest examples as five notes. For the six-note entries a semicolon separates the final two chords of the progression in the last column of the chord progression section (column G).

Example 2:F5

$i$      $i^{6/4}$      $ii^{\circ 6/5}$      $vii^{\circ 4/3}$      $i^6$   
 $vii^{\circ 6/5-4/3}$

Figure 2-3: Voice Leading Interpreted as Two Harmonies

A second set of five columns states the letter names of the bass line notes. The register of in which they appear is indicated according to the Helmholtz system. Analogous to the harmonic symbol section, in six-note examples the final two notes share the last column (L) and are separated by a semicolon.



A	B	C	D	E	F	G	H	I	J	K	L	M
first harmony d												
1:A3	20	I	V <sup>7</sup>	i			d'	a	d			
1:A4	1	I	V	i			d'	a	d'			
1:A5	1	i	i	i			d'	d	d'			
1:A6	27	i	i	vii <sup>o</sup>			d'	d	c#			
1:B1	18	i	i	iii <sup>o</sup>			d'	d	f#			
1:B2	20	i	V	i			d'	a	d			
1:B3	14	i	V <sup>6/5</sup> /iv	iv			d'	f#	g			
1:B4	11	i	i	V <sup>7</sup>			d'	d	a			
1:B5	8	i	V	VI			d'	a	bb			
1:B6	8	i	i	V			d'	d	a			
1:C1	8	i	ii <sup>o6/5</sup>	V			d'	g	a			
1:C2	16	i	V	i <sup>6</sup>			d'	a	f			
1:C3	16	i	i	i <sup>6</sup>			d'	d	f			
1:C4	16	i	vii <sup>o6/4</sup>	i <sup>6</sup>			d'	g	f			
1:C5	8	i	iv <sup>6</sup>	V			d'	bb	a			
1:C6	16	i	ii <sup>o6/5</sup>	i <sup>6</sup>			d'	g	f			
1:D1	18	i	iv <sup>6</sup>	vii <sup>o</sup> /iv			d'	bb	f#			
1:D2	27	i	iv <sup>6/4</sup>	vii <sup>o</sup>			d'	d	c#			
1:D3	14	i	V <sup>7</sup>	iv			d'	d	g			
1:D4	7	i	vii/iv	iv			d'	c'	bb			
1:D5	8	i	v	VI			d'	a	bb			
1:D6	7	i	v <sup>6</sup>	iv <sup>6</sup>			d'	c'	bb			
1:E1	7	i	v	iv			d'	a	bb			
1:E2	26	i	VI <sup>b6</sup>				d'	d				
1:E3	8	i	v <sup>6</sup>	VI			d'	c'	bb			
1:E4	31	i	iv <sup>6</sup>	V <sup>7</sup>			d'	d	A			
1:E5	7	i	V	iv <sup>6</sup>			d'	a	bb			
1:E6	6	i	V	V <sup>6/5</sup>			d'	a	c#			
1:F1	13	i	i <sup>6/4</sup>				d'	a				
1:F2	7	i	iv <sup>6</sup>				d'	bb				
1:F3	23	i	i				d'	d				
1:F4	10	i	V				d'	a				
1:F5	17	i	i <sup>6</sup>				d'	f				
1:F6	25	i	iv <sup>6/4</sup>				d'	d				
1:G1	18	i	i <sup>6</sup>	V <sup>6/5</sup> /iv			d'	f	f#			
1:G2	24	i	V <sup>7</sup> /iv				d'	d				
1:G3	13	i	ii <sup>o6/5</sup>	i <sup>6/4</sup>			d'	g	a			
1:G4	7	i	vii <sup>o6</sup> /iv	iv <sup>6</sup>			d'	a	bb			
1:G5	25	i	i	V <sup>7</sup> /iv			d'	d	d			
1:G6	18	i	i	V <sup>6/5</sup> /iv			d'	d	f#			
1:H1	26	i	V <sup>7</sup> /iv	iv <sup>6/4</sup>			d'	d	d			
1:H2	8	i	VI				d'	bb				
1:H3	16	i	V	i <sup>6</sup>			d'	a	f			
1:H4	25	i	V	V <sup>7</sup> /iv			d'	a	d			
1:H5	18	i	V	vii <sup>o</sup> /iv			d'	a	f#			
1:H6	13	i	V <sup>7</sup>	i <sup>6/4</sup>			d'	a	a			
1:I1	1	i	V	i			d'	c#	d'			
1:I2	13	i	iv <sup>6</sup>	i <sup>6/4</sup>			d'	bb	a			

1:I3	16	i	iv <sup>6</sup>	i <sup>6</sup>			d'	bb	f				
1:I4	27	i	iv	vii <sup>0</sup>			d'	g	c#				
1:I5	11	i	iv <sup>6</sup>	V <sup>7</sup>			d'	bb	a				
1:I6	31	i	V	V <sup>7</sup>			d'	a	A				
1:J1	11	i	ii <sup>06/5</sup>	V <sup>7</sup>			d'	g	a				
1:J2	16	i	i <sup>6/4</sup>	vii <sup>06/4</sup>			d'	a	g				
1:J3	16	i	i	vii <sup>06/4</sup>			d'	d	g				
1:J4	11	i	iv <sup>6/4</sup>	V <sup>7</sup>			d'	d'	a				
1:J5	16	i	iv <sup>6</sup>	vii <sup>06/4</sup>			d'	bb	g				
1:J6	28	i	i	V			d'	d	A				
1:K1	12	i	V <sup>7</sup>				d'	a					
1:K2	6	i	V <sup>6</sup> /VII	vii <sup>0</sup>			d'	b	c#				
1:K3	16	i	vii <sup>04/3</sup>	i <sup>6</sup>			d'	g	f				
1:K4	8	i	i <sup>6/4</sup>	V			d'	a	a				
1:K5	16	i	i <sup>6</sup>	vii <sup>06/4</sup>			d'	f	g				
1:K6	27	i	V	vii <sup>0</sup>			d'	a	c#				
2:A1	18	i	V/iv				d'	f#					
2:A2	28	i	V <sup>7</sup> /iv	iv	iv <sup>6</sup>		d'	d	g	Bb			
2:A3	7	i	V	vii <sup>06</sup> /iv	iv <sup>6</sup>		d'	a	a	bb			
2:A4	18	i, F: vi	VI <sup>6</sup> , F: IV <sup>6</sup>	V <sup>6/5</sup> /III, F: V <sup>6/5</sup>	III, F: I		d'	d	e	f			
2:A5	27	i	i	ii <sup>4/2</sup>	v <sup>6</sup>		d'	d	d	c			
2:A6	24	i	i <sup>6/4</sup>	v <sup>5/4</sup>	V <sup>7</sup> /iv		d'	a	a	d			
2:B1	7	i	V <sup>7</sup> /iv	iv <sup>9</sup>	iv <sup>6</sup>		d'	d	g	bb			
2:B2	6	i	III	VII4	V <sup>6/5</sup>		d'	a	c'	c#			
2:B3	22	i	VI	ii <sup>06/5</sup>	V	i	d'	bb	g	a	d		*
2:B4	26	i	V	i <sup>6</sup>	VI <sup>6</sup>		d'	a	f	d			
2:B5	8	i	i <sup>6/4</sup>	iv <sup>6-5</sup> (ii <sup>06</sup> -iv)	V		d'	a	g	a			
2:B6	12	i	ii <sup>06/5</sup>	i <sup>6/4</sup>	V <sup>7</sup>		d'	g	a	a			
2:C1	24	i	V	i <sup>6</sup>	V <sup>7</sup> /iv		d'	a	f	d			
2:C2	33	i	vii <sup>0</sup> /iv	iv <sup>4</sup>	iv		d'	f#	g	G			
2:C3	14	i	V	vii <sup>06</sup> /iv	iv		d'	a	a	G			
2:C4	8	i	i <sup>6</sup>	iv <sup>6</sup>	V <sup>7</sup> /V	V	d'	f	bb	G	a		
2:C5	3	i	i <sup>6</sup>	vii <sup>06</sup>	i		d'	f	e'	d'			
2:C6	27	i	III	VII <sup>4</sup>	VII		d'	a	c'	c			
2:D1	8	i	i <sup>6</sup>	ii <sup>06/5</sup>	V		d'	f	g	a			
2:D2	16	i	i <sup>6</sup>	vii <sup>06/5-4/3</sup> (ii <sup>06/5</sup> -vii <sup>04/3</sup> )	i <sup>6</sup>		d'	f	g	f			
2:D3	17	i	i <sup>6</sup>	vii <sup>06/4</sup>	i <sup>6</sup>		d'	f	g	G	f		
2:D4	20	i	i <sup>6</sup>	V <sup>4-3</sup>	i		d'	f	a	d			*
2:D5	14	i	i <sup>6</sup>	V <sup>7</sup> /iv	iv		d'	f	d	g			
2:D6	7	i	i <sup>6</sup>	iv <sup>6</sup>			d'	f	bb				
2:E1	7	i	i <sup>6</sup>	ii <sup>06/5</sup>	iv <sup>6</sup>		d'	f	g	bb			
2:E2	7	i	i <sup>6</sup>	VI <sup>7</sup>	iv <sup>6</sup>		d'	f	bb	bb			
2:E3	13	i	i <sup>6</sup>	i <sup>6/4</sup>			d'	f	a				
2:E4	28	i	iv <sup>6/4</sup>	V <sup>6/5</sup>			d'	d	c#				
2:E5	8	i	i <sup>6</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	VI		d'	f	a	bb			
2:E6	8	i	i <sup>6</sup>	V	iv		d'	f	a	bb			
2:F1	8	i	i	V	iv		d'	d	a	bb			
2:F2	17	i	iv <sup>6</sup>	vii <sup>06</sup>	i <sup>6</sup>		d'	bb	g	f			
2:F3	4	i	III	iv <sup>6/5</sup>	VII		d'	a	bb	c'			
2:F4	23	i	V	V <sup>7</sup>	i		d'	a	a	d			
2:F5	16	i	i <sup>6/4</sup>	vii <sup>06/5-4/3</sup> (ii <sup>06/5</sup> -vii <sup>04/3</sup> )	i <sup>6</sup>		d'	a	g	f			

2:F6	6	i	V	vii <sup>o</sup>			d'	a	c#'				
2:G1	18	i	VI <sup>6</sup>	V <sup>7</sup> /III	III		d'	d	c	f			
2:G2	13	i	V <sup>7</sup> /iv	ii <sup>o5-6</sup> (iv-ii <sup>o6</sup> )	III		d'	d	g	a			
2:G3	17	i	iv <sup>6/4</sup>	i	i <sup>6</sup>		d'	d	d	f			
2:G4	3	i	V/iv	iv <sup>6/4</sup>	i		d'	d	d	d'			
2:G5	4	i	III, C: IV	VII, C: I <sup>4-3</sup>			d'	a	c'	c'			
2:G6	14	i	i	V <sup>7</sup> /iv	iv		d'	d	d	g			
2:H1	28	i	iv <sup>6/4</sup>	i	iv <sup>6</sup>		d'	d	d	Bb			
2:H2	18	i	VI <sup>6</sup>	III <sup>4-3</sup>			d'	d	F	f			
2:H3	12	i	i	V <sup>4-3</sup>			d'	d	a	a			
2:H4	23	i	iv <sup>6/4</sup>	V <sup>7</sup>	i		d'	d	a	d			
2:H5	18	i	V	i <sup>6</sup>	V <sup>7</sup> /iv		d'	a	f	f#			
2:H6	13	i	iv <sup>6</sup>	V <sup>7</sup>	i <sup>6/4</sup>		d'	bb	a	a			
2:I1	7	i	v	VI <sup>7</sup>	iv <sup>6</sup>		d'	c#'	bb	bb			
2:I2	28	i	i	ii <sup>4/2</sup>	V <sup>6/5</sup>		d'	d	d	c#			
2:I3	17	i	ii <sup>o6/5</sup>	V <sup>4/2</sup>	i <sup>6</sup>		d'	g	g	f			
2:I4	17	i	V <sup>6/5</sup> /iv	iv	i <sup>6</sup>		d'	f#	g	f			
2:I5	13	i	V	iv <sup>6</sup>	i <sup>6/4</sup>		d'	a	bb	a			
2:I6	3	i	V	vii <sup>o</sup>	i		d'	a	c#'	d'			
2:J1	23	i	V	V <sup>7</sup>	i		d'	a	A	d			
2:J2	19	i	VI, F: IV	VII <sup>4</sup> , F:V <sup>4</sup>	VII <sup>7</sup> , F:V <sup>7</sup>	III, F: I	d'	bb	c'	c	f		
2:J3	25	i	i	i <sup>6</sup>	vii <sup>o6</sup> /VII		d'	d	F	d			
2:J4	7	i	i	ii <sup>o6/5</sup>	iv <sup>6</sup>		d'	d	g	bb			
2:J5	13	i	III <sup>6</sup>				d'	a					
2:J6	8	i	i	III <sup>5-6/4-3</sup> (V <sup>4</sup> -III <sup>6</sup> )	VI		d'	d	a	bb			
2:K1	7	i	i <sup>6/4</sup>	ii <sup>o6/5</sup>	iv <sup>6</sup>		d'	a	g	bb			
2:K2	24	i	i	V <sup>4</sup>	V <sup>7</sup> /iv		d'	d	a	d			
2:K3	18	i	i	V <sup>4</sup>	V <sup>6/4</sup> /iv		d'	d	a	f#			
2:K4	7	i	i	vii <sup>o5-6/4-3</sup> (V <sup>4</sup> -vii <sup>o6</sup> /iv)	iv6		d'	d	a	bb			
2:K5	27	i	i	i <sup>6</sup>	vii <sup>o6</sup> /VII	VII	d'	d	f	d	c		
2:K6	8	i	iv <sup>6</sup>	V			d'	bb	a				
3:A1	18	i	i	III	V <sup>6/5</sup> /iv		d'	d	E	f#			
3:A2	24	i	V <sup>7</sup> /iv				d'	d					
3:A3	18	i	i	VII <sup>6</sup> , F: v <sup>6</sup>	III, F: I		d'	d	e	f#			
3:A4	18	i	i	V	V <sup>6/5</sup> /iv		d'	d	a	f#			
3:A5	31	i	i	iv	ii <sup>o6</sup>	V <sup>7</sup>	d'	d'	g	G	A		
3:A6	17	i	i <sup>6/4</sup>	vii <sup>o6/4</sup>	i <sup>6</sup>		d'	a	g	f			
3:B1	8	i	i	ii <sup>o5-6/6-5</sup> (N <sup>6</sup> -ii <sup>o6/5</sup> )	V		d'	d	g	a			
3:B2	13	i	i	iv <sup>6-5</sup> (N <sup>6</sup> -iv)	i <sup>6/4</sup>		d'	d	g	a			
3:B3	27	i	VI <sup>6</sup>	VII <sup>7</sup>	v <sup>6</sup>		d'	d'	c	c			
3:B4	10	i	i	V <sup>4-3</sup>			d'	d'	a	a			
3:B5	6	i	III <sup>6</sup>	V <sup>6/5</sup> /VII	V <sup>6/5</sup>		d'	a	b	c#'			
3:B6	11	i	i <sup>6</sup>	ii <sup>o7-6/5</sup> (iv <sup>7</sup> -ii <sup>o6/5</sup> )	V <sup>7</sup>		d'	f	g	a			
3:C1	8	i	i	ii <sup>o6/5</sup>	V		d'	d	g	a			
3:C2	32	i	i	V <sup>4-3</sup>			d'	d	a	A			
3:C3	10	i	iv	i <sup>6/4</sup>	V		d'	g	a	a			
3:C4	29	i	ii <sup>o6/5</sup>	i <sup>6/4</sup>	V		d'	g	a	A			
3:C5	7	i	ii <sup>o6/5</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	iv <sup>6</sup>		d'	g	a	bb			
3:C6	26	i	i	i <sup>6</sup>	VI		d'	d	f	d			
3:D1	28	i	iv <sup>6/4</sup>	i	iv <sup>6</sup>		d'	d	d	bb			
3:D2	32	i	i	i <sup>6</sup>	vii <sup>o6</sup>	v	d'	d	f	d	A		

3:D3	23	i	V	vii <sup>0</sup>	i		d'	a	c#	d		
3:D4	16	i	i	ii <sup>06/5</sup>	ii <sup>7</sup>	vii <sup>0</sup>	d'	d	g	e	g	
3:D5	26	i	V <sup>7</sup> /iv	iv <sup>6/4</sup>			d'	d	d			
3:D6	23	i	V	V <sup>7</sup>	i		d'	a	A	d		
3:E1	22	i	i <sup>6</sup>	ii <sup>06/5</sup>	V	i	d'	F	g	a	d	*
3:E2	16	i	i	vii <sup>06/5-4/3</sup> (ii <sup>06/5</sup> -vii <sup>04/3</sup> )	i <sup>6</sup>		d'	d	g	f		
3:E3	12	i	i <sup>6</sup>	ii <sup>7</sup>	V <sup>7</sup>		d'	f	e'	a		
3:E4	7	i	i <sup>6</sup>	vii <sup>06</sup> /iv	iv <sup>6</sup>		d'	f	a	bb		
3:E5	22	i	ii <sup>06/5</sup>	i <sup>6/4</sup>	V	i	d'	g	a	A	d	*
3:E6	20	i	i	ii <sup>06/5</sup>	ii		d'	d	g	e		
3:F1	18	i	iv <sup>6/4</sup>	i	V <sup>7</sup> /iv		d'	d	d	f#		
3:F2	23	i	ii <sup>06/5</sup>	V <sup>7</sup>	i		d'	g	a	d		
3:F3	28	i	iv <sup>6/4</sup>	V <sup>6</sup>	V <sup>6/5</sup>		d'	d	c#	c#		
3:F4	14	i	V <sup>7</sup> /iv	V <sup>6-5</sup> /iv	iv		d'	d'	d	g		
3:F5	25	i	vi <sup>06</sup>				d'	d				
3:F6	3	i	i	iv <sup>6</sup>	i		d'	d	d	d'		
3:G1	18	i	iv <sup>6</sup>	V <sup>6/5</sup>	iv		d'	bb	f#			
3:G2	28	i	i	v <sup>4-</sup>	V <sup>3</sup>	i	d'	d	a	A	d	*
3:G3	14	i	V <sup>7</sup> /iv	V <sup>6-5/4-3</sup> /iv (i <sup>6/4</sup> -V/iv)	iv		d'	d'	d	g		
3:G4	24	i	iv <sup>6/4</sup>	i	V <sup>7</sup> /iv		d'	d'	D	d		
3:G5	24	i	V <sup>7</sup> /iv	iv <sup>6/4</sup>	V <sup>7</sup> /iv		d'	d	d'	d		
3:G6	13	i	ii <sup>06/5</sup>	i <sup>6/4</sup>			d'	g	a			
<b>first harmony d<sup>3/3</sup></b>												
3:H1	14	i	vii <sup>05-6/4-3</sup> /iv (v <sup>4-</sup> -vii <sup>06</sup> /iv)	iv <sup>4-</sup>	iv <sup>3</sup>		d'	a	g	g		
3:H2	14	i	vii <sup>05-6/4-3</sup> /iv (v <sup>4-</sup> -vii <sup>06</sup> /iv)	iv			d'	a	g			
3:H3	33	i	vii <sup>05-6/4-3</sup> /iv (v <sup>4-</sup> -vii <sup>06</sup> /iv)	iv <sup>4-</sup>	iv <sup>3</sup>		d'	a	g	G		
3:H4	7	i	V <sup>6</sup> /iv	V <sup>4/2</sup> /iv	iv <sup>6</sup>		d'	f#	c'	bb		
3:H5	8	i	iv <sup>7-6</sup> (V <sup>7</sup> -iv <sup>6</sup> )	V			d'	bb	a			
3:H6	7	i	VI <sup>7</sup>	iv <sup>6</sup>			d'	bb	bb			
3:I1	8	i	III <sup>5-6/4-3</sup> (v <sup>4-</sup> -III <sup>6</sup> )	VI			d'	a	bb			
3:I2	12	i	v <sup>4-</sup>	v <sup>3</sup>			d'	a	a			
3:I3	10	i	iv <sup>6-5</sup>	v <sup>4-</sup>	V <sup>3</sup>		d'	g	a	a		
3:I4	29	i	iv <sup>b6-5</sup> (N <sup>6</sup> -iv)	i <sup>6/4</sup>	V		d'	g	a	A		
3:I5	8	i	ii <sup>06/5</sup>	V			d'	g	a			
3:I6	18	i	V <sup>6/5</sup> /iv				d'	f#				
3:J1	13	i	III				d'	a				
3:J2	14	i	vii <sup>0</sup> /iv	iv			d'	f#	g			
3:J3	4	i	III	VI	VII <sup>4-</sup>	VII <sup>3</sup>	d'	a	bb	c'	c'	
3:J4	29	i	ii <sup>06/5</sup>	vii <sup>0</sup> /V	V <sup>4-</sup>	V <sup>3</sup>	d'	g	g#	a	A	
3:J5	18	i	iv <sup>6</sup>	V <sup>6/5</sup> /iv			d'	bb	f#			
3:J6	17	i	iv <sup>b6-5</sup> (N <sup>6</sup> -iv)	V <sup>4/2</sup>	i <sup>6</sup>		d'	g	g	f		
3:K1	26	i	i	VI <sup>6</sup>			d'	d	d			
3:K2	10	i	iv <sup>6-5</sup> (ii <sup>06</sup> -iv)	i <sup>6/4</sup>	V <sup>8/3</sup>		d'	g	a	a		
3:K3	16	i	vii <sup>06/5-4</sup> (ii <sup>06/5</sup> -vii <sup>04/3</sup> )	i <sup>6</sup>			d'	g	F			
3:K4	7	i	vii <sup>06/4</sup> /iv	iv <sup>6</sup>			d'	c'	bb			
3:K5	7	i	vii <sup>06</sup> /iv	iv <sup>6</sup>			d'	a	bb			
3:K6	10	i	i <sup>6/4</sup>	V			d'	a	a			
4:A1	23	i	vii <sup>06/4</sup>	i			d'	g	d			
4:A2	13	i	iv <sup>6/5</sup>	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>		d'	bb	c'	a		

4:A3	16	i	i <sup>6-5/4-3</sup> (iv <sup>6/4</sup> -i)	i <sup>6</sup>			d'	d	f				
4:A4	4	i	iv	VII			d'	bb	c'				
4:A5	24	i	V <sup>4/2</sup> /iv	V <sup>7</sup> /iv			d'	c'	d				
4:A6	18	i	vii <sup>06/4</sup> /iv	V <sup>6/5</sup> /iv			d'	c'	f#				
4:B1	5	i, C: ii	III <sup>6</sup> , C: IV <sup>6</sup>	V <sup>6/5</sup> /VII, C: V <sup>6/5</sup>	VII <sup>5</sup> , C: I		d'	a	B	c'			
4:B2	20	i	i				d'	d					
4:B3	13	i	i <sup>6</sup>	ii <sup>06/5</sup>	i <sup>6/4</sup>		d'	f	g	a			
4:B4	8	i	v <sup>6</sup>	iv <sup>6</sup>	V		d'	c'	bb	a			
4:B5	1	i	ii <sup>4/2</sup>	V <sup>6/5</sup>	i		d'	d'	c#'	d'			
4:B6	8	i	III <sup>5-6/4-3</sup> (v <sup>4</sup> -III <sup>6</sup> )	VI			d'	a	bb				
4:C1	14	i	vii <sup>06/4</sup>	v	iv		d'	c'	a	g			
4:C2	7	i	vii <sup>06/4</sup> /iv	vii <sup>06</sup> /iv	iv <sup>6</sup>		d'	c'	a	bb			
4:C3	25	i	i	vii <sup>06</sup> /VII			d'	d	d				
4:C4	7	i	ii <sup>4/2</sup>	v <sup>6</sup>	VI <sup>7</sup>	iv <sup>6</sup>	d'	d'	c'	bb	bb		
4:C5	7	i	vii <sup>05-6/4-3</sup> /iv (v <sup>4</sup> -vii <sup>06</sup> /iv)	iv <sup>6</sup>			d'	d'	c#'	d'			
4:C6	8	i	V	VI			d'	a	bb				
4:D1	11	i	ii <sup>06/5</sup>	iv <sup>6</sup>	V <sup>7</sup>		d'	g	bb	a			
4:D2	14	i	V/iv	iv			d'	d	g				
4:D3	18	i	i	VII	vii <sup>0</sup> /iv		d'	d	e	f#			
4:D4	14	i	vii <sup>06/4</sup> /iv	vii <sup>06</sup> /iv	iv <sup>4-3</sup>		d'	c'	a	g	g		
4:D5	27	i	vii <sup>06</sup> /VII	VII			d'	d	c				
4:D6	12	i	V <sup>4</sup>	V <sup>7</sup>			d'	a	bb				
4:E1	25	i	i <sup>6</sup>	vii <sup>06</sup> /VII			d'	f	d				
4:E2	7	i	ii <sup>06/5</sup>	iv <sup>6</sup>			d'	g	bb				
4:E3	13	i	iv <sup>6</sup>	i <sup>6/4</sup>			d'	bb	a				
4:E4	13	i	V <sup>4</sup>	III <sup>6</sup>			d'	a	a				
4:E5	10	i	ii <sup>06/5</sup>	V			d'	g	a				
4:E6	13	i	iv <sup>6-5</sup> (iio6-iv)	i <sup>6/4</sup>			d'	g	a				
4:F1	13	i	iv <sup>6</sup>	III <sup>6</sup>			d'	bb	a				
4:F2	20	i	V <sup>7/4-3</sup>	i			d'	a	d				
4:F3	13	i	V <sup>7</sup>	i <sup>6/4</sup>			d'	a	a				
4:F4	29	i	V <sup>4</sup>	V			d'	a	A				
4:F5	7	i	iv <sup>6</sup>				d'	bb					
4:F6	22	i	ii <sup>06/5</sup>	V	i		d'	g	a	d			*
4:G1	24	i	V <sup>4</sup>	V <sup>7</sup> /iv			d'	a	d'				
4:G2	25	i	V <sup>4-3</sup>	V <sup>7</sup> /iv			d'	a	d				
4:G3	18	i	V <sup>4-3</sup>	vii <sup>0</sup> /iv			d'	a	f#				
4:G4	16	i	V <sup>4</sup>	vii <sup>06</sup>			d'	a	g				
4:G5	17	i	vii <sup>06/4</sup>	i <sup>6</sup>			d'	g	f				
4:G6	8	i	ii <sup>06/5</sup>	vii <sup>07</sup> /V	V		d'	g	g#	a			
4:I1	8	i	V				d'	a					
4:I2	7	i	V	vii <sup>06/4</sup> /iv	iv		d'	c#'	c'	bb			
4:I3	25	i	vii <sup>0</sup>	i	V <sup>7</sup> /iv		d'	c#'	d'	d			
4:I4	17	i	iv <sup>7</sup>	VII <sup>7</sup>	III <sup>7</sup>	i <sup>6</sup>	d'	g	c'	f	f		
4:I5	14	i	V <sup>4</sup>	V <sup>7</sup> /iv	iv		d'	a	d	g			
4:I6	23	i	i <sup>6</sup>	i			d'	f	d'				
4:H1	13	i	ii <sup>06/5</sup>	i <sup>6/4</sup>			d'	g	a				
4:H2	17	i	iv <sup>6-5</sup> (N <sup>6</sup> -iv)	V <sup>4/2</sup>	i <sup>6</sup>		d'	g	g	f			
4:H3	18	i	V <sup>4</sup>	V <sup>6/5</sup> /iv			d'	a	f#				
4:H4	7	i	V <sup>6</sup>	vii <sup>06/4</sup> /iv	IV <sup>6</sup>	iv <sup>6</sup>	d'	c#'	c'	b	bb		
4:H5	16	i	i <sup>6</sup>				d'	f					
4:H6	13	i	i <sup>6/4</sup>				d'	a					

first harmony C <sup>3</sup>											
4:J1	7	VII	vii <sup>o6</sup> /iv	iv			c'	a	bb		
4:J2	6	VII	V <sup>6</sup> /VII	vii <sup>o</sup>			c'	b	c#'		
4:J3	11	VII	iv <sup>6</sup>	V <sup>7</sup>			c'	b	a		
4:J4	8	VII	III	VI			c'	f	bb		
4:J5	7	VII	III	iv			c'	f	bb		
4:J6	8	VII	III <sup>6</sup>	VI			c'	a	bb		
4:K1	1	VII	V <sup>7</sup>	i			c'	a	d'		
4:K2	3	VII	V <sup>7</sup>	i			c'	c#'	d'		
4:K3	17	VII	III	vii <sup>o</sup>	i <sup>6</sup>		c'	f	g	f	
4:K4	8	VII	III	ii <sup>o6/5</sup>	V		c'	f	g	a	
4:K5	6	VII	IV (V <sup>6</sup> /VII)	V <sup>6/5</sup>			c'	b	c#'		
4:K6	8	VII	ii <sup>o6/4</sup>	ii <sup>o6/5</sup>	V		c'	bb	g	a	
5:A1	18	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>	III, F: I			c'	a	f		
5:A2	29	VII, F: V	III <sup>7</sup> , F: I <sup>7</sup>	iv, F: ii	i <sup>6/4</sup> , F: iv <sup>6/4</sup>	V	c'	f	g	a	A
5:A3	7	VII, F: V	III, F: I	VI <sup>7</sup> , F: IV <sup>7</sup>	iv <sup>6</sup> , F: ii <sup>6</sup>		c'	f	bb	bb	
5:A4	11	VII, F: V	i <sup>7-6</sup> (III <sup>7-6</sup> ), F: I <sup>7-6</sup>	V <sup>9-8/63-3</sup> /VII (iv <sup>9</sup> -V/VII)	V <sup>7</sup>		c'	f	g	a	
5:A5	3	VII	vii <sup>o</sup>	i <sup>4-3</sup>			c'	c#'	d'	D	
5:A6	23	VII	vii <sup>o</sup>	i <sup>4-</sup>	i		c'	c#'	d'	d	
5:B1	6	VII	V <sup>4/2</sup> /iv	IV <sup>6</sup>	vii <sup>o</sup>		c'	c'	b	c#'	
5:B2	3	VII	V <sup>4/2</sup> /iv	IV	vii <sup>o</sup>	i	c'	c'	b	c#'	d'
5:B3	7	VII	V <sup>4/2</sup> /iv	iv <sup>6</sup>			c'	c'	bb		
5:B4	13	VII	V <sup>4/2</sup> /iv	iv <sup>6</sup>	i <sup>6/4</sup>		c'	c'	bb	a	
5:B5	11	VII	V <sup>4/2</sup> /iv	iv <sup>6</sup>	V <sup>7</sup>		c'	c'	bb	a	
5:B6	17	VII	III <sup>7</sup>	i <sup>6</sup>			c'	f	f		
5:C1	29	VII	III <sup>7</sup>	iv	V <sup>4-</sup>	V	c'	f	g	a	A
5:C2	10	VII	III <sup>7</sup>	iv	i <sup>6/4</sup>	V	c'	f	g	a	A
5:C3	23	VII	vii <sup>o6</sup> /iv	iv	I <sup>4-</sup>	i	c'	a	g	d'	d
5:C4	13	VII	ii <sup>o6/4</sup>	i <sup>6/4</sup>			c'	bb	a		
5:C5	11	VII	iv <sup>6/4-3</sup> (ii <sup>o6/4</sup> -iv <sup>6</sup> )	V			c'	bb	a		
5:C6	6	VII	V <sup>6/5</sup>				c'	c#'			
5:D1	19	VII, F: V	III, F: I				c'	f			
5:D2	16	VII	ii <sup>o6/4</sup>	ii <sup>o4/3</sup>	i <sup>6</sup>		c'	bb	g	f	
5:D3	17	VII	III	i <sup>6</sup>			c'	f	f		
5:D4	16	VII	III	iv	vii <sup>o</sup>		c'	f	bb	g	
5:D5	10	VII	III	iv	V <sup>4-</sup>	V	c'	f	g	a	a
5:D6	8	VII	III <sup>7-6</sup> (III <sup>7</sup> -i <sup>6</sup> )	ii <sup>o6/5</sup>	V		c'	f	g	a	
5:E1	13	VII, F: V	III, F: I	iv, F: ii	i <sup>6/4</sup> , F: iv <sup>6/4</sup>		c'	f	g	a	
5:E2	7	VII	vii <sup>o6-#6</sup> /iv (III <sup>6</sup> -vii <sup>o6</sup> /iv)	iv <sup>6</sup>			c'	c'	bb		
5:E3	12	VII	V <sup>6</sup>	V <sup>7</sup>			c'	c#'	a		
5:E4	19	VII, F: V	III, F: I	ii <sup>o6</sup> , F: vii <sup>o6</sup>	III, F: I		c'	a	g	f	
5:E5	13	VII	III <sup>6</sup>				c'	a			
5:E6	7	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>	V/iv, g: V	iv <sup>6</sup> , g: i <sup>6</sup>		c'	a	d'	bb	
5:F1	20	VII	III <sup>6</sup>	III	iv <sup>9</sup>	ii	c'	a	f	g	e
5:F2	6	VII	IV <sup>6</sup>	V <sup>6/5</sup>			c'	b	c#'		
5:F3	20	VII	V <sup>7</sup>	i			c'	a	d'		
5:F4	1	VII	V <sup>7</sup>	V <sup>6/5</sup>	i		c'	a	c#'	d'	
5:F5	6	VII	V <sup>7</sup>	V <sup>6/5</sup>			c'	a	c#'		
5:F6	17	VII	III <sup>6</sup>	i <sup>6</sup>			c'	a	f		
5:G1	7	VII	vii <sup>o6</sup> /iv	iv <sup>6</sup>			c'	a	bb		
5:G2	7	VII	III <sup>6</sup>	III	iv <sup>6</sup>		c'	a	f	bb	

5:G3	11	VII	vii <sup>06</sup> /iv	iv	V <sup>7</sup>		c'	a	g	a		
5:G4	14	VII	vii <sup>06</sup> /iv	iv			c'	a	g			
5:G5	13	VII	vii <sup>06</sup> /iv	iv	i <sup>6/4</sup>		c'	a	g	a		
5:G6	16	VII	vii <sup>05-6/5-4</sup> (iv-vii <sup>04/3</sup> )	i <sup>6</sup>			c'	g	f			
5:H1	23	VII	V <sup>7</sup>	i <sup>4-</sup>	i		c'	a	d'	d		
5:H2	18	VII	V <sup>6/5</sup> /iv				c'	f#				
5:H3	8	VII	III <sup>6</sup>	iv			c'	a	bb			
5:H4	24	VII	III <sup>6</sup>	V <sup>7</sup> /iv			c'	a	d'			
5:H5	12	VII	III <sup>7</sup>	iv	v <sup>4-</sup>	v <sup>3</sup>	c'	f	g	a	a	
5:H6	7	VII	III <sup>6</sup>	V <sup>6/4</sup> /iv	iv <sup>6</sup>		c'	a	c'	bb		
<b>first harmony C<sup>5</sup></b>												
5:I1	7	VII	vii <sup>06</sup> /iv	iv <sup>6</sup>			c'	a	bb			
5:I2	6	VII	v <sup>6</sup>	vii <sup>0</sup>			c'	c'	c#'			
5:I3	6	VII	v <sup>6</sup>	vii <sup>0</sup>	V <sup>6/5</sup>		c'	c'	c#'	c#'		
5:I4	3	VII	v <sup>6</sup>	vii <sup>0</sup>	i		c'	c'	c#'	d'		
5:I5	1	VII	vii <sup>06</sup> /iv	IV <sup>6</sup>	vii <sup>0</sup>	i	c'	a	b	c#'	d'	
5:I6	6	VII	V	IV <sup>6</sup>	V <sup>6/5</sup>		c'	a	b	c#'		
5:J1	6	VII	vii <sup>06</sup> /V	V	V <sup>6/5</sup>		c'	b	a	c#'		
5:J2	6	VII	V <sup>4/2</sup> /iv	IV <sup>6</sup>	V <sup>6/5</sup>		c'	c'	b	c#'		
5:J3	8	VII, F: V	III, F: I	VI, F: IV	ii <sup>06/5</sup> , F: vii <sup>06/5</sup>	V	c'	f	bb	g	a	
5:J4	18	VII	V <sup>6</sup> /iv	iv <sup>6</sup>	V <sup>6/5</sup> /iv		c'	a	bb	f#		
5:J5	23	VII	V <sup>7</sup>	i <sup>4-</sup>	i		c'	a	d'	d		
5:J6	7	VII, F: V	III, F: I	iv <sup>6</sup> , F: ii <sup>6</sup>			c'	f	bb			
5:K1	14	VII, F: V	III, F: I	iv <sup>6</sup> , F: ii <sup>6</sup>	vii <sup>06</sup> /iv	iv <sup>6</sup>	c'	f	bb	a	g	
5:K2	13	VII, F: V	III, F: I	iv <sup>6</sup> , F: ii <sup>6</sup>	i <sup>6/4</sup>		c'	f	bb	a		
5:K3	8	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>	VI, F: IV			c'	a	bb			
5:K4	14	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>	VI, F: IV	iv, F: ii		c'	f	bb	g		
5:K5	28	VII, F: V	III, F: I	VI <sup>7</sup> , F: IV <sup>7</sup>	iv <sup>6</sup> , F: ii <sup>6</sup>		c'	f	bb	Bb		
5:K6	18	VII, F: V	III, F: I				c'	f				
6:A1	11	VII, F: V	III, F: I	iv <sup>9-8</sup> , F: ii <sup>9-8</sup>			c'	f	g	a		
6:A2	16	VII, F: V	III, F: I	vii <sup>05-6/3-4</sup> (IV-vii <sup>06/4</sup> )	i <sup>6</sup>		c'	f	g	f		
6:A3	8	VII, F: V	III, F: I	iv <sup>6-5</sup> (ii <sup>06</sup> -iv), F: ii <sup>06-5</sup> (vii <sup>06</sup> -ii)	V		c'	f	g	a		
6:A4	23	VII	vii <sup>0</sup>	i			c'	c#'	d'	d		
6:A5	13	VII, F: V	III, F: I	iv <sup>9-8</sup> , F: ii <sup>9-8</sup>	i <sup>6/4</sup> , F: iv <sup>6/4</sup>		c'	f	g	a		
6:A6	6	VII	vii <sup>06</sup> /iv	IV	vii <sup>06/5</sup>		c'	a	b	c#'		
6:B1	6	VII	vii <sup>0</sup> /iv	vii <sup>0</sup>			c'	c'	c#'			
6:B2	31	VII, F: V	III, F: I	VI <sup>7</sup> , F: IV <sup>7</sup>	iv <sup>6</sup> , F: ii <sup>6</sup>	V <sup>7</sup>	c'	f	bb	Bb	A	
6:B3	20	VII, F: V	III, F: I	VI <sup>7</sup> , F: IV <sup>7</sup>	ii, F: vii		c'	f	bb	e		
6:B4	20	VII, F: V	III, F: I	IV <sup>4/2</sup>	vii <sup>06</sup>	i	c'	f	f	e	d	
6:B5	11	VII, F: V	III, F: I	iv <sup>6-5</sup> (ii <sup>06</sup> -iv), F: ii <sup>06-5</sup> (vii <sup>06</sup> -ii)	V		c'	f	g	a		
6:B6	25	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>	V <sup>7</sup> /iv			c'	a	d			
6:C1	4	VII, F: V	III <sup>6</sup> , F: I <sup>6</sup>	iv <sup>6/5</sup> , F: ii <sup>6/5</sup>	VII, F: V		c'	a	bb	C		
6:C2	8	VII	i <sup>6/4</sup>	ii <sup>06/5</sup>	V		c'	a	g	a		
6:C3	23	VII	vii <sup>0</sup>	i <sup>4-</sup>	i		c'	c#'	d'	d		
6:C4	16	VII, F: V	III, F: I	iv <sup>6</sup> , F: ii <sup>6</sup>	vii <sup>06/4</sup>		c'	f	bb	g		
6:C5	3	VII	v <sup>6</sup>	vii <sup>0</sup>	i		c'	c'	C#	d'		
6:C6	14	VII	vii <sup>06</sup> /iv	iv <sup>4-</sup>	iv		c'	a	g	g		
<b>first harmony C#<sup>b5</sup></b>												

6:D1	7	vii <sup>o</sup>	i	iv			c#'	d'	bb				
6:D2	22	vii <sup>o</sup>	i	ii <sup>o6/5</sup>	V	i	c#'	d'	g	a	d		*
6:D3	23	vii <sup>o</sup>	i	iv <sup>6/4</sup>	i		c#'	d'	d	d			
6:D4	7	vii <sup>o</sup>	i	v <sup>6</sup>	iv <sup>6</sup>		c#'	d'	c'	bb			
6:D5	10	vii <sup>o</sup>	i	V <sup>4-</sup>	V		c#'	d'	a	a			
6:D6	10	vii <sup>o</sup>	i	vii <sup>o6/5-4</sup> (ii <sup>o6/5</sup> -vii <sup>o4/3</sup> )	i <sup>6</sup>		c#'	d'	g	f			
6:E1	18	vii <sup>o</sup>	i	vii <sup>o</sup> /iv			c#'	d'	f#				
6:E2	7	vii <sup>o</sup>	i	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	iv <sup>6</sup>		c#'	d'	a	bb			
6:E3	17	vii <sup>o</sup>	i	vii <sup>o6/4</sup>	i		c#'	d'	g	f			
6:E4	22	vii <sup>o</sup>	i	i <sup>6/4</sup>	V	i	c#'	d'	a	A	d		
6:E5	7	vii <sup>o</sup>	i	vii <sup>o6-5/4-3</sup> /iv (V <sup>4-</sup> -vii <sup>o6</sup> /iv)	iv <sup>6</sup>		c#'	d'	a	bb			
6:E6	8	vii <sup>o</sup>	i	V			c#'	d'	a				
6:F1	8	vii <sup>o</sup>	i	iv <sup>6-5</sup> (ii <sup>o6</sup> -iv)	V		c#'	d'	g	a			
6:F2	7	vii <sup>o</sup>	i	vii <sup>o6/4</sup> /iv	iv <sup>6</sup>		c#'	d'	c'	bb			
6:F3	3	vii <sup>o</sup>	i				c#'	d'					
6:F4	17	vii <sup>o</sup>	i	ii <sup>o7-6</sup> (iv <sup>7</sup> -ii <sup>o6</sup> )	III <sup>7</sup>	i	c#'	d'	g	f	f		
6:F5	7	vii <sup>o</sup>	i	ii <sup>o6/5</sup>	V	iv	c#'	d'	g	a	bb		
6:F6	13	vii <sup>o</sup>	i	i <sup>6/4</sup>			c#'	d'	a				
<b>first harmony C#<sup>6/5</sup></b>													
6:G1	13	V <sup>6/5</sup>	i	i <sup>6/4</sup>			c#'	d'	a				
6:G2	4	V <sup>6/5</sup>	i	III <sup>6</sup> , F: I <sup>6</sup>	VII <sup>4-3</sup> , F: V <sup>4-3</sup>		c#'	d'	a	c'	c'		
6:G3	7	V <sup>6/5</sup>	i	iv			c#'	d'	d'	bb			
6:G4	24	V <sup>6/5</sup>	i	V <sup>7</sup> /iv			c#'	d'	d'	d			
6:G5	8	V <sup>6/5</sup>	i	III <sup>6</sup> , Bb: V <sup>6</sup> , F: I <sup>6</sup>	VI, Bb: I, F: IV		c#'	d'	a	bb			
6:G6	8	V <sup>6/5</sup>	i	vii <sup>o6</sup> /iv	iv <sup>6</sup>		c#'	d'	a	bb			
6:H1	23	V <sup>6/5</sup>	i <sup>4-</sup>	i			c#'	d'	d				
6:H2	8	V <sup>6/5</sup>	i	ii <sup>o6/5</sup>	V		c#'	d'	g	a			
6:H3	8	V <sup>6/5</sup>	i	VI			c#'	d'	bb				
6:H4	11	V <sup>6/5</sup>	i	ii <sup>o6/5</sup>	V <sup>7</sup>		c#'	d'	g	a			
6:H5	8	V <sup>6/5</sup>	i	i <sup>6/4</sup>	ii <sup>o6/5</sup>	V	c#'	d'	a	g	a		
6:H6	7	V <sup>6/5</sup>	i	vii <sup>o6/4</sup> /iv	iv		c#'	d'	c'	bb			
6:I1	8	V <sup>6/5</sup>	i	iv <sup>6</sup>	V		c#'	d'	bb	a			
6:I2	10	V <sup>6/5</sup>	i	V			c#'	d'	a				
6:I3	23	V <sup>6/5</sup>	i <sup>9-</sup>	i			c#'	d'	d				
6:I4	7	V <sup>6/5</sup>	i	iv <sup>6</sup>			c#'	d'	bb				
6:I5	3	V <sup>6/5</sup>	i <sup>9-</sup>	i			c#'	d'	d'				
6:I6	20	V <sup>6/5</sup>	i	VI <sup>6</sup>			c#'	d'	d				
6:J1	13	V <sup>6/5</sup>	i	ii <sup>o6/4</sup>	i <sup>6/4</sup>		c#'	d'	bb	a			
6:J2	17	V <sup>6/5</sup>	i	i <sup>6</sup>			c#'	d'	f				
6:J3	14	V <sup>6/5</sup>	i	V <sup>7</sup> /iv	iv		c#'	d'	d	g			
6:J4	18	V <sup>6/5</sup>	i	V <sup>6/5</sup> /iv			c#'	d'	f#				
6:J5	14	V <sup>6/5</sup>	i	vii <sup>o</sup> /iv	iv		c#'	d'	f#	g			
6:J6	23	V <sup>6/5</sup>	i	i			c#'	d'	d				
6:K1	16	V <sup>6/5</sup>	i	V	i <sup>6</sup>		c#'	d'	a	d			
6:K2	7	V <sup>6/5</sup>	i	V	iv <sup>6</sup>		c#'	d'	a	bb			
6:K3	3	V <sup>6/5</sup>	i <sup>4-</sup>	i			c#'	d'	d'				
6:K4	13	V <sup>6/5</sup>	i	ii <sup>o6/5</sup>	i <sup>6/4</sup>		c#'	d'	g	a			
6:K5	25	V <sup>6/5</sup>	i	iv <sup>6/4</sup>			c#'	d'	d				
6:K6	16	V <sup>6/5</sup>	i	vii <sup>o6/4</sup> /iv			c#'	d'	g				
7:A1	13	V <sup>6/5</sup>	i	III <sup>6</sup>			c#'	d'	a				



7:A2	16	V <sup>6/5</sup>	i	vii <sup>o6/4</sup>	i <sup>6</sup>			c#	d'	g	f		
7:A3	8	V <sup>6/5</sup>	i	V	VI			c#	d'	a	bb		
7:A4	8	V <sup>6/5</sup>	i	v <sup>6</sup>	VI			c#	d'	c'	bb		
7:A5	8	V <sup>6/5</sup>	i	VI				c#	d'	bb			
7:A6	1	V <sup>6/5</sup>	i					c#	d'				
<b>first harmony Bb<sup>6</sup></b>													
7:B1	14	iv <sup>6</sup>	vii <sup>o</sup> /iv	iv				bb	f#	g			
7:B2	17	iv <sup>6</sup>	i <sup>6/4</sup>	vii <sup>o6/4</sup>	i <sup>6</sup>			bb	a	g	f		
7:B3	8	iv <sup>6</sup>	ii <sup>o6/5</sup>	V				bb	g	a			
7:B4	31	iv <sup>6</sup>	iv <sup>6</sup>	V				bb	Bb	a			
7:B5	27	iv <sup>6</sup>	i	vii <sup>o</sup>	i <sup>6/4</sup>			bb	d	c#			
7:B6	13	iv <sup>6</sup>	i <sup>6/4</sup>					bb	a				
7:C1	8	iv <sup>6</sup>	VI	i <sup>7-6/3-4</sup> (V <sup>7</sup> -i <sup>6/4</sup> )	V			bb	Bb	A	a		
7:C2	8	iv <sup>6</sup>	i <sup>6/4</sup>	iv <sup>6-5</sup> (ii <sup>o6</sup> -iv)	V			bb	a	g	a		
7:C3	16	iv <sup>6</sup>	vii <sup>o4/3</sup>	i <sup>6</sup>				bb	g	F			
7:C4	20	iv <sup>6</sup>	V <sup>6/5</sup>	i				bb	c#	d			
7:C5	28	iv <sup>6</sup>	iv <sup>6</sup>					bb	Bb				
7:C6	24	iv <sup>6</sup>	iv	vii <sup>o</sup> /iv	V <sup>7</sup> /iv			bb	g	f#	d'		
7:D1	28	iv <sup>6</sup>	V <sup>6/5</sup>					bb	c#				
7:D2	6	iv <sup>6</sup>	III <sup>6</sup>	VII <sup>4</sup>	V <sup>6/5</sup>			bb	a	c'	c#		
7:D3	22	iv <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>	V	i		bb	g	a	A	d	
7:D4	16	iv <sup>6</sup>	vii <sup>o6</sup> /iv	iv	vii <sup>o6/4</sup>			bb	a	g	g		
7:D5	7	iv <sup>6</sup>	vii <sup>o6/5</sup> /iv	iv <sup>6</sup>				bb	a	bb			
7:D6	16	iv <sup>6</sup>	i <sup>6/4</sup>	vii <sup>o6/4</sup>				bb	a	g			
7:E1	17	iv <sup>6</sup>	ii <sup>o6/5</sup>	V <sup>4/2</sup>	i <sup>6</sup>			bb	g	g	f		
7:E2	14	iv <sup>6</sup>	V <sup>7</sup> /iv	iv				bb	d'	g			
7:E3	13	iv <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>				bb	g	a			
7:E4	16	iv <sup>6</sup>	vii <sup>o6/4</sup>	i <sup>6</sup>				bb	g	f			
7:E5	4	iv <sup>6</sup> , F: ii <sup>6</sup> (C:)	III <sup>6</sup> , F: I <sup>6</sup>	VII <sup>4</sup> , F: V <sup>4-</sup>	VII <sup>3</sup> , F: V <sup>3</sup>			bb	a	c'	c'		
7:E6	14	iv <sup>6</sup>	vii <sup>o6</sup> /iv	iv				bb	a	g			
7:F1	10	iv <sup>6</sup>	iv <sup>6</sup>	i <sup>6/4</sup>	V			bb	Bb	A	a		
7:F2	14	iv <sup>6</sup>	V <sup>6/5</sup> /iv	iv <sup>4-</sup>	iv <sup>3</sup>			bb	f#	g	g		
7:F3	31	iv <sup>6</sup>	i	V <sup>4-</sup>	V <sup>7</sup>			bb	d'	a	A		
7:F4	20	iv <sup>6</sup>	i	V <sup>4-</sup>	V	i		bb	d'	a	A	d	*
7:F5	4	iv <sup>6</sup>	III <sup>6</sup> , F: I <sup>6</sup>	iv <sup>6/5</sup> , F: ii <sup>6/5</sup>	VII, F: V			bb	a	bb	c'		
7:F6	18	iv <sup>6</sup>	V <sup>6/5</sup> /iv					bb	f#				
<b>first harmony Bb<sup>6/3</sup></b>													
7:G1	14	iv <sup>6</sup>	vii <sup>o6</sup>	iv				bb	a	g			
7:G2	3	iv <sup>6</sup>	V <sup>7</sup>	i				bb	a	d'			
7:G3	23	iv <sup>6</sup>	V <sup>7</sup>	i				bb	a	d			
7:G4	7	iv <sup>6</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	iv <sup>6</sup>				bb	a	bb			
7:G5	13	iv <sup>6</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6</sup>			bb	f	g	a		
7:G6	8	iv <sup>6</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	V			bb	f	g	a		
7:H1	23	iv <sup>6</sup>	i <sup>4-</sup>	i				bb	d'	d			
7:H2	16	iv <sup>6</sup>	i <sup>6</sup>					bb	f				
7:H3	23	iv <sup>6</sup>	V <sup>6/5</sup>	i				bb	c#	d'			
7:H4	22	iv <sup>6</sup>	ii <sup>o6/5</sup>	V	i			bb	g	a	d		*
7:H5	13	iv <sup>6</sup>	i <sup>6/4</sup>					bb	a				
7:H6	7	iv <sup>6</sup>	V <sup>7</sup>	i	iv <sup>6</sup>			bb	a	d'	bb		

7:11	31	iv <sup>6</sup>	V	i	V		bb	a	d	A		**
7:12	16	iv <sup>6</sup>	iv	vii <sup>o6/4</sup>	i <sup>6</sup>		bb	g	f			
7:13	18	iv <sup>6</sup>	V <sup>6/5</sup> /iv				bb	f#				
7:14	24	iv <sup>6</sup>	v <sup>7</sup>	V <sup>7</sup> /iv			bb	a	d			
7:15	13	iv <sup>6</sup>	V <sup>7</sup>	i <sup>6/4</sup>			bb	a	a			
7:16	10	iv <sup>6</sup>	i <sup>6/4</sup>	V			bb	a	a			
7:J1	4	v	III <sup>6</sup> , F: I <sup>6</sup>	iv <sup>6</sup> , F: ii <sup>6</sup>	III <sup>6/4</sup> , F: I <sup>6/4</sup>	VII, F: V	bb	a	bb	c'	c'	
7:J2	7	iv <sup>6</sup> , g: i <sup>6</sup>	vii <sup>o7-6</sup> /iv (v <sup>7</sup> -vii <sup>o6</sup> /iv), g: vii <sup>o6</sup> (ii <sup>7</sup> -vii <sup>o6</sup> )	iv <sup>6</sup> , g: i <sup>6</sup>			bb	a	bb			
7:J3	11	iv <sup>6</sup>	V				bb	a				
7:J4	17	iv <sup>6</sup>	vii <sup>o6/4</sup>	i <sup>6</sup>			bb	g	f			
7:J5	14	iv <sup>6</sup>	vii <sup>o</sup> /iv	iv			bb	f#	g			
7:J6	11	iv <sup>6</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	V		bb	f	g	a		
7:K1	14	iv <sup>6</sup> , g: i <sup>6</sup>	v <sup>o6/5</sup> , g: ii <sup>o6/5</sup>	V/iv, g: V	iv, g: i		bb	C	d'	g		
7:K2	13	iv <sup>6</sup>	v <sup>7</sup>	III <sup>6</sup>			bb	a	a			
7:K3	16	iv <sup>6</sup>	vii <sup>o6/4</sup>				bb	g				
7:K4	17	iv <sup>6</sup>	iv <sup>6-5</sup> (ii <sup>o6</sup> -iv)	V <sup>4/2</sup>	i <sup>6</sup>		bb	g	g	f		
7:K5	8	iv <sup>6</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	VI			bb	a	bb			
7:K6	5	iv <sup>6</sup> , F: ii <sup>6</sup>	III <sup>6</sup> , F: I <sup>6</sup>	iv <sup>6/5</sup> , F: ii <sup>6/5</sup>	VII, F: V		bb	a	bb	c'		
8:A1	20	iv <sup>6</sup>	ii <sup>o6/5</sup>	V	i		bb	g	a	d'		
8:A2	23	iv <sup>6</sup>	V	i			bb	a	d'			
8:A3	16	iv <sup>6</sup>	i <sup>7-6/3-4</sup> (V <sup>7</sup> -i <sup>6/4</sup> )	vii <sup>o6/4</sup>			bb	a	g			
8:A4	24	iv <sup>6</sup>	V <sup>6</sup> /iv	V <sup>7</sup> /iv			bb	f#	a			
8:A5	16	iv <sup>6</sup>	i <sup>7-6/3-4</sup> (V <sup>7</sup> -i <sup>6/4</sup> )	vii <sup>o6/4</sup>			bb	a	g			
8:A6	13	iv <sup>6</sup>	i <sup>6/4</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>		bb	a	g	a		
<b>first harmony Bb<sup>5</sup></b>												
8:B1	7	VI	iv <sup>6</sup>				bb	bb				
8:B2	8	VI	ii <sup>o6/5</sup>	V			bb	g	a			
8:B3	8	VI	i <sup>6/4</sup>	iv <sup>6-5</sup> (ii <sup>o6</sup> -iv)	V		bb	a	g	a		
8:B4	22	VI	ii <sup>o6/5</sup>	i <sup>6/4</sup>	V	i	bb	g	a	A	d	*
8:B5	8	VI	vii <sup>o6</sup> /iv	iv <sup>8-7/3-5</sup>	V		bb	a	g	a		
8:B6	16	VI	i <sup>6/4</sup>	vii <sup>o6/5-4</sup> (ii <sup>o6/5</sup> -vii <sup>o4/3</sup> )	i <sup>6</sup>		bb	a	g	f		
8:C1	17	VI	iv	V <sup>4/2</sup>	i <sup>6</sup>		bb	g	g	f		
8:C2	29	VI	iv	i <sup>6/4</sup>	V		bb	g	a	A		
8:C3	13	VI	i <sup>6/4</sup>				bb	a				
8:C4	13	VI	i <sup>6</sup>				bb	a				
8:C5	18	VI	V <sup>6/5</sup> /iv				bb	f#				
8:C6	13	VI	ii <sup>o6/5</sup>	i <sup>6/4</sup>			bb	g	a			
8:D1	6	VI	V/VII	vii <sup>o</sup>			bb	b	c#'			
8:D2	14	VI	vii <sup>o6</sup> /iv	iv			bb	a	g			
8:D3	7	VI	i <sup>6/4</sup>	ii <sup>o6/5</sup>	iv		bb	a	g	bb		
8:D4	11	VI	i <sup>6/4</sup>	ii <sup>o6/5</sup>	ii <sup>7</sup>	V <sup>7</sup>	bb	a	g	e	a	
8:D5	11	VI	iv	V <sup>7</sup>			bb	g	a			
8:D6	11	VI	iv <sup>6</sup>	V <sup>7</sup>			bb	bb	a			
8:E1	13	VI	iv <sup>6</sup>	i <sup>6/4</sup>			bb	bb	a			
8:E2	17	VI	i <sup>6</sup>				bb	f				
8:E3	22	VI	i <sup>6</sup>	ii <sup>o6/5</sup>	V	i	bb	f	g	a	d	*
8:E4	4	VI	III <sup>6</sup>	iv <sup>6</sup>	VII		bb	a	bb	c'		
8:E5	27	VI	vii <sup>o6</sup> /iv	iv	vii <sup>o4/3</sup> /V	V	bb	a	g	d	c#	
8:E6	27	VI	iv <sup>6</sup>	vii <sup>o</sup>			bb	bb	c#			

First harmony											
Bb <sup>5/3</sup>											
8:F1	8	VI	ii <sup>06/5</sup>	V			bb	g	a		
8:F2	16	VI	ii <sup>06/5</sup>	vii <sup>06/4</sup>			bb	g	g		
8:F3	18	VI	V <sup>6/5</sup> /iv				bb	f#			
8:F4	14	VI	V <sup>4</sup>	vii <sup>06</sup> /iv	iv		bb	a	a	g	
8:F5	14	VI	vii <sup>05-6/4-3</sup> /iv (v <sup>4</sup> -vii <sup>06</sup> /iv)	iv <sup>4-</sup>	iv <sup>3</sup>		bb	a	g	g	
8:F6	3	VI	V <sup>5-7/4-3</sup> (V <sup>4</sup> -V <sup>7/3</sup> )	i <sup>4-</sup>	i <sup>3</sup>		bb	a	d	d'	
8:G1	27	VI	vii <sup>06/5-4</sup> (ii <sup>06/5-</sup> -vii <sup>06/4</sup> )	vii <sup>0</sup>			bb	g	c#'		
8:G2	16	VI	vii <sup>05-6/5-4</sup> (iv-vii <sup>04/3</sup> )	i <sup>6</sup>			bb	g	f		
8:G3	22	VI	ii <sup>06/5</sup>	V	i		bb	g	a	d	*
8:G4	8	VI	i <sup>6</sup>	ii <sup>06/5</sup>	V		bb	f	g	a	
8:G5	25	VI	iv	VI			bb	g	d		
8:G6	17	VI	vii <sup>06/4</sup>	i <sup>6</sup>			bb	g	f		
8:H1	16	VI	vii <sup>05-6/3-4</sup> (iv-vii <sup>06/4</sup> )	i <sup>6</sup>			bb	g	f		
8:H2	13	VI	ii <sup>06/5</sup>	i <sup>6/4</sup>			bb	g	a		
8:H3	16	VI	i <sup>6</sup>				bb	f			
8:H4	7	VI	iv <sup>6</sup>				bb	bb			
8:H5	31	VI	vii <sup>06/4</sup>	i	V		bb	g	d	A	**
8:H6	8	VI	vii <sup>06/4</sup>	i	V		bb	g	d	a	**
first harmony											
A#3											
8:I1	14	V	V <sup>6/5</sup> /iv	iv			a	f#	g		
8:I2	16	V	vii <sup>06/4</sup>	i <sup>6</sup>			a	g	f		
8:I3	1	V	V <sup>6/5</sup>	i			a	c#'	d'		
8:I4	20	V	V <sup>7</sup>	i			a	A	d		
8:I5	28	V	i	V			a	d	A		
8:I6	20	V	V <sup>6/5</sup>	i			a	c#	d'		
8:J1	8	V	i <sup>6/4</sup>	V			a	A	A		
8:J2	7	V	i	iv <sup>6</sup>			a	D	bb		
8:J3	28	V	i <sup>6/4</sup>	V			a	a	A		
8:J4	14	V	V <sup>7</sup> /iv	iv			a	d	g		
8:J5	8	V	i	V			a	d'	a		
8:J6	14	V	V <sup>7</sup> /iv	iv			a	d'	g		
8:K1	8	V	III <sup>6</sup> , F: I <sup>6</sup> , Bb: V <sup>6</sup>	VI, F: IV, Bb: I			a	a	bb		
8:K2	16	V	vii <sup>06</sup>	i <sup>6</sup>			a	e	f		
8:K3	31	V	V	iv <sup>7-6</sup> (VI <sup>7</sup> -iv <sup>6</sup> )	V <sup>8/-3</sup>		a	A	Bb	A	**
8:K4	6	V	V <sup>6/5</sup>				a	c#'			
8:K5	14	V	vii <sup>06</sup> /iv	iv			a	a	g		
8:K6	8	V	V	V			a	A	a		
9:A1	8	V	i <sup>6/4</sup>	V			a	a	a		
9:A2	11	V	i <sup>6</sup>	iv <sup>6</sup>	V <sup>7</sup>		a	f	bb	a	
9:A3	18	V	vii <sup>06/4</sup>	vii <sup>0</sup> /iv			a	g	f#		
9:A4	7	V	vii <sup>06/4</sup> /iv	iv <sup>6</sup>			a	c'	bb		
9:A5	20	V	i <sup>6</sup>	vii <sup>06</sup>	i		a	f	e	d	
9:A6	22	V	i	V <sup>4-3</sup>	i		a	d	A	d	*
9:B1	14	V	vii <sup>0</sup> /iv	iv			a	f#	g		
9:B2	17	V	vii <sup>06/4</sup>	i <sup>6</sup>			a	g	f		
9:B3	3	V	i	i			a	d	d'		
9:B4	23	V	V <sup>7</sup>	i			a	A	d		

9:B5	29	V	i	V			a	d	A				
9:B6	23	V	vii <sup>0</sup>	i			a	c#	d				
9:C1	10	V	i <sup>6/4</sup>	V			a	A	a				
9:C2	7	V	i	iv <sup>6</sup>			a	d'	bb				
9:C3	29	V	i <sup>6/4</sup>	V			a	a	A				
9:C4	14	V	V <sup>7</sup> /iv	iv			a	d	g				
9:C5	8	V	i	V			a	d'	a				
9:C6	14	V	V <sup>7</sup> /iv	iv			a	d'	g				
9:D1	6	V	IV	V <sup>6/5</sup>			a	d'	c#'				
9:D2	12	V	i <sup>6/4</sup>	V <sup>7</sup>			a	A	a				
9:D3	10	V	i <sup>6/4</sup>	V			a	a	a				
9:D4	17	V	vii <sup>06</sup>	i <sup>6</sup>			a	e	f				
9:D5	3	V	vii <sup>0</sup>	i			a	c#'	d'				
9:D6	11	V	iv <sup>7-6</sup> (V <sup>7</sup> - iv <sup>6</sup> )	V <sup>7</sup>			a	bb	a				
9:E1	8	V	iv <sup>7-6</sup> (V <sup>7</sup> - iv <sup>6</sup> )	V			a	bb	a				
9:E2	7	V	V <sup>7</sup>	iv <sup>6</sup>			a	bb	bb				
9:E3	13	V	iv <sup>7-6</sup> (V <sup>7</sup> - iv <sup>6</sup> )	i <sup>6/4</sup>			a	bb	a				
9:E4	7	V	iv <sup>6</sup>	vii <sup>06/5</sup> /iv	iv <sup>6</sup>		a	bb	a	bb			
9:E5	6	V	i	V <sup>6/5</sup>			a	d'	c#'				
9:E6	18	V	V <sup>6</sup> /iv	V <sup>6/5</sup> /iv			a	f#	f#				
9:F1	14	V	vii <sup>06-5</sup> /iv (V <sup>6</sup> /iv - vii <sup>0</sup> /iv)	iv			a	f#	g				
9:F2	28	V	V <sup>6/5</sup>				a	c#					
9:F3	17	V	i <sup>6</sup>				a	f					
9:F4	13	V	iv <sup>6</sup>	i <sup>6/4</sup>			a	bb	a				
9:F5	18	V	V <sup>6/5</sup> /iv				a	f#					
9:F6	18	V	i <sup>6</sup>	V <sup>6/5</sup> /iv			a	f	f#				
9:G1	8	V	i <sup>7-6/3-4</sup> (V <sup>7</sup> - i <sup>6/4</sup> )	i <sup>6/4</sup>	V		a	a	A	a			
9:G2	1	V	i	ii <sup>4/2</sup>	V <sup>6</sup>	i	a	d'	d'	c#'	d'		
9:G3	7	V	i	V/iv	vii <sup>06/4</sup> /iv	iv <sup>6</sup>	a	d'	d'	C	bb		
9:G4	28	V	V	V <sup>7</sup>	iv <sup>6</sup>		a	A	Bb	Bb			
9:G5	20	V	i <sup>6</sup>	ii <sup>05-6</sup> (iv-ii <sup>06</sup> )	i <sup>6/4</sup>	V	a	f	g	a	A		
9:G6	29	V	V				a	A					
9:H1	20	V	V	V <sup>6</sup> /VII	vii <sup>0</sup>	i	a	A	B	c#	d		
9:H2	24	V	V <sup>7</sup> /iv				a	d					
9:H3	8	V	i <sup>6</sup>	ii <sup>05-6</sup> (iv-ii <sup>06</sup> )	V		a	f	g	a			
9:H4	8	V	i	ii <sup>06/5</sup>	V		a	d'	g	a			
9:H5	3	V	i				a	d'					
9:H6	13	V	i <sup>6/4</sup>				a	a					
9:I1	27	V	V	V <sup>7</sup>	V <sup>6/5</sup> /VII	VII	a	A	Bb	B	c		
9:I2	27	V	V	V <sup>7</sup>	V <sup>6</sup> /VII	vii <sup>0</sup>	a	A	Bb	B	c#		
9:I3	3	V	IV <sup>6</sup> (V <sup>6</sup> /VII)	vii <sup>0</sup>	i		a	b	c#'	d'			
9:I4	17	V	vii <sup>07</sup> /V	vii <sup>04/3</sup>	i <sup>6</sup>		a	g#	g	f			
9:I5	25	V	i <sup>6</sup>	V <sup>6/5</sup>	iv <sup>6/4</sup>		a	f	d	d			
9:I6	7	V	i	vii <sup>06/4</sup> /iv	iv <sup>6</sup>		a	d'	c'	bb			
9:J1	8	V	VI				a	bb					
9:J2	15	V	V <sup>6/5</sup> /iv	IV <sup>4-</sup>	IV <sup>3</sup>		a	f#	g	g			
9:J3	6	V	i	ii <sup>4/2</sup>	V <sup>6/5</sup>		a	d'	d'	c#'			
9:J4	7	V	i	v <sup>6</sup>	iv <sup>6</sup>		a	d'	c'	bb			
9:J5	28	V	V	iv <sup>6</sup>			a	A	Bb				
9:J6	26	V	i <sup>6</sup>	V <sup>6</sup>			a	f	d				
9:K1	27	V	i <sup>6</sup>	vii <sup>0</sup>			a	f	c#'				
9:K2	20	V	i <sup>6</sup>	ii <sup>7</sup>	vii <sup>06</sup>	i	a	f	e	d			

9:K3	7	V	vii <sup>o6/5</sup> /iv	iv <sup>6</sup>			a	a	bb			
9:K4	16	V	i <sup>6/4</sup>	vii <sup>o6/4</sup>			a	a	g			
9:K5	6	V	iv <sup>6</sup>	vii <sup>o</sup>			a	b	c#			
9:K6	14	V	V <sup>6/5</sup> /iv	iv <sup>4-</sup>	iv <sup>3</sup>		a	f#	g	g		
10:A1	20	V	V <sup>6/5</sup> /iv	iv <sup>9</sup>	ii		a	f#	g	e		
10:A2	13	V	iv <sup>6</sup>	i <sup>6/4</sup>			a	bb	a			
10:A3	14	V	V <sup>6/5</sup> /iv	iv <sup>4-</sup>	iv <sup>3</sup>		a	f#	g	g		
10:A4	8	V	i <sup>6/4</sup>	ii <sup>o6/5</sup>	vii <sup>o</sup> /v	V	a	a	g	g#	a	
10:A5	14	V	vii <sup>o6/5</sup> /iv	iv <sup>4-</sup>	iv <sup>3</sup>		a	a	g	g		
10:A6	14	V	i <sup>6</sup>	iv <sup>9-</sup>	iv <sup>8</sup>		a	f	g	g		
10:B1	8	V	III <sup>6</sup>	V <sup>7/6-5</sup>	i <sup>6/5-4</sup>	V	a	a	A	A	a	
10:B2	28	V	i	V <sup>6</sup>	vii <sup>o6/4</sup> /iv	iv	a	d	c#	c	bb	
10:B3	20	V	V <sup>7</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	i		a	a	A	d		*
10:B4	33	V	i	ii <sup>o6/5</sup>	V	i	a	d	G	A	D	*
10:B5	22	V	i <sup>6</sup>	ii <sup>o6/5</sup>	i		a	f	g	d		*
10:B6	23	V	i				a	d				
10:C1	23	V	i <sup>6/4</sup>	vii <sup>o</sup>	i		a	a	c#	d		
10:C2	23	V	V <sup>7</sup>	i <sup>4-</sup>	i <sup>3</sup>		a	a	d	d		
10:C3	11	V	i <sup>6/4</sup>	V <sup>7</sup>			a	a	a			
10:C4	17	V	i <sup>6/4</sup>	vii <sup>o6/4</sup>	i <sup>6</sup>		a	a	g	f		
10:C5	3	V	V <sup>7</sup>	i <sup>4-</sup>	i <sup>3</sup>		a	a	d	d'		
10:C6	20	V	V <sup>7</sup>	i			a	a	d			
<b>first harmony</b>												
<b>A<sup>8/#4</sup></b>												
10:D1	14	V	vii <sup>o</sup> /iv	iv			a	f#	g			
10:D2	17	V	vii <sup>o6/4</sup>	i <sup>6</sup>			a	g	f			
10:D3	20	V	i				a	d				
10:D4	23	V	V <sup>7</sup>	i			a	A	d			
10:D5	29	V	i	V			a	d	A			
10:D6	23	V	vii <sup>o</sup>	i			a	c#	d			
10:E1	13	V	V <sup>7</sup>	i <sup>6/4</sup>			a	A	A			
10:E2	7	V	i	iv <sup>6</sup>			a	D	bb			
10:E3	17	V	vii <sup>o6</sup>	i <sup>6</sup>			a	e	f			
10:E4	14	V	V <sup>7</sup> /iv	iv			a	d	g			
10:E5	1	V	i				a	d'				
10:E6	14	V	V <sup>7</sup> /iv	iv			a	d'	g			
10:F1	6	V	IV <sup>6</sup>	V <sup>6/5</sup>			a	b	c#			
10:F2	10	V	i <sup>6/4</sup>	V			a	A	a			
10:F3	29	V	i <sup>6/4</sup>	V			a	A	A			
10:F4	10	V	i <sup>6</sup>	V			a	f	a			
10:F5	3	V	vii <sup>o</sup>	i			a	C#	D			
10:F6	26	V	i	VI <sup>6</sup>			a	d	d			
10:G1	7	V	VI <sup>6</sup>	iv <sup>6</sup>			a	bb	bb			
10:G2	27	V	iv <sup>6</sup>	iv <sup>6/4</sup>	vii <sup>o</sup>		a	bb	d	c#		
10:G3	31	V	VI <sup>7</sup>	iv <sup>6</sup>	V <sup>7</sup>		a	bb	Bb	A		
10:G4	23	V	i <sup>9-</sup>	i <sup>8</sup>			a	d	d			
10:G5	7	V	VI	iv <sup>6</sup>			a	bb	bb			
10:G6	27	V	iv <sup>7-6</sup> (VI <sup>7</sup> -iv <sup>6</sup> )	vii <sup>o</sup>			a	bb	c#			
10:H1	20	V	iv <sup>6</sup>	V <sup>6/5</sup>	i		a	bb	c#	d		
10:H2	17	V	VI <sup>4/2</sup>	ii <sup>o6</sup>	V <sup>4/2</sup>	i <sup>6</sup>	a	a	g	g	f	
10:H3	27	V	iv <sup>6/5-4</sup> (VI <sup>6/5</sup> -iv <sup>6/4</sup> )	vii <sup>o</sup>			a	d	c#			
10:H4	8	V	i <sup>6</sup>	ii <sup>o6/5</sup>	V		a	f	g	A		

10:H5	1	V	$iv^6$	$vii^0$	i		a	b	c#	D		
10:H6	18	V	$i^6$	$V^{6/5}/iv$			a	f	f#			
10:I1	16	V	V	$vii^{06/4}$	$i^6$		a	A	g	f		
10:I2	28	V	$i^6$	$V^{6/5}$			a	f	c#			
10:I3	16	V	$i^6$				a	f				
10:I4	20	V	$vii^0$	i			a	c#	d			
10:I5	17	V	$iv^6$	$ii^{06/5}$	$V^{4/2}$	$i^6$	a	bb	g	g	f	
10:I6	8	V	V	$i^{6/4}$	V		a	A	A	a		
10:J1	23	V	$vii^0$	$V^7$	$i^9$	$i^8$	a	c#	A	d	d	
10:J2	18	V	i	$VII^6$	$vii^0/iv$		a	d	e	f#		
10:J3	6	V	$IV^{7-6}$	$vii^0$			a	b	c#			
10:J4	14	V	$i^6$	$V^7/iv$	iv		a	f	d	g		
10:J5	11	V	$i^6$	$iv^6$	$V^7$		a	f	bb	a		
10:J6	24	V	$i^6$	$V^7/iv$			a	f	d			
10:K1	18	V	$iv^{7-6} (VI^7-iv^6)$	$V^{6/5}/iv$			a	bb	f#			
10:K2	23	V	$i^6$	i			a	f	d			
10:K3	7	V	$i^6$	$iv^6$			a	f	bb			
10:K4	25	V	$i^6$	$iv^{6/4}$			a	f	d			
10:K5	1	V	i	$vii^0$	i		a	d'	c#	d'		
10:K6	28	V	V				a	A				
11:A1	8	V	$iv^6$	$ii^{06/5}$	V		a	bb	g	a		
11:A2	28	V	$V^{6/5}$				a	c#				
11:A3	18	V	$iv^6$	$V^{6/5}/iv$			a	bb	f#			
11:A4	7	V	$iv^6$	$vii^{06/5}/iv$	$iv^6$		a	bb	a	bb		
11:A5	11	V	$i^{6/4}$	V	$V^7$		a	a	A	a		
11:A6	31	V	$i^{6/4}$	$V^7$			a	a	A			
11:B1	27	V	$i^{6/4}$	V	$vii^0$		a	a	A	c#		
11:B2	16	V	$i^{6/4}$	$vii^{06/4}$			a	a	g			
11:B3	11	V	$i^{6/4}$	$iv^6$	$V^7$		a	a	bb	a		
11:B4	7	V	i	$vii^{06}/iv$	iv6		a	d'	a	bb		
11:B5	24	V	$vii^0/iv$	$V^7/iv$			a	f#	d			
11:B6	15	V	$vii^0$	IV			a	f#	g			
11:C1	13	V	$i^6$	$ii^{06/5}$	$i^{6/4}$		a	f	g	a		
11:C2	33	V	$V^{5-7/3-#3}/iv (i-V^7/iv)$	iv			a	d	G			
11:C3	27	V	$i^6$	$vii^{06}/VII$	VII		a	f	d	c		
11:C4	12	V	$i^6$	i	$v^4$	$v^3$	a	f	d	a	a	
11:C5	25	V	$i^6$	$vii^{06}/VII$			a	f	d			
11:C6	6	V	$VI^7$	$IV^6$	$vii^0$		a	bb	b	C#		
11:D1	3	V	$i^9$	$i^8$			a	d	d'			
11:D2	14	V	$V^6/iv$	$V^7/iv$	iv		a	f#	d	g		
11:D3	13	V	$iv^{7-6} (VI^7-iv^6)$	$i^{6/4}$			a	bb	a			
11:D4	17	V	$i^{7-}$	$i^6$			a	f	f			
11:D5	17	V	$i^9$	$i^6$			a	d	f			
11:D6	28	V	i	$vii^{06/5}/iv$	$iv^6$		a	d	c	Bb		
11:E1	23	V	$i^9$	$i^8$			a	d'	d			
11:E2	13	V	$ii^{06/4}$	$i^{6/4}$			a	bb	a			
11:E3	16	V	$ii^{06/4}$	$ii^{04/3}$	$i^6$		a	bb	g	f		
11:E4	26	V	$i^6$	i	$VI^6$		a	f	d	d		
11:E5	23	V	VI	iv	$i^4$	$i^3$	a	bb	g	d'	d	
11:E6	12	V	$i^6$	v			a	f	a			
11:F1	14	V	i	$V^7/iv$	iv		a	d	d'	g		
11:F2	17	V	i	$i^6$			a	d	f			

11:F3	16	V	iv <sup>6</sup>	vii <sup>o6/4</sup>			a	bb	g			
11:F4	32	V	i <sup>6</sup>	vi <sup>o6</sup>	v		a	f	d	A		
11:F5	14	V	i	V <sup>6/5</sup> /iv	iv		a	d'	f#	g		
11:F6	7	V	i <sup>6</sup>	iv <sup>6</sup>			a	f	bb			
<b>first harmony</b>												
<b>A<sup>7/#3</sup></b>												
11:G1	31	V <sup>7</sup>	i	V			a	d	A			**
11:G2	23	V <sup>7</sup>	i <sup>8/3</sup>				a	d				
11:G3	13	V <sup>7</sup>	i <sup>6/4</sup>				a	a				
11:G4	20	V <sup>7</sup>	V	i			a	A	d			
11:G5	3	V <sup>7</sup>	i				a	d'				
11:G6	18	V <sup>7</sup>	i	vii <sup>o</sup> /iv			a	d'	f#			
11:H1	8	V <sup>7</sup>	i <sup>6/4</sup>	V			a	a	a			
11:H2	28	V <sup>7</sup>	i <sup>6/4</sup>	V			a	a	A			**
11:H3	28	V <sup>7</sup>	i	V <sup>6/5</sup>			a	d	c#			
11:H4	18	V <sup>7</sup>	i	V <sup>6/5</sup> /iv			a	d'	f#			
11:H5	13	V <sup>7</sup>	i	i <sup>6/4</sup>			a	d'	a			
11:H6	7	V <sup>7</sup>	i	iv <sup>6</sup>			a	d'	bb			
11:I1	24	V <sup>7</sup>	i <sup>6/4</sup>	V <sup>4</sup>	V <sup>7/3</sup> /iv		a	A	a	d		
11:I2	8	V <sup>7</sup>	i	III <sup>5-6/4-3</sup> (V <sup>4</sup> -III <sup>6</sup> )	VI		a	d	a	bb		
11:I3	7	V <sup>7</sup>	i	v <sup>6</sup>	iv <sup>6</sup>		a	d'	c'	bb		
11:I4	14	V <sup>7</sup>	i	V <sup>7</sup> /iv	iv		a	d'	d	g		
11:I5	1	V <sup>7</sup>	vii <sup>o</sup>	i			a	c#'	d'			
11:I6	7	V <sup>7</sup>	i	vii <sup>o6/4</sup> /iv	iv <sup>6</sup>		a	d'	c'	bb		
11:J1	10	V <sup>7</sup>	i <sup>6/4</sup>	ii <sup>o6/5</sup>	V		a	a	g	a		
11:J2	13	V <sup>7</sup>	i	ii <sup>o6/5</sup>	iv <sup>6</sup>	i <sup>6/4</sup>	a	d'	g	bb	a	
11:J3	23	V <sup>7</sup>	i <sup>6/4</sup>	vii <sup>o</sup>	i		a	a	c#	d		
11:J4	8	V <sup>7</sup>	i	ii <sup>o6/4</sup>	V <sup>7</sup> /VII	V	a	d'	bb	g	a	
11:J5	6	V <sup>7</sup>	i	ii <sup>4/2</sup>	V <sup>6/5</sup>		a	d'	d	c#'		
11:J6	25	V <sup>7</sup>	i <sup>6/4</sup>	V <sup>7</sup> /iv	iv <sup>6/4</sup>		a	a	d	d		
11:K1	1	V <sup>7</sup>	i	ii <sup>4/2</sup>	vii <sup>o</sup>	i	a	d'	d'	c#'	D	
11:K2	6	V <sup>7</sup>	V <sup>6/5</sup>				a	c#'				
11:K3	25	V <sup>7</sup>	i	V <sup>7</sup> /iv			a	d'	d			
11:K4	22	V <sup>7</sup>	i <sup>6/4</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	i		a	a	A	d		*
11:K5	22	V <sup>7</sup>	i	i <sup>6/4</sup>	V	i	a	d	a	A	d	*
11:K6	29	V <sup>7</sup>	i	i <sup>6/4</sup>	V		a	d	a	A		
12:A1	17	V <sup>7</sup>	i	vii <sup>o6/4</sup>	i <sup>6</sup>		a	d	g	f		
12:A2	23	V <sup>7</sup>	i	vii <sup>o</sup>	i		a	d	c#	d		
12:A3	12	V <sup>7</sup>	i	v <sup>4</sup>	v <sup>3</sup>		a	d	A	a		
12:A4	28	V <sup>7</sup>	i	ii <sup>4/2</sup>	V <sup>7</sup>		a	d	d	c#		
12:A5	7	V <sup>7</sup>	i	ii <sup>4/2</sup>	v	iv	a	d'	d'	c'	bb	
12:A6	28	V <sup>7</sup>	i	vii <sup>o6/iv</sup>	iv <sup>6</sup>		a	d	A	Bb		
12:B1	31	V <sup>7</sup>	i	VI	ii <sup>o6/5</sup>	V <sup>7</sup>	a	d	Bb	G	A	
12:B2	27	V <sup>7</sup>	i	iv <sup>6</sup>	iv	vii <sup>o</sup>	a	d'	bb	g	c#	
12:B3	22	V <sup>7</sup>	i	ii <sup>o6/5</sup>	V	i	a	d'	g	a	d	*
12:B4	33	V <sup>7</sup>	i	V <sup>4</sup>	V <sup>7</sup> /iv	iv	a	d	A	d	G	
12:B5	7	V <sup>7</sup>	i	ii <sup>o6/5</sup>	iv <sup>6</sup>		a	d'	g	bb		
12:B6	16	V <sup>7</sup>	i <sup>6/4</sup>	vii <sup>o5-6/5-4</sup> (iv- vii <sup>o4/3</sup> )	i <sup>6</sup>		a	A	g	f		
12:C1	14	V <sup>7</sup>	i <sup>6/4</sup>	vii <sup>o5-6/4-3</sup> /iv (V <sup>4</sup> - vii <sup>o6</sup> /iv)	iv <sup>4-</sup>	iv <sup>3</sup>	a	a	A	G	G	
12:C2	16	V <sup>7</sup>	i <sup>6/4</sup>	vi <sup>o6/4</sup>			a	a	g			
12:C3	16	V <sup>7</sup>	i	vii <sup>o6/5-6/3-4</sup> (ii <sup>o6/5-</sup>	i <sup>6</sup>		a	d	g	f		

				vii <sup>o6/4</sup> )										
12:C4	8	V <sup>7</sup>	i	ii <sup>4/2</sup>	v <sup>6</sup>	VI	a	d'	d'	c'	bb			
12:C5	4	V <sup>7</sup>	i	iv <sup>6/5</sup>	VII		a	d'	bb	c'				
12:C6	31	V <sup>7</sup>	i	ii <sup>o6/5</sup>	V <sup>7</sup>		a	d	G	A				
12:D1	28	V <sup>7</sup>	i	vii <sup>o6/4</sup> /iv	iv <sup>6</sup>		a	d	c	Bb				
12:D2	6	V <sup>7</sup>	i	V <sup>6/5</sup> /VII	V <sup>6/5</sup>		a	d'	b	c#'				
12:D3	25	V <sup>7</sup>	i <sup>6/4</sup>	V <sup>7</sup> /iv			a	a	d					
12:D4	24	V <sup>7</sup>	i	V <sup>4</sup>	V <sup>7/3</sup>		a	d	A	d				
12:D5	8	V <sup>7</sup>	i	ii <sup>o6/5</sup>	V		a	d'	g	a				
12:D6	3	V <sup>7</sup>	i				a	d'						
12:E1	26	V <sup>7</sup>	i	iv <sup>6/4</sup>			a	d'	d					
12:E2	7	V <sup>7</sup>	i	vii <sup>o6/4</sup> /iv	iv <sup>7-</sup>	iv <sup>6</sup>	a	d'	c'	bb	bb			
12:E3	11	V <sup>7</sup>	i <sup>6/4</sup>	ii <sup>o7-6/5</sup> (iv <sup>7</sup> -ii <sup>o6/5</sup> )	V <sup>7</sup>		a	a	g	a				
12:E4	27	V <sup>7</sup>	i	ii <sup>4/2</sup>	v <sup>6</sup>		a	d'	d'	c'				
12:E5	16	V <sup>7</sup>	i <sup>6/4</sup>	ii <sup>o6/5</sup>	vii <sup>o6/4</sup>		a	a	g	g				
12:E6	13	V <sup>7</sup>	i	V <sup>4</sup>	III <sup>6</sup>		a	d	a	a				
<b>first</b>														
<b>harmony A<sup>7/-</sup></b>														
<b>#3</b>														
12:F1	29	V <sup>7/-#3</sup>	i	V			a	d	A					
12:F2	8	V <sup>7/-#3</sup>	i	ii <sup>o6/5</sup>	V		a	d	g	a				
12:F3	13	V <sup>7/-#3</sup>	i	i <sup>6/4</sup>			a	d'	A					
12:F4	26	V <sup>7/-#3</sup>	i	VI			a	d'	d					
12:F5	13	V <sup>7/-#3</sup>	i	III <sup>6</sup>			a	d	a					
12:F6	10	V <sup>7/-#3</sup>	i	V			a	d	a					
12:G1	7	V <sup>7/-#3</sup>	i	V <sup>4/2</sup> /iv	iv <sup>6</sup>		a	d'	c'	bb				
12:G2	17	V <sup>7/-#3</sup>	i	i <sup>6</sup>			a	d	f					
12:G3	7	V <sup>7/-#3</sup>	i	vii <sup>o6</sup> /iv	iv <sup>6</sup>		a	d'	a	bb				
12:G4	8	V <sup>7/-#3</sup>	i	v	VI		a	d'	c'	bb				
12:G5	1	V <sup>7/-#3</sup>	i				a	d'						
12:G6	28	V <sup>7/-#3</sup>	i	V/iv	iv <sup>6</sup>		a	d'	d	Bb				
12:H1	20	V <sup>7/-#3</sup>	i				a	d						
12:H2	23	V <sup>7/-#3</sup>	i	i <sup>4-</sup>	i <sup>3</sup>		a	d	d					
12:H3	19	V <sup>7/-#3</sup>	i	ii <sup>o6-5</sup> (VII <sup>6</sup> -ii <sup>o</sup> )	III		a	d	e	f				
12:H4	27	V <sup>7/-#3</sup>	i	v <sup>6</sup>			a	d	c					
12:H5	28	V <sup>7/-#3</sup>	i	vii <sup>o6/4</sup> /iv	iv <sup>6</sup>		a	d	c	Bb				
12:H6	3	V <sup>7/-#3</sup>	iv <sup>6/4</sup>	i			a	d	D					
<b>first</b>														
<b>harmony a<sup>3</sup></b>														
12:I1	14	v, g: ii	V <sup>5-5/4-3</sup> /iv (iv <sup>6/4</sup> -V/iv), g: V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	iv, g: i			a	d	g					
12:I2	19	v, F: iii (Bb)	VI <sup>6</sup> , F: IV <sup>6</sup>	ii <sup>o</sup> , F: vii <sup>o</sup>	III, F: I		a	d	e	f				
12:I3	20	v	i <sup>6-5</sup> (vi <sup>o6</sup> -i)	ii <sup>4-</sup>	ii <sup>3</sup>		a	d	e	e				
12:I4	27	v	VI	v <sup>6</sup>			a	d	c					
12:I5	28	v	iv <sup>6/4</sup>	vii <sup>o6/4</sup> /iv	iv <sup>6</sup>		a	d	c	Bb				
12:I6	23	v	iv <sup>6/4</sup>	i			a	d	d					
12:J1	23	v	VI	i			a	d	d					
12:J2	15	v	V <sup>7</sup> /iv	iv			a	d	g					
12:J3	18	v	VI	ii <sup>o</sup>	III <sup>4-</sup>	III <sup>3</sup>	a	d	e	f	f			
12:J4	14	v	V <sup>7</sup> /iv	iv			a	d'	g					
12:J5	25	v	V <sup>7</sup> /iv				a	d						
12:J6	14	v	V <sup>6/5</sup> /iv	iv			a	f#	g					
12:K1	32	v	V/V	v			a	d'	A					



12:K2	18	v	V <sup>6/5</sup> /iv				a	f#					
12:K3	33	v, g: ii	V <sup>6-5/4-3</sup> /iv (iv <sup>6/4</sup> - V/iv)	iv, g: i			a	d	G				
12:K4	25	v	VI <sup>6/5</sup>	iv <sup>6/4</sup>			a	d	d				
12:K5	26	v	VI				a	d					
12:K6	14	v	V <sup>6/5</sup> /iv	iv			a	f#	g				
13:A1	31	v	iv <sup>6/5-4</sup> (VI <sup>6/5</sup> -iv <sup>6/4</sup> )	V <sup>7</sup>			a	d	A				
13:A2	18	v	VI	III			a	d	f				
13:A3	28	v	V <sup>6-5</sup> /iv	iv <sup>7-</sup>	iv <sup>6</sup>		a	d	Bb	Bb			
13:A4	7	v	V <sup>7</sup> /iv	iv <sup>6</sup>			a	d	Bb				
13:A5	17	v	VI <sup>4/2</sup>	ii <sup>6/5</sup>	V <sup>4/2</sup>	i <sup>6</sup>	a	a	g	g	f		
13:A6	31	v	ii <sup>4-3</sup>	V <sup>7</sup>			a	e	A				
<b>first harmony A<sup>6</sup></b>													
13:B1	7	III <sup>6</sup>	vii <sup>o6</sup> /iv	iv <sup>6</sup>			a	a	bb				
13:B2	8	III <sup>6</sup> , Bb: V <sup>6</sup>	III, Bb: V	VI, Bb: I			a	f	bb				
13:B3	14	III <sup>6</sup>	V <sup>7</sup> /iv	iv			a	d	g				
13:B4	24	III <sup>6</sup>	V <sup>7</sup> /iv				a	d					
13:B5	12	III <sup>6</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	V <sup>7</sup>		a	f	g	a			
13:B6	4	III <sup>6</sup>	V <sup>6/5</sup> /VII	VII <sup>4-</sup>	VII <sup>3</sup>		a	b	c'	c'			
13:C1	23	III <sup>6</sup>	III	vii <sup>o6</sup>	i		a	f	d'	d			
13:C2	20	III <sup>6</sup>	III	iv <sup>9</sup>	ii		a	f	g	e			
13:C3	28	III <sup>6</sup>	III	V <sup>6</sup>	V <sup>6/5</sup>		a	f	c#	c#			
13:C4	20	III <sup>6</sup>	III	ii <sup>7</sup>	vii <sup>o6</sup>	i	a	f	e	d			
13:C5	17	III <sup>6</sup>	i <sup>6</sup>				a	f					
13:C6	16	III <sup>6</sup>	i <sup>6</sup>	vii <sup>o6-6/5-4/3</sup> (iv-vii <sup>o4/3</sup> )	i <sup>6</sup>		a	f	g	f			
<b>first harmony A<sup>6/3</sup></b>													
13:D1	11	v, g: ii	V <sup>6-5/4-3</sup> /iv (iv <sup>6/4</sup> - V/iv), g: V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	iv, g: i			a	g	g	a			
13:D2	17	v, F: iii (Bb)	VI <sup>6</sup> , F: IV <sup>6</sup>	ii <sup>o</sup> , F: vii <sup>o</sup>	III, F: I		a	g	f	f			
13:D3	17	v	i <sup>6-5</sup> (vi <sup>o6</sup> -i)	ii <sup>4-</sup>	ii <sup>3</sup>		a	g	c'	f	f		
13:D4	31	v	VI	v <sup>6</sup>			a	g	G	A			
13:D5	27	v	iv <sup>6/4</sup>	vii <sup>o6/4</sup> /iv	iv <sup>6</sup>		a	g	bb	c#			
13:D6	19	v	iv <sup>6/4</sup>	i			a	bb	c'	f			
13:E1	17	v	VI	i			a	a	g	g	f		
13:E2	4	v	V <sup>7</sup> /iv	iv			a	c'	c'				
13:E3	8	v	VI	ii <sup>o</sup>	III <sup>4-</sup>	III <sup>3</sup>	a	bb	g	a			
13:E4	19	v	V <sup>7</sup> /iv	iv			a	c'	c	f			
13:E5	16	v	V <sup>7</sup> /iv				a	g	f				
13:E6	1	v	V <sup>6/5</sup> /iv	iv			a	b	c#	d'			
<b>first harmony A<sup>6/4</sup></b>													
13:F1	16	v	V <sup>6/5</sup> /iv				a	g	f				V/ v
13:F2	23	v, g: ii	V <sup>6-5/4-3</sup> /iv (iv <sup>6/4</sup> - V/iv)	iv, g: i			a	c#	d				
13:F3	28	v	VI <sup>6/5</sup>	iv <sup>6/4</sup>			a	A	Bb	Bb			
13:F4	22	v	VI				a	g	a	d			*
13:F5	12	v	V <sup>6/5</sup> /iv	iv			a	a	a				
13:F6	8	v	iv <sup>6/5-4</sup> (VI <sup>6/5</sup> -iv <sup>6/4</sup> )	V <sup>7</sup>			a	g#	a				
13:G1	7	v	VI	III			a	g	a	bb			
13:G2	14	v	V <sup>6-5</sup> /iv	iv <sup>7-</sup>	iv <sup>6</sup>		a	A	a	g	g		
13:G3	24	v	V <sup>7</sup> /iv	iv <sup>6</sup>			a	a	d				

13:G4	17	v	VI <sup>4/2</sup>	ii <sup>ø6/5</sup>	V4 <sup>2</sup>	i <sup>6</sup>	a	g	f				
13:G5	7	v	ii <sup>4-3</sup>	V <sup>7</sup>			a	bb					
13:G6	8						a	a	bb				
13:H1	18	III <sup>6</sup>	vii <sup>ø6</sup> /iv	iv <sup>6</sup>			a	a	f#				
13:H2	20	III <sup>6</sup> , Bb: V <sup>6</sup>	III, Bb: V	VI, Bb: I			a	A	d				
13:H3	18	III <sup>6</sup>	V <sup>7</sup> /iv	iv			a	a	f#				
13:H4	13	III <sup>6</sup>	V <sup>7</sup> /iv				a	a	a				
13:H5	7	III <sup>6</sup>	i <sup>6</sup>	ii <sup>ø6/5</sup>	V <sup>7</sup>		a	A	a	bb			
13:H6	17	III <sup>6</sup>	V <sup>6/5</sup> /VII	VII <sup>4-</sup>	VII <sup>3</sup>		a	a	f				
13:I1	14	III <sup>6</sup>	III	vii <sup>ø6</sup>	i		a	A	a	g			
13:I2	23	III <sup>6</sup>	III	iv <sup>9</sup>	ii		a	A	d	d			
13:I3	8	III <sup>6</sup>	III	V <sup>6</sup>	V <sup>6/5</sup>		a	A	a				
13:I4	8	III <sup>6</sup>	III	ii <sup>7</sup>	vii <sup>ø6</sup>	i	a	bb	g	a			
13:I5	16	III <sup>6</sup>	i <sup>6</sup>				a	A	a	g			
13:I6	16	III <sup>6</sup>	i <sup>6</sup>	vii <sup>ø5-6/5-4/3</sup> (iv- vii <sup>ø4/3</sup> )	i <sup>6</sup>		a	g	g				
<b>first harmony A<sup>6/-</sup> /5</b>													
13:J1	16	i <sup>6/-14</sup>	vii <sup>ø6/4</sup>	i <sup>6</sup>			a	g	f				
13:J2	8	i <sup>6/-14</sup>	i <sup>6/4</sup>	V			a	A	a				
13:J3	28	i <sup>6/-14</sup>	V	V <sup>6/5</sup>			a	A	c#				
13:J4	13	i <sup>6/-14</sup>	V	iv <sup>6</sup>	i <sup>6/4</sup>		a	a	bb	a			
13:J5	17	i <sup>6/-14</sup>	V	iv <sup>6</sup>			a	a	bb				
13:J6	23	i <sup>6/-14</sup>	V	V <sup>6/5</sup>	i		a	a	c#	d			
13:K1	18	i <sup>6/-14</sup>	V	V <sup>6/5</sup> /iv			a	a	f#				
13:K2	29	i <sup>6/-14</sup>	V				a	A					
13:K3	11	i <sup>6/-14</sup>	V	V <sup>7</sup>			a	A	a				
13:K4	7	i <sup>6/-14</sup>	V	vii <sup>ø5-6</sup> /iv (v- vii <sup>ø6</sup> /iv)	iv <sup>6</sup>		a	A	a	bb			
13:K5	22	i <sup>6/-14</sup>	V	i			a	A	d				*
13:K6	25	i <sup>6/-14</sup>	V	V <sup>7</sup> /iv			a	a	d				
14:A1	7	i <sup>6/-14</sup>	V	vii <sup>ø6/4</sup> /iv	iv <sup>6</sup>		a	a	C	bb			
14:A2	16	i <sup>6/-14</sup>	V	vii <sup>ø5-6/5-4/3</sup> (iv- vii <sup>ø4/3</sup> )	i <sup>6</sup>		a	a	g	f			
14:A3	27	i <sup>6/-14</sup>	V	vii <sup>9</sup>			a	a	c#				
14:A4	28	i <sup>6/-14</sup>	V	vii <sup>ø6</sup> /iv	iv <sup>6</sup>		a	a	A	Bb			
14:A5	24	i <sup>6/-14</sup>	V	V <sup>6</sup> /iv	V <sup>7</sup> /iv		a	a	f#	d			
14:A6	13	i <sup>6/-14</sup>	ii <sup>ø6/5</sup>	i <sup>6/4</sup>			a	g	a				
14:B1	26	i <sup>6/-14</sup>	V	i	V <sup>i6</sup>		a	A	d	d			
14:B2	25	i <sup>6/-14</sup>	V	i <sup>6</sup>	VI <sup>6</sup>		a	a	f	d			
14:B3	25	i <sup>6/-14</sup>	V	VI <sup>6/5</sup>	i <sup>6/4</sup>		a	a	d	d			
14:B4	6	i <sup>6/-14</sup>	V	IV <sup>6</sup>	V <sup>6/5</sup>		a	a	B	c#			
14:B5	16	i <sup>6/-14</sup>	V	iv <sup>6</sup>	vii <sup>ø6/4</sup>	i <sup>6</sup>	a	a	bb	g	f		
14:B6	17	i <sup>6/-14</sup>	V	III <sup>7</sup>	i <sup>6</sup>		a	a	f	f			
<b>first harmony Gb3</b>													
14:C1	7	iv	iv <sup>6</sup>				g	bb					
14:C2	14	iv	V <sup>7</sup> /iv	iv			g	d	g				
14:C3	11	iv	V <sup>7</sup>				g	a					
14:C4	33	iv	iv				g	G					
14:C5	31	iv	iv	V <sup>7</sup>			g	G	A				
14:C6	17	iv	i <sup>6</sup>				g	f					
14:D1	20	iv	V <sup>7</sup>	i			g	a	d				

14:D2	31	iv	iv <sup>6</sup>	V <sup>7</sup>			g	Bb	A				
14:D3	13	iv	i <sup>6/4</sup>				g	a					
14:D4	33	iv	ii <sup>06/4</sup>	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	i		g	Bb	A	D			*
14:D5	28	iv	ii <sup>06/5</sup>	V			g	G	A				
14:D6	11	iv	iv <sup>6</sup>	V <sup>7</sup>			g	bb	a				
14:E1	6	iv	III <sup>6</sup>	VII <sup>4</sup>	V <sup>6/5</sup>		g	a	c'	c#'			
14:E2	8	iv	ii <sup>06/5</sup>	V			g	g	a				
14:E3	31	iv	ii <sup>06/5</sup>	V			g	G	A				
14:E4	28	iv	V <sup>6/5</sup>				g	c#					
14:E5	17	iv	ii <sup>06/5</sup>	V <sup>4/2</sup>	i <sup>6</sup>		g	g	g	f			
14:E6	13	iv	iv <sup>6</sup>	V <sup>7</sup>	i <sup>6/4</sup>		g	bb	a	a			
14:F1	16	iv	vii <sup>06/4</sup>	i <sup>6</sup>			g	g	f				
14:F2	18	iv	VI <sup>6/4</sup>	V <sup>6/5</sup> /III	III		g	f	e	f			
14:F3	12	iv	i <sup>6</sup>	ii <sup>7</sup>	V <sup>7</sup>		g	f	e	a			
14:F4	18	iv	VI <sup>6</sup>	V <sup>6/5</sup> /III	III		g	d	e	f			
14:F5	20	iv	V <sup>6/5</sup>	i			g	c#	d				
14:F6	19	iv	V <sup>7</sup> /III	III			g	c'	f				
14:G1	17	iv	V <sup>7</sup> /III	III	i <sup>6</sup>		g	c	f	f			
14:G2	18	iv	V <sup>7</sup> /III	III <sup>4-</sup>	III <sup>3</sup>		g	c	f	f			
14:G3	23	iv	iv	i <sup>4-</sup>	i <sup>3</sup>		g	G	d	d			
14:G4	27	iv	iv <sup>6/4</sup>	V			g	d	c#				
14:G5	16	iv	vii <sup>06/5</sup>	i <sup>6</sup>			g	e	f				
14:G6	18	iv	VI <sup>6</sup>	III <sup>4-</sup>	III <sup>3</sup>		g	d	f	f			
14:H1	12	iv	i <sup>6</sup>	v <sup>4-</sup>	v <sup>3</sup>		g	f	a	a			
14:H2	13	iv	ii <sup>06</sup>	III <sup>6</sup>			g	g	a				
14:H3	18	iv	ii <sup>06</sup>	III <sup>6</sup>	III		g	g	a	f			
14:H4	23	iv	vii <sup>06/4</sup> /VII	vii <sup>06</sup>	i		g	f	e	D			
14:H5	7	iv	V	VI <sup>7</sup>	iv <sup>6</sup>		g	a	bb	bb			
14:H6	8	iv	V	iv <sup>7-6</sup> (VI <sup>7</sup> -iv <sup>6</sup> )	V		g	a	bb	a			
14:I1	27	iv	iv <sup>6/4</sup>	vii <sup>0</sup>			g	d	c#				
14:I2	31	iv	V <sup>6/5</sup>	i <sup>4-</sup>	i <sup>3</sup>	V	g	c#	d	D	A		**
14:I3	19	iv	VI <sup>6</sup>	V <sup>6/5</sup> /III	III		g	d	e	f			
14:I4	1	iv	i	ii <sup>04/2</sup>	vii <sup>0</sup>	i	g	D	D	c#'	d'		
14:I5	31	iv	i <sup>6</sup>	V <sup>4-</sup>	V <sup>7/3</sup>		g	f	a	A			
14:I6	13	iv	i <sup>6/4</sup>				g	a					
14:J1	19	iv	VII <sup>6/5</sup> (V <sup>6/5</sup> /III)	III			g	e	f				
14:J2	16	iv	VI	i <sup>6</sup>			g	bb	f				
14:J3	27	iv	iv <sup>6</sup>	vii <sup>0</sup>			g	bb	c#				
14:J4	10	iv	iv	i <sup>6/4</sup>	V		g	G	A	a			
14:J5	22	iv	i	i <sup>6/4</sup>	V	i	g	d	a	A	d		*
14:J6	4	iv, F: ii	III <sup>6</sup> , F: I <sup>6</sup>	V <sup>II4-</sup> , F: V <sup>4-</sup>	VII <sup>3</sup> , F: V <sup>3</sup>		g	a	c'	c#'			
<b>first harmony</b> g <sup>8/b3</sup>													
14:K1	20	iv	vii <sup>06-5</sup> (V <sup>6</sup> -vii <sup>0</sup> )	i			g	c#	d				
14:K2	10	iv	i <sup>6/4</sup>	V			g	a	a				
14:K3	25	iv	i <sup>6</sup>	iv <sup>6/4</sup>			g	f	d				
14:K4	8	iv	i <sup>4-3</sup>	V			g	d	a				
14:K5	16	iv	i <sup>6</sup>				g	f					
14:K6	29	iv	i <sup>6/4</sup>	V			g	a	A				
15:A1	11	iv	V <sup>7</sup>				g	a					
15:A2	19	iv, F: ii	VII <sup>6-5/4-3</sup> (III <sup>6/4</sup> -VII), F: V <sup>6-5/4-3</sup> (I <sup>6/4</sup> -V)	III, F: I			g	c	f				

15:A3	16	iv	V <sup>7</sup>	vii <sup>o6/4</sup>			g	a	g			
15:A4	20	iv	V <sup>6-5</sup>	i			g	a	d			
15:A5	22	iv	i <sup>6/4</sup>	V	i		g	a	A	d		*
15:A6	8	iv	V <sup>7</sup> , Bb: vii <sup>7</sup>	VI, Bb: I			g	a	bb			
15:B1	13	iv	i <sup>6/4</sup>				g	a				
15:B2	19	iv	VI <sup>6</sup>	ii <sup>o</sup> (vii <sup>o</sup> /III)	III		g	d	e	f		
15:B3	14	iv	V <sup>4-3</sup> /iv	iv			g	d	g			
15:B4	23	iv	i <sup>4-</sup>	i <sup>3</sup>			g	d'	d			
15:B5	31	iv	vii <sup>o</sup>	i	V		g	c#	d	A		**
15:B6	13	iv	V <sup>7</sup>	i <sup>6/4</sup>			g	a	a			
15:C1	23	iv	i <sup>4-</sup>	i <sup>3</sup>			g	d'	d			
15:C2	3	iv	i <sup>4-</sup>	i <sup>3</sup>			g	d	d'			
15:C3	23	iv	V <sup>7</sup>	i			g	a	d			
15:C4	3	iv	V <sup>7</sup>	i			g	a	d'			
15:C5	18	iv	VII <sup>7</sup> (V <sup>7</sup> /III)	III			g	c	f			
15:C6	27	iv	i <sup>6</sup>	iv	vii <sup>o</sup>		g	f	g	c#		
15:D1	13	iv	i <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>		g	f	g	a		
15:D2	16	iv	i <sup>6</sup>	vii <sup>o4/3</sup>	i <sup>6</sup>		g	f	g	f		
15:D3	28	iv	ii <sup>o6/5</sup>	V			g	G	A			
15:D4	28	iv	V <sup>6/5</sup>				g	c#				
15:D5	7	iv	iv <sup>6</sup>				g	bb				
15:D6	20	iv	i <sup>6</sup>	V <sup>6/5</sup>	i		g	f	c#	d		
15:E1	28	iv	i <sup>6</sup>	V <sup>6/5</sup>			g	f	c#			
15:E2	28	iv	iv	vii <sup>o6</sup> /iv	iv <sup>6</sup>		g	G	A	Bb		
15:E3	33	iv, g: i	V <sup>o6/5</sup> , g: ii <sup>o6/5</sup>	V	i		g	c	d	G		
15:E4	14	iv	iv <sup>6</sup>	vii <sup>o6</sup> /iv	iv		g	bb	a	G		
15:E5	23	iv	V <sup>6/5</sup>	i			g	c#	d			
15:E6	27	iv	i <sup>7-6/3-4</sup> (V <sup>7-6/4</sup> )	vii <sup>o</sup>			g	a	c#			
15:F1	16	iv	i <sup>6/4</sup>	vii <sup>o6/4</sup>	i <sup>6</sup>		g	a	g	f		
15:F2	7	iv	vii <sup>o</sup>	i	iv <sup>6</sup>		g	c#	d	bb		
15:F3	27	iv	vii <sup>o6</sup>	iv <sup>6/4</sup>	vii <sup>o</sup>		g	e	d	c#		
15:F4	18	iv	VII <sup>7</sup> (V <sup>7</sup> /III)	III			g	e	f			
15:F5	13	iv	i <sup>6</sup>	i <sup>6/4</sup>			g	f	a			
15:F6	31	iv	i <sup>6</sup>	iv <sup>6</sup>	V		g	f	Bb	A		**
15:G1	8	iv	i <sup>7-6/3-4</sup> (V <sup>7-6/4</sup> )	V			g	A	a			
15:G2	18	iv	VI <sup>6</sup>	ii <sup>o</sup> (vii <sup>o</sup> /III)	III <sup>4-</sup>	III	g	d	d'	f	f	
15:G3	17	iv	V <sup>4/2</sup>	i <sup>6</sup>			g	g	f			
15:G4	7	iv	V <sup>6-5/4-3</sup> (i <sup>6/4</sup> -V)	iv <sup>6</sup>			g	a	bb			
15:G5	25	iv	vii <sup>o6</sup>	iv <sup>6/4</sup>			g	e	d			
15:G6	7	iv	i <sup>6</sup>	iv <sup>6</sup>			g	f	bb			
<b>first harmony g<sup>#3</sup></b>												
15:H1	8	IV (bor.)	V <sup>6/5</sup> /V	V			g	g#	a			
15:H2	18	IV	V <sup>6/5</sup> /VII	VII			g	e	f			
15:H3	11	IV	ii	V <sup>7</sup>			g	e	a			
15:H4	20	IV	ii				g	e				
15:H5	20	IV	ii	vii <sup>o6</sup>			g	e	e			
15:H6	27	IV	V <sup>4/2</sup>	i <sup>6</sup>	vii <sup>o</sup>		g	g	f	c#		
15:I1	31	IV	vii <sup>o6</sup>	i	V		g	e	d	A		**
15:I2	25	IV	vii <sup>o6</sup>	iv <sup>6/4</sup>			g	e	d			
15:I3	19	IV	vii <sup>o6</sup>				g	e				
15:I4	16	IV	vii <sup>o6/4</sup>				g	g				
15:I5	19	IV	VII <sup>7</sup> (V <sup>7</sup> /III)	III			g	c	f			

15:I6	11	IV	V <sup>7</sup>				g	a				
15:J1	29	IV	vii <sup>o6/4</sup>	V <sup>6/5</sup> /V	V <sup>4-</sup>	V <sup>3</sup>	g	g	g#	a	A	
15:J2	10	IV	vii <sup>o</sup> /V	V <sup>4-</sup>	V <sup>3</sup>		g	g#	a	a		
15:J3	16	IV	ii	vii <sup>o4/3</sup>	i <sup>6</sup>		g	e	g	f		
15:J4	27	IV	VI <sup>6/5</sup> (V <sup>6/5</sup> /III)	III	vii <sup>o</sup>		g	e	f	c#		
15:J5	10	IV	ii	i <sup>6/4</sup>	V		g	e	a	a		
15:J6	16	IV	vii <sup>o5-6/5-b5</sup> (ii-vii <sup>o6/5</sup> )	i <sup>6</sup>			g	e	f			
15:K1	8	IV	V <sup>7</sup>	i	V		g	a	d	a		**
15:K2	23	IV	V <sup>7</sup>	i			g	a	d			
15:K3	13	IV	V <sup>7</sup>	i <sup>6/4</sup>			g	a	a			
15:K4	18	IV	VI <sup>6</sup>	VII <sup>6/5</sup> (V <sup>6/5</sup> /III)	III <sup>4-</sup>	III <sup>3</sup>	g	d	e	f	f	
15:K5	31	IV	ii	V <sup>7</sup>			g	e	A			
15:K6	17	IV	V <sup>4/2</sup>	i <sup>6</sup>			g	g	f			
<b>first harmony G<sup>6/#4</sup></b>												
16:A1	8	vii <sup>o6/#4</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	V		g	f	g	a		
16:A2	14	vii <sup>o6/#4</sup>	i <sup>6</sup>	vii <sup>o</sup> /iv	iv		g	f	f#	g		
16:A3	25	vii <sup>o6/#4</sup>	i <sup>6</sup>	iv <sup>6/4</sup>			g	f	d'			
16:A4	18	vii <sup>o6/#4</sup>	i <sup>6</sup>	V <sup>6/5</sup> /iv			g	f	f#			
16:A5	18	vii <sup>o6/#4</sup>	V <sup>6</sup> /iv	V <sup>6/5</sup> /iv			g	f#	f#			
16:A6	14	vii <sup>o6/#4</sup>	V <sup>6</sup> /iv	iv			g	f#	g			
16:B1	10	vii <sup>o6/#4</sup>	i <sup>6</sup>	V			g	f	a			
16:B2	16	vii <sup>o6/#4</sup>	i <sup>6</sup>				g	f				
16:B3	28	vii <sup>o6/#4</sup>	i <sup>6</sup>	V <sup>6/5</sup>			g	f	c#			
16:B4	13	vii <sup>o6/#4</sup>	i <sup>6</sup>	i <sup>6/4</sup>			g	f	a			
16:B5	7	vii <sup>o6/#4</sup>	i <sup>6</sup>	iv <sup>6</sup>			g	f	bb			
16:B6	28	vii <sup>o6/#4</sup>	i <sup>6</sup>	iv <sup>6</sup>			g	f	Bb			
16:C1	8	vii <sup>o6/#4</sup>	i <sup>6</sup>	i	V		g	f	d	a		
16:C2	23	vii <sup>o6/#4</sup>	i <sup>6</sup>	i			g	f	d			
16:C3	14	vii <sup>o6/#4</sup>	i <sup>6</sup>	V <sup>7</sup> /iv	iv		g	f	d	g		
16:C4	11	vii <sup>o6/#4</sup>	i <sup>6</sup>	iv <sup>6</sup>	V <sup>7</sup>		g	f	bb	a		
16:C5	20	vii <sup>o6/#4</sup>	i <sup>6</sup>	V <sup>6</sup>	i		g	f	c#	d		
16:C6	10	vii <sup>o6/#4</sup>	i <sup>6</sup>	i <sup>6/4</sup>	vii <sup>o6/4</sup>		g	f	a	g		
16:D1	3	vii <sup>o6/#4</sup>	i <sup>6</sup>	i			g	f	d'			
16:D2	24	vii <sup>o6/#4</sup>	i <sup>6</sup>	V <sup>7</sup> /iv			g	f	d			
16:D3	27	vii <sup>o6/#4</sup>	i <sup>6</sup>	iv	vii <sup>o</sup>		g	f	g	c#		
16:D4	27	vii <sup>o6/#4</sup>	i <sup>6</sup>	vii <sup>o4/3</sup> /V	vii <sup>o</sup>		g	f	d	c#		
16:D5	26	vii <sup>o6/#4</sup>	i <sup>6</sup>	VI <sup>6</sup>			g	f	d			
16:D6	13	vii <sup>o6/#4</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>		g	f	g	a		
<b>first harmony G<sup>6/-/#4</sup></b>												
16:E1	28	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	V <sup>6</sup>	V <sup>6/5</sup>		g	f	c#	c#		
16:E2	28	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	VI <sup>7</sup>	iv <sup>6</sup>		g	f	Bb	Bb		
16:E3	7	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	VI <sup>7</sup>	iv <sup>6</sup>		g	f	bb	bb		
16:E4	7	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	iv <sup>6</sup>			g	f	bb			
16:E5	26	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	VI <sup>6</sup>			g	f	d			
16:E6	26	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	iv <sup>6/4</sup>			g	f	d			
16:F1	17	vii <sup>o6/-/#4</sup>	i <sup>6</sup>				g	f				
16:F2	12	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	V <sup>7</sup> /V	V		g	f	e	a		
16:F3	10	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	i <sup>6/4</sup>	V		g	f	a	a		
16:F4	22	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	V	i	g	f	g	a	d	*
16:F5	12	vii <sup>o6/-/#4</sup>	i <sup>6</sup>	V <sup>4-</sup>	V <sup>3</sup>		g	f	a	a		

16:F6	20	vii <sup>o6/-#4</sup>	i <sup>6</sup>	ii <sup>7</sup>	V	i	g	f	e	a	d	
16:G1	10	vii <sup>o6/-#4</sup>	i <sup>6</sup>	V <sup>4-</sup>	V <sup>3</sup>		g	f	a	a		
16:G2	31	vii <sup>o6/-#4</sup>	i <sup>6</sup>	iv <sup>9-8</sup>	V <sup>7</sup>		g	f	G	A		
16:G3	13	vii <sup>o6/-#4</sup>	i <sup>6</sup>	i <sup>6/4</sup>			g	f	a			
16:G4	7	vii <sup>o6/-#4</sup>	i <sup>6</sup>	V <sup>4-3</sup>	iv <sup>6</sup>		g	f	a	bb		
16:G5	22	vii <sup>o6/-#4</sup>	i	i <sup>6/4</sup>	V	i	g	d	a	A	d	*
16:G6	27	vii <sup>o6/-#4</sup>	i <sup>6</sup>	$\sqrt{6-5/4-3} \sqrt{VII} (VII^6 - V/VII)$	VII		g	f	g	c		
16:H1	8	vii <sup>o6/-#4</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	V		g	f	g	a		
16:H2	16	vii <sup>o6/-#4</sup>	i <sup>6</sup>	iv <sup>6</sup>	vii <sup>o6/4</sup>		g	f	bb	g		
16:H3	25	vii <sup>o6/-#4</sup>	i <sup>6</sup>	VI <sup>7</sup>	iv <sup>6/4</sup>		g	f	d	d		
16:H4	7	vii <sup>o6/-#4</sup>	i <sup>6</sup>	ii <sup>o6/5</sup>	vii <sup>o6</sup> /iv	iv <sup>6</sup>	g	f	g	a	bb	
16:H5	32	vii <sup>o6/-#4</sup>	i <sup>6</sup>	$\sqrt{6-5/4-3} \sqrt{V} (V^{6/4} - V/V)$	v		g	f	e	A		
16:H6	13	vii <sup>o6/-#4</sup>	i <sup>6</sup>	iv <sup>6/4</sup>	i <sup>6/4</sup>		g	f	bb	a		
<b>first harmony F<sup>6</sup></b>												
16:I1	20	i <sup>6</sup>	vii <sup>o</sup>	i			f	c#	d			
16:I2	20	i <sup>6</sup>	vii <sup>o6</sup>	i			f	e	d			
16:I3	14	i <sup>6</sup>	vii <sup>o</sup> /iv	iv			f	f#	g			
16:I4	1	i <sup>6</sup>	V	i			f	a	d'			
16:I5	20	i <sup>6</sup>	$V^{5-7/4-3} (V^4 - V^7)$	i			f	a	d			
16:I6	20	i <sup>6</sup>	V	i			f	a	d			
16:J1	18	i <sup>6</sup> , F: iv <sup>6</sup>	VI <sup>6</sup> , F: IV <sup>6</sup>	$V^{6/5}/III$ , F: $V^{6/5}$	III, F: I		f	d	e	f		
16:J2	8	i <sup>6</sup>	i	V			f	d	a			
16:J3	31	i <sup>6</sup>	iv	V <sup>7</sup>			f	g	A			
16:J4	8	i <sup>6</sup>	ii <sup>o6/5</sup>	V			f	g	a			
16:J5	14	i <sup>6</sup>	vii <sup>o</sup> /iv	iv			f	f#	g			
16:J6	14	i <sup>6</sup>	V <sup>7</sup> /iv	iv			f	d	g			
16:K1	28	i <sup>6</sup>	i	V			f	d	A			
16:K2	27	i <sup>6</sup>	vii <sup>o6</sup> /VII	VII			f	d	c			
16:K3	27	i <sup>6</sup>	iv <sup>6/4</sup>	vii <sup>o</sup>			f	d	c#			
16:K4	27	i <sup>6</sup>	iv	vii <sup>o</sup>			f	g	c#			
16:K5	16	i <sup>6</sup>	i	vii <sup>o6/4</sup>			f	d	g			
16:K6	7	i <sup>6</sup>	i	ii <sup>o6/5</sup>	iv <sup>6</sup>		f	d	g	bb		
17:A1	13	i <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>			f	g	a			
17:A2	10	i <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>	V		f	g	a	a		
17:A3	29	i <sup>6</sup>	ii <sup>o6/5</sup>	i <sup>6/4</sup>	V		f	g	a	A		
17:A4	18	i <sup>6</sup>	VI <sup>6</sup>	VII <sup>7</sup> (V <sup>7</sup> /III)	III		f	d	c	f		
17:A5	18	i <sup>6</sup>	VI <sup>6</sup>	ii <sup>o</sup> (vii <sup>o</sup> /III)	III		f	d	e	f		
17:A6	27	i <sup>6</sup>	VI <sup>6</sup>	VII <sup>7</sup>	v <sup>6</sup>		f	d	c	c		
17:B1	32	i <sup>6</sup> , a: iv <sup>6</sup>	vi <sup>o6/5</sup> , a: ii <sup>o6/5</sup>	$\sqrt{6-5/4-3} \sqrt{V} (V^{6/4} - V/V)$ , a: $V^{6-5/4-3} (i^{6/4} - V)$	v, a: i		f	d	e	A		
17:B2	18	i <sup>6</sup> , C: ii <sup>6</sup>	vi <sup>o6</sup> (vii <sup>o6</sup> /VII)	VII, C: V	III, C: I		f	d	c	f		
17:B3	7	i <sup>6</sup>	iv <sup>6</sup>				f	bb				
17:B4	23	i <sup>6</sup>	vii <sup>o6</sup>	i <sup>4-</sup>	i <sup>3</sup>		f	c#	d	d		
17:B5	13	i <sup>6</sup>	iv <sup>6</sup>	i <sup>6/4</sup>			f	bb	a			
17:B6	17	i <sup>6</sup>	ii <sup>o6/5</sup>	V <sup>4/2</sup>	i <sup>6</sup>		f	g	g	f		
17:C1	28	i <sup>6</sup>	V <sup>6/5</sup>				f	c#				
17:C2	11	i <sup>6</sup>	vii <sup>o</sup> /iv	iv <sup>9-8</sup>	V <sup>7</sup>		f	f#	g	a		
17:C3	27	i <sup>6</sup>	vii <sup>o</sup> /iv	iv <sup>9-8</sup>	vii <sup>o</sup>		f	f#	g	c#		
17:C4	25	i <sup>6</sup>	vii <sup>o6</sup>	i	V <sup>7</sup> /iv		f	e	d	d		
17:C5	14	i <sup>6</sup>	vii <sup>o6</sup> /iv	iv <sup>9-</sup>	iv <sup>8</sup>		f	f#	g	g		

17:C6	8	i <sup>6</sup>	i	iv <sup>6-5</sup> (ii <sup>06</sup> -iv)	V		f	d	g	a		
<b>first harmony F<sup>6/3</sup></b>												
17:D1	20	i <sup>6/3</sup>	ii <sup>06/5</sup>	V	i		f	g	a	d		*
17:D2	28	i <sup>6/3</sup>	ii <sup>06/4</sup>	iv <sup>7</sup>	V		f	Bb	G	A		
17:D3	20	i <sup>6/3</sup>	iv <sup>9</sup>	ii			f	g	e			
17:D4	7	i <sup>6/3</sup>	ii <sup>05-6</sup> (iv-ii <sup>06</sup> )	vii <sup>05-6</sup> /iv (v-vii <sup>06</sup> /iv)	iv <sup>6</sup>		f	g	a	bb		
17:D5	13	i <sup>6/3</sup>	iv <sup>6</sup>	i <sup>6/4</sup>			f	bb	a			
17:D6	14	i <sup>6/3</sup>	iv <sup>9</sup>	iv <sup>8</sup>			f	g	g			
17:E1	27	i <sup>6/3</sup>	vii <sup>06</sup>	iv <sup>6/4</sup>	vii <sup>0</sup>		f	e	d	c#		
17:E2	27	i <sup>6/3</sup>	iv <sup>6/5-4</sup> (iii <sup>6/5</sup> -iv <sup>7</sup> )	vii <sup>0</sup>			f	d	c#			
17:E3	16	i <sup>6/3</sup>	iv <sup>6</sup>	vii <sup>04/3</sup>	i <sup>6</sup>		f	bb	g	f		
17:E4	18	i <sup>6/3</sup>	V <sup>4</sup> or V <sup>4</sup>	V <sup>6/5</sup> /IV			f	a	f#			
17:E5	23	i <sup>6/3</sup>	vii <sup>06</sup>	i			f	e	d			
17:E6	7	i <sup>6/3</sup>	ii <sup>06/5</sup>	vii <sup>06/5</sup> /iv	iv <sup>6</sup>		f	g	a	bb		
17:F1	28	i <sup>6/3</sup>	V <sup>6/5</sup>				f	c#				
17:F2	7	i <sup>6/3</sup>	ii <sup>06/5</sup>	i <sup>6/4</sup>	iv <sup>6</sup>		f	g	a	bb		
17:F3	14	i <sup>6/3</sup>	vii <sup>0</sup> /iv	iv			f	f#	g			
17:F4	20	i <sup>6/3</sup>	ii <sup>7</sup>	vii <sup>06</sup>	i		f	e	d			
17:F5	20	i <sup>6/3</sup>	ii <sup>7</sup>	V <sup>7</sup>	i		f	e	a	d		
17:F6	27	i <sup>6/3</sup>	iv	iv <sup>6/4</sup>	vii <sup>0</sup>		f	g	d	c#		
17:G1	18	i <sup>6/3</sup>	iv <sup>6</sup>	V <sup>6/5</sup> /IV			f	bb	f#			
17:G2	28	i <sup>6/3</sup>	iv	V <sup>6/5</sup>			f	g	c#			
17:G3	19	i <sup>6/3</sup>	iv	VII <sup>7</sup> (V <sup>7</sup> /III)	III		f	g	c	f		
17:G4	10	i <sup>6/3</sup>	i <sup>6/4</sup>	V			f	a	a			
17:G5	19	i <sup>6/3</sup>	iv	vii <sup>06/4</sup> (vii <sup>06/4</sup> /vii)	vii <sup>06</sup>		f	g	f	e		
17:G6	8	i <sup>6/3</sup>	V <sup>4</sup>	V <sup>5-6/4-3</sup> /VI (V <sup>4</sup> -V <sup>6</sup> /VI)	VI		f	a	bb			
17:H1	17	i <sup>6/3</sup>	iv	i <sup>6</sup>			f	g	f			
17:H2	25	i <sup>6/3</sup>	iv	iv <sup>6/4</sup>			f	g	d			
17:H3	31	i <sup>6/3</sup>	V <sup>6</sup>	V <sup>7</sup>			f	c#	A			
17:H4	16	i <sup>6/3</sup>	ii <sup>06/5</sup>	i <sup>6/4</sup>	vii <sup>06/4</sup>		f	g	a	g		
17:H5	23	i <sup>6/3</sup>	V <sup>6/5</sup>	i			f	c#	d			
17:H6	18	i <sup>6/3</sup>	vii <sup>0</sup>				f	f#				
17:I1	16	i <sup>6/3</sup>	i <sup>6/4</sup>	vii <sup>06/4</sup>			f	a	g			
17:I2	24	i <sup>6/3</sup>	V/iv	V7/iv			f	f#	d			
17:I3	7	i <sup>6/3</sup>	ii <sup>06/5</sup>	vii <sup>06</sup> /iv	iv <sup>6</sup>		f	g	a	bb		
17:I4	10	i <sup>6/3</sup>	ii <sup>06/5</sup>	V			f	g	a			
17:I5	7	i <sup>6/3</sup>	ii <sup>06/5</sup>	iv <sup>6</sup>			f	g	bb			
17:I6	12	i <sup>6/3</sup>	V <sup>4</sup>	V <sup>3</sup>			f	a	a			
17:J1	11	i <sup>6/3</sup>	iv <sup>9</sup>	iv <sup>6</sup>	V <sup>7</sup>		f	g	bb	a		
17:J2	8	i <sup>6/3</sup>	iv	i	V		f	g	d	a		
17:J3	18	i <sup>6/3</sup>	VI <sup>6</sup>	III			f	d	f			
17:J4	8	i <sup>6/3</sup>	ii <sup>06/5</sup>	V			f	g	a			
17:J5	23	i <sup>6/3</sup>	VI <sup>6</sup>	i			f	d	d			
17:J6	7	i <sup>6/3</sup>	vii <sup>0</sup>	i	VI <sup>7</sup>	iv <sup>6</sup>	f	c#	d	bb	bb	
17:K1	10	i <sup>6/3</sup>	V <sup>4</sup>	V <sup>3</sup>			f	a	a			
17:K2	31	i <sup>6/3</sup>	V <sup>4</sup>	V <sup>7/3</sup>			f	a	A			
17:K3	25	i <sup>6/3</sup>	V <sup>4</sup>	V <sup>7</sup> /iv			f	a	d			
17:K4	31	i <sup>6/3</sup>	ii <sup>7</sup>	V <sup>7</sup>			f	e	A			
17:K5	12	i <sup>6/3</sup>	ii <sup>7</sup>	V <sup>7</sup>			f	e	a			
17:K6	18	i <sup>6/3</sup>	ii <sup>7</sup>	V <sup>6/5</sup> /iv			f	e	f#			
<b>first</b>												

harmony											
F# <sup>6/b5</sup>											
18:A1	17	V6/5/iv	iv	i6			f#	g	f		
18:A2	19	V6/5/iv	IV	V6/5/III	III		f#	g	e	f	
18:A3	7	V6/5/iv	iv	vii6/4/iv	iv6		f#	g	C	bb	
18:A4	14	V6/5/iv	Vb6-5/iv	iv			f#	d	g		
18:A5	4	V6/5/iv	iv	III6	VII4-3		f#	g	a	c'	c'
18:A6	27	V6/5/iv	iv4-3	vii6			f#	g	c#		
18:B1	14	V6/5/iv	iv4-	iv3			f#	g	g		
18:B2	33	V6/5/iv	iv4-	iv3			f#	g	G		
18:B3	14	V6/5/iv	iv9-	iv8			f#	g	g		
18:B4	33	V6/5/iv	iv9-	iv8			f#	g	G		
18:B5	14	V6/5/iv	iv				f#	g			
18:B6	16	V6/5/iv	IV	vii6	i6		f#	g	e	f	
18:C1	19	V6/5/iv	iv	vii6/4 (vii6/4/vii)	vii6		f#	g	f	e	
18:C2	27	V6/5/iv	iv	iv6	vii6		f#	g	bb	c#	
18:C3	8	V6/5/iv	ii6-5 (iv-ii6)	V			f#	g	a		
18:C4	19	V6/5/iv	iv4	ii6	III		f#	g	e	f	
18:C5	17	V6/5/iv	iv	iv	V4/2	i6	f#	G	g	g	f
18:C6	25	V6/5/iv	iv	iv6/4			f#	g	g	d	
18:D1	7	V6/5/iv	iv9	iv6			f#	g	bb		
18:D2	28	V6/5/iv	iv	iv6			f#	g	Bb		
18:D3	13	V6/5/iv	iv	iv6	i6/4		f#	g	bb	a	
18:D4	11	V6/5/iv	iv9	iv6	V7		f#	g	bb	a	
18:D5	16	V6/5/iv	iv	vii6/4	i6		f#	g	g	f	
18:D6	20	V6/5/iv	IV4-5	ii			f#	g	e		
<b>first harmony F#b5</b>											
18:E1	25	vii6/iv	iv	vii6	iv6/4		f#	g	e	d	
18:E2	31	vii6/iv	iv	V7			f#	g	A		
18:E3	11	vii6/iv	iv	V7			f#	g	a		
18:E4	13	vii6/iv	iv	i6/4			f#	g	a		
18:E5	23	vii6/iv	iv	V7	i		f#	g	a	d	
18:E6	13	vii6/iv	iv	V7	i6/4		f#	g	a	a	
18:F1	18	vii6/iv	iv	V6/III	III		f#	g	e	f	
18:F2	27	vii6/iv	iv	vii6			f#	g	c#		
18:F3	16	vii6/iv	iv	iv6	vii6/4		f#	g	bb	g	
18:F4	23	vii6/iv	iv	i4-	i3		f#	g	d	d	
18:F5	3	vii6/iv	iv	i4-	iv3		f#	g	d	D	
18:F6	17	vii6/iv	iv	V4/2	i6		f#	g	g	f	
18:G1	20	vii6/iv	iv	V6-5/4-3 (i6/4-V)	i		f#	g	A	d	*
18:G2	10	vii6/iv	iv	i6/4	V		f#	g	A	a	
18:G3	14	vii6/iv, g: vii6	iv, g: i	V5-7/4-3/iv (i4-V7/iv), g: V5-7/4-3 (iv4-V7)	iv3, g: i3		f#	g	d	g	
18:G4	28	vii6/iv	iv	V6	V6/5		f#	g	c#	c#	
18:G5	31	vii6/iv	iv	i6/4	V		f#	g	A	A	
18:G6	20	vii6/iv	iv	vii6-5 (V6-vii6)	i		f#	g	c#	d	
18:H1	14	vii6/iv	iv	VI6	V/iv	iv	f#	g	d	g	
18:H2	31	vii6/iv	iv	V7	i	V	f#	g	a	d'	A **
18:H3	23	vii6/iv	iv	i4-	i3		f#	g	D	d	
18:H4	23	vii6/iv	iv	V6/5	i		f#	g	c#	d	



18:H5	16	vii <sup>o</sup> /iv	iv	i <sup>6</sup> /4	vii <sup>o</sup> 6/4		f#	g	a	g		
18:H6	29	vii <sup>o</sup> /iv	iv	i <sup>6</sup> /4	V		f#	g	a	A		
<b>first harmony F3</b>												
18:I1	8	III	i <sup>6</sup>	i	V		f	f	d	a		
18:I2	31	III	iv7-6 (VI7-iv6)	V			f	Bb	A			**
18:I3	31	III	iv7-6 (VI7-iv6)	V7			f	Bb	A			
18:I4	28	III	VI7	iv6			f	Bb	Bb			
18:I5	8	III	ii <sup>o</sup> 6/5	V			f	g	a			
18:I6	27	III	iv6/5-4 (III6/5-iv6/4)	vii <sup>o</sup>			f	d	c#			
18:J1	26	III	i <sup>6</sup>	VI6			f	f	d			
18:J2	7	III	VI7	iv6			f	bb	bb			
18:J3	25	III	i	vio6 (vii <sup>o</sup> 6/vii)			f	d	d			
18:J4	8	III	i <sup>6</sup>	ii <sup>o</sup> 6/5	V		f	f	g	a		
18:J5	14	III	i <sup>6</sup>	ii <sup>o</sup> 6/5	i <sup>6</sup> /4		f	f	g	a		
18:J6	18	III	V6/5/iv				f	f#				
18:K1	15	III	vio6 (vii <sup>o</sup> 6/VII)	VII	IV4-	IV3	f	d	c	g	g	
18:K2	7	III	i <sup>6</sup>	iv6			f	f	bb			
18:K3	11	III	iv9-8	V7			f	g	a			
18:K4	28	III	i <sup>6</sup>	V6/5			f	f	c#			
18:K5	27	III	VII4-	VII3			f	c	c			
18:K6	31	III	ii <sup>o</sup> 6/4	ii <sup>o</sup> 6/5	V		f	Bb	G	A		**
19:A1	4	III, F: I	VII4, F: V4	VII3, F: V3			f	c'	c'			
19:A2	19	III, F: I	VI6, F: IV6	VII6/5, F: V6/5	III, F: I		f	d	e	f		
19:A3	8	III	iv6-5 (ii <sup>o</sup> 6-iv)	V			f	g	a			
19:A4	6	III	VII4-	V6/5			f	c'	c#'			
19:A5	13	III, F: I	VII, F: V	III6, F: I6			f	c'	a			
19:A6	7	III	iv6				f	bb				
19:B1	16	III	iv6	vii <sup>o</sup> 6/4	i <sup>6</sup>		f	bb	g	f		
19:B2	7	III	iv6	vii <sup>o</sup> 6/iv	iv6		f	bb	a	bb		
19:B3	17	III	VI	ii <sup>o</sup> 6/5	V4/2	i <sup>6</sup>	f	bb	g	g	f	
19:B4	13	III	iv6	i <sup>6</sup> /4			f	bb	a			
19:B5	13	III	iv6	ii <sup>o</sup> 6/5	i <sup>6</sup> /4		f	bb	g	a		
19:B6	26	III, F: I, Bb: V	VI6, F: IV6, Bb: I6				f	d				
19:C1	23	III	vii <sup>o</sup> 6	i			f	e	d			
19:C2	6	III	VI	IV6 (V6/VII)	vii <sup>o</sup>		f	bb	b	C#		
19:C3	7	III	VI7	iv6			f	bb	bb			
19:C4	8	III, F: I, Bb: V	VI, F: IV, Bb: I				f	bb				
19:C5	28	III	i	iv6			f	d	Bb			
19:C6	20	III	vii <sup>o</sup> 5-6 (ii-vii <sup>o</sup> 6)	i			f	e	d			
19:D1	28	III	V6/5/VII	vii <sup>o</sup> 6/5			f	B	c#			
19:D2	10	III	iv6	ii <sup>o</sup> 6/5	i <sup>6</sup> /4	V	f	Bb	G	A	A	
19:D3	13	III	iv	i <sup>6</sup> /4			f	g	a			
19:D4	28	III	iv6				f	Bb				
19:D5	20	III	i <sup>6</sup>	vii <sup>o</sup> 6	i		f	f	e	d		
19:D6	16	III	i <sup>6</sup>				f	f				
19:E1	10	III	VI	ii <sup>o</sup> 6/5	i <sup>6</sup> /4	V	f	Bb	G	A	a	
19:E2	15	III	V6/5/iv	IV4-	IV3		f	f#	g	g		
19:E3	20	III	i <sup>6</sup>	vii <sup>o</sup> 6	i		f	f	e	d		
19:E4	11	III	i <sup>6</sup>	iv6	V7		f	f	bb	a		

19:E5	27	III	i6	vio (vii0/VII)	VII		f	f	d	c		
19:E6	25	III	i6	vio (vii0/VII)			f	f	d			
<b>first harmony F5</b>												
19:F1	27	III	i	ii06/5	iv6	vii0	f	d	g	bb	c#	
19:F2	28	III	i	vii4/2	V6/5		f	d	d	c#		
19:F3	18	III	i	V	V6/5/iv		f	d	a	f#		
19:F4	12	III	i	V4-	V7/3		f	d	a	a		
19:F5	31	III	i	V4-	V7/3		f	d	a	A		
19:F6	14	III	V6/5/iv	iv			f	f#	g			
19:G1	22	III	i6	ii06/5	V	i	f	f	g	a	d	*
19:G2	23	III	i				f	d				
19:G3	22	III	i	V4-	V3	i	f	d	a	A	d	*
19:G4	15	III	i6	vii06-5/iv (V6/iv-vii0/iv)	IV4-	IV3	f	f	f#	g	g	
19:G5	8	III	i	V			f	d	a			
19:G6	8	III	i6	ii05-6 (iv-ii06)	V		f	f	g	a		
19:H1	8	III	i6	vii06	i	V	f	f	e	d	a	
19:H2	28	III	III	iv6-5 (ii06-iv)	V		f	F	G	A		
19:H3	7	III	i6	ii06/5	iv6		f	f	g	bb		
19:H4	13	III	i6	ii05-6 (iv-ii06)	i6/4		f	f	g	a		
19:H5	27	III	vio6 (vii06/VII)	VII			f	d	c			
19:H6	10	III	i	V	V		f	d	A	a		
19:I1	18	III	i6	V6/5			f	f	f#			
19:I2	23	III	i6	vii06	i		f	f	e	d		
19:I3	27	III	i6	vii0			f	f	c#			
19:I4	12	III	i6	ii7	V7		f	f	e	a		
19:I5	32	III, a: VI	vi06/5, a: ii06/5	V6-5/4-3/V (v6/4-V/V), a: V6-5/4-3 (i6/4- V)	v8/-/3, a: i8/-/3		f	d	e	A		
19:I6	16	III	i	vii06/5-4/3 (ii06/5-vii04/3)	i6		f	d	g	f		
19:J1	13	III	i6/4				f	a				
19:J2	12	III	i6	ii06/5	V7		f	f	g	a		
19:J3	17	III	i6				f	f				
19:J4	13	III	i6	i6/4			f	f	a			
19:J5	11	III	i	ii06/5	ii07	V7	f	d	g	e	a	
19:J6	1	III	i	V4-3	i		f	d	a	d'		
<b>first harmony E#6</b>												
19:K1	27	vii06	i	vii0			e	d	c#			
19:K2	27	vii06	iv6/4	vii0			e	d	c#			
19:K3	8	vii06	i	V			e	d	a			
19:K4	28	vii06	i	V			e	d	A			
19:K5	28	vii06	i	ii06/5	V		e	d	G	A		
19:K6	8	vii06	i	ii06/5	V		e	d	G	A		
20:A1	17	vii06	i	iv	i6		e	d	g	f		
20:A2	27	vii06	i6	vii0			e	f	c#			
20:A3	20	vii06	i6	vii0	i		e	f	c#	d		
20:A4	31	vii06	i6	iv9-8	V7		e	f	G	A		
20:A5	33	vii06	i	iv			e	d	G			
20:A6	28	vii06	i	ii06/5	V		e	d	G	A		

20:B1	31	viiø6	i6	iiø6/5	V		e	f	G	A		
20:B2	31	viiø6	i	V6	V7		e	d	c#	A		
20:B3	27	viiø6	i	viiø			e	d	c#			
20:B4	16	viiø6	i	viiø5-6/5-#4/b3 (iv-viiø4/3)	i6		e	d	g	f		
20:B5	25	viiø6	i	iv	iv6/4		e	d	g	d		
20:B6	28	viiø6	iv6/4	V6	V6/5		e	d	c#	c#		
20:C1	16	viiø6	viiø6/4	i6			e	g	F			
20:C2	17	viiø6	i	viiø6/4	i6		e	d	g	f		
20:C3	11	viiø6	i	iv9-8	V7		e	d	g	a		
20:C4	13	viiø6	i6	iv6	i6/4		e	f	bb	a		
20:C5	28	viiø6	i	viiø6/4/iv	iv6		e	d	c	Bb		
20:C6	7	viiø6	i	iiø6/5	iv6		e	d	g	bb		
<b>first harmony E#6/3</b>												
20:D1	13	viiø6	i6	iiø6/5	i6/4		e	f	g	a		
20:D2	8	viiø6	i6	i	V		e	f	d	a		
20:D3	23	viiø6	i6	i			e	f	d			
20:D4	14	viiø6	i6	viiø/iv	iv		e	f	f#	g		
20:D5	13	viiø6	i6	i6/4			e	f	a			
20:D6	28	viiø6	i6	V6/5			e	f	c#			
20:E1	18	viiø6	i6	V6/5/iv			e	f	f#			
20:E2	14	viiø6	i6	iv			e	f	g			
20:E3	27	viiø6	i6	iv	viiø		e	f	g	c#		
20:E4	25	viiø6	i6	viiø6 (viiø6/VII)			e	f	d			
20:E5	13	viiø6	i6	iv6	i6/4		e	f	bb	a		
20:E6	16	viiø6	i6				e	f				
20:F1	24	viiø6	i6	V7/iv			e	f	d			
20:F2	11	viiø6	i6	iv6	V7		e	f	bb	a		
20:F3	31	viiø6	i6	iv	V7		e	f	g	A		
20:F4	26	viiø6	i6	VI6			e	f	d			
20:F5	7	viiø6	i6	iv6			e	f	bb			
20:F6	27	viiø6	i6	viiø6 (viiø6/VII)	VII		e	f	d	c		
20:G1	18	viiø6	i6	VI6	III4-	III3	e	f	d	f	f	
20:G2	10	viiø6	i6	V			e	f	a			
20:G3	8	viiø6	i6	iiø6/5	V		e	f	g	a		
20:G4	20	viiø6	i6	viiø	i		e	f	c#	d		
20:G5	25	viiø6	i6	iv6/4			e	f	d			
20:G6	28	viiø6	i6	iv6			e	f	Bb			
<b>first harmony E5/3</b>												
20:H1	17	ii	viiø6/4	i6			e	g	f			
20:H2	23	ii	V7	i			e	a	d			
20:H3	13	ii	V7	i6/4			e	a	a			
20:H4	28	ii	i7-6/#3-4 (V7- i6/4)	V			e	a	A			
20:H5	31	ii	V7	i	V		e	a	d	A		**
20:H6	16	ii	V7	i	vii6/5-4/3 (iio6- viiø4/3)	i6	e	a	d	g	f	
20:I1	13	ii	?	V7/VII	i6/4		e	f	g	a		
20:I2	13	ii	?	i	i6/4		e	f	d	a		
20:I3	11	ii	V7				e	a				
20:I4	3	ii	V7	i			e	a	d'			

20:I5	33	ii	?	i	V6-5/4-3 (i6/4-V)	i	e	f	d	A	D	*
20:I6	23	ii	?	i			e	f	d			
<b>first harmony d</b>												
20:J1	20	i	V	i			d	a	d			
20:J2	1	i	V	i			d	a	d'			
20:J3	20	i	V	i			d	A	d			
20:J4	8	i	V	V			d	A	a			
20:J5	16	i	V	i6			d	a	f			
20:J6	20	i	V6/5	i			d	c#	d			
20:K1	18	i	V	viiø/iv			d	a	f#			
20:K2	27	i	V	viiø			d	a	c#			
20:K3	16	i	viiø6/4	i6			d	g	f			
20:K4	28	i	iiø6/5	V			d	G	A			
20:K5	8	i	iiø6/5	V			d	g	a			
20:K6	28	i	V	V			d	a	A			
21:A1	13	i	i	i6/4			d	d'	a			
21:A2	16	i	iv	i6			d	g	f			
21:A3	28	i	iv6	V			d	Bb	A			
21:A4	31	i	iv6	V7			d	Bb	A			
21:A5	6	i	i	viiø			d	d'	c#			
21:A6	13	i	i	i6/4			d	d'	a			
21:B1	28	i	viiø6/4/iv	iv6			d	c	Bb			
21:B2	16	i	i	viiø6/4			d	d'	g			
21:B3	14	i	V7/iv	iv			d	d	g			
21:B4	33	i	V7/iv	iv			d	d	G			
21:B5	11	i	iv6	V7			d	Bb	a			
21:B6	13	i	iv6	i6/4			d	bb	a			
21:C1	14	i	V7/iv	iv			d	d'	g			
21:C2	14	i	viiø/iv	iv			d	f#	g			
21:C3	26	i	V7/iv	iv6/4			d	d	d			
21:C4	31	i	iiø6/5	V7			d	G	A			
21:C5	20	i	V7	i			d	A	d			
21:C6	1	i	V7	i			d	a	d'			
21:D1	11	i	iiø6/5	V7			d	g	a			
21:D2	18	i	iv	viiø/iv			d	g	f#			
21:D3	27	i	iv	viiø			d	g	c#			
21:D4	11	i	i	V7			d	d'	a			
21:D5	10	i	iiø6/4	i6/4	V		d	Bb	A	a		
21:D6	33	i	iv6	V6-5/4-3 (i6/4-V)	i		d	Bb	A	D		*
21:E1	8	i	V				d	a				
21:E2	10	i	V				d	a				
21:E3	28	i	V				d	A				
21:E4	29	i	V				d	A				
21:E5	7	i	iv6				d	bb				
21:E6	16	i	viiø6/4				d	g				
21:F1	11	i	V7				d	a				
21:F2	31	i	V7				d	A				
21:F3	28	i	iv6/4				d	Bb				
21:F4	13	i	i6/4				d	a				
21:F5	18	i	V6/5/iv				d	f#				

21:F6	27	i	v6				d	c						
21:G1	26	i	VI6				d	d						
21:G2	20	i	viiø6				d	e						
21:G3	16	i	i6				d	F						
21:G4	17	i	i6				d	f						
21:G5	25	i	V7/-/3/iv				d	d						
21:G6	24	i	V7/iv				d	d						
21:H1	13	i	iiø6/5	i6/4			d	g	a					
21:H2	16	i	i6/4	viiø6/4			d	a	g					
21:H3	27	i	IV6/5 (V6/5/VII)	VII			d	B	c					
21:H4	1	i	i				d	d'						
21:H5	3	i	i				d	d'						
21:H6	13	i	i6/4				d	a						
21:I1	27	i	v6				d	c						
21:I2	17	i	iv	V4/2	i6		d	g	g	f				
21:I3	25	i	vio6 (viiø6/VII)				d	d						
21:I4	16	i	iv6	i6			d	bb	f					
21:I5	18	i	iv6	viiø/iv			d	bb	f#					
21:I6	8	i	i	V			d	d'	a					
21:J1	23	i	iv6/4	i	i		d	d	d	d				
21:J2	23	i	i	V7	i		d	d'	a	d				
21:J3	16	i	i	i6			d	d'	f					
21:J4	23	i	iv6	i4-	i8/3		d	d	d	d				
21:J5	24	i	iv6/4	i4-	V7		d	d	d	d				
21:J6	25	i	V7/iv	VI6/5	iv6/4		d	d	d	d				
21:K1	14	i, g: iv	V7/iv, g: V	V6-5/4-3/iv (iv6/4-V/iv), g: V6-5/4-3	iv		d	d	d'	g				
21:K2	16	i	viiø6	i6			d	e	f					
21:K3	17	i	V	viiø6/4	i6		d	a	g	f				
21:K4	26	i	vio5-6 (i-vio6)	v	VI6		d	d	A	d				
21:K5	10	i	iv6	i6/4	V		d	Bb	A	a				
21:K6	13	i	i	III6			d	d'	a					
22:A1	7	i	i	V6	viiø6/4/iv	iv4-3	d	d'	c#'	c'	bb			
22:A2	29	i	iiø6/5	i6/4	V		d	g	a	A				
22:A3	10	i	i	i6/4	V		d	d'	a	S				
22:A4	16	i	iv6	viiø6/4			d	bb	g					
22:A5	28	i	v6	VI7	iv6		d	c	Bb	Bb				
22:A6	13	i	iv6	i6/4			d	bb	a					
22:B1	14	i	i	viiø5-6/4-3/iv (v4-viiø6/iv)	iv4-	iv3	d	d'	a	g	g			
22:B2	33	i	v6	VI	iv		d	c	Bb	G				
22:B3	8	i	i	VII5-6/4-3 (v4- III6) (V6/VI)	VI		d	d'	a	Bb				
22:B4	24	i	i	V4-	V7/3		d	d'	a	d				
22:B5	1	i	i	V7/4-3	i		d	d'	a	D				
22:B6	27	i	vio5-6 (viiø6/VII) (i-vio6)	VII			d	d	c					
22:C1	10	i	iv	i6/4	V		d	g	a	a				
22:C2	17	i	iiø6/5	V4/2	i6		d	g	g	f				
22:C3	14	i	i	V4-	V7/3	iv4-3	d	d'	a	d'	g			
22:C4	18	i	iv	VII6/5	III		d	g	e	f				
22:C5	20	i	iv	V6-5/4-3 (i6/4- V)	i		d	G	A	d				*
22:C6	13	i	i	i6			d	d'	a					

22:D1	7	i	i	V4/2/iv	v	iv	d	d'	c'	a	bb	
22:D2	11	i	i	V7			d	d'	a			
22:D3	33	i	VI	viiø6/5-4/iv	iv		d	Bb	c	G		
22:D4	1	i	i	ii4/2	viiø	i	d	d'	d'	C#	d'	
22:D5	7	i	i	V/iv	viiø/iv	iv6	d	d'	d'	c'	bb	
22:D6	33	i	iiø6/5	V6-5/4-3 (i6/4-V)	i		d	G	A	D		*
22:E1	31	i	VI	iiø6/5	V		d	Bb	G	A		**
22:E2	7	i	i	viiø4/3	iv6		d	d'	c'	bb		
22:E3	18	i	V	i6	V6/5/iv		d	a	f	f#		
22:E4	31	i	iv6/4	V7			d	d	A			
22:E5	31	i	iv	V7			d	g	A			
22:E6	27	i	iv6	viiø			d	Bb	c#			
22:F1	7	i	i	i6/4	V	iv6	d	d'	a	bb		
22:F2	8	i	i	ii4/2	v6	VI	d	d'	d'	c'	bb	
22:F3	8	i	i	iiø7-6	V		d	d'	bb	a		
22:F4	10	i	i6	V4-	V3		d	f	a	a		
22:F5	18	i, Bb: iii	VI6, Bb: i6	III4-, Bb: V4-	III3, Bb: V3		d	d	f	f		
22:F6	10	i	iv	i6/4	V		d	G	A	a		
22:G1	14	i	V7/iv	iv6/4	V/iv	iv	d	d'	d	d'	g	
22:G2	27	i, F: vi	III6, F: i6	VII4-, F: V4-	VII3, F: V3		d	A	c	c		
22:G3	33	i	III6, F: i6	VII4-, F: V4-	III, F: I		d	A	c	F		
22:G4	27	i	VI6	VII7	v6		d	d	c	c		
22:G5	29	i	iiø6/4	i6/4	V		d	Bb	A	A		
22:G6	13	i	i6	i6/4			d	f	a			
22:H1	33	i, F: vi	VI, F: IV	VII7/4-3, F: V7/4-3	III, F: I		d	Bb	c	F		
22:H2	10	i	i	viiø	i		d	d'	c#	d'		
22:H3	31	i	v6	iv7-6 (VI7-iv6)	V		d	c	Bb	A		**
22:H4	7	i	i	ii4/2	viiø6/4/iv	iv6	d	d'	d'	c'	bb	
22:H5	33	i, F: vi	III6, F: i6	VII4-3, F: V4-3	III, F: I		d	A	c	F		
22:H6	7	i	i	V/iv	iv6		d	d'	d'	bb		
22:I1	8	i	i	V6/5	V		d	d'	c#	d'	a	
22:I2	31	i	iiø6/4	V7			d	Bb	A			
22:I3	31	i	iv6	V7			d	Bb	A			
22:I4	10	i	i	iiø6/5	V		d	d'	g	a		
22:I5	27	i	iv6/4	viiø			d	d	c#			
22:I6	10	i	i	i6/4	V		d	d'	a	a		
<b>first harmony</b>												
<b>d</b>												
22:J1	3	i	V	i			d	a	d'			
22:J2	6	i	i	ii4/2	V6/5		d	d'	d'	c#		
22:J3	8	i	i	V			d	d'	a			
22:J4	19	i	i6	viiø6			d	f	e			
22:J5	28	i	i	V			d	d	A			
22:J6	16	i	i	i6			d	d'	f			
22:K1	31	i	v6	iv7-6 (VI7-iv6)	V		d	c	Bb	A		**
22:K2	8	i	i	III5-6/4-3	VI		d	d'	a	bb		
22:K3	29	i	i	i6/4	V		d	d	a	A		
22:K4	24	i	i	V4-	V7/iv		d	d	a	d		
22:K5	28	i	i	v6	iv6		d	d	c	Bb		
22:K6	16	i	i6	ii7	viiø6/4		d	f	e	g		
23:A1	18	i	i6	VII6	V6/5/iv		d	f	e	f#		

23:A2	6	i	i	viiø			d	d'	c#'				
23:A3	13	i	i	i6/4			d	d'	a				
23:A4	12	i	i6	iiø6/5	v		d	f	g	A			
23:A5	8	i	i6	iiø5-6 (iv-iiø6)	V		d	f	g	a			
23:A6	8	i	iiø6/5	V			d	g	a				
<b>first harmony d8/3</b>													
23:B1	8	i	V				d	a					
23:B2	1	i	i				d	d'					
23:B3	26	i	VI6				d	d					
23:B4	28	i	V				d	A					
23:B5	17	i	i6				d	f					
23:B6	18	i	viiø/iv				d	f#					
23:C1	28	i	v6	iv6			d	c	Bb				
23:C2	31	i	iv6	V7			d	Bb	A				
23:C3	28	i	viiø6/4/iv	iv6			d	c	Bb				
23:C4	33	i	iiø6/5	V	i		d	G	A	D			*
23:C5	18	i	V6/5/iv				d	f#					
23:C6	17	i	viiø6/4	i6			d	g	f				
23:D1	17	i	iv	i6			d	g	f				
23:D2	28	i	viiø6/4/iv	iv6			d	c	Bb				
23:D3	14	i	V7/iv	iv			d	d'	g				
23:D4	20	i	viiø6-5	i			d	c#	d				
23:D5	28	i	V	V6/5			d	A	c#				
23:D6	28	i	iiø6/5	V			d	G	A				
23:E1	7	i	viiø5-#6/5-b5/4-3/iv (v4-viiø6/5/iv)	iv6			d	a	bb				
23:E2	8	i	iiø6/5	V			d	g	a				
23:E3	28	i	VI7	iv6			d	Bb	Bb				
23:E4	31	i	iv7-6 (VI7-iv6)	V7			d	Bb	A				**
23:E5	1	i	V7/4-3	i			d	a	d'				
23:E6	23	i	viiø	i			d	c#	d				
23:F1	18	i	V4-	V6/5/iv			d	a	f#				
23:F2	29	i	V4-	V7/3			d	a	A				
23:F3	33	i	V	V7/iv	iv		d	A	d	G			
23:F4	14	i	V7/iv	iv			d	d'	g				
23:F5	31	i	ii7	V7			d	e	A				
23:F6	7	i	III5-6/4-3	iv6			d	a	bb				
23:G1	27	i	ii4/2	v6/3			d	d	c				
23:G2	17	i	ii4/2	V6/5	III7	i6	d	d	c#	f	f		
23:G3	7	i	V6-5/4-3 (i6/4-V)	iv6			d	a	bb				
23:G4	8	i	III5-6/4-3	iv6			d	a	bb				
23:G5	18	i, F: vi	VII6, F: V6	III, F: I			d	e	f				
23:G6	12	i	v4-	v3			d	A	a				
23:H1	26	i	v4-3	iv6/4			d	a	d				
23:H2	12	i	v4-	v3			d	a	a				
23:H3	27	i	IV6/5 (V6/5/VII)	VII			d	Bb	c				
23:H4	20	i	V4-3	i			d	A	d				*
23:H5	32	i	v4-	v3			d	a	A				
23:H6	10	i	V4-	V3			d	a	a				
23:I1	10	i	i6/4	V			d	a	a				
23:I2	28	i	v4-	III6	VI	iv6	d	a	A	Bb	Bb		

23:I3	25	i	i6	vio6			d	f	d			
23:I4	16	i	V6-5/4-3	i6			d	a	f			
23:I5	17	i	IV6/5 (V6/5/VII)	VII7 (V7/III)	III	i6	d	Bb	c	F	f	
23:I6	7	i	III5-6/4-3	VI	iv6		d	a	bb	bb		
23:J1	28	i	VI	iiØ6/5	V		d	Bb	G	A		
23:J2	14	i	V4-	V7/iv	iv		d	a	d	g		
23:J3	24	i	V4-	V7/iv			d	a	d			
23:J4	28	i	ii4/2	V6/5			d	d	c#			
23:J5	28	i	iv6	iv7	V		d	Bb	G	A		
23:J6	29	i	i6/4	V			d	a	A			
23:K1	10	i	iiØ6/5	iiø6/4	i6/4	V	d	G	Bb	A	a	
23:K2	7	i	iiØ6/5	viiø6/iv	iv6		d	g	a	bb		
23:K3	11	i	iiØ6/5	iiØ7	V7		d	g	e	a		
23:K4	27	i	iiØ6/5	iv6	viiø		d	g	bb	c#		
23:K5	32	i, a: iv	V6-5/4-3/V (v6/4-V/v), a: i6/4-V	v8/3, a: i8/3			d	e	A			
23:K6	17	i	iv9	iiØ6/5	V4/2	i6	d	G	g	g	f	
24:A1	18	i	V4-3	viiø/iv			d	a	f#			
24:A2	28	i	viiø6/iv	VII	iv6		d	A	c	Bb		
24:A3	7	i	iiØ6/5	iv6			d	g	bb			
24:A4	23	i	V4-3	i9-	i8		d	A	d	d		
24:A5	31	i	V4-	V7/3			d	A	A			
24:A6	7	i	VI7	iv6			d	bb	bb			
24:B1	28	i	V/iv	viiø6/4/iv	iv6		d	d	c	Bb		
24:B2	27	i, C: ii	III6, C: IV6	V6/5/VII, C: V6/5	VII, C: I		d	A	B	c		
24:B3	33	i	v	V/iv	iv		d	A	d	G		
24:B4	24	i	V4-	V7/3/iv			d	A	d			
24:B5	18	i	V	viiø6/4/iv	viiø/iv		d	a	g	f#		
24:B6	7	i	i6	iv6			d	f	bb			
24:C1	17	i	V6-5/4-3	ii7	i6		d	a	f	f		
24:C2	16	i	i6/4	iv#4?	i6		d	a	g	f		
24:C3	14	i	viiø5-6/4-3/iv (v4-viiø6/iv)	iv4-	iv3		d	a	g	g		
24:C4	18	i	VII6	V6/5/iv			d	e	f#			
24:C5	14	i	VII6	viiø/iv	iv		d	e	f#	g		
24:C6	31	i	V4-	V7/3			d	a	A			
24:D1	16	i	ii7	viiø6/4	i6		d	e	g	f		
24:D2	12	i	V4-	V7/3			d	A	a			
24:D3	17	i	ii7	viiø6/4	ii7	i6	d	e	g	f	f	
24:D4	13	i	i6	iiØ6/5	i6/4		d	f	g	a		
24:D5	28	i	V6	v6	vio7	iv6	d	c#	c	B	Bb	
24:D6	19	i	iiø6-5	III			d	e	f			
24:E1	28	i	V6	viiø6/4/iv	iv6		d	c#	c	B		
24:E2	28	i	V6	viiø6/4/iv	IV6	iv6	d	c#	c	B	Bb	
24:E3	19	i, F: vi	VII4-3, F: V4-3	III, F: I			d	c	f			
24:E4	12	i	V4-	V7/3			d	a	a			
24:E5	12	i	i6	iv	v4-	v3	d	f	g	a	a	
24:E6	29	i	i6/4	V			d	a	A			
24:F1	14	i	i6	V6/5/iv	iv		d	f	f#	g		
24:F2	7	i	V4-	III6	VI	iv6	d	a	A	Bb	Bb	
24:F3	25	i	V4-3	V7/iv			d	a	d			
24:F4	7	i	i	V4/2/iv	iv6		d	d'	c'	bb		
24:F5	16	i	viiø4/3 (iiø6/b3-	i6			d	g	f			



			viiø4/3)											
24:F6	26	i	v4-3	Vl6				d	a	d				
<b>first harmony D7/3</b>														
24:G1	14	V7/iv	iv4-	iv3				d	g	g				
24:G2	33	V7/iv	iv4-	iv3				d	g	G				
24:G3	11	V7/iv	iv4-3	V7				d	g	a				
24:G4	13	V7/iv	iv	III6				d	g	a				
24:G5	14	V7/iv	iv					d	g					
24:G6	28	V7/iv	iv6/4	viiø6/4/iv	iv6			d	d	c	Bb			
24:H1	31	V7/iv	iv4-3	V7				d	g	A				
24:H2	29	V7/iv	iv4-3	viiø				d	g	c#				
24:H3	13	V7/iv	iv4-3	i6/4				d	g	a				
24:H4	28	V7/iv	iv	V6/5				d	g	c#				
24:H5	17	V7/iv	iv	i6/3				d	g	f				
24:H6	19	V7/iv	iv	VII6/5 (V6/5/III)	III			d	g	e	f			
24:I1	13	V7/iv	iiø6/5	i6/4				d	g	a				
24:I2	7	V7/iv	iv6/4	viiø6/4/iv	iv6			d	d'	c'	bb			
24:I3	16	V7/iv	viiø5/b3-6/#4 (iv- viiø6/4)	i6				d	g	f				
24:I4	20	V7/iv	iv	V6/5	i			d	g	c#	d			
24:I5	7	V7/iv	iv	viiø6/3/iv	iv6			d	g	a	bb			
24:I6	27	V7/iv	iv	iv6/4	viiø			d	g	d	c#			
24:J1	13	V7/iv	iv	III6/3				d	g	a				
24:J2	8	V7/iv	iiø5-6/b3 (iv-iiø6)	V				d	g	a				
24:J3	11	V7/iv	iv	V7				d	g	a				
24:J4	14	V7/iv	iv9-	iv8				d	g	g				
24:J5	33	V7/iv	iv9-	iv8				d	g	G				
24:J6	7	V7/iv	iv9-	iv6/3				d	g	bb				
24:K1	19	V7/iv	iv	viiø6/4 (viiø6/4/VII)	viiø6			d	g	f	e			
24:K2	28	V7/iv	iv	iiø6/5	V			d	g	G	A			
24:K3	13	V7/iv	iiø5-6/b3 (iv-iiø6)	i6/4				d	g	a				
24:K4	10	V7/iv	iv	iiø6/5	i6/4	V8/3		d	g	g	a	a		
24:K5	33	V7/iv	iv4-	iv8/3				d	g	G				
24:K6	17	V7/iv	iv	iiø6/5	V4/2	i6/3		d	g	g	g	f		
25:A1	11	V7/iv	iv9-8	V7/3				d	g	a				
25:A2	13	V7/iv	iv	iv6	i6/4			d	g	bb	a			
25:A3	19	V7/iv	iv	VII6/5 (V6/5/III)	III			d	g	e	f			
25:A4	14	V7/iv	V6-5/4-3/iv	iv				d	d'	g				
25:A5	25	V7/iv	iv	iv6/4				d	g	d				
25:A6	31	V7/iv	iv	iiø6/4	V7/3			d	g	Bb	A			
<b>first harmony D7I-3</b>														
25:B1	18	V7I-3/iv	iv	VII7 (V7/III)	III			d	g	c	f			
25:B2	17	V7I-3/iv	iv	V4/2	i6/3			d	g	g	f			
25:B3	27	V7I-3/iv	iv	viiø5				d	g	c#				
25:B4	23	V7I-3/iv	iv	i4-	i3			d	g	d'	d			
25:B5	28	V7I-3/iv	iv	V6	V6/5			d	g	c#	c#			
25:B6	18	V7I-3/iv	iv	viiø/III	III3			d	g	e	f			
25:C1	20	V7I-3/iv	iv	i6/4	V	i		d	g	a	A	d	*	
25:C2	11	V7I-3/iv	iv	V7				d	g	a				

25:C3	25	V7I-/3/iv	iv6/4				d	d					
25:C4	28	V7I-/3/iv	iv6/4	vii6/4/iv	iv6/3		d	d	c	Bb			
25:C5	33	V7I-/3/iv	iv8/3				d	G					
25:C6	27	V7I-/3/iv	iv6/4	vii6/5			d	d	c#				
25:D1	4	V7I-/3/iv	iv	III6/4	VII3		d	g	c'	C			
25:D2	13	V7I-/3/iv	iv	i6/4			d	g	a				
25:D3	10	V7I-/3/iv	iv	i6/4	V8/3		d	g	a	a			
25:D4	23	V7I-/3/iv	iv	V6/5	i8/3		d	g	c#	d			
25:D5	27	V7I-/3/iv	iv	vii6/5			d	g	c#				
25:D6	23	V7I-/3/iv	IV6/4	i4-	i8/3		d	d	d	d			
25:E1	31	V7I-/3/iv	iv6/4	i4-	i3	V8-/3	d	d	d	d	A	**	
25:E2	14	V7I-/3/iv	iv8/3				d	g					
25:E3	18	V7I-/3/iv	iv	V4/2	V6/5/iv		d	g	g	f#			
25:E4	18	V7I-/3/iv	iv	ii6 (vii6/III)	III3		d	g	e	f			
25:E5	31	V7I-/3/iv	iv	V7/3			d	g	A				
25:E6	18	V7I-/3/iv	iv	VIIb7/3 (V7/III)	III3		d	g	c	f			
25:F1	31	V7I-/3/iv	iv	V6	V7/3		d	g	c#	A			
25:F2	31	V7I-/3/iv	iv6/4	V6	V7/3		d	d	c#	A			
25:F3	16	V7I-/3/iv	iv	i6			d	g	f				
25:F4	33	V7I-/3/iv	iv6/4	i4-	V7/iv	iv3	d	d	d	D	G		
25:F5	31	V7I-/3/iv	iv6/4	V7/3			d	d	A				
25:F6	3	V7I-/3/iv	iv	i4-	i8/3		d	G	d	d'			
<b>first harmony bo6</b>													
25:G1	14	vio6 (vii6/VII)	vii6-6/iv (v- vii6/iv)	iv4-	iv3		d	a	g	g			
25:G2	18	vio6 (vii6/VII)	VII6	III3			d	e	f				
25:G3	18	vio6 (vii6/VII)	VII6	V6/5/iv			d	e	f#				
25:G4	33	vio6 (vii6/VII)	v	V/iv	iv3		d	A	d	G			
25:G5	27	vio6 (vii6/VII)	VII4-	VII3			d	c	c				
25:G6	16	vio6 (vii6/VII)	VII6	vii6/4			d	e	g				
25:H1	15	vio6 (vii6/VII)	vii6-6/iv (v- vii6/iv)	iv4-	iv3		d	a	g	g			
25:H2	33	vio6 (vii6/VII)	VII	V/iv	iv3		d	c	d	G			
25:H3	12	vio6 (vii6/VII)	v	v			d	A	a				
25:H4	14	vio6 (vii6/VII)	VII	V7/iv	iv3		d	c	d	g			
25:H5	27	vio6 (vii6/VII)	VII	v6/3			d	c	c				
25:H6	14	vio6 (vii6/VII)	vii6-6/iv (v- vii6/iv)	iv			d	a	g				
25:I1	26	vio6 (vii6/VII)	VII	III	VI6		d	c	f	d			
25:I2	16	vio6 (vii6/VII)	vii6-#6 (VII6- vii6)	i6			d	e	f				
25:I3	28	vio6 (vii6/VII)	VII	III3			d	c	f				
25:I4	14	vio6 (vii6/VII)	v6	V6/5/iv	iv3		d	e	f#	g			
25:I5	7	vio6 (vii6/VII)	vii6-6/iv (v- vii6/iv)	iv6			d	a	bb				
25:I6	19	vio6	ii6-5 (v6-ii6)	III5			d	e	f				

		(vii <sup>o</sup> 6/VII)																	
<b>first harmony Db6/4</b>																			
25:J1	10	iv6/4	i	ii <sup>o</sup> 6/4	i6/4	V8/3	d	d	Bb	A	a								
25:J2	31	iv6/4	V7	i6/4	V8/-/3		d	A	A	A									**
25:J3	31	iv6/4	V6	V7/-/3			d	c#	A										
25:J4	31	iv6/4	vii <sup>o</sup> 5	i	V8/-/3		d	c#	d	A									**
25:J5	23	iv6/4	vii <sup>o</sup> 6-5 (V6-vii <sup>o</sup> )	i4-	i8/3		d	c#	d	d									
25:J6	27	iv6/4	i	vii <sup>o</sup> 6 (vii <sup>o</sup> 6/VII)	VII5		d	d	c										
25:K1	23	iv6/4	i4-	i8/3			d	d	d										
25:K2	17	iv6/4	V6/5	III7	i6/3		d	c#	f	f									
25:K3	10	iv6/4	i7-6/#3-4 (V7- i6/4)	V	V8/3		d	A	A	a									
25:K4	8	iv6/4	i7-6/#3-4 (V7- i6/4)	V3			d	A	a										
25:K5	23	iv6/4	V6/5	i8/3			d	c#	d										
25:K6	28	iv6/4	V6	V6/5			d	c#	c#										
26:A1	31	iv6/4	i	i	V8/-/3		d	d	D	A									**
26:A2	3	iv6/4	vii <sup>o</sup> 6-5 (V6-vii <sup>o</sup> )	i	i8/3		d	c#	d	d'									
26:A3	27	iv6/4	i	VI	VII5		d	d	Bb	c									
26:A4	8	iv6/4	i7-6/#3-4 (V7- i6/4)	V3			d	A	a										
26:A5	31	iv6/4	i4-	i3	V8/-/3		d	d	D	A									**
26:A6	28	iv6/4	i4-3	iv6-5 (ii <sup>o</sup> 6-iv)	V3		d	d	G	A									
26:B1	19	iv6/4	VII6-5/4-3 (III6/4- VII)	III5			d	c	f										
26:B2	3	iv6/4	i4-	i8/3			d	d	d'										
26:B3	33	iv6/4	VII6-5/4-3 (III6/4- VII)	III5			d	c	F										
26:B4	28	iv6/4	i	iv6/3			d	d	Bb										
26:B5	8	iv6/4	i	ii <sup>o</sup> 6/5	V3		d	d	g	a									
26:B6	28	iv6/4	V6	vii <sup>o</sup> 6/4/iv	iv6		d	c#	c	Bb									
<b>first harmony db6/-/4</b>																			
26:C1	14	iv6/-/4	V/iv	iv3			d	d	g										
26:C2	14	iv6/-/4	V/iv	iv	iv8/3		d	d	G	g									
26:C3	16	iv6/-/4	V/iv	iv	vii <sup>o</sup> 6/4		d	d	g	g									
26:C4	25	iv6/-/4	V/iv	iv	iv6/4		d	d	g	d									
26:C5	19	iv6/-/4	V/iv	iv	ii <sup>o</sup>	III5	d	d	g	e	f								
26:C6	17	iv6/-/4	V/iv	iv	i6/3		d	d	g	f									
26:D1	28	iv6/-/4	i	VI7	iv6/3		d	d	Bb	Bb									
26:D2	27	iv6/-/4	i	vii <sup>o</sup> 5			d	d	c#										
26:D3	31	iv6/-/4	i	V7/3			d	d	A										
26:D4	28	iv6/-/4	i	ii <sup>o</sup> 6/5	V3		d	d	G	A									
26:D5	8	iv6/-/4	i	ii <sup>o</sup> 6/5	V3		d	d	g	a									
26:D6	28	iv6/-/4	vii <sup>o</sup> 6/4/iv	iv6			d	c	c	Bb									
26:E1	16	iv6/-/4	i	i6			d	d	f										
26:E2	18	iv6/-/4	i	V6/iv	V6/5/iv		d	d	f#	f#									
26:E3	18	iv6/-/4	V/iv	V6/iv	V6/5/iv		d	d	f#	f#									
26:E4	18	iv6/-/4	V/iv	VII6	V6/5/iv		d	d	e	f#									
26:E5	14	iv6/-/4	V/iv	V6/5/iv	iv8/3		d	d	f#	g									
26:E6	31	iv6/-/4	i	iv7-6 (VI7-iv6)	V7/3		d	d	Bb	A									
26:F1	28	iv6/-/4	i	ii <sup>o</sup> 6/4	iv7	V3	d	d	Bb	G	A								**
26:F2	20	iv6/-/4	V6	i			d	c#	d										

26:F3	31	iv6/-/4	V6	i9-8	V8/-/3		d	c#	d	A		**
26:F4	31	iv6/-/4	V6	i	i	V8/-/3	d	c#	d	D	A	**
26:F5	23	iv6/-/4	V/iv	iv6/4	i8/3		d	d	d	d		
26:F6	28	iv6/-/4	i	VI7	iv6/3		d	d	Bb	Bb		
<b>first harmony Db6</b>												
26:G1	20	VI6	i	ii4-	ii3		d	d	e	e		
26:G2	19	VI6	III	VII4-3	III5		d	f	c	f		
26:G3	31	VI6	III	iv7-6 (V17-iv6)	V8/-/3		d	f	Bb	A		**
26:G4	28	VI6	III	V6/5			d	f	c#			
26:G5	25	VI6	III	viiø6	iv6/4		d	f	e	d		
26:G6	23	VI6	III	viiø6	i8/3		d	f	e	d		
26:H1	18	VI6	i3				d	f				
26:H2	16	VI6	i	i6			d	d	f			
26:H3	8	VI6	i	i6	iiø6/5	V3	d	d	f	g	a	
26:H4	31	VI6	i	iiø6/5	V8/-/3		d	d	G	A		**
26:H5	17	VI6	i	viiø6/4	i6/3		d	d	g	f		
26:H6	16	VI6	i	viiø6/4	i6		d	d	g	f		
26:I1	16	VI6	i	viiø6/-/4			d	d	g			
26:I2	19	VI6	VII6/5 (V6/5/III)	III5			d	e	f			
26:I3	18	VI6	iiø	III4-	III3		d	e	f	f		
26:I4	31	VI6	v6	iv7-6 (V17-iv6)	V8/3		d	c	Bb	A		**
26:I5	33	VI6	V17	VII5-7/4-3	III5		d	Bb	c	F		
26:I6	31	VI6	III	V7/3			d	f	A			
26:J1	31	VI6	i	V7/3			d	d	A			
26:J2	28	VI6	i	VI7	iv6/3		d	d	Bb	Bb		
26:J3	8	VI6	i	i	iiø6/5	V3	d	d	D	g	a	
26:J4	10	VI6	III	i6	V8/3		d	f	f	a		
26:J5	31	VI6	i	V6-5/4-3/V (i6/4-V/iv)	v8/-/3		d	d	e	A		
26:J6	28	VI6	i	V6/5			d	d	c#			
<b>first harmony Db6/3</b>												
26:K1	18	VI6/3	VII6/5 (V6/5/III)	V6/5/iv			d	e	f#			
26:K2	27	VI6/3	VII7	v6/3			d	c	c			
26:K3	18	VI6/3	III4-	III3			d	f	f			
26:K4	31	VI6/3	III6/4	iiø6/4	V7/3		d	c	Bb	A		
26:K5	18	VI6/3	VII6/5 (V6/5/III)	III3			d	e	f			
26:K6	16	VI6/3	iiø	III	i6		d	e	f	f		
27:A1	18	VI6/3	VII7 (V7/III)	III3			d	c	f			
27:A2	19	VI6/3	VII6-5/4-3 (III6/4-VII)	III5			d	c	f			
27:A3	28	VI6/3	i	iv6/3			d	d	Bb			
27:A4	8	VI6/3	i	iiø6/5	V3		d	d	g	A		
27:A5	27	VI6/3	VII6-5/4-3 (III6/4-VII)	viiø5			d	c	c#			
27:A6	31	VI6/3	VII6-5/4-3 (III6/4-VII)	V7/3			d	c	A			
<b>first harmony C5</b>												
27:B1	23	VII5	v6	VI6	i8/3		c	c	d	d		
27:B2	19	VII5	v6	VI6	iiø6/5	III5	c	c	d	e	f	
27:B3	26	VII5	v6	VI6			c	c	d			

27:B4	18	VII5	v6	VI6	III3		c	c	d	f		
27:B5	33	VII5	vØ6/5, g: iiØ6/5	Vb6-5/4-3/iv (iv6/4-V/iv), g: i6/4-V	iv3, g: i3		c	c	d	G		
27:B6	18	VII5	III3				c	f				
27:C1	27	VII5	III	VII5			c	f	c			
27:C2	33	VII5	III6	iiø7-6 (iv7-iiø6)	III5		c	A	G	F		
27:C3	33	VII5	viiø6/iv	iv3			c	A	G			
27:C4	31	VII5	III	iv7-6 (V17-iv6)	V8/-/3		c	f	Bb	A		**
27:C5	31	VII5	III	VI	iiØ6/5	V8/-/3	c	f	Bb	G	A	
27:C6	26	VII5	III	VI6			c	f	d			
27:D1	18	VII5	III	viiø5			c	f	ff#			
27:D2	31	VII5	III	iiø7-6 (iv7-iiø6)	V7/3		c	f	Bb	A		
27:D3	28	VII5	III	VI7	iv6-3		c	f	Bb	Bb		
27:D4	16	VII5	III	i6			c	f	f			
27:D5	16	VII5	viiø6/4	i6			c	g	f			
27:D6	25	VII5	III	V7/-/3/iv			c	f	d			
27:E1	13	VII5	III	VI	iiØ6/5	i6/-/4	c	f	bb	g	a	
27:E2	26	VII5	III	i6	VI6/3		c	f	f	d		
27:E3	33	VII5	V/iv	iv3			c	d	G			
27:E4	26	VII5	V/iv	iv	VI6/3		c	d	G	d		
27:E5	7	VII5	III	i6	iv6/3		c	f	f	Bb		
27:E6	8	VII5	III	VI5			c	f	bb			
<b>first harmony C3</b>												
27:F1	31	VII3	iiø6/4	V7/3			c	Bb	A			
27:F2	27	VII3	IV6 (V6/VII)	viiø5			c	B	c#			
27:F3	20	VII3	IV6 (V6/VII)	V6/5	i		c	B	c#	d		
27:F4	28	VII3	IV6 (V6/VII)	V6/5			c	B	c#			
27:F5	23	VII3	viiø6/iv	iv	i4-	i8/3	c	A	G	d	d	
27:F6	25	VII3	v	V7/-/3/iv			c	A	d			
27:G1	28	VII3	viiø5-6/iv (v- viiø6/iv)	iv6			c	A	Bb			
27:G2	27	VII3	IV6 (V6/VII)	V6/5	i	v6/3	c	B	c#	d	c	
27:G3	33	VII3	v	V/iv	iv3		c	A	d	G		
27:G4	28	VII3	v	V/iv	VI7	iv6/3	c	A	d	Bb	Bb	
27:G5	28	VII3	iv6	iiØ6/5	V3		c	Bb	G	A		
27:G6	33	VII3	viiø7-6/iv (v7- viiø6)	iv3			c	A	G			
<b>first harmony c6/3</b>												
27:H1	28	v6/3	VI7	iv6/3			c	Bb	Bb			
27:H2	28	v6/3	VI	iiØ6/5	V3		c	Bb	G	A		
27:H3	29	v6/3	VI	iiØ6/5	i6/4	V8/3	c	Bb	G	A	A	
27:H4	10	v6/3	VI	iiØ6/5	i6/4	V8/3	c	Bb	G	A	a	
27:H5	33	v6/3	VI	viiø6/iv	iv3		c	Bb	A	G		
27:H6	28	v6/3	VI	iv6/3			c	Bb	Bb			
27:I1	27	v6/3	VI	IV6/5 (V6/5/VII)	VII5		c	Bb	B	c		
27:I2	31	v6/3	VI	iiØ6/5	V7/3		c	Bb	G	A		
27:I3	23	v6/3	VI	iiØ6/5	i4-	i8/3	c	Bb	G	d	d	
27:I4	31	v6/3	VI	iiØ6/5	V8/-/3		c	Bb	G	A		**
27:I5	27	v6/3	VI	IV6/5 (V6/5/VII)	VII4-	VII3	c	Bb	B	c	c	
27:I6	7	v6/3	VI7	iv6/3			c	Bb	bb			

<b>first harmony c#b5</b>															
27:J1	31	viiø5	i	iv7-6 (V17-iv6)	V8/3		c#	d	Bb	A					**
27:J2	28	viiø5	i	V17	iv6/3		c#	d	Bb	Bb					
27:J3	14	viiø5	i	iv9-	iv8/3		c#	d	G	g					
27:J4	28	viiø5	i	iiø6/5	V3		c#	d	G	A					
27:J5	31	viiø5	i	V8/-/3			c#	d	A						**
27:J6	20	viiø5	i	ii4/2	viiø	i	c#	d	d	c#	d				
27:K1	11	viiø5	i	iv7	iiø6/4	V7/3	c#	d	g	bb	a				
27:K2	23	viiø5	i8/3				c#	d							
27:K3	7	viiø5	i	iv6			c#	d	bb						
27:K4	17	viiø5	i	viiø6/4	i6/3		c#	d	g	f					
27:K5	7	viiø5	i	V17	iv6/3		c#	d	bb	bb					
27:K6	10	viiø5	i	V4-	V8/3		c#	d	A	a					
28:A1	8	viiø5	i	V3			c#	d	A						
28:A2	18	viiø5	i	iv6			c#	d	Bb						
28:A3	8	viiø5	i	VI	V15/3		c#	d	Bb	bb					
28:A4	16	viiø5	i	i6			c#	d	f						
28:A5	8	viiø5	i	iiø6/5	V3		c#	d	g	a					
28:A6	7	viiø5	i	iiø6/5	iv6/3		c#	d	g	bb					
<b>first harmony C#6/5</b>															
28:B1	23	V6/5	i9-	i8/3			c#	d	d						
28:B2	8	V6/5	i	iiø6/5	V3		c#	d	g	a					
28:B3	28	V6/5	i	viiø6/4/iv	iv6		c#	d	c	Bb					
28:B4	33	V6/5	i	VI	VII4-3 (V4-3/III)	III5	c#	d	Bb	c	F				
28:B5	28	V6/5	i	iiø6/5	V3		c#	d	G	A					
28:B6	29	V6/5	i	V8/3			c#	d	A						
28:C1	27	V6/5	i	III6/3	VII4	VII3	c#	d	A	c	c				
28:C2	27	V6/5	i	v6/3			c#	d	c						
28:C3	20	V6/5	i				c#	d							
28:C4	17	V6/5	i9-	i6/3			c#	d	F						
28:C5	3	V6/5	i4-	i8/3			c#	d	D						
28:C6	28	V6/5	i	iv6/3			c#	d	Bb						
28:D1	12	V6/5	i9-8	V7/3/iv	v		c#	d	e	a					
28:D2	17	V6/5	i9-8	V6-5/4-3/V (i6/4-V/V)	III7	i6/3	c#	d	e	f	F				
28:D3	26	V6/5	i	VI6/3			c#	d	d						
28:D4	19	V6/5	i	III6/3	VII4-3 (V4-3/III)	III5	c#	d	A	c	f				
28:D5	33	V6/5	V5-7/3-#3/iv (i- V7/iv)	iv3			c#	d	G						
28:D6	23	V6/5	i4-	i8/3			c#	d	d						
<b>first harmony Bb6</b>															
28:E1	33	iv6	V7/iv	iv3			Bb	d	G						
28:E2	14	iv6	V7/iv	iv3			Bb	d	g						
28:E3	28	iv6	iiø6/5	V3			Bb	G	A						
28:E4	31	iv6	iiø6/5	V7/3			Bb	G	A						
28:E5	7	iv6	iv6/3				Bb	Bb							
28:E6	33	iv6	viiø6/iv	iv3			Bb	A	G						
28:F1	13	iv6	iv6	i6/-/4			Bb	Bb	a						
28:F2	10	iv6	iiø6/5	i6/4	V8/3		Bb	G	A	a					

28:F3	28	iv6	i	V3			Bb	d	A				
28:F4	20	iv6	i	V5-7/4-3 (V4-V7/3)	i		Bb	d	A	d			
28:F5	29	iv6	i	V4-	V8/3		Bb	d	A	A			
28:F6	10	iv6	i	V4-	V8/3		Bb	d	A	a			
28:G1	28	iv6	i	iv6-5 (iio6-iv)	V3		Bb	d	G	A			
28:G2	27	iv6	VI	VII4-	VII3		Bb	Bb	c	c			
28:G3	27	iv6	IV6/5 (V6/5/VII)	VII4-	VII3		Bb	B	c	c			
28:G4	33	iv6	iiØ6/5	V6-5/4-3/V (i6/4-V/V)	i		Bb	G	A	D			*
28:G5	27	iv6	IV6/5 (V6/5/VII)	VII5			Bb	B	c				
28:G6	33	iv6	III6	VII4-3	III5		Bb	A	c	F			
<b>first harmony Bb6/3</b>													
28:H1	23	iv6/3	V7/3	i8/3			Bb	A	d				
28:H2	10	iv6/3	V	V8/3			Bb	A	a				
28:H3	10	iv6/3	i6/4	V8/3			Bb	A	a				
28:H4	8	iv6/3	i7-6/#3-4 (V7-i6/4)	V3			Bb	A	a				
28:H5	29	iv6/3	i6/4	V8/3			Bb	A	A				
28:H6	33	iv6/3	viiø7-6/iv (v7-viiø6)	iv3			Bb	A	G				
24:I1	33	iv6/3	v7	V7/3/iv	iv3		Bb	A	d	G			
28:I2	18	iv6/3	V4-	V3	viiø/iv		Bb	A	a	f#			
28:I3	14	iv6/3	vØ6/5, g: iiØ6/5	V/iv	iv3	iv8/3	Bb	c	d	G	g		
28:I4	10	iv6/3	i7-6/#3-4 (V7-i6/4)	V4-	V8/3		Bb	A	A	a			
28:I5	23	iv6/3	V6-5/4-3 (i6/4-V)	i	i8/3		Bb	A	D	d			*
28:I6	33	iv6/3	V4-3	iv3			Bb	d	G				
<b>first harmony A#3</b>													
28:J1	20	V3	V6/5	i			A	c#	d				
28:J2	20	V3	V	i			A	A	d				
28:J3	8	V3	i	V3			A	d	a				
28:J4	28	V3	i6/4	V3			A	a	A				
28:J5	20	V3	i	viiø	i		A	d	c#	d			
28:J6	33	V3	V7/3/iv	iv3			A	d	G				
28:K1	16	V3	V	i6			A	a	F				
28:K2	16	V3	i6/4	viiø6/4			A	a	g				
28:K3	28	V3	i	V3			A	d	A				
28:K4	22	V3	i	V6-5/4-3 (i6/4-V)	i		A	d	A	d			*
28:K5	1	V3	V	i			A	a	d'				
28:K6	10	V3	i	V8/3			A	d	a				
29:A1	18	V3	V	viiø5/iv			A	a	f#				
29:A2	33	V3	i	V7/3/iv	iv8/3		A	d	d	G			
29:A3	28	V3	V6/5				A	c#					
29:A4	28	V3	i	V/iv	viiø6/4/iv	iv6	A	d	d	c	Bb		
29:A5	13	V3	V6/5	i	III6/3		A	c#	d	a			
29:A6	23	V3	V	V7	i8/3		A	a	a	d			
29:B1	13	V3	V	i	III6/3		A	a	d	a			
29:B2	20	V3	V	viiø	i		A	a	c#	d			
29:B3	27	V3	V	V	iv6	viiø5	A	a	A	B	c#		
29:B4	16	V3	V	i6/4	viiø6/4		A	a	a	g			

29:B5	28	V3	V	V6/5			A	a	c#				
29:B6	17	V3	V	i6/3			A	a	f				
29:C1	31	V3	V	i6/4	V7/-/3		A	a	a	A			
29:C2	20	V3	i6/4	V6/5	i		A	A	c#	d			
29:C3	20	V3	i	ii4/2	viiø	i	A	d	d	c#	d		
29:C4	28	V3	i	V/iv	iv6/3		A	d	d	Bb			
29:C5	7	V3	V	V17	iv6/3		A	a	bb	bb			
29:C6	18	V3	V	iv7-6 (V17-iv6)	viiø5		A	a	bb	f#			
29:D1	1	V3	V	viiø	i		A	a	c#	d'			
29:D2	8	V3	V	i6	iiø6/5	V3	A	a	f	g	a		
29:D3	7	V3	V	i6	iv6/3		A	a	f	bb			
29:D4	3	V3	viiø	i9-	i8/3		A	c#	d	d'			
29:D5	18	V3	V	i	V6/5/iv		A	a	d	f#			
29:D6	15	V3	V	viiø/iv	IV		A	a	f#	g			
29:E1	13	V3	V	i6/-/4			A	a	a				
29:E2	7	V3	V	i6/4	iv6/3		A	a	a	bb			
29:E3	23	V3	V	i9-	i8/3		A	a	d	d			
29:E4	16	V3	V	viiø6/4			A	a	g				
29:E5	28	V3	V	i6	V6/5		A	a	f	c#			
29:E6	17	V3	V	III7	i6/3		A	a	f	f			
29:F1	28	V3	i	iiø6/5	V3		A	d	G	A			
29:F2	27	V3	IV6 (V6/VII)	viiø5			A	B	c#				
29:F3	28	V3	i	iv7-6 (V17-iv6)	V3		A	d	Bb	A		**	
29:F4	14	V3	V	viiø/iv	iv8/3		A	a	f#	g			
29:F5	20	V3	i	IV6/5 (V6/5/VII)	viiø	i	A	d	B	c#	d		
29:F6	28	V3	i	IV6	V6/5		A	d	B	c#			
29:G1	10	V3	V8/3				A	a					
29:G2	28	V3	i	V17	iv6/3		A	d	Bb	Bb			
29:G3	18	V3	V	i6	V6/5/iv		A	a	f	f#			
29:G4	28	V3	V	i	viiø6/4/iv	iv6	A	a	d	c	Bb		
29:G5	13	V3	v	i	i6/4		A	a	d	a			
29:G6	3	V3	V	i	i8/3		A	a	d	d'			
29:H1	23	V3	i	iiø6/5	V	i ; i8/3	A	d	G	A	D ; d	*	
29:H2	16	V3	viiø6/4	i6			A	g	f				
29:H3	27	V3	i	viiø5			A	d	c#				
29:H4	33	V3	V7/3/iv	iv3			A	d	G				
29:H5	14	V3	V7/3/iv	iv3	iv8/3		A	d	G	g			
29:H6	23	V3	V	i6	i8/3		A	a	f	d			
29:I1	16	V3	i	viiø7-6 (ii7-viiø6)	i6		A	d	e	f			
29:I2	23	V3	i	viiø	i8/3		A	d	c#	d			
29:I3	33	V3	IV7	V6-5/4-3 (i6/4-V)	i		A	G	A	D		*	
29:I4	17	V3	i	viiø6/4	i6/3		A	d	g	f			
29:I5	28	V3	V	i6	V6/5		A	a	f	c#			
29:I6	16	V3	viiø6	i6			A	e	f				
<b>first harmony A8/#3</b>													
29:J1	23	V8/3	i9-	i8/3			A	d	d				
29:J2	19	V8/3	i9-8	VII5-7/4-3 (V4-V7/3)	III5		A	d	c	f			
29:J3	8	V8/3	i	iiø6/5	V3		A	d	g	a			
29:J4	18	V8/3	V15-6 (i-V16)	VII6/5 (V6/5/III)	III3		A	d	e	f			



29:J5	33	V8/3	i	iiØ6/5	V6-5/4-3 (i6/4-V)	i	A	d	G	A	D	*
29:J6	27	V8/3	i	v6/3			A	d	c			
29:K1	20	V8/3	i				A	d				
29:K2	23	V8/3	V6/5	i8/3			A	c#	d			
29:K3	3	V8/3	i9-	i8/3			A	d	d'			
29:K4	11	V8/3	V7/3				A	a				
29:K5	28	V8/3	i	viiø6/4/iv	iv6		A	d	c	Bb		
29:K6	33	V8/3	i	III6/3	VII5-7/4-3 (V7/III)	III5	A	d	A	c	F	
30:A1	32	V8/3	i9-8	V6-5/4-3 (i6/4-V)	V8/-/3		A	d	e	A		
30:A2	31	V8/3	VI7-5	V8/-/3			A	Bb	A			**
30:A3	28	V8/3	VI7	iv6/3			A	Bb	Bb			
30:A4	16	V8/3	V	viiø6/4	i6		A	a	g	f		
30:A5	18	V8/3	V	V6/5/iv			A	a	f#			
30:A6	27	V8/3	VI7	IV6 (V6/VII)	viiø5		A	Bb	B	c		
30:B1	13	V8/3	V	i6/4			A	a	a			
30:B2	17	V8/3	i6/#3-4 (V-i6/4)	viiø6/4	i6/3		A	a	g	f		
30:B3	18	V8/3	V	viiø5/iv			A	a	f#			
30:B4	28	V8/3	iiø6/4	IV7	V3		A	Bb	G	A		
30:B5	20	V8/3	V	i			A	a	d			
30:B6	14	V8/3	viiø5-6/iv (v-viiø6/iv)	iv4-	iv8/3		A	a	g	g		
30:C1	17	V8/3	i	i6/3			A	d	f			
30:C2	16	V8/3	i	viiø6	i6		A	d	e	f		
30:C3	31	V8/3	i	i	V8/-/3		A	d	D	A		**
30:C4	31	V8/3	i	VI6	V8/-/3		A	d	Bb	A		**
30:C5	28	V8/3	i	iv6/3			A	d	Bb			
30:C6	28	V8/3	i	viiø6/3/iv	iv6		A	d	A	Bb		
30:D1	16	V8/3	i	V6	viiø6/-/4		A	d	c#	g		
30:D2	17	V8/3	i9-	i6/3			A	d	f			
30:D3	27	V8/3	i	III6/3	VII4-	VII3	A	d	A	c	c	
30:D4	27	V8/3	i	iv6/5	VII5		A	d	Bb	c		
30:D5	19	V8/3	i	VII7 (V7/III)	III5		A	d	c	f		
30:D6	16	V8/3	i	viiø6/4	i6		A	d	g	f		
30:E1	13	V8/3	i	i6/4			A	d	a			
30:E2	28	V8/3	i	iiØ6/5	V3		A	d	G	A		
30:E3	26	V8/3	i	VI6/3			A	d	d			
30:E4	16	V8/3	V	viiø6/3 ?	viiø6/-/4		A	a	e	g		
30:E5	16	V8/3	V	viiø6/3	i6		A	a	e	f		
30:E6	14	V8/3	V	viiø/iv	iv3		A	a	f#	g		
30:F1	8	V8/3	V				A	a				
30:F2	25	V8/3	V	i	V7/-/3/iv		A	a	d	d		
30:F3	3	V8/3	V	i8/3			A	a	d'			
30:F4	23	V8/3	V	i8/3			A	a	d			
30:F5	13	V8/3	i	III6/3			A	d	a			
30:F6	18	V8/3	V	viiø6/4	viiø5		A	a	g	f#		
30:G1	23	V8/3	V6/5	i8/3			A	c#	d			
30:G2	27	V8/3	viiø5				A	c#				
30:G3	14	V8/3	i	viiø/iv	iv3		A	d	f#	g		
30:G4	18	V8/3	i	V6/5/iv			A	d	f#			
30:G5	24	V8/3	V	V7/3/iv			A	a	d			
30:G6	12	V8/3	i6/4	V7/-/3			A	a	a			

30:H1	11	V8/3	i	iiØ6/5	V7/3		A	d	g	a		
30:H2	25	V8/3	i5-6/3-4 (V-i6/4)	V7/-3/iv			A	a	d			
30:H3	31	V8/3	i	iv6	V7/3		A	d	Bb	A		
30:H4	25	V8/3	i	iv6/4			A	d	d			
30:H5	31	V8/3	i9-	i8	V8/-3		A	d	D	A		**
30:H6	14	V8/3	i	V7/3/iv	iv3		A	d	d'	g		
30:I1	28	V8/3	i	viiø6/3/iv	iv6		A	d	A	Bb		
30:I2	13	V8/3	i	iv6	i6/-4		A	d	bb	a		
30:I3	7	V8/3	i	iv6/3			A	d	bb			
30:I4	18	V8/3	V15-6 (i-VI6)	III4-	III3		A	d	f	f		
30:I5	28	V8/3	V	V6/5			A	a	c#			
30:I6	8	V8/3	V	i6/4	V3		A	a	A	a		
30:J1	11	V8/3	i6/4	V	V7/3		A	a	A	a		
30:J2	29	V8/3	i6/4	V8/3			A	a	A			
30:J3	10	V8/3	i6/4	V8/3			A	a	a			
30:J4	12	V8/3	i	V7/-3			A	d	a			
30:J5	19	V8/3	i	iiø6-5 (VII6-iiø)	III5		A	d	e	f		
30:J6	13	V8/3	i	iiØ6/5	i6/-4		A	d	g	a		
30:K1	20	V8/3	V7/3	i			A	a	d			
30:K2	24	V8/3	i	V7/3/iv			A	d	d			
30:K3	20	V8/3	IV6	V6/5	i		A	B	c#	d		
30:K4	7	V8/3	viiø5-6/iv (v-viiø6/iv)	iv6			A	a	bb			
30:K5	28	V8/3	i	iv6	V3		A	d	Bb	A		
30:K6	31	V8/3	i	iiØ6/5	V7/3		A	d	G	A		
31:A1	1	V8/3	V	viiø	i		A	a	c#'	d'		
31:A2	20	V8/3	V6/5	i			A	c#	d			
31:A3	14	V8/3	viiø5-6/iv (v-viiø6/iv)	iv3			A	a	g			
31:A4	14	V8/3	viiø5-6/iv (v-viiø6/iv)	iv4-	iv8/3		A	a	g	g		
31:A5	27	V8/3	vio5-6 (i-vio6)	VII5			A	d	c			
31:A6	20	V8/3	i	V6/5	i		A	d	c#	d		
31:B1	33	V8/3	i	iiØ6/5	V6-5/4-3 (i6/4-V)	i	A	d	G	A	D	*
31:B2	17	V8/3	i	iiØ6/5	V4/2	i6/3	A	d	g	g	f	
31:B3	31	V8/3	i	iiø6/4	V7/3		A	d	Bb	A		
31:B4	11	V8/3	i5-6/3-4 (V-i6/4)	V7/3			A	a	a			
31:B5	16	V8/3	i5-6/3-4 (V-i6/4)	viiø6/-4			A	a	g			
31:B6	13	V8/3	V5-7	i6/-4			A	a	a			
<b>first harmony A7/-#3</b>												
31:C1	17	V7/-3	i	i6/3			A	d	f			
31:C2	29	V7/-3	i	V8/3			A	d	A			
31:C3	10	V7/-3	i	V8/3			A	d	a			
31:C4	16	V7/-3	i	viiø6/4			A	d	g			
31:C5	20	V7/-3	i	viiø6/3			A	d	e			
31:C6	20	V7/-3	i				A	d				
31:D1	23	V7/-3	i4-	i8/3			A	d	d			
31:D2	3	V7/-3	i4-	i8/3			A	d	d'			
31:D3	8	V7/-3	i	iiØ6/5	V3		A	d	g	a		
31:D4	13	V7/-3	i	iiØ6/5	i6/-4		A	d	g	a		
31:D5	28	V7/-3	i	viiø6/4/iv	iv6		A	d	c	Bb		
31:D6	16	V7/-3	i	viiø6/4	i6		A	d	g	f		

31:E1	10	V7/-/3	i6/4	V8/3		A	a	a				
31:E2	23	V7/-/3	i9-	i8/3		A	d	d				
31:E3	27	V7/-/3	i	v6/3		A	d	c				
31:E4	13	V7/-/3	i	III6/3		A	d	a				
31:E5	25	V7/-/3	V7/-/3			A	d					
31:E6	28	V7/-/3	i	iiØ6/5	V3	A	d	G	A			
<b>first harmony A7/#3</b>												
31:F1	29	V7/3	i6/4	V4-	V8/3	A	a	a	A			
31:F2	31	V7/3	i	iiØ6/5	V8/-/3	A	d	G	A			**
31:F3	16	V7/3	i	iiØ6/5	viiø6/5-4/3 (iiØ6/5-viiø4/3)	i6	A	d	g	g	f	
31:F4	8	V7/3	i	V3		A	d	a				
31:F5	17	V7/3	i	viiø6/4	i6/3	A	d	g	f			
31:F6	23	V7/3	i8/3			A	d					
31:G1	12	V7/3	i	V4-	V7/-/3	A	d	a	a			
31:G2	29	V7/3	i	V4-	V8/3	A	d	a	A			
31:G3	31	V7/3	i	V4-	V7/-/3	A	d	a	A			
31:G4	24	V7/3	i	V4-	V7/3/iv	A	d	a	d			
31:G5	10	V7/3	i	V4-	V8/3	A	d	A	a			
31:G6	18	V7/3	i	VII7-6 (ii7-VII6)	viiø/iv	A	d	e	f#			
31:H1	1	V7/3	i	V4-3	i	A	d	a	d'			
31:H2	13	V7/3	i	V4-3	i	III6/3	A	d	a	d'	a	
31:H3	8	V7/3	i	III5-6/4-3 (V4-III6/3)	VI5	A	d	a	bb			
31:H4	16	V7/3	i	viiø6/-/4		A	d	g				
31:H5	19	V7/3	iiø6-5 (v6-iiø6)	III5		A	d	e	f			
31:H6	33	V7/3	i	V6-5/4-3 (i6/4-V)	i	A	d	A	D			*
31:I1	28	V7/3	i	ii4/2	V6/5	A	d	d	c#			
31:I2	27	V7/3	i	ii4/2	v6/3	A	d	d	c			
31:I3	28	V7/3	i	viiø6/4/iv	iv6/3	A	d	c	Bb			
31:I4	33	V7/3	i	iv6/5	VII7 (V7/III)	III5	A	d	Bb	c	f	
31:I5	31	V7/3	i	iiØ6/5	iiø6/4	V7/3	A	d	G	Bb	A	
31:I6	33	V7/3	i	VII4-3	III5	A	d	c	F			
<b>first harmony A8/-/#3</b>												
31:J1	23	V8/-/3	V8/-/3	i6/4	i8/3	A	a	a	d			
31:J2	23	V8/-/3	V8/-/3	V8/-/3	i8/3	A	a	a	d			
31:J3	31	V8/-/3	V	i6/4	V7/-/3	A	a	a	A			
31:J4	20	V8/-/3	=	V	i	A	=	a	d			
31:J5	16	V8/-/3	=	V	i6	A	=	a	f			
31:J6	8	V8/-/3	==	V		A	==	a				
31:K1	20	V8/-/3	V6/5	i		A	c#	d				
31:K2	18	V8/-/3	=	V	V6/5/iv	A	=	a	f#			
31:K3	6	V8/-/3	=	V	viiø5	A	=	a	c#'			
31:K4	16	V8/-/3	=	V8/-/3	V	viiø6/4	A	=	a	a	g	
31:K5	18	V8/-/3	=	V8/-/3	viiø5/iv		A	=	a	f#		
31:K6	18	V8/-/3	V	V	V6/5/iv		A	a	a	f#		
32:A1	18	V8/-/3	V8/-/3	viiø5/iv		A	a	f#				
32:A2	16	V8/-/3	V8/-/3	i6		A	a	f				
32:A3	23	V8/-/3	V	i	viiø6/3	i6 ; i8/3	A	a	d	e	f ; d	
32:A4	16	V8/-/3	V8/-/3	viiø6/-/4		A	a	g				

32:A5	1	V8/-/3	V	i			A	a	d'				
32:A6	20	V8/-/3	V6-7/4-3 (i6/4-V7)	i			A	a	d				
32:B1	13	V8/-/3	V8/-/3	i	III6/3		A	a	d'	a			
32:B2	13	V8/-/3	=	V	i	III6/3	A	=	a	d'	a		
32:B3	7	V8/-/3	V	i	vii6/4/iv	iv6	A	a	d'	c'	bb		
32:B4	16	V8/-/3	V8/-/3	i6			A	a	f				
32:B5	13	V8/-/3	=	V	i6/-/4		A	=	a	a			
32:B6	20	V8/-/3	==	i			A	=	d'				
32:C1	13	V8/-/3	V6-5/4-3 (i6/4-V)	V7	i6/4		A	a	a	a			
32:C2	16	V8/-/3	V	i6/4	vii6/4		A	a	a	g			
32:C3	13	V8/-/3	V	i6/4			A	a	a				
32:C4	13	V8/-/3	V6-7/4-3 (i6/4-V7)	i6/4			A	a	a				
32:C5	23	V8/-/3	=	V	V7	i8/3	A	=	a	a	d		
32:C6	20	V8/-/3	V	i	vii6/3		A	a	d	e			
<b>first harmony A8/-/3</b>													
32:D1	8	v8/-/3	V				A	a					
32:D2	28	v8/-/3	V	i	V3		A	a	d	A			
32:D3	17	v8/-/3	v8/-/3	V	i6/3		A	a	a	f			
32:D4	20	v8/-/3	V	i6/4	V7	i	A	a	a	A	d		
32:D5	16	v8/-/3	V	=	V	i6	A	a	=	a	d		
32:D6	3	v8/-/3	V	i	i8/3		A	a	d	d'			
32:E1	29	v8/-/3	V	i6/4	V8/3		A	a	a	A			
32:E2	6	v8/-/3	v8/-/3	vii7-6/V (vio7-vii6/V)	v6	V6/5	A	a	b	c'	c#'		
32:E3	16	v8/-/3	v8/-/3	V4-3	v	vii6/4	A	a	e	a	g		
32:E4	1	v8/-/3	V	=	V	i	A	a	=	a	d'		
32:E5	20	v8/-/3	V	=	V	i	A	a	=	a	d		
32:E6	16	v8/-/3	V	i6/4	vii6/4		A	a	a	g			
32:F1	16	v8/-/3	V	i6			A	a	f				
32:F2	20	v8/-/3	V	i			A	a	d				
32:F3	17	v8/-/3	V	vii6/4	i6/3		A	a	g	f			
32:F4	16	v8/-/3	v8/-/3	V	vii6/4		A	a	a	g			
32:F5	11	v8/-/3	V	V7/3			A	a	a				
32:F6	18	v8/-/3	v8/-/3	V6/5/iv			A	a	f#				
32:G1	20	v8/-/3	V6/5	i			A	c#	d				
32:G2	13	v8/-/3	V	=	V	i6/4	A	a	=	a	a		
32:G3	18	v8/-/3	v8/-/3	vii5/iv			A	a	f#				
32:G4	16	v8/-/3	i5-6/3-4 (V-i6/4)	V	vii6/4		A	a	a	g			
32:G5	14	v8/-/3	V	i	V7/iv	iv3	A	a	d'	d	g		
32:G6	10	v8/-/3	V8/3				A	a					
32:H1	16	v8/-/3	V	V14/2	vii4/3	i6	A	a	a	g	f		
32:H2	16	v8/-/3	v8/-/3	vii6	vii6/4	i6	A	a	e	g	f		
32:H3	17	v8/-/3	V	vii6	i6/3		A	a	e	f			
32:H4	24	v8/-/3	V	i	V7/3/iv		A	a	d	d			
32:H5	28	v8/-/3	V	i	vii6/4/iv	iv6	A	a	d	c	Bb		
32:H6	16	v8/-/3	v8/-/3	vii6/-/4			A	a	g				
<b>first harmony a3</b>													
32:I1	23	v	V16	i8/3			A	d	d				
32:I2	19	v	V16	iio (vii6/III)	III5		A	d	e	f			

32:I3	18	v	V16	III3			A	d	f			
32:I4	25	v	V16/5	iv6/4			A	d	d			
32:I5	27	v	V16	v6/3			A	d	c			
32:I6	25	v	V7/iv	iv6/4			A	d	d			
32:J1	14	v	V7/iv	iv8/3			A	d	g			
32:J2	33	v	V7/iv	iv8/3			A	d	G			
32:J3	33	v	V6-5/4-3 (i6/4-V)	iv3			A	d	G			
32:J4	14	v	V6-5/4-3 (i6/4-V)	iv3			A	d	g			
32:J5	33	v	viiø6/iv	iv8/3			A	A	G			
32:J6	28	v	iv6/4	viiø6/4/iv	iv6		A	d	c	Bb		
32:K1	27	v	ii4	iv6/4	viiø5		A	e	d	c#		
32:K2	23	v	ii4	V7	i4-	i8/3	A	e	A	d	d	
32:K3	23	v	iiø6/5-b5/4-3 (ii4-iiø6/5)	i9-	i8-3		A	e	f	d		
32:K4	3	v	ii4	V7	i4-	i8/3	A	e	A	d	d'	
32:K5	18	v	V16	iio (viiø/III)	III4-	III3	A	d	e	f	f	
32:K6	25	v	V7I-/3/iv				A	d				
<b>first harmony gb3</b>												
33:A1	16	iv3	iv	i6			G	g	f			
33:A2	26	iv3	V16/3				G	d				
33:A3	26	iv3	iv	V16			G	g	d			
33:A4	11	iv3	iv	V7/3			G	g	a			
33:A5	13	iv3	iv	i6/4			G	g	a			
33:A6	31	iv3	iv6	V7/3			G	Bb	A			
33:B1	10	iv3	iv6	i6/4	V8/3		G	Bb	A	a		
33:B2	17	iv3	iv	V4/2	i6/3		G	g	g	f		
33:B3	23	iv3	iv	i4-	i8/3		G	g	d	d		
33:B4	23	iv3	iv	i4-	i8/3		G	g	d'	d		
33:B5	27	iv3	iv	viiø5			G	g	c#			
33:B6	14	iv3	iv8/3				G	g				
33:C1	18	iv3	iv	iio (viiø/III)	III3		G	g	e	f		
33:C2	27	iv3	iv	viiø6	iv6/4	viiø5	G	g	e	d	c#	
33:C3	16	iv3	viiø6/4	i6			G	g	f			
33:C4	8	iv3	iv	i6	iiø6/5	V3	G	g	f	g	a	
33:C5	3	iv3	iv	i4-	i8/3		G	g	d	d'		
33:C6	18	iv3	V16	III4-	III3		G	d	f	f		
<b>first harmony g8/b3</b>												
33:D1	23	iv8/3	i4-	i8/3			G	d	d			
33:D2	23	iv8/3	V7	i8/3			G	A	d			
33:D3	10	iv8/3	i6/4	V8/3			G	A	a			
33:D4	20	iv8/3	V4-3	i			G	A	d			
33:D5	23	iv8/3	V6-5/4-3 (i6/4-V)	i	i8/3		G	A	D	d		*
33:D6	23	iv8/3	iv8/3	i4-	i8/3		G	g	d	d		
33:E1	19	iv8/3	V16	iio (viiø/III)	III5		G	d	e	f		
33:E2	18	iv8/3	V16	iio (viiø/III)	III4-	III3	G	d	e	f	f	
33:E3	26	iv8/3	iv8/3	V16/3			G	g	d'			
33:E4	19	iv8/3	iv8/3	VII6/5 (V6/5/III)	III5		G	g	e	f		
33:E5	19	iv8/3	iv8/3	III	iio6-5 (VII6-iio)	III5	G	g	f	e	f	
33:E6	18	iv8/3	V16	VII6/5 (V6/5/III)	III3		G	d	e	f		
33:F1	16	iv8/3	iv8/3	i6			G	g	f			

33:F2	31	iv8/3	V16	V7/3			G	Bb	A				
33:F3	17	iv8/3	iv8/3	i6/3			G	g	f				
33:F4	18	iv8/3	iv	vio6/4 (vii6/4/VII)	VII6/5 (V6/5/III)	III3	G	g	f	e	f		
33:F5	27	iv8/3	iv8/3	iv6/4	vii6/5		G	g	d	c#			
33:F6	13	iv8/3	iv8/3	i6/4			G	g	a				
33:G1	7	iv8/3	iv8/3	iv6/3			G	g	bb				
33:G2	27	iv8/3	iv8/3	iv6	vii6/5		G	g	bb	c#			
33:G3	13	iv8/3	iv8/3	iv6	i6/-14		G	g	bb	a			
33:G4	16	iv8/3	iv8/3	iv6	i6		G	g	bb	f			
33:G5	11	iv8/3	iv8/3	iv6	V7/3		G	g	bb	a			
33:G6	28	iv8/3	iv	V6/5			G	g	c#				
<b>first harmony F5</b>													
33:H1	8	III5	i6	ii6/5	V3		F	f	g	a			
33:H2	22	III5	i6	ii6/5	V	i	F	f	g	a	d		*
33:H3	8	III5	i6	vii6	i	V3	F	f	e	d	a		
33:H4	23	III5	i6	vii6	i8/3		F	f	e	d			
33:H5	20	III5	i6	ii7	V7	i	F	f	e	a	d		
33:H6	20	III5	III	vii6-5 (ii-vii6)	i		F	f	e	d			
33:I1	16	III5	III	i6			F	f	f				
33:I2	31	III5	III	i6	i	V8/-13	F	f	f	d	A		**
33:I3	25	III5	III	i6	vio6		F	f	f	d			
33:I4	12	III5	i6	ii7	V7/-13		F	f	e	a			
33:I5	27	III5	III	vio6 (vii6/VII)	VII5		F	f	d	c			
33:I6	13	III5	III	i6	i6/4		F	f	f	a			
<b>first harmony d</b>													
33:J1	16	i	i	vii6-7 (ii7- vii6)	i6		D	d	e	f			
33:J2	16	i	i	i6			D	d	f				
33:J3	20	i	i	ii4/2	V6/5	i	D	d	d	c#	d		
33:J4	31	i	i	iv7-6 (V17-iv6)	V8/-13		D	d	Bb	A			**
33:J5	8	i	i	V3			D	d	a				
33:J6	28	i	i	V17	iv6/3		D	d	Bb	Bb			
33:K1	25	i	=	i6	III	vio6	D	=	f	f	d		
33:K2	20	i	i	V4-	V3	i	D	d	a	A	d		*
33:K3	29	i	i	V4-	V8/3		D	d	a	A			
33:K4	16	i	i	V3	vii6/4	i6	D	d	a	g	f		
33:K5	20	i	i	V4-	V7	i	D	d	a	A	d		
33:K6	27	i	i	vii6/5			D	d	c#				
34:A1	27	i	i	ii4/2	v6/3		D	d	d	c			
34:A2	28	i	i	ii4/2	vii6/4/iv	iv6	D	d	d	c	Bb		
34:A3	10	i	i	V	V8/3		D	d	A	a			
34:A4	10	i	i	V4-	V8/3		D	d	A	a			
34:A5	31	i	i	v6	iv6	V8/-13	D	d	c	Bb	A		**
34:A6	18	i	i	VII6	III3		D	d	e	f			
34:B1	18	i	i	ii7	V6/5/iv		D	d	e	f#			
34:B2	12	i	i	v4-	v3		D	d	A	a			
34:B3	24	i	i	V4-	V7/3		D	d	a	d			
34:B4	8	i	i	III5-6/4-3 (V4- III6/3)	VI5		D	d	a	bb			
34:B5	33	i	i	vii6-5/4-3 (V4-	iv4-	iv8/3	D	d	a	g	G		

				viiø6/3)															
34:B6	31	i	i	V4-	V7/-/3		D	d	a	A									
34:C1	28	i	i	V3			D	d	A										
34:C2	28	i	i	viiø6/4/iv	iv6/3		D	d	c	Bb									
34:C3	12	i	i	V4-	V7/-/3		D	d	a	a									
34:C4	18	i	i	V4-	V6/5/iv		D	d	a	f#									
34:C5	28	i	i	V6	V6/5		D	d	c#	c#									
34:C6	16	i	i	i6/4	viiø6/4		D	d	a	g									
34:D1	29	i	i	i6/4	V8/3		D	d	a	A									
34:D2	16	i	i	ii7	viiø6/4	i6	D	d	e	g	f								
34:D3	28	i	i	i6	iv6/3		D	d	f	Bb									
34:D4	27	i	i	i6	vio6 (viiø6/VII)	VII5	D	d	f	d	c								
34:D5	18	i	i	V4-	V6/5/iv		D	d	a	f#									
34:D6	23	i	i	i6/4	V6/5	i8/3	D	d	c#	d									
34:E1	28	i	i	iv7	iv6-5 (iio6-iv)	V3	D	d	g	G	A								
34:E2	7	i	i	iiø6/5	iv6/3		D	d	g	bb									
34:E3	16	i	i	V3	viiø6/4		D	d	a	g									
34:E4	25	i	i	V	iv6/4		D	d	a	d									
34:E5	18	i	i	VII7-6 (ii7-VII6)	viiø/iv		D	d	e	f#									
34:E6	28	i	i	viiø6/4/iv	iv6		D	d	c	Bb									
34:F1	13	i	i	i6	iio6/4	i6/-/4	D	d	f	bb	a								
34:F2	13	i	i	i6	iiø6/5	i6/-/4	D	d	f	g	a								
34:F3	28	i	i	viiø6/4/iv	iv6		D	d	c	Bb									
34:F4	27	i	i	III6	vio (viiø6/VII)	VII5	D	d	A	B	c								
34:F5	18	i	i	V	V6/5/iv		D	d	a	f#									
34:F6	18	i	i	i6	V6/5/iv		D	d	f	f#									
34:G1	31	i	i	V6/5	i	V8/-/3	D	d	c#	d	A							**	
34:G2	12	i	i	V5-7/4-3/V (V4-V7/3/V)	v	v3	D	d	e	A	a								
34:G3	10	i	i	V5-7/4-3/V (V4-V7/3/V)	v ?	V8/3	D	d	e	A	a								
34:G4	32	i	i	V5-7/4-3/V (V4-V7/3/V)	v4-	v3	D	d	e	A	A								
34:G5	32	i	i	v4-	v3		D	d	a	A									
34:G6	33	i	i	V7/iv	iv3		D	d	D	G									
34:H1	10	i	i	V4-	V8/3		D	d	a	a									
34:H2	12	i	i	v4-	v3		D	d	a	a									
34:H3	28	i	i	V/iv	viiø6/4/iv	iv6	D	d	d	c	Bb								
34:H4	31	i	i	iiø6/5	V7/3		D	d	G	A									
34:H5	31	i	=	i	i	V8/-/3	D	=	d	D	A							**	
34:H6	8	i	=	i	V3		D	=	d	a									
34:I1	28	i	i	ii4/2	V6/5		D	d	d	c#									
34:I2	20	i	i	ii7	viiø6/3		D	d	e	e									
34:I3	17	i	i	V	i6/3		D	d	a	f									
34:I4	19	i	i	iio6-5 (VII6-iio)	III5		D	d	e	f									
34:I5	33	i	i	vio5-6 (i-vio6)	viiø5-6/iv (V-viiø6/iv)	iv3	D	d	A	G									
34:I6	18	i	i	vio5-6 (i-vio6)	VII6	V6/5/iv	D	d	e	f#									
34:J1	8	i	i	V6-5/4-3 (i6/4-V)	VI5		D	d	a	bb									
34:J2	25	i	=	i	i6	vio6	D	=	d	f	d								
34:J3	10	i	i	i6/4	V8/3		D	d	a	a									
34:J4	28	i	i	iiø6/5	V3		D	d	G	A									
34:J5	28	i	i	iiø6/5	V3		D	d	G	A									

34:J6	8	i	i	V3			D	d	a		
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