

THE LESSONS OF ARNOLD SCHOENBERG IN TEACHING

THE *MUSIKALISCHE GEDANKE*

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Arnold Schoenberg's teaching career spanned over fifty years and included experiences in Austria, Germany, and the United States. Schoenberg's teaching assistant, Leonard Stein, transcribed Schoenberg's class lectures at UCLA from 1936 to 1944. Most of these notes resulted in publications that provide pedagogical examples of combined elements from Schoenberg's European years of teaching with his years of teaching in America. There are also class notes from Schoenberg's later lectures that have gone unexamined. These notes contain substantial examples of Schoenberg's later theories with analyses of masterworks that have never been published. Both the class notes and the subsequent publications reveal Schoenberg's comprehensive approach to understanding the presentation of the *Gedanke* or musical idea. In his later classes especially, Schoenberg demonstrated a method of analyzing musical compositions using illustrations of elements of the *Grundgestalt* or "basic shape," which contains the technical aspects of the musical parts. Through an examination of his published and unpublished manuscripts, this study will demonstrate Schoenberg's commitment to a comprehensive approach to teaching.

Schoenberg's heritage of eighteenth- and nineteenth-century music theory is evident in his *Harmonielehre* and in his other European writings. The latter include *Zusammenhang*, *Kontrapunkt*, *Instrumentation*, *Formenlehre* (ZKIF), and *Der musikalische Gedanke und die Logik, Technik, und Kunst seiner Darstellung* (the *Gedanke* manuscripts), written over the course of several years from the 1920s to the early 1930s. After emigrating to the United States in 1933, Schoenberg immediately began teaching and writing in an attempt to arrive at a

comprehensive approach to his pedagogy. The remainder of Schoenberg's textbook publications, with the exception of *Models for Beginners in Composition*, were left unfinished, were edited primarily by Leonard Stein and published after Schoenberg's death in 1951. *Preliminary Exercises in Counterpoint*, *Fundamentals of Musical Composition*, and *Structural Functions of Harmony* complete his *oeuvre* of theory publications. An examination of the Stein notes offers contributing evidence to Schoenberg's lifelong pursuit to find a comprehensive approach for teaching an understanding of the *musikalische Gedanke*. With the addition of an analysis of the first movement of Mozart's G minor Symphony, K. 550, which Schoenberg used often to illustrate examples of basic concepts as liquidation, transition, neutralization in the minor key, the role of the subordinate theme, retransitions, codettas, melodic and harmonic overlapping, and motivic analysis, this study focuses on Schoenberg's comprehensive approach to both analyzing the musical work and teaching methods of composing.

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## TABLE OF CONTENTS

|                                |      |
|--------------------------------|------|
| ACKNOWLEDGMENTS .....          | iii  |
| LIST OF MUSICAL EXAMPLES ..... | viii |
| LIST OF ILLUSTRATIONS .....    | x    |
| LIST OF TABLES .....           | xi   |

### Chapter

|  |    |
|--|----|
| 1. INTRODUCTION .....  | 1  |
| 2. THE HERITAGE OF EIGHTEENTH- AND NINETEENTH- CENTURY<br>MUSIC THEORY ..... | 11 |
| Introduction .....   | 11 |
| <i>Funktionstheorie</i> .....  | 14 |
| <i>Stufentheorie</i> .....   | 16 |
| Rameau, Kirnberger and Sechter as Harmonic Predecessors .....                | 18 |
| Vertical Sonorities .....  | 18 |
| Rameau and <i>Corps Sonore</i>   |    |
| Kirnberger and unequal temperament   |    |
| Sechter and the <i>Hauptaccorde</i> and <i>Nebenaccorde</i>                  |    |
| Fundamental Bass and Harmonic Progression .....                              | 25 |
| Rameau and double emploi, chords by supposition and cadence                  |    |
| Kirnberger's "essential" and "nonessential" dissonances                      |    |
| Sechter and <i>harmonisches Bindungsmittel</i> and the closing cadence       |    |
| Chromaticism .....   | 37 |
| Rameau and diminished chords   |    |
| Kirnberger and diminished chords and augmented sixth chords                  |    |
| Sechter and hybrid chords  |    |
| Conclusion .....   | 42 |
| 3. SCHOENBERG'S <i>HARMONIELEHRE</i> .....                                   | 45 |
| Introduction .....   | 45 |

|   |     |
|---|-----|
| The <i>Grundton</i> and Natural Law .....                                 | 49  |
| Tonality .....  | 52  |
| Cadence .....   | 59  |
| The Minor Mode .....  | 61  |
| ‘Emancipation of the Dissonance’ .....                                    | 65  |
| Vagrant Harmonies .....   | 68  |
| Final Systems of Presentation .....                                       | 70  |
| Substitution in Harmonic Progression .....                                | 73  |
| Conclusions .....   | 77  |
| <br>  |     |
| 4. THE EUROPEAN FRAGMENTS AND SCHOENBERG’S COUNTERPOINT<br>PEDAGOGY ..... | 83  |
| Introduction .....  | 83  |
| The European Fragments .....  | 85  |
| <i>Gedanke</i> .....  | 88  |
| Historical Background .....   | 89  |
| Schoenberg’s Counterpoint Pedagogy .....                                  | 97  |
| <i>Grundgestalt</i> and Cadence .....                                     | 101 |
| <br>  |     |
| 5. THE LEONARD STEIN COLLECTION .....                                     | 109 |
| Introduction .....  | 109 |
| Counterpoint and Composition Classes .....                                | 110 |
| Structural Functions of Harmony Classes .....                             | 114 |
| Advanced Composition and Special Studies Seminars .....                   | 117 |
| <br>  |     |
| 6. SCHOENBERG’S INTERPRETATION OF MOZART .....                            | 131 |
| Introduction .....  | 131 |
| Analysis of the First Movement of Mozart’s G Minor Symphony, K. 550 ..... | 132 |
| Background .....  | 132 |
| Motivic Analysis and Sentence .....                                       | 133 |
| Varied Repetition .....   | 141 |
| Transition .....  | 143 |
| Subordinate Theme .....   | 144 |



|   |         |
|---|---------|
| Elaboration ( <i>Durchführung</i> ) Section .....   | 148     |
| Recapitulation and Retransition .....   | 149     |
| Harmony .....   | 155     |
| 7. CONCLUSIONS.....   | 160     |
| <br>Appendices  |         |
| A. SCHOENBERG’S SCHEDULE OF CLASSES AT UNIVERSITY OF<br>OF CALIFORNIA, LOS ANGELES, 1936-1944 .....   | 164     |
| B. CATALOG OF LEONARD STEIN COLLECTION, UCLA CLASS NOTES,<br>1936-1944 .....  | 166     |
| C. CHORD PROGRESSION EXAMPLES FROM SCHOENBERG’S<br><i>HARMONIELEHRE</i> , CHORD PROGRESSION EXAMPLE BY GEORGE<br>ROBERT, ANTON WEBERN’S STUDENT ..... | 168     |
| D. SCHOENBERG’S MUSIC LIBRARY HOLDINGS.....   | 171     |
| E. SCHOENBERG’S TEACHING APPOINTMENTS, MAJOR WRITINGS AND<br>COMPOSITIONS TIMELINE .....  | 174     |
| <br>BIBLIOGRAPHY.....   | <br>179 |
| Schoenberg’s Publications .....   | 179     |
| General References .....  | 180     |

## LIST OF MUSICAL EXAMPLES

|          |  |     |
|----------|--|-----|
| Ex. 2.1  | Rameau’s Seventh Chords .....  | 20  |
| Ex. 2.2  | Kirnberger’s Seventh Chords.....   | 23  |
| Ex. 2.3  | Sechter’s <i>Haupt-</i> and <i>Nebenaccorde</i> .....                                    | 24  |
| Ex. 2.4  | Rameau’s “ <i>Double Emploi</i> ” .....  | 26  |
| Ex. 2.5  | Rameau’s Chords by Supposition.....  | 28  |
| Ex. 2.6  | Rameau’s Perfect Cadence .....   | 29  |
| Ex. 2.7  | Rameau’s Irregular Cadence.....  | 30  |
| Ex. 2.8  | Kirnberger’s “Essential Dissonances” .....   | 32  |
| Ex. 2.9  | Sechter’s Implied Root Chord Successions .....   | 34  |
| Ex. 2.10 | Rameau’s Altered Dominant Seventh Chord.....   | 37  |
| Ex. 2.11 | Kirnberger’s Fully Diminished Seventh Chord and Resolution.....                          | 39  |
| Ex. 2.12 | Kirnberger’s (Schulz’s) Augmented Sixth Chord.....                                       | 40  |
| Ex. 2.13 | Sechter’s Hybrid Chord Successions .....   | 41  |
| Ex. 3.1  | Schoenberg’s “Strong” Chord Progressions .....   | 55  |
| Ex. 3.2  | Schoenberg’s “Strongest” Chord Progressions.....   | 56  |
| Ex. 3.3  | Schoenberg’s Descending “Weak” Progressions.....   | 57  |
| Ex. 3.4  | Schoenberg’s Diatonic Triads in the Minor Mode .....                                     | 63  |
| Ex. 3.5  | Schoenberg’s Minor Mode in Harmonic Progression .....                                    | 64  |
| Ex. 3.6  | Schoenberg’s Root Progressions in the Diminished Seventh Chord .....                     | 69  |
| Ex. 3.7  | Schoenberg’s Multiple Meaning in the Augmented Sixth Chord.....                          | 70  |
| Ex. 3.8  | Schoenberg’s Chord Construction of Whole Tones .....                                     | 71  |
| Ex. 3.9  | Schoenberg’s Resolution of the Whole Tone Chord .....                                    | 71  |
| Ex. 3.10 | Schoenberg’s Whole Tone Chord Derivative .....   | 72  |
| Ex. 3.11 | Schoenberg’s Non-Harmonic Tones as Diatonic.....   | 72  |
| Ex. 4.1  | Schoenberg’s Mode and Transposition Definitions.....                                     | 93  |
| Ex. 4.2  | J.S. Bach’s <i>Das Wohltemperierte Klavier</i> , Book 1, C# minor Prelude, ms. 1-3 ..... | 106 |
| Ex. 6.1  | Motivic Analysis in Mozart’s K. 550, ms. 1-5 .....                                       | 136 |
| Ex. 6.2  | Transition and Neutralization in Mozart’s K. 550, ms. 6-11 .....                         | 137 |
| Ex. 6.3  | G Tonic as Dissonance, Mozart’s K. 550, ms. 1-5 .....                                    | 139 |

|          |   |     |
|----------|---|-----|
| Ex. 6.4  | G Resolution to V7/G, Mozart's K. 550, 6-11 .....                             | 140 |
| Ex. 6.5  | Varied Repetition of Original Motives in Mozart's K. 550, ms. 12-16.....      | 142 |
| Ex. 6.6  | Transition Material in Exposition of Mozart's K. 550, ms. 28-42 .....         | 144 |
| Ex. 6.7  | Subordinate Theme Material Analysis in Mozart's K. 550, ms. 44-51 .....       | 145 |
| Ex. 6.8  | Subordinate Theme Restatement in Mozart's K. 550, ms. 52-66.....              | 146 |
| Ex. 6.9  | Closing Theme and Motive Restatement in Mozart's K. 550, ms. 76-80 .....      | 148 |
| Ex. 6.10 | Recapitulation Consequent Phrase in Mozart's K. 550, ms. 185-190 .....        | 150 |
| Ex. 6.11 | Retransition of Broken Chord Formations in Mozart's K. 550, ms. 191-211 ..... | 152 |
| Ex. 6.12 | Harmonic Analysis of Retransition in Mozart's K. 550, ms. 191-225 .....       | 156 |

## LIST OF ILLUSTRATIONS

|     |  |     |
|-----|--|-----|
| 2.1 | “Walking” {to the future} by Arnold Schoenberg.....                  | 44  |
| 3.1 | Schoenberg Teaching at the Board .....                               | 75  |
| 4.1 | Schoenberg’s Cantus Firmus Example Sheet .....                       | 98  |
| 4.2 | Schoenberg’s Corrections to Cantus Firmi Solutions.....              | 100 |
| 4.3 | Schoenberg’s Sketch of Counterpoint, 1921 .....                      | 107 |
| 5.1 | Schoenberg’s Lecture in Beginning Counterpoint Class.....            | 112 |
| 5.2 | Schoenberg’s Continued Lecture in Beginning Counterpoint Class ..... | 113 |
| 5.3 | Schoenberg’s Outline of Class Procedures .....                       | 116 |
| 5.4 | Schoenberg’s Lecture on Compositional Process.....                   | 120 |
| 5.5 | Schoenberg’s Lecture on Phrase Construction .....                    | 122 |
| 5.6 | Schoenberg’s Lecture on Motivic Construction .....                   | 124 |
| 5.7 | Schoenberg’s Lecture on Thematic Elaboration.....                    | 126 |
| 5.8 | Schoenberg’s Lecture on Structural Points in a Composition .....     | 127 |
| 6.1 | Schoenberg’s Lecture on Composing Melody and Phrase .....            | 134 |

## LIST OF TABLES

|     |   |     |
|-----|---|-----|
| 2.1 | Kirnberger's Tempering System.....  | 22  |
| 2.2 | Rameau and Sechter's Fundamental Progressions .....                           | 35  |
| 3.1 | Schoenberg's Common Tone Chords .....   | 53  |
| 3.2 | Sechter and Schoenberg's Fundamental Progressions.....                        | 54  |
| 6.1 | Harmonic Regions of Mozart's K. 550, G Minor .....                            | 157 |
| 6.2 | Harmonic Plan of the First Movement of Mozart's G Minor Symphony, K. 550..... | 158 |

## CHAPTER 1

### INTRODUCTION

Arnold Schoenberg's teaching career spanned five decades that included experiences in Vienna and Berlin, and a long tenure at the University of California, Los Angeles. Schoenberg's teaching assistant, Leonard Stein, transcribed Schoenberg's class lectures at UCLA from 1936 to 1944.<sup>1</sup> Most of these notes resulted in publications that provide pedagogical examples of combined elements from Schoenberg's European years of teaching with his first years of teaching in America. There are also class notes from Schoenberg's later lectures that have gone unexamined. These notes contain substantial examples of Schoenberg's later theories with analyses of many masterworks that have never been published. In particular, the Stein class notes reveal Schoenberg's comprehensive approach to understanding the presentation of the *Gedanke*, or the musical idea. In his later classes especially, Schoenberg demonstrated a method of analyzing musical compositions using illustrations of elements of the *Grundgestalt* or "basic shape," which contains the technical aspects of the musical parts.

This study will begin by reviewing Schoenberg's heritage of eighteenth- and nineteenth-century music theory as revealed in his *Harmonielehre* and in his other European writings. These latter include *Zusammenhang*, *Kontrapunkt*, *Instrumentation*, *Formenlehre* (ZKIF) and *Der musikalische Gedanke und die Logik, Technik, und Kunst seiner Darstellung* (the *Gedanke* manuscripts), that were written over the course of several years from the 1920s to the early 1930s.<sup>2</sup> Schoenberg both rejected and accepted several concepts offered by such theorists as

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<sup>1</sup> See the Leonard Stein Collection, listed at *The Arnold Schönberg Center Privatstiftung*, as "Stein Satellite Collection S23." The Stein collection contains the University of California, Los Angeles classroom notes and is stored at *The Arnold Schönberg Center Privatstiftung*, Vienna, Austria. A detailed chronology of the class notes is listed in Appendix B. The Stein collection will be discussed in detail in Chapter 5.

<sup>2</sup> See Arnold Schoenberg, *Harmonielehre*, translated as *Theory of Harmony* by Roy E. Carter (Los Angeles, 1978) will herein be referred to as *Harmonielehre*. Schoenberg revised *Harmonielehre* extensively for the third edition,

Johann Fux, Heinrich Bellermann, Simon Sechter, Adolph Bernhard Marx, Hugo Riemann, and Heinrich Schenker and the music historian at the University of Vienna, Guido Adler.

*Harmonielehre* specifically cites several of these theorists with comments and criticisms about many of the theories being published in Europe in the nineteenth century. By reviewing the theories that Schoenberg both adopted and expanded in his published fragments and manuscripts, his earliest observations about analysis and theory pedagogy will become clearer.

*Harmonielehre* is indeed Schoenberg's first major theoretical publication. Dedicated to Gustav Mahler and published in 1911 (the year of Mahler's death), it is largely speculative. Its contents both defend and expand the universal theories that were basic to theory pedagogy in *fin de siècle* Vienna. *Harmonielehre* is most notably a result of Schoenberg's teaching sessions with students such as Anton Webern, Alban Berg, Erwin Stein, Erwin and Josef Polnauer, and many others who continued on into successful careers as composers and theorists. In fact, the first sentence of the preface to *Harmonielehre* stated, "This book I have learned from my pupils," a statement that stresses the importance of this publication as a source for understanding Schoenberg's first attempts to formulate a comprehensive approach to music analysis, and one that accounts for analyzing the musical work as a whole, and examines how past masterworks influenced modern day compositional practices.<sup>3</sup>

While *Harmonielehre* defends universal theories and defines Schoenberg's harmonic theories and pedagogy to support an understanding of the process of composition, his other two

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published in 1922, which served as the primary edition for the Carter English translation. The citations for *Harmonielehre* in this study will be based on the translation of the third edition; *Zusammenhang, Kontrapunkt, Instrumentation, Formenlehre* [Coherence, Counterpoint, Instrumentation, Instruction in Form] Severine Neff, editor and Charlotte Cross and Severine Neff, translators, will herein be referred to as *ZKIF*. The citations for *ZKIF* in this study are from the 1994 publication (Lincoln: University of Nebraska Press, 1994). *The Musical Idea and the Logic, Technique, and Art of its Presentation*. Edited, translated and with commentary by Patricia Carpenter and Severine Neff (New York, 1995) will herein be referred to as the *Gedanke* manuscripts.

<sup>3</sup> See Arnold Schoenberg, *Harmonielehre*, p. 1.

significant European manuscripts, *ZKIF* and the *Gedanke* manuscripts, offer further definitions of the musical parts. *ZKIF*, in particular, is a predecessor to many of Schoenberg's later publications, most notably *Preliminary Exercises in Counterpoint* and *Fundamentals of Composition*.<sup>4</sup> The early fragments in *ZKIF* and the specific organization of its four sections anticipate topics that Schoenberg developed in several of his classes, most notably the study of counterpoint, motive, theme and phrase, and much later in his teaching career at UCLA, his *Formenlehre*.

The *Gedanke* manuscripts are significant because they make clear for the first time what Schoenberg meant by the "idea" in relation to musical discourse. While the writings made use of the words *Einfall*, and very rarely *Idee*, Schoenberg specifically emphasizes in these manuscripts his preference for the word *Gedanke* as it pertains to the musical idea and its presentation in the musical work.<sup>5</sup> Though Schoenberg's pedagogical language changes significantly from his European publications to his American publications and the class notes, the fundamentals he was teaching such as motive, theme, phrase, period, and sentence continue to be taught contextually.<sup>6</sup>

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<sup>4</sup> See Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, edited by Leonard Stein (New York, 1964) and herein referred to as *Preliminary Exercises*; *Fundamentals of Musical Composition*, edited by Gerald Strang with the collaboration of Leonard Stein (London, 1967) and herein referred to as *Fundamentals*.

<sup>5</sup> See Josef Rufer, *The Works of Arnold Schoenberg* (London, 1959), p. 137. See also Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, p. 109. Schoenberg interpreted the word *Gedanke* as "idea" rather than the typical High German translation of *denken* as "thoughts."

<sup>6</sup> All of Schoenberg's European publications were originally written in German and all three considered in this study were later translated into English after his arrival in America. Parts of the American publications were also written in German as Schoenberg early on struggled to translate some of his German phrases into English. The translations may have also affected contextual considerations as the terminology needed to be more thoroughly explained in English because Schoenberg often "rejected" traditional terminology. See the Editors Preface in *Fundamentals*, p. xiii.



The *Gedanke* manuscripts include an extensive “Concordance of Terms” with some terms being carried on into the American publications.<sup>7</sup>

Through an examination of *Harmonielehre*, *ZKIF*, and the *Gedanke* manuscripts, this study will focus on Schoenberg’s development of the notions of the “musical whole” and the “musical idea” as the speculative foundations for that which the music is *about* - mainly a product of Schoenberg’s European teaching years.

After immigrating to the United States in 1933, Schoenberg began to teach and almost immediately also to write on various topics that led to manuscripts which were later published as his American textbooks, many compiled by his assistants and published after his death in 1951. The American publications include *Models for Beginners in Composition* (1942), *Preliminary Exercises in Counterpoint* (1963), *Fundamentals of Musical Composition* (1967), and *Structural Functions of Harmony* (1969).<sup>8</sup> *Models for Beginners* was the only American textbook published during Schoenberg’s lifetime; it consists primarily of harmonic progressions that served as basic examples for elementary compositional exercises. *Models for Beginners* is also the first published textbook that demonstrates Schoenberg’s particular roman numeral notation, which includes a cross through the chord designation or an accidental next to the roman numeral to indicate an altered chord.<sup>9</sup>

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<sup>7</sup> *ZKIF* and the *Gedanke* manuscripts will be discussed in more detail and in connection to *Preliminary Exercises* in Chapter 4. The most significant thread connecting *ZKIF*, the *Gedanke* manuscripts, *Preliminary Exercises*, and Schoenberg’s early classes revolves around his counterpoint pedagogy. In these four venues much of the same language is used that provides a substantial connection to Schoenberg’s European years of teaching and his American ones.

<sup>8</sup> See Arnold Schoenberg, *Models for Beginners in Composition*, edited by Leonard Stein (Los Angeles, 1943) and herein referred to as *Models for Beginners*; and *Structural Functions of Harmony*, edited and revised by Leonard Stein (New York, 1969) and herein referred to as *Structural Functions*.

<sup>9</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, p. 315. The *Gedanke* manuscripts contain some of the earliest descriptions from Schoenberg about his use of accidentals and other notation symbols (i.e., VII# or H). It is believed that Schoenberg may have assumed his notation system from the figured bass school. The figured bass school will be discussed further in Chapter 2.

*Preliminary Exercises in Counterpoint* is one of Schoenberg's most important publications because it contains summaries of his earliest classes at UCLA as well as indicating some of the historical origins of his approach to modality, the major-minor system, and the construction of melody.<sup>10</sup> *Fundamentals* was compiled after Schoenberg's death and edited in large part by Gerald Strang, Schoenberg's teaching assistant during his short appointment at the University of Southern California in the summer of 1935. The class notes from USC resulted in *Fundamentals*, basically a beginner manual on form that uses hundreds of examples from musical masterworks to educate American students unfamiliar with that literature. *Structural Functions* is perhaps Schoenberg's best known American textbook; the only original sections of this book defines his theories of harmonic regions, the other sections are condensed versions of earlier publications. One of the first sections (II) of the book is translated and quoted directly from *Harmonielehre* and the last section (XI) is a reprint of the materials from *Models for Beginners*. *Structural Functions* also serves as a guide to harmonic theory that Schoenberg prepared for his less experienced, beginning American students. In a survey of his American manuscripts and publications and of the Stein lecture notes, the evolution of Schoenberg's pedagogy during his years of teaching at UCLA and in his last private lessons at his home in Brentwood, California will become clear. The latter were offered after his forced retirement from UCLA in 1944.

It was Schoenberg's lifelong goal to publish a unified method of musical analysis. Although he wrote about this goal often, a treatise of this sort was never realized. Instead, the only published materials are *Harmonielehre*, the European fragments contained in *ZKIF*, the

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<sup>10</sup> *Preliminary Exercises* will be discussed in detail in Chapter 4 where Schoenberg's counterpoint pedagogy is reviewed.

*Gedanke* manuscripts, and the four teaching manuals formulated from Schoenberg's classes in California. Throughout his publications and in his classes, Schoenberg used musical examples to discuss elements that can extend a motive in order to produce a phrase; the motive and phrase were the two components, which he said "must always be considered first."<sup>11</sup> Schoenberg considered "motive" as the determinant of structural points and large-scale formal organization. He taught that the motive must be developed using repetition and variation to retain, yet transform, the original idea.<sup>12</sup> By developing the motive through various means such as rhythmic articulation, suspension, inversion, and intervallic combinations, the composer is producing an "unrest" which, in turn, creates a problem that must be solved. All of these elements, which in essence contribute to the *Grundgestalt* contained in the original *Gedanke*, must make the presentation of the musical idea intelligible as they contribute to a cohesive structural organization.<sup>13</sup> The examples Schoenberg used from the musical literature are often brief and condensed to demonstrate the efficacy of the concepts he was teaching. This study also will illustrate through musical examples used in Schoenberg's publications and classes how he extracts particular passages to illuminate the whole.

In all of his manuscripts and publications, and in all of the analyses from his later classes, Schoenberg is explicit about the function of the theme.<sup>14</sup> He asserts consistently that the theme is to be considered as the recurring structural unit, upon which all subsequent events (i.e., the

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<sup>11</sup> See the Leonard Stein collection, Advanced Analysis and Composition Class, 1942, Folder 103, *The Arnold Schönberg Center Privatstiftung*, Vienna, Austria.

<sup>12</sup> *Ibid.*, Folder 103. Schoenberg often used motive and theme interchangeably, to indicate the first musical gesture of a composition. Though at times his language can be contradictory, Schoenberg's terminology must always be considered in the context of the literature being discussed.

<sup>13</sup> See the Leonard Stein collection, Advanced Analysis and Composition Class, 1942, Folder 103, *The Arnold Schönberg Center Privatstiftung*, Vienna, Austria.

<sup>14</sup> See Norton Dudeque, *Music Theory and Analysis in the Writings of Arnold Schoenberg (1874-1951)* (Burlington, Vermont: Ashgate Publishing Co., 2005), p. 194.

*Grundgestalt*) should be founded. For Schoenberg, variation, transition, transformation, and the process of *liquidation* and *neutralization* leading to structural points defined elements of the *Grundgestalt* that, in turn, serve to connect themes melodically and harmonically in support of the musical *Gedanke*. These concepts were elaborated in Schoenberg's classes, as he taught the roles of introduction, subsidiary ideas, thematic unity, broken chord formations, transitions, and the continuity of the musical discourse through an analysis of the *Grundgestalt*. All are derived from the *Gedanke*.

*Models for Beginners, Preliminary Exercises in Counterpoint, Structural Functions* and *Fundamentals* were published as manuals that resulted from Schoenberg's teaching experiences in the United States. Consequently, Schoenberg's American lectures began with thematic study to define the problems inherent in theme or motive. From this study, he assigned exercises in counterpoint and four-part writing. In his later teaching years, Schoenberg asserted that each of the subjects presented in his American publications could be considered separate subjects, yet should be integrated to understand the musical whole. This study also will investigate Schoenberg's continuous efforts to analyze music with respect to both the vertical and horizontal as he sought to integrate harmony and counterpoint into a coherent understanding of the whole.

A chronology of Schoenberg's classes reconstructed from the Stein notes from 1936 to 1944 and the UCLA archives, provides a linear illustration of Schoenberg's analytical development that coincides with the American publications (see Appendix A).<sup>15</sup> Almost all topics offered in his classes included extensive references to musical literature, predominately from the common practice period. Through examination of Stein's notes and the published materials, the trajectory of the development of Schoenberg's analytical theories appears.

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<sup>15</sup> See Appendix A for a complete listing of Schoenberg's classes at UCLA, 1936-1944.

There is a linear development to two of Schoenberg's main theoretical concepts: the *Gedanke* and the *Grundgestalt* discussed and defined in Schoenberg's early writings and in his American classes. Especially evident in the Advanced Analysis classes, are Schoenberg's ever present discussions of the motive and phrase as the basis for his concentration on thematic analysis. In the notes from an Advanced Composition class dated 1942, Schoenberg discusses motive, phrase, and broken chord forms as constituents of a typical Classical melodic gesture. In several publications and in the Analysis class notes, Schoenberg uses Mozart as a model to provide a summary of aspects of both the *Gedanke* and *Grundgestalt*. In doing so, he brings together discussions from his earlier classes on such subjects as counterpoint and beginning composition, with more advanced concepts from his later classes, especially Advanced Analysis.<sup>16</sup> This study also will focus on Schoenberg's lectures in Advanced Analysis as a starting point for the analysis of the first movement of Mozart's G Minor Symphony, a symphony that is cited in all but two of Schoenberg's publications as an example of working out the *Gedanke* with many technical elements. He cited this Mozart symphony movement often because it appropriates many of the elements he uses in his teachings, including such concepts as liquidation, transition, neutralization in the minor key, the role of the subordinate theme, retransition, codetta, melodic and harmonic overlapping, and motivic analysis all of which affect the parameters of subsequent musical material.<sup>17</sup> This Mozart symphony will further illustrate a cohesion to Schoenberg's analytical approach that culminated by the end of his teaching years in

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<sup>16</sup> See the Leonard Stein collection, folder 107, *Arnold Schönberg Center Privatstiftung*, Vienna, Austria, dated 1942.

<sup>17</sup> Schoenberg cites Mozart's Symphony, K. 550 in his classes and in several publications, including *Harmonielehre*, *Fundamentals of Composition*, and *Structural Functions*. Accordingly, he considered this musical material as containing primary examples of concepts he introduced to his students over several years of teaching. A thorough analysis of the first movement of this symphony will be given in Chapter 6.

what he called, “a comprehensive idea.”<sup>18</sup> Through an examination of the writings beginning in Vienna as a result of his European teaching years and continuing into his teaching years at UCLA, this study will demonstrate not only how Schoenberg drew from traditional German theories in music, but also how he combined tonal and harmonic theories with his thematic development theories through the use of extensive examples from the musical literature as teaching aids. By applying these theories to the first movement of Mozart’s G Minor Symphony in particular, this study will demonstrate how Schoenberg finally arrived at a unified approach for teaching the musical idea.

In the preface to his *Gedanke* manuscripts, Schoenberg begins with the implication that teaching and theory are two sides of the same coin. He wrote:

Theory is guided by an ideal case – however sensitively it might track down the facts – but it does not aim to arrive at one. For if it were reached, one would recognize that it is anything but an ideal case [...] Here for the first time an attempt is made to extract a musical logic from the facts of the musical technique of presenting an idea.<sup>19</sup>

This statement reflects Schoenberg’s belief that theorists have a responsibility to know and learn rather than to impose rules on the musical work. As a pedagogue, Schoenberg maintained this process of understanding the musical whole as a culmination of its different parts.

When Schoenberg was writing the fragments that were later compiled into the *Gedanke* manuscripts, he stated that “the difference between art and science lies herein: that even where both aim to represent the same area, science must try to include all conceivable cases, whereas

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<sup>18</sup> See Bryan Simms, “Arnold Schoenberg, *Theory of Harmony*, translated by Roy E. Carter,” *Music Theory Spectrum* 4 (1982): 156.

<sup>19</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, pp. 89-91.

art confines itself to those that are characteristic, appropriate, or otherwise “fitting.”<sup>20</sup> By examining all of Schoenberg’s publications, along with the written fragments defending his pedagogy and the hitherto unexamined class notes of Stein, this study will attempt to reveal how Schoenberg’s pedagogy changed and developed from the European years to his American years of teaching.

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<sup>20</sup> Ibid., p. 115.

## CHAPTER 2

### THE HERITAGE OF EIGHTEENTH- AND NINETEENTH-CENTURY MUSIC THEORY

#### Introduction

By the late eighteenth century, music theory had developed two opposing views regarding harmony. The figured bass theorists held that harmony was the result of voice-leading and contrapuntal rules and that all vertical sonorities could be explained through the relationship between the upper voices and the bass line. The other view, that of the fundamental bass theorists, set forth that melodies arise from chord progressions controlled by patterns of root movements, with every vertical sonority considered a specific diatonic chord with an identifiable root.

For the figured bass theorists, music theory textbooks were guided by the vertical dimensions in music, a point of view derived from the widespread performance practice of thorough bass in Western Europe. Theory instruction manuals such as Johann Mattheson's *Grosse General-Bass-Schule* (1731) and Johann David Heinichen's *Der General-Bass in der Composition* (1728), taught that harmony resulted from voice-leading processes and classified chords according to consonant and dissonant intervals.<sup>21</sup> Figured bass theorists also emphasized that harmonic progression was to be realized according to strict contrapuntal rules as their treatises were used as practical manuals for learning to play figured basses at the keyboard.

For the fundamental bass approach, harmonic function theories began with the discussions of Jean-Philippe Rameau and Johann Philipp Kirnberger in the eighteenth century. Rameau initially approached harmony from a mathematical and acoustic perspective inherited from late sixteenth-century and early seventeenth-century theorists. Later, he established the

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<sup>21</sup> See Johann Mattheson, *Grosse General-Bass-Schule* (Hamburg, 1731); Johann David Heinichen, *Der General-Bass in der Composition* (Dresden, 1728), translated into English by George J. Buelow (New York, 1961).



principles of chord progression, interval and chord inversion, and demonstrated how the fundamental bass indicates a root progression pattern.<sup>22</sup> Kirnberger also became an advocate of fundamental bass harmony as he combined rules of counterpoint into two fundamental harmonies: the consonant triad and the “essential” seventh chord.<sup>23</sup> Most importantly, the fundamental bass theorists of the eighteenth century were formulating principles for interpreting the meaning of chords in the context of a harmonic phrase.

By the beginning of the nineteenth century, music theory became increasingly concerned with teaching conservatory students and composers about harmonic function, root relationship, and the meaning of chords in a diatonic context. As the primary eighteenth-century figured bass practices declined, textbooks in Germany specifically aimed to disseminate theories that addressed distinctions between functional harmony and step theory; these new theories began to dominate music theory education. Textbooks such as Gottfried Weber’s *Versuch einer geordneten Theorie der Tonsetzkunst* (1817-1824), Moritz Hauptmann’s *Die Natur der Harmonik und Metrik* (1853), and Ernst Friedrich Richter’s *Lehrbuch der Harmonie* (1853) not only discuss a chord-root approach to harmony but also emphasize a contextual interpretation of how these chords function within a tonality.<sup>24</sup>

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<sup>22</sup> See Matthew Shirlaw, *The Theory of Harmony*, 2nd edition (DeKalb, Illinois: Coar, 1955). The overview of Rameau’s early ideas is presented in Shirlaw’s introduction to the study of the *Traité de l’harmonie* from 1722, pp. 63-64.

<sup>23</sup> See Johann Philipp Kirnberger, *The Art of Strict Musical Composition*, translated by David Beach and Jurgen Thym (New Haven: Yale University Press, 1982), p. xii.

<sup>24</sup> See Gottfried J. Weber, *Versuch einer geordneten Theorie der Tonsetzkunst* (3 vols.) (Mainz: Germany, 1817-1824). This three-volume work was translated into English by James Warner (Boston: Wilkins, Carter & Co., 1985); Moritz Hauptmann, *Die Natur der Harmonik und Metrik*, (Leipzig: Germany, 1853), was translated as *The Nature of Harmony and Metre* by W.E. Heathcote (London, 1888); Ernst Richter’s *Lehrbuch der Harmonie* (Leipzig: Germany, 1853), was translated into at least six languages and widely disseminated throughout Western Europe and the United States in the later nineteenth century.

In Vienna, the figured bass theories continued largely as a result of conservative church music. The thorough-bass practices declined rapidly, however, due to an increase in publications discussing the interpretation of chords and chord quality, harmonic progressions and function theory, as well as textbooks that began to discuss elements of motive and formal organization while citing examples from the musical literature. According to Robert Wason, the German works readily available in early nineteenth-century Vienna, were the works of Johann Daube, Kirnberger, Justin Heinrich Knecht, Daniel Gottlob Türk, and Gottfried Weber.<sup>25</sup> Significant publications about motive and formal design also were being disseminated in Vienna; the most prominent of these were the musical structure and motivic theories of Adolf Bernhard Marx presented in his four-volume manual, *Die Lehre von der musikalischen Komposition, praktisch-theoretisch*, published between 1837 and 1847.<sup>26</sup>

It was not until the works of Simon Sechter, however, that the theories of the fundamental bass, root succession, and harmonic progression began to influence music theory pedagogy. As David Bernstein maintains, Sechter became one of the leading theorists at the University of Vienna, Sechter's main work, the three-volume *Die Grundsätze der musikalischen Komposition* (1853-1854), was considered the most influential in Viennese harmonic theory.<sup>27</sup> As the principal advocate of *Stufentheorie*, Sechter's work in Vienna became the foundation for many of the fundamental notions of harmony being developed in nineteenth-century music

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<sup>25</sup> See Robert Wason, *Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg* (Ann Arbor: UMI Research Press, 1985), p. 11.

<sup>26</sup> *Ibid.*, paraphrased, p. 61. Marx will be discussed further in chapter 5 of this study where motive and theme are discussed more specifically in terms of melodic development.

<sup>27</sup> See David Bernstein, "Schoenberg Contra Riemann: *Stufen*, Regions, *Verwandtschaft*, and the Theory of Tonal Function," *Theoria: Historical Aspects of Music Theory*, 6 (1992): 24-25.

theory, which would ultimately influence and inform the theories of Anton Bruckner and later, Schoenberg.<sup>28</sup>

### Funktionstheorie

In Vienna at the turn of the twentieth century, harmonic and functional theory had become almost completely separate from counterpoint and contrapuntal rules. “Functional” theory derived from a particular interpretation of certain of Rameau’s early theories in which he began to define the subdominant as equally capable as the dominant of forming a cadence with the tonic. Most notable was Rameau’s explanation that subdominant, dominant, and tonic chords have a harmonic relationship in a key, though his discussions of these three chords were eventually extended to include a chord for every scale degree.<sup>29</sup>

It was not, however, until the theories of Hugo Riemann that “functional” in tonality took on a clearly different meaning from its use in the theories of scale degrees and harmonic function in *Stufentheories* circulating in Vienna. Riemann devoted most of his theories to providing a scientific and acoustical foundation for tonal functions, specifically, explanations of what he termed the overtone and undertone series and chord progressions.

Riemann’s functional theory of harmony as presented in his *Vereinfachte Harmonielehre; oder, Die Lehre von den tonalen Funktionen der Akkorde* (1893) and in later writings, is based upon the duality of the overtone and undertone series and the harmonic properties that result from his interpretation of what the *Klang* generates.<sup>30</sup> Duality was not necessarily a new concept

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<sup>28</sup> Ibid., pp. 24-25.

<sup>29</sup> Rameau, like Kirnberger, designates seven chords built on each degree of the scale. This will be discussed further in this chapter under “vertical formations.”

<sup>30</sup> See Hugo Riemann, *Vereinfachte Harmonielehre* (Leipzig: Breitkopf & Härtel, 1896).

in *Funktionstheorie*, for the writings of Moritz Hauptmann had already considered the three functions of the “dialectical” model of harmonic functions in which a 1) “thetic” tonic is contrasted with a 2) “antithetic” subdominant leading to a 3) “synthetic” dominant.<sup>31</sup> Riemann furthered this dualistic notion by theorizing that the fifths above and below the tonic root generate the only non-tonic functions, i.e., the dominant and the subdominant; no other chords attain a status independent of this triumvirate, and all compositions can be explained by these three chordal functions. As Riemann reduced his functional categories to three chords, he referred to pitches that could be construed as substitutes, only to be connected to the tonic, dominant, and subdominant chords. A “substitute” became a secondary chord that takes the place of one of the three principal chords (*Hauptklänge*). For example, an A-F-D chord in C major is not a “primary” chord, but rather results from an added sixth (D) and omitted fifth of the subdominant harmony (F-A-C). The D is a dissonance, because it is dependent on the C to be put into the context of the diatonic triad. The D is what Riemann would call an “apparent consonance” because it is not a member of the *Klang*.<sup>32</sup> *Funktionstheorie* became widely adopted throughout Europe, particularly in Germany, as it centered on the diatonic scale being derived from the tonic, dominant and subdominant chords.

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<sup>31</sup> See David W. Bernstein, “Nineteenth-century harmonic theory,” in *The Cambridge History of Western Music Theory*, edited by Thomas Christensen (London: Cambridge University Press, 2002), p.796. For further discussions on Hauptmann’s influence on Schoenberg and cadence, see chapter 3.

<sup>32</sup> *Ibid.*, p. 797.

## Stufentheorie

The idea of “substitutes” or dissonances as secondary phenomenon became one of the major differences between *Stufentheorie* and “Functional” theorists in European harmonic theory.<sup>33</sup> *Stufentheorie* also owes most of its origins to Rameau in that he believed every chord to be generated from a fundamental sound belonging to a scale degree of a given key. Not only did Rameau designate the seventh as being present above the fifth scale degree, but he distinguished seventh chords on other scale degrees. Rameau also designated chords to scale degrees based on their intervallic structure; it was not until Sechter, however, that functional distinctions, chord connections, and chromatic tones were discussed in terms of diatonicism.

By the mid-nineteenth century, Sechter was a renowned teacher in Vienna. Through dissemination of his popular *Die Grundsätze*, fundamental bass theory and the consideration of chords and their scale degree designations became more popular.<sup>34</sup> Sechter begins his treatise with the scale and examines each chord formed on each of the degrees; this was done to emphasize how chords are related to each other as well as within the context of the key. Moreover, Sechter did not discuss the foundation of chords within the framework of acoustics as the function theorists did and considered tones and chords as something more than vertically realized. By applying chordal quality to each of the scale steps, triads and seventh chords were now considered functional, demonstrating how the tones were connected rather than how they

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<sup>33</sup> Among other principles, Riemann’s notion of substitutes is in sharp contrast to Schoenberg. Schoenberg never limited the number of harmonic functions to three chords; on the contrary, the chromatic “substitutes” that were added to the modes served as leading tones to propel and extend harmonic progression rather than limit it to three chords. For further discussions about Schoenberg’s notions of substitutes and chromaticism in modality and the major-minor system, see chapter 3 and chapter 4.

<sup>34</sup> See David W. Bernstein, “Nineteenth-century harmonic theory,” in *The Cambridge History of Western Music Theory*, edited by Thomas Christensen (London: Cambridge University Press, 2002), p.788. Sechter’s fundamental progressions, and hybrid chords will be discussed later in this chapter.

were vertically constructed as products of the *Klang*.<sup>35</sup> Acoustical considerations were also not as important as they were for the “functional” theorists in discussing the science of chord construction. By the late nineteenth-century both *Funktionstheorie* and *Stufentheorie* were changing and shifting into a new language in music theory to describe musical works. In Vienna, especially, Sechter revived the ideas of fundamental bass, harmonic progression, and chord connection in expanded definitions, but it was still a challenge, as Schoenberg’s theories will demonstrate, to find a harmonic language suitable to describe the ever changing complexities of late nineteenth-century compositions.

Schoenberg always insisted that his theories and methods of analysis were firmly rooted in the older musical traditions when he defended his position as heir to the tradition of Austro/German music. Schoenberg wrote and spoke of this musical inheritance as an acquired knowledge of both harmony and counterpoint that granted him the necessary authority to teach students how to compose and evaluate music critically.<sup>36</sup> As a teacher, Schoenberg’s acceptance and rejection of specific nineteenth-century music theories solidified this relationship to Austro/German musical traditions. This chapter will explore primarily the harmonic theories of Rameau, Kirnberger, and Sechter while paying particular attention to their ideas of construction

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<sup>35</sup> According to Robert Wason, Sechter is a proponent of just intonation. Wason cites that in an appendix to *Die Grundsätze*, Sechter briefly states a description of his tuning system: “in C, tune C-G and F-C as pure fifths; tune E, A, and B as pure major thirds from the previous C, F, and G; tune D as a pure fifth from G; the resultant D-A fifth is 1/9 of a whole tone smaller than pure.” Also, Sechter authored an unpublished treatise on acoustics which may have been intended as a fourth volume to *Die Grundsätze* titled, *Abhandlungen über die musikalischen akustischen Tonverhältnisse* (Archiv der Gesellschaft der Musikfreunde, Vienna) in which he discusses the fifth of the ii chord as a dissonance which must be resolved down. In *Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg* (Ann Arbor: UMI Research Press, 1996), pp. 154f, 34. For further discussions of Sechter’s acoustical theories see Graham H. Phipps, “A Response to Schenker’s Analysis of Chopin’s Etude, Opus 10, No. 12, Using Schoenberg’s ‘Grundgestalt’ Concept,” *The Musical Quarterly* 69(4), (Autumn, 1983): 548f. See also David W. Bernstein, “Nineteenth-century harmonic theory” in *Cambridge History of Western Music Theory*, edited by Thomas Christensen (Cambridge: Cambridge University Press, 2002), pp. 788-789.

<sup>36</sup> See Arnold Schoenberg, “National Music (2),” as the second of two essays in which Schoenberg discusses the influences on his compositions, *Style and Idea: Selected Writings of Arnold Schoenberg*, edited by Leonard Stein with translations by Leo Black (New York: St. Martins Press, 1975), pp. 173-174.

of vertical sonorities, harmonic progression, and cadence as the organizing elements of tonality. An examination of the introduction of chromaticism into chordal construction, the minor mode, and enharmonic equivalents, concepts that all three theorists describe as essentially diatonic which will be discussed as elements that look to the future of Schoenberg's all inclusive tonality as he arrived at his mature method of analysis and composition pedagogy.

## Rameau, Kirnberger and Sechter as Harmonic Predecessors

### *Vertical Sonorities*

#### *Rameau and Corps Sonore*

In eighteenth-century music theory, Rameau was responsible for bringing such concepts as the fundamental bass as generator of vertical sonorities, chord root and inversion identification, harmonic and cadential progressions, and chromatic and altered chords into a unified system of harmonic theory. In his treatise *Génération harmonique*, Rameau revised many of his acoustical considerations and definitions of the generation of sound. His foundation no longer relied on string divisions, but rather, on acoustical phenomena and the mathematical relationships of the harmonic overtones heard in what Rameau called the *corps sonore* (sonorous body). In *Génération harmonique*, Rameau defined intervals, including the octave, the perfect twelfth and the major seventeenth, as no longer related only to a fundamental note, but now understood to be actually *generated* by the fundamental as they physically sound simultaneously. Rameau stated:

Harmony which consists of a pleasant blending of several different sounds, is a natural effect, the cause of which lies in the air agitated by the shock of each individual *corps sonore*.<sup>37</sup>

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<sup>37</sup> Deborah Hayes, "Rameau's Theory of Harmonic Generation: An Annotated Translation and Commentary of *Génération Harmonique* by Jean-Philippe Rameau," unpublished dissertation, Stanford University 1968, p. 28.

This new understanding of the generation of sounds as having both scientific validity and being present in nature, allowed Rameau to develop his theories of the vertical formations of chords and chords as the generator of all compositional entities.

To illustrate the “perfect” chord, including the seventh chord, Rameau essentially divided the fifth into a major third and a minor third, and by stacking another third above this perfect chord, creates what he calls the “dominant chord.” Rameau believed that the major and minor perfect chords contained consonant harmonies, while the seventh chord contained dissonant harmonies.

As Gossett translates from Rameau’s *Traité*, Book 1, chapter 7:

Harmonious chords other than the preceding perfect chords must be formed from a perfect chord and one of its parts, i.e., one of the thirds. For example, the addition of a third to the fifth will give the interval of the seventh; their subtraction will give the complete chord.<sup>38</sup>

After defining the two “perfect” chords (major triad and minor triad), Rameau proceeds with Articles III-VI to define his four types of seventh chords:

Article III: The seventh chord is constructed by adding a minor third to the major perfect chord;

Article IV: The seventh chord is constructed by adding a minor third to the minor perfect chord;

Article V: The seventh chord is constructed by adding a major third to the major perfect chord;

Article VI: The seventh chord is constructed by adding a minor third below the minor perfect chord.<sup>39</sup>

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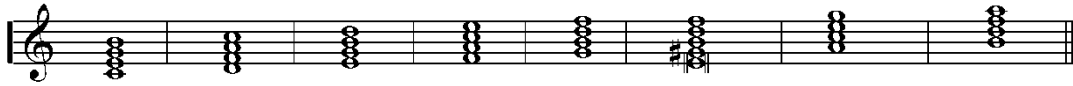
<sup>38</sup>See Jean-Philippe Rameau, *Treatise on Harmony*, Book 1, chapter 7, translated by Philip Gossett (New York: Dover, 1971), p. 36. In *Traité de l’harmonie*, Book 1, chapter 7, the original French reads: ‘S’il y a des accords Harmonieux autres que les *parfaits* precedents, il faut qu’ils puissent être formez d’un *parfait* & de l’une de ses parties, qui est l’une des *Tierces*: Par exemple, l’addition d’une *Tierce* à la *Quinte* nous donnera l’intervale de la *Septième*, & leur soustraction nous en donnera l’accord complet,’ p. 31. In *The Complete Theoretical Works of Jean-Philippe Rameau*, edited by Erwin Jacobi (American Institute of Musicology, 1967), vol. I, p. 61.

<sup>39</sup> See Jean-Philippe Rameau, *Treatise on Harmony*, Book 1, chapter 8, translated by Philip Gossett (New York: Dover, 1971), pp. 42-48. The four seventh chords can be defined as  $Mm_7$ ,  $mm_7$ ,  $MM_7$ , and the half-diminished seventh.



Shirlaw illustrates each of these seventh chords on each step of the scale as follows:<sup>40</sup>

#### Ex. 2.1 Rameau's Seventh Chords



Throughout his treatises, including the *Traité de l'harmonie, Nouveau Système*, and the later *Generation harmonique*, Rameau refers to the two chord types, the perfect chords and the seventh chords (and their inversions), by defining the intervals present in the vertical formations. Rameau is careful to distinguish between consonant and dissonant chords as he begins to apply the specifics of his chordal construction to his rules for fundamental bass progressions and chords as the basic compositional component.

#### *Kirnberger and Unequal Temperament*

Kirnberger began his treatise, *The Art of Strict Musical Composition* by insisting that “one must know all individual notes that can be used in music, or the scale and modes that arise from them.”<sup>41</sup> In defense of his theories of a new “tempering,” Kirnberger defined the following essential qualities in the tones of the scale:

1. It is easy to tune;
2. The principal intervals, the fourths and fifths, are either perfect or so pure that the difference cannot be heard; and, finally;

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<sup>40</sup> The chords are illustrated by Matthew Shirlaw in *The Theory of Harmony*, 2nd edition (DeKalb, Illinois: Coar, 1955), p. 85. The fully diminished and half diminished seventh chords will be discussed further in this chapter under “chromaticism.”

<sup>41</sup> See Johann Philipp Kirnberger, *The Art of Strict Musical Composition*, translated by David Beach and Jurgen Thym, p. 9.

3. It contains no other thirds than those that are either completely pure or that arise by necessity from pure fifths and fourths.<sup>42</sup>

These rules produce the following proportions and definition of dividing the comma over two fifths:

|   |         |     |       |     |     |       |     |        |         |      |      |
|---|---------|-----|-------|-----|-----|-------|-----|--------|---------|------|------|
| C | C#      | D   | D#    | E   | F   | F#    | G   | G#     | A       | Bb   | B    |
| 1 | 243/256 | 8/9 | 27/32 | 4/5 | 3/4 | 32/45 | 2/3 | 81/128 | 161/270 | 9/16 | 8/15 |

In this scale all tones of the pure diatonic scale have been retained except for the note A, which, instead of being  $3/5$  or  $162/270$ , is  $161/270$  and is a half comma, larger here so that it can be used as the fifth of D. This fifth, D-A, and consequently also the fifth A-e, is only a half comma smaller than the completely pure fifth  $2/3$ . Except for these two fifths, all others are completely pure.<sup>43</sup>

Essentially, Kirnberger has produced an “unequal” temperament in which all fifths are pure except D-A and A-E, and he divides the syntonic comma over these two fifths because they “can be somewhat smaller without becoming offensive.”<sup>44</sup> Using these ratios, Kirnberger tempered as follows:

Tune seven successive pure fifths beginning from C-sharp. Then tune the tempered fifth from D by taking the pure major third above F. Finally, tune three more pure fifths from this A, which completes the system. His method of tuning can be diagrammed as follows:<sup>45</sup>

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<sup>42</sup> Ibid., p. 22.

<sup>43</sup> Ibid., pp. 22-24.

<sup>44</sup> Ibid., p. 23f. In contrast to Kirnberger splitting the syntonic comma in half, Rameau’s system of temperament presented in the *Nouveau Système* has been called an “adjusted mean-tone tuning” for the first eight fifths. Each of these is diminished by one-quarter of the syntonic comma, which “aligns his fourth fifth with his pure third, and his eighth fifth with two stacked pure thirds.” See Glenn Chandler, “Rameau’s Nouveau Système de Musique Theorique: An Annotated Translation with Commentary,” unpublished dissertation, Indiana University 1975, pp. 100-101. In *The Complete Theoretical Works of Jean-Philippe Rameau*, edited by Erwin Jacobi (American Institute of Musicology, 1967), vol. II, pp. 34-39. For a review of mid-eighteenth century tuning systems see Rudolf Rasch, “Tuning and temperament,” *Cambridge History of Western Music Theory*, (Cambridge: Cambridge University Press, 2002), pp. 219-220.

<sup>45</sup> Ibid., p. 23f.

Table 2.1 Kirnberger's Tempering System

|   |                      |
|---|----------------------|
| C#-----G#-----D#----Bb/A#-----F-----C-----G-----D | (7 pure fifths)      |
| F-----A   | (1 pure major third) |
| A-----E-----B-----F#                              | (3 pure fifths)      |

This unequal temperament suited Kirnberger's theories of root motion by fifth in the bass, and his initial conditions that instruments must be easy to tune. One of the disadvantages, however, was this system had to sacrifice perfect thirds for perfect fifths, which became more difficult to justify due to the presence of more thirds and sixths in the musical literature of the eighteenth century.

Kirnberger's system of chord classification in vertical sonorities is based on the premise that all chords in music originate from two fundamental chords: the triad and the "essential" seventh chord. All other chords within a tonality are derived from these two chords by inversion of one or more of the chord tones.<sup>46</sup> Kirnberger classified four categories of chords, including:

1. the consonant triads and their inversions;
2. the dissonant essential seventh chords;
3. the dissonant with one or more nonessential dissonances; and
4. chords resulting from a mixture of types 2 and 3, where nonessential and essential dissonances are combined.<sup>47</sup>

He continued by presenting the following examples. These define the five seventh chords and their inversions, which he recognizes as "essential." They are:<sup>48</sup>

<sup>46</sup> Ibid., p. 40 (for definitions of consonant chords and their inversions) and p. 46 (for definitions of seventh chords and their inversions).

<sup>47</sup> Ibid., p. 46.

<sup>48</sup> Ibid., p. 49. The fourth (B-D-F-A) and fifth (B-D#-F-A) essential chords will be discussed later in this chapter under "chromaticism."

## Ex. 2.2 Kirnberger's Seventh Chords

From Kirnberger's *Die Kunst des reinen Satzes*, 1771-1776

The minor seventh with the major third and perfect fifth      The minor seventh with the minor third and perfect fifth      The major seventh with the major third and perfect fifth      The minor seventh with the minor third and small fifth      The minor seventh with the major third and small fifth

According to Beach, Kirnberger (and his student Johann Schultz) demonstrated the important distinction between root, chord, and harmonic progression when defining essential and nonessential dissonances and the intervallic content of a chord. In Kirnberger's later discussions of fundamental bass movement and of intervals that are defined as dissonant and needing to be resolved to consonance, the differences with Rameau will become apparent.<sup>49</sup>

### *Sechter and the Hauptaccorde and Nebenaccorde*

In the introduction to volume one of his *Die Grundsätze der musikalischen Komposition*, Sechter defined two types of fundamental chords as including the triad and seventh chord, with the "primary chords" (*Hauptaccorde*) within a key (either major or minor) consisting of I, IV, and V and "secondary chords" (*Nebenaccorde*) as chords built on the second, third, sixth and

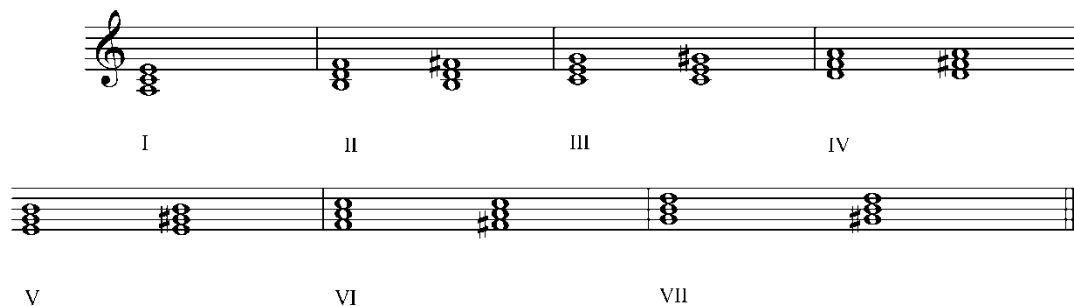
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<sup>49</sup> See Johann Philipp Kirnberger, *The Art of Strict Musical Composition*, translated by David Beach and Jurgen Thym, pp. xi-xii. According to Beach, Johann Schultz and Johann Sulzer are responsible for significant contributions to Kirnberger's *Die Kunst des reinen Satzes in der Musik*. Sulzer originally asked Kirnberger to prepare materials to instruct him in music theory and for information for his articles in *Allgemeine Theorie der schöne Kunst* which resulted in the production of significant portions of *Die Kunst*. Schulz was a student of Kirnberger and responsible for writing summaries of Kirnberger's theories, one of which, *Die wahren Grundsätze zum Gebrauch der Harmonie* (1773) became published as a supplement to *Die Kunst*.

seventh scale degrees.<sup>50</sup> Sechter defined each degree of a major scale as a root, thus producing seven chords, one on each scale degree. He also combined the three forms of the minor scale (harmonic, melodic, and natural) into one, and produces thirteen triads by including the raised sixth and seventh degrees:<sup>51</sup>

Ex. 2.3 Sechter's *Hauptaccorde* and *Nebenaccorde*

From Sechter's *Die Grundsätze*. 1853



Sechter, like Rameau, considered all chords, even those resulting from rhythmic displacement, as harmonic entities, whereas Kirnberger gave such status only to his two fundamental chords (the triad and the dissonant essential seventh chord and their inversions). Sechter and Rameau attribute a chord to every scale degree and a fundamental tone to every chord.<sup>52</sup> Because these chords are all diatonic regardless of major or minor key, each has a natural connection to the others. Sechter will later define the primacy of chords with common

<sup>50</sup> See Simon Sechter, *Die Grundsätze der musikalischen Komposition*, vol. 1, p. 51. The original German reads: “Es ist billig, das dei Hauptaccorde ... nämlich die Dreiklänge der Tonica und der Ober- und Unterdinant, diejenigen sind, auf welche vorzüglich Rücksicht zu nehmen ist.”

<sup>51</sup> *Ibid.*, p. 12.

<sup>52</sup> According to Robert Wason, Sechter most likely knew the theories of Rameau by studying the writings of Kirnberger and Kirnberger’s student, Johann Schulz. In *Viennese Harmonic Theory from Albrechtberger to Schenker and Schoenberg*, (Ann Arbor: UMI Research Press, 1996), p. 39.

tones and further defend harmonic progression in terms of strong, weak, and superstrong root movement in the fundamental bass line.

### *Fundamental Bass and Harmonic Progression*

#### *Rameau and Double Emploi, Chords by Supposition and Cadence*

In the context of chord structure and root identification and progression, harmony became discussed as a matter of the attraction of forces between two chords, rather than simply a succession of fundamentals. In his *Traité de l'harmonie*, Rameau defined harmonic progression as derived from the vertical sonorities of intervals, in which the intervals in chords connect the chords to each other:

The entire progression of the fundamental bass should involve only these consonances [the fifth and its inversion, the fourth, the third and its inversion, the sixth]. Dissonance may sometimes oblige us to make the bass ascend only a tone or semitone. In addition to the fact that this arises from a license introduced by the deceptive cadence ... we may note that this ascending (but not descending) tone or semitone is the inversion of the seventh heard between the two sounds forming the tone or semitone.<sup>53</sup>

Also in *Traité de l'harmonie*, Rameau demonstrated how these chords are used in practice with the need for a dissonance to resolve to a consonance in the context of progression. Rameau was primarily concerned with the intervallic relationship connecting chord roots and gave primacy to root motion by perfect fifth and perfect third. When providing rules that govern succession, Rameau defended his position that every vertical sonority was a discrete chord with an identifiable root. Because the “perfect” chord, including the seventh chord, consists of thirds and fifths and the inversions of these intervals, he postulated that all fundamental bass successions were by perfect fifths and thirds.<sup>54</sup>

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<sup>53</sup> See Jean-Philippe Rameau, *Treatise on Harmony*, translated by Philip Gossett (New York: Dover, 1971), p. 60.

<sup>54</sup> See Matthew Shirlaw, *The Theory of Harmony*. 2nd edition (DeKalb, Illinois: Coar, 1955), p. 99.

Rameau also allowed the fundamental bass to move by second, yet he was clear to state that not all of these successions are of equal importance. In his later work, *Génération harmonique*, Rameau defined how harmonic function can change within a single harmonic chord, as he tries to defend the assertion that within a scale, fundamental root movement must be by descending fifth or ascending fourth. He used the following illustration to define what he called the *double emploi* (the presence of two fundamentals) using the G Major scale:<sup>55</sup>

Ex. 2.4 Rameau's *Double Emploi*

From Rameau's *Génération harmonique*, 1737

Shirlaw summarizes:

In order to avoid the Subdominant-Dominant succession, Rameau considers the note *e*\* to form part of the chord of the Added Sixth c-e-g-a of which *c* is the reputed fundamental note; he then regards this chord as changing its aspect; it is now to be considered as the first inversion of the chord of the Seventh a-c-e-g, of which *a* is the fundamental note. This chord then finds its natural resolution on the Dominant chord d-f#-a-c, and thus by means of this “double employment of dissonance” the complete diatonic scale is made to fit the Fundamental Bass.<sup>56</sup>

<sup>55</sup> Ibid.

<sup>56</sup> Ibid., p. 194.

The motion leading to  $e^*$  imitates a perfect cadence in the bass (G-C). Thus to facilitate continued motion from the sixth to the seventh scale degree, Rameau needs to defend another possible root with what he calls the “added sixth,” which in this first definition would be a subdominant chord spelled C-E-G with the “added” A, moving to a D (dominant) chord. The second interpretation of this chord also imitates a perfect cadence, but only when considered in the context of motion from A (as the fundamental) moving to D in the bass. Thus, the “double” spelling includes the second chord as A-C-E-G (or a minor  $ii_7$  chord in G) and permits an explanation of fifth motion in the bass.

*Double emploi* and Rameau’s theory of chords by supposition rely on the harmonic context of a chord in a progression before determining a fundamental bass. In the following example, in the first chord of the second measure, Rameau explained how the suspended D (a fourth above the A in the tenor) is a dissonant seventh above the real root E (the fundamental bass) that is concealed by the “supposed” fundamental A in the bass. In the context of Rameau’s definition of the fourth acting as the seventh, it is resolving according to the rules of a seventh note above the fundamental bass by resolving down to D# in the second chord of measure two. This “supposed” bass also provides motion by ascending fourth (bass) and descending fifth (fundamental bass).<sup>57</sup>

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<sup>57</sup> See Jean-Philippe Rameau, *Traité de l’harmonie*, Book 2, chapter 10, p. 76. In *The Complete Theoretical Works of Jean-Philippe Rameau*, edited by Erwin Jacobi (American Institute of Musicology, 1967), vol. I, p. 106. Joel Lester includes the following example in his article “Rameau and eighteenth-century harmonic theory” in *Cambridge History of Western Music Theory* edited by Thomas Christensen (Cambridge: Cambridge University Press, 2002), p. 765.



Ex. 2.5 Rameau's Chords by Supposition

From Rameau's *Traité de l'harmonie*, 1722

Tenor represents bass by supposition

Bass by supposition

8 4 7 # 7 7 # #

Fundamental Bass

In addition to illustrating fundamental bass motion by fifth, Rameau defined the perfect and imperfect cadence as specific progressions that confirm the harmonies. For example, in Book 2, chapter 5, of the *Traité de l'harmonie*, Rameau illustrated two different chords and the subsequent voice leading tendencies that define his perfect cadence. He stated,

If the fundamental bass is removed (from the bottom voice) and one of the other parts is put in its place, all the resulting chords will be inversions (*renversements*) of the original chords. The harmony will remain good, for even when the fundamental bass is removed, it is always implied.<sup>58</sup>

<sup>58</sup> See Jean-Philippe Rameau, *Treatise on Harmony*, Book 2, chapter 5, translated by Philip Gossett (New York: Dover, 1971), p. 67. In *Traité de l'harmonie*, Book 2, chapter 5, the original French reads: 'Si l'on retranche la Basse fondamentale, et que l'on mette alternativement á sa place l'une des autres parties, l'on trouvera tous les Accords renversez de ceau-cy, don't l'Harmonie sera toujourns sous-entendué,' p. 57. In *The Complete Theoretical Works of Jean-Philippe Rameau*, edited by Erwin Jacobi (American Institute of Musicology, 1967), vol. I, p. 87.

## Ex. 2.6 Rameau's Perfect Cadence

From Rameau's *Traité de l'harmonie*, 1722

The diagram illustrates Rameau's Perfect Cadence across five staves, showing the intervals between notes in the initial and final chords. The notes are represented by black dots on a five-line staff.

| Staff                      | Initial Chord Interval           | Final Chord Interval |
|----------------------------|----------------------------------|----------------------|
| Staff 1 (Soprano)          | Octave                           | Fifth                |
| Staff 2 (Alto)             | Seventh or minor dissonance      | Major third          |
| Staff 3 (Tenor)            | Leading tone or major dissonance | Octave               |
| Staff 4 (Treble)           | Fifth                            | Octave               |
| Staff 5 (Fundamental Bass) | Dominant                         | Tonic note or final  |

He defined this cadence in terms of the fundamental bass, the intervals above the bass (including inversions), and how both the intervals and the bass are related harmonically with respect to motion. Rameau's perfect cadence is less a definition of how to end a phrase than of harmonic motion. This cadence also illustrates how the seventh of a chord descends (in this example F-E in the alto voice) and the leading tone of a chord ascends to resolution (from B-C in the tenor voice).

Rameau calls his second cadence type the irregular cadence (*cadence irrégulière*) with motion by ascending fifth with the first chord built on the fourth scale degree with an added sixth making the chord dissonant and needing to be resolved to consonance.<sup>59</sup>

### Ex. 2.7 Rameau's Irregular Cadence

From Rameau's *Traité de l'harmonie*, 1722

The diagram illustrates the Rameau's Irregular Cadence across four staves. The top staff (Treble clef) shows an 'Added sixth' (F4) moving to a 'Major third' (F5). The second staff (Treble clef) shows a 'Fifth' (C5) moving to another 'Fifth' (C5). The third staff (Treble clef) shows a 'Fifth' (G4) moving to another 'Fifth' (G4). The bottom staff (Bass clef) shows a 'Fundamental Bass' (F3) moving to a 'Tonic note or final' (F3). Fingerings are indicated as 5 for the fifth in the upper staves and 6, 5 for the fundamental bass in the lower staff.

Rameau's notion of fifth motion in the fundamental bass defends his belief that music moves forward by introducing dissonance (the seventh and added sixth) that needs to be resolved to consonance. In the examples of the *double emploi*, chords by supposition, and perfect and irregular cadence, Rameau has not merely considered chords according to their definitive fundamentals, but he has begun to consider chords in a diatonic context and their harmonic relationship therein.

<sup>59</sup> See Jean-Philippe Rameau, *Treatise on Harmony*, Book 2, chapter 5, translated by Philip Gossett (New York: Dover, 1971), p. 74.

### *Kirnberger's "Essential" and "Nonessential" Dissonances*

Kirnberger's harmonic pedagogy differs from that of Rameau in the notions of how the seventh functions harmonically and in the differences between "essential" (*wesentlich*) and "nonessential" (*zufällig*) dissonances in vertical chord formations and chord progression. Dissonances must be prepared and resolved down by step, thus they are treated as suspensions and called "nonessential" dissonances. Essential dissonances are those harmonic entities (seventh chords) built on all degrees of the scale except the leading tone. In the context of both essential and nonessential dissonances, Kirnberger developed his own fundamental bass line to explain seventh dissonances that resolve by step as well as to explain dissonances that can resolve over the same chord root as opposed to dissonances that require a new chord root to resolve.

For example, Kirnberger defined the seventh, ninth, and eleventh intervals to include 9-8 and 4-3 suspensions marking the distinction between chord tones and nonharmonic tones. As Kirnberger defined in his chapter titled 'The Nature and Use of Chords' from the *Art of Strict Musical Composition*:

It was mentioned previously that the bass of a true seventh chord must progress up by four steps or down by five. Whenever there is a seventh chord that does not progress in this manner, it is a sign that the seventh is not the essential dissonant seventh but a different interval that has become a seventh through inversion. Such chords shall be considered here. In the first case the seventh on F is actually the ninth above the real root D, which has its own seventh and therefore progresses up by four steps. The unusual feature of this case is that the ninth does not resolve until the following measure.<sup>60</sup>

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<sup>60</sup> See Johann Philipp Kirnberger, *Die Kunst des Reinen Satzes in der Musik*, p. 66. The original German reads: 'Es ist vorher angemerkt worden, das nach dem eigentlichen wahren Septimen Accord der Bass vier Töne steigen, oder fünf Töne fallen müsse. So oft also ein Septimen-Accord vorkommt, nach welchen, diese Fortschreitung nicht erfolget, so ist es ein Zeichen, dass die Septime nicht die wesentlich disonirende Septime, sondern ein anderes Intervall sey, dass durch eine Umkehrung eines Grundtones, zur Septime geworden. Dergleichen Accorde sollen hier näher betrachtet werden. Beyspiele dieser unächten Septime geben folgende Stellen, wo der Ursprung der Septime aus dem untenstehenden Grundbasse zu sehen ist. Im ersten Falle ist die Septime auf F, eigentlich die None des wahren Grundtones D, der seine wahre Septime bey sich hat, und deswegen vier Töne steigt. Das ungewöhnliche dieses Falles besteht darinn, dass die Auflösung der None erst in dem folgenden Takt geschieht.'

When the bass ascends by step, instead of the preferred ascending fourth or descending fifth, the seventh is not essential and the fundamental bass “becomes the origin” of the seventh a third below the bass note.<sup>61</sup> To defend fundamental bass motion by step, Kirnberger adds the D in the bass then ascends by a fourth to G in the next measure.<sup>62</sup> While the fundamental bass is moving the necessary ascending fourth pattern, the two top voices move by descending step (to B and D), thus resolving both the seventh and ninth “essential” dissonances.<sup>63</sup>

Ex. 2.8 Kirnberger’s “Essential Dissonances”

From Kirnberger’s *Die Kunst des reinen Satzes, Volume I, 1771-1776*

The musical notation consists of two staves. The top staff is in treble clef and shows a suspended 9th chord. The bottom staff is in bass clef and shows the fundamental bass line. The bass line moves from C to D to G to E to A. The suspended 9th chord is shown in the treble staff, with a 9th degree marked above the bass note in the first measure and a 7th degree marked above the bass note in the fourth measure.

In the second example after the double bar, Kirnberger defined the “unauthentic” (*uneigentlich*) seventh chord in terms of how it progresses from chord to chord and how the

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Nonharmonic tones will be discussed further in connection with Schoenberg’s theories about dissonance in Chapter 3.

<sup>61</sup> Kirnberger’s “nonessential” (*zufällig*) dissonance is his description of defending stepwise motion in the bass similar to Rameau’s concept of *double emploi*.

<sup>62</sup> *Ibid.*, p. 85.

<sup>63</sup> *Ibid.*, p. 85.

unessential seventh resolves in the top voice. When the fully diminished seventh chord (G#-B-D-F) appears in a progression, Kirnberger interprets the fundamental bass as a third below G#, making the top note becoming like a seventh that needs to be resolved down by step into the next harmony while the fundamental bass continues the ascending fourth pattern.<sup>64</sup>

In essence, Kirnberger's suspended dissonances or dissonances that need to be resolved in the next harmony foresee a horizontal approach in the function of dissonance while still relating to Rameau's fundamental bass theories by combining an intervallic definition to dissonances with a chordal approach that continues to be based on the triad and seventh chord with fifth and third movement in the bass.

#### *Sechter and Harmonisches Bindungsmittel and the Authentic Close*

Harmonic successions and root movement are defined by Sechter as matters of "connection":

Two fundamental chords following one after the other must always have a natural connection to one another, during the course of which it turns out that the connection is closer with some than with others. Two fundamental chords connect well with one another when the fifth of the second is prepared: this occurs when the fundamental bass descends a third or ascends a fourth, which is the same as descending a fifth.<sup>65</sup>

As he continued in *Die Grundsätze*, Sechter defined specific ways in which harmonies should connect (*harmonisches Bindungsmittel*), with the descending fifth and third successions and their inversions, or the ascending fourth and ascending sixth as the most favored harmonic

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<sup>64</sup> Ibid., p. 85. Kirnberger's (and Schulz's) interpretation of the diminished seventh will be discussed under "chromaticism" in this chapter.

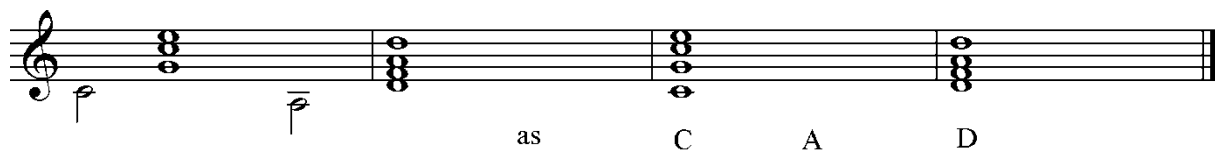
<sup>65</sup> See Simon Sechter, *Die Grundsätze der musikalischen Komposition*, (Leipzig: Breitkopf & Härtel, 1853), vol. 1, p. 15. The original German reads: "Je zwei nach einander folgende Stammaccorde sollen eine natürliche Beziehung zu einander haben, wobei sich ergibt, dass bei einigen die Beziehung enger als bei andern ist. Zwei Stammaccorde beziehen sich gut auf einander, wenn die Quint des zweiten vorbereitet ist; dieser Fall tritt ein, wenn der Fundamentalbass um eine Terz fällt, oder wenn er um eine Quart steigt, was ebensoviel ist, als wenn er um eine Quint fällt."

successions. For example, the descending fifth succession of I-IV-VII-III-VI-II-V-I is the most basic and important and the descending third succession is defined as I-VI-IV-II-VII-V-III-I.<sup>66</sup> Further, to account for scale steps “which appear to rise by step” (such as C-D or F-G), Sechter defined these as having an omitted or concealed root (*verschweigte*, literally “silenced”), implying that the root movement proceeds by a descending third followed by either a descending fifth or an ascending fourth. Sechter defined this progression as follows:

Those motions in which the fundamental appears to ascend by step must also imitate the *Schlussfall*. In order, for example, to form in a natural manner motion from the triad of the 1<sup>st</sup> scale degree to that of the 2<sup>nd</sup>, the seventh chord of the 6<sup>th</sup> scale degree must be either actually formed or imagined in between.<sup>67</sup>

#### Ex. 2.9 Sechter’s Implied Root and Chord Succession

From Sechter's *Die Grundsätze*, 1853



A chord succession from IV-V, for example, has an implied II to produce IV-(II)-V (F-D-G) or a descending second from II-I has the implied movement from II-(V)-I (C-A-D). These chord successions are taken from Kirnberger and from Rameau’s notion of *double emploi* and are similar in terms of ascending stepwise motion. Sechter expands his definitions of stepwise

<sup>66</sup> See Simon Sechter, *The Correct Order of Fundamental Harmonies*, translated by Carl C. Müller (New York: Wm. A. Pond & Co., 1880) for the chord progressions, p. 48.

<sup>67</sup> See Simon Sechter, *Die Grundsätze der musikalischen Komposition*, (Leipzig: Breitkopf & Härtel, 1853), vol. 1, p. 18. The original German reads: “Dem Schlussfall müssen auch die Schritte nachgebildet werden, die mit dem Fundamente eine Stufe zu steigen scheinen. Um, zum Beispiel, den Schritt vom Dreiklang der 1ten zu jenem der 2ten Stufe naturgemäss zu machen, muss dazwischen der Septaccord der 6ten Stufe entweder wirklich gemacht oder hinein gedacht werden.”

motion to include descending motion so that motion from G-F would have a concealed fundamental of C.<sup>68</sup>

Table 2.2 Rameau and Sechter's Fundamental Progressions

|                            | <i>Rameau</i>  | <i>Sechter</i>  |
|----------------------------|--|---|
| Strong progression         | Descending 5 <sup>th</sup> (asc. 4 <sup>th</sup> )<br>Descending 3 <sup>rd</sup> (asc. 6 <sup>th</sup> ) | Descending 5 <sup>th</sup> (asc. 4 <sup>th</sup> )<br>Descending 3 <sup>rd</sup> (asc. 6 <sup>th</sup> )        |
| Imperfect/Weak progression | Ascending 5 <sup>th</sup> (desc. 4)  | Descending 4 <sup>th</sup> (asc. 5 <sup>th</sup> )<br>Ascending 3 <sup>rd</sup>                                 |
| Strongest progression      | (implied) Desc. 3 <sup>rd</sup> /Desc. 5 <sup>th</sup>   | (implied) Desc. 3 <sup>rd</sup> /Desc. 5 <sup>th</sup><br>(implied) Asc. 4 <sup>th</sup> /Desc. 5 <sup>th</sup> |

To explain the chord progression from VII to I, Sechter defines the VII chord as the “substitute” (*Stellvertreter*) for the V<sub>7</sub> chord with the lowest note functioning as the third of the dominant chord. In this context, Sechter also distinguishes the diminished triad and the fully diminished seventh chord as having their roots a third below the lowest note so that a B-D-F-Ab chord has the “implied” root of G, essentially spelling a ninth chord without the root present. Therefore, the chord progression from VII-I falls within the ascending fourth root movement from G-C or movement from V-I.<sup>69</sup>

Sechter defined cadence as progression by descending fifth, and the relationship between chord members to determine the harmony, with the scale as the organizing factor. In *Die Grundsätze*, he described cadence as a “formation” of contracting diatonic tones of the scale

<sup>68</sup> Definitions of Sechter's fundamental bass theory can be found in Walter Zeleny, *Die historischen Grundlagen des Theoriesystems von Simon Sechter*, Wiener Veröffentlichungen zur Musikwissenschaft, vol. 10, Tutzing, 1979 and in Graham H. Phipps, “The Logic of Tonality in Strauss' *Don Quixote*: A Schoenbergian Evaluation. *19<sup>th</sup> Century Music* IX(3)(Spring, 1986): 189-192.

<sup>69</sup> See Simon Sechter, *The Correct Order of Fundamental Harmonies*, translated by Carl C. Müller (New York: Wm. A. Pond & Co., 1880), p. 49.



which are “effected by the succession of the triads of the fourth, fifth, and first degrees.”<sup>70</sup> By giving primacy to the triads and seventh chords built on the first, fourth, and fifth degrees, Sechter used his contraction principle to describe the “perfect closing cadence” with respect to how the diatonic scale degree determines phrase ending. Sechter also included in his discussions of cadence what he called “primary chords,” which, when used in succession, create a “perfect progression.”

Sechter also defined motion by fifth as connecting tones from one chord to another to extend the harmonic progression. He stated:

The progression from the chord of the seventh of the fifth to the triad of the first degree is regarded as the most important. It serves as the model for many other progressions and is called the *closing cadence*.<sup>71</sup>

Sechter explains a closing cadence as progression. By defining the primary chords, he is determining a sense of tonality, especially when the seventh of the dominant becomes the leading tone, which needs to resolve to the tonic to create cadential formulas. It is in his discussions about chromaticism that Sechter began to indicate significant structural differences among certain chord members, the interrelatedness of common tones, and the way in which substitutes remain in the diatonic scale.

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<sup>70</sup> Ibid., p. 53.

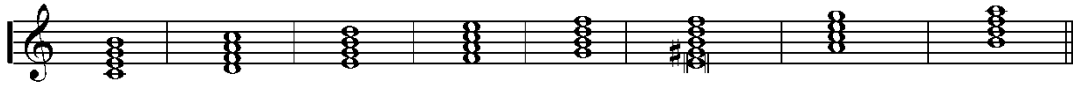
<sup>71</sup> Ibid., p. 42. See Simon Sechter, *Die Grundsätze der musikalischen Komposition*, (Leipzig: Breitkopf & Härtel, 1853), vol. 1, p. 16. The English translation has been paraphrased from this original German: “Der Schritt vom Septaccord der 5ten zum Dreiklang der 1ten Stufe wird Schlussfall genannt und ist der wichtigste unter allen musikalischen Schritten, welcher vielen andern zum Muster dient.”

## Chromaticism

### Rameau and Diminished Chords

In *Traité de l'harmonie* Rameau explained the chromaticism introduced into the chord G#-B-D-F as an “*altered Dominant Seventh Chord.*” He stated, “it is derived from the chord of the Dominant Seventh by raising the fundamental note of this chord a semitone. In this shape the chord is said to be ‘borrowed,’ because it borrows its perfection from a sound which does not appear in it.”<sup>72</sup>

#### Ex. 2.10 Rameau’s Altered Dominant Seventh Chord



To explain the fully diminished seventh chord in a progression, Rameau stated that the fundamental bass is represented a third below the lowest note. Because it is interpreted as an “altered” dominant chord, it can still move by the perfect descending fifth (ascending fourth) pattern.<sup>73</sup>

The half diminished seventh chord (B-D-F-A) is defined by Rameau in terms of his chords by supposition in that this chord is really another dominant chord with the G “supposed” below the real fundamental. Though he often used chords by supposition to explain dissonant suspensions, Rameau also used the idea of a “supposed” chord root to explain half diminished and diminished triads and seventh chords.

<sup>72</sup> The chords are illustrated by Matthew Shirlaw in *The Theory of Harmony*, 2nd edition (DeKalb, Illinois: Coar, 1955), p. 85.

<sup>73</sup> *Ibid.*, p. 85-86.

*Kirnberger and Diminished Chords and Augmented Sixth Chords*

Kirnberger's discussion of the diminished and half diminished seventh chords relied on his interpretations of root succession. For example, in C major a diminished triad (B-D-F) is allowed to ascend by a fourth only when in root position because Kirnberger considers this chord an "incomplete" dominant six-five chord with its root a third below the diminished triad.<sup>74</sup>

Kirnberger also discussed the fully diminished seventh chord as an "unauthentic" seventh which "naturally" progresses up by a second, which is the fourth from the real root of the original seventh chord.<sup>75</sup> For example, a G#-B-D-F chord has an interpolated root of E which allows root movement by ascending fourth with the three upper voices (F-B-D) resolving by descending step and, with the bass line moving by ascending step from G# to A. Thus the original bass line with G# as root acts like the leading tone to the final chord built on A.<sup>76</sup>

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<sup>74</sup> See Johann Philipp Kirnberger, *The Art of Strict Musical Composition*, translated by David Beach and Jurgen Thym, p. 58.

<sup>75</sup> Ibid.

<sup>76</sup> Ibid.

Ex. 2.11 Kirnberger's Fully Diminished Seventh Chord and Resolution

From Kirnberger's *Die Kunst des reinen Satzes, Volume I*, 1771-1776

The musical notation consists of two staves. The upper staff is in treble clef and shows a sequence of five chords: a suspended 9th chord (B-D#-F-A), followed by a diminished seventh chord (B-D-F-A), and then its resolution to a diminished triad (B-D-F). The lower staff is in bass clef and shows the fundamental bass line: C, D, G, E, A. Above the bass line, figured bass notation indicates the intervals: 9, 7, #, 9, 7. The text 'Suspended 9th "essential"' is written above the first chord, and 'Fundamental Bass:' is written above the first measure of the bass line.

In Schulz's published supplement to Kirnberger's *Die Kunst*, he defined the augmented sixth chord as "based on an essential seventh chord, whose root is a fifth below the bass note." In this context, a chord spelled B-D#-F-A can be interpreted as an essential seventh chord with B as the root, with a major third (D#), diminished fifth (F), and minor seventh (A). In the example given, Schulz also illustrated the bass motion by descending second implying a supertonic function chord from F-E in the progression. The fundamental bass motion also moves by the permitted ascending fourth or descending fifth.<sup>77</sup>

<sup>77</sup> See Johann Philipp Kirnberger, "The True Principles for the Practice of Harmony," translated by David Beach and Jurgen Thym, *Journal of Music Theory* 23/2 (Fall, 1979): 188. This published supplement to Kirnberger's *Die Kunst* treatise was written by his student Johann Schulz as *Die wahren Grundsätze zum Gebrauch der Harmonie* in 1773.

Ex. 2.12 Kirnberger's (Schulz's) Augmented Sixth Chord

The image shows a musical score for Kirnberger's Augmented Sixth Chord progression. It consists of three staves. The top staff is in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. It contains four measures of music, each with a chord symbol above it: B7, B7#, B7, and B7#. The middle staff is in bass clef and contains four measures of music, each with a chord symbol below it: B7, B7#, B7, and B7#. The bottom staff is also in bass clef and contains four measures of music, each with a chord symbol below it: B7, B7#, B7, and B7#. The text "in place of" is written above the middle staff, indicating that the chords in the middle staff are to be used instead of the chords in the top staff. The text "F.B." is written to the left of the bottom staff.

For Kirnberger, explaining chromaticism meant considering how the chords or specific tones functioned in the context of the progression. For the diminished chords and the augmented sixth chord, he still attempted definitions with respect to fundamental bass motion by fifth and treatment of individual dissonances with respect to how they resolved horizontally.

*Sechter and Hybrid Chords*

It is in his discussion of the VII chord that Sechter introduced his theories concerning chromaticism, including the diminished seventh chord (the incomplete dominant ninth), secondary dominants, and the “hybrid chord” or augmented sixth chord. Sechter described the simple progression of the  $B^{\circ}_7 - C$  major as follows:

The harmony of the fifth step of the C major scale can be made into that of the fifth step of C minor through the alteration of the ninth, after which the tonic of the C major scale follows nevertheless.<sup>78</sup>

<sup>78</sup> See Simon Sechter, *Die Grundsätze der musikalischen Komposition*, vol. 1, p. 130. The examples of chromaticism and incomplete ninths are discussed in Sechter's section on diatonic chromaticism. The original German reads: “Die Harmonie der 5ten Stufe in der C dur Tonleiter kann durch Veränderung der Non zu jener der 5ten Stufe in C moll gemacht werden, wonach jedoch wieder die Tonica der C dur Tonleiter folgt.”

In order to define all chromaticism as fitting within the diatonic scale, Sechter relied on his theories of “altering” specific notes and producing “simple chromatic progressions” of chords descending by half step, which must still be interpreted as fundamental bass movement by a descending fifth. For example, Sechter argued that the augmented sixth chord can be defined as an incomplete  $\text{II}_7$  or  $\text{II}_9$  chord:

If one alters the third to a major third without changing the diminished fifth, such a chord (whose major third is found in a different scale from its diminished fifth) has a hybrid-nature, therefore, it is an authentic chromatic chord which cannot be found in any diatonic scale.<sup>79</sup>

In addition, Sechter discussed the augmented sixth chord as functioning as a dominant seventh chord with its root as a “false” fifth. For example, in C Major, the German augmented sixth chord ( $\text{Ab-C-Eb-F\#}$ ) can be enharmonically spelled as  $\text{Ab-C-Eb-Gb}$  to become the  $\text{V}_7$  of the Neapolitan of C.<sup>80</sup>

### Ex. 2.13 Sechter’s Hybrid Chord Successions

From Sechter's *Die Grundsätze*, 1853

Root: C F B E A D G C

<sup>79</sup> Ibid., p. 147. The original German reads: “Macht man nun die kleine Terz zur grossen, ohne die falsche Quint zu verändern, so hat ein solcher Accord eine Zwitternatur, dessen grosse Terz in einer andern Tonleiter gefunden wird, also die falsche Quint; denn vermöge seiner falschen Quint auf die 2te Stufe gehört, und er ist deshalb ein eigentlicher chromatischer Accord, der in keiner diatonischen Tonleiter gefunden werden kann.”

<sup>80</sup> Ibid., pp. 147, 186 and 215.

These “hybrid chords” (*Zwitteraccorden*) are what Sechter called “authentic chromatic chords,” and each contains diatonic elements. In addition to defining diminished chords and augmented chords as having multiple meaning, Sechter defended that all chords existed on a diatonic basis. He stated:

The use of tones *foreign to the scale* may not be extended to the fundamentals; consequently, all the fundamentals in the chromatic C-major scale remain just as they were in the diatonic [scale].<sup>81</sup>

In his definitions of substitutes, enharmonic spellings, hybrid chords, and authentic chromatic chords, Sechter makes it clear that all chromaticism must be explained within a diatonic framework.

## Conclusion

Schoenberg assumed an approach to teaching composition that directed the student to become responsible for understanding his/her place in the historical process of harmony. Schoenberg also laid claim to basing his analysis of masterworks on an approach that is dependent on coherence (*Zusammenhang*) born from nature, which determines harmonic connection. Also central to Schoenberg is the notion of fundamental progression in defining chord function and the inclusion of dissonance when discussing harmonic evolution. The inclusion of chromaticism within a diatonic framework includes the recognition of seventh and ninth chords as legitimate sonorities within a tonal framework, extending diatonic chords to all

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<sup>81</sup> Ibid., p. 121. The original German reads: “Der Gebrauch der *leiterfremden* Töne darf nicht auf die Fundamente ausgedehnt werden, daher bleiben auch in der chromatischen D dur Tonleiter alle Fundamente so wie in der diatonischen.”

scale steps, not just IV, V and I as is posited by *Funktions* theorists in Germany, and extending the scale itself to include all twelve tones in which traditional tonality can be “suspended.”<sup>82</sup>

Schoenberg rejected a scientific basis for the critical evaluation of music and, in particular, a distinction between chordal and figurative dissonance.<sup>83</sup> As Schoenberg wrote in *Harmonielehre*, “after I have shown the pupil to what extent these rules are absolutely not mandatory, I place a check on his desire to unleash his disdain for them, by developing his sense of form so profoundly according to the old rules, that he will be able to tell in time just how far he may go, and what state a composition must be in, in order for rules to be disregarded.”<sup>84</sup> In the next chapter in this study, Schoenberg will demonstrate the development in his harmonic pedagogy beginning with how he regards chords as the vertical products of the overtone series, and the scale as the horizontal product: eventually Schoenberg demonstrates a new language which looks to the future when regarding the evolution of harmony with a connection to chromaticism and late nineteenth century music.

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<sup>82</sup> See Arnold Schoenberg, *Harmonielehre*, p. 383, 387. The evolution of the seven note scale system to 12 notes will be discussed and illustrated in chapter 3.

<sup>83</sup> In his chapter titled “The Evolution of the Tonal System,” Dineen argues extensively about Schoenberg’s distinction between an artificial and historical system of tonality. Dineen’s premise is that throughout his life, Schoenberg tried to reconcile the notions of historical, artificial, and natural forms of tonality. These three concepts became especially antagonistic with regard to the theories of Schenker, particularly in the notion of “natural” versus “artificial.” See Murray Dineen, “Problems of Tonality: Schoenberg and the Concept of Tonal Expression.” unpublished dissertation, Columbia University 1989, pp. 49-61.

<sup>84</sup> See Heinrich Jalowetz, “The *Harmonielehre*,” from *Schoenberg and His World*, edited by Walter Frisch (Princeton University Press, 1999), p. 234.



Illustration 2.1 “Walking” {to the future} by Arnold Schoenberg



## CHAPTER 3

### SCHOENBERG'S *HARMONIELEHRE*

#### Introduction

Schoenberg's *Harmonielehre*, the culmination of his teaching years in Vienna, Mödling, and Berlin, was informed by the past, and it contains his essential theories of harmony pedagogy. In his discussions of chord formations, fundamental root progression, cadence, tonality and modulation, chromaticism and the minor mode, vagrant harmonies, and, finally, chromatic scales, Schoenberg defined his canon of theories for a harmonic practice that he called a *schwebende Tonalität*.<sup>85</sup> Through careful review of these different yet connected subjects, it will be revealed that the essence of *Harmonielehre* is pedagogical, as Schoenberg sought to inform students of composition about their place in the historical process while teaching them important postulates of harmonic theory.

*Harmonielehre* is largely a product of Schoenberg's musical background, derived principally from his own independent study of musical literature and his brief periods of study with Alexander Zemlinsky (1871-1942) and David Josef Bach (1874-1947). Zemlinsky offered private lessons to Schoenberg in harmony and counterpoint in Vienna beginning in 1894, and Bach offered important critiques of Schoenberg's early compositions. Zemlinsky, in particular, was a major influence; Schoenberg wrote frequently of Zemlinsky's powerful example of how to compose ideas, formal structures, and sonorities, and of his great command of the demands of the theatre. The latter included composing the music, directing the work, and supporting the naturalness of the singer's voice. In the early 1900s, Zemlinsky became the conductor of both the *Karlstheater* and the *Theater an der Wien* in Vienna and it was around this time that

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<sup>85</sup> See Arnold Schoenberg, *Harmonielehre*, p. 383. As defined in chapter 1, all quotes are from the third edition of *Harmonielehre* (1922) translated by Roy E. Carter, 1978.

Schoenberg began to assume Zemlinsky's legacy of what he regarded as the supreme quality of a musical substance.<sup>86</sup>

Due in large part to Zemlinsky's example, Schoenberg embraced both Brahms and Wagner in his own compositions and pedagogical practices, in particular when he first applied the techniques of "model and sequence" and "developing variation" to thematic construction.<sup>87</sup> It was also around the turn of the twentieth century that Schoenberg began to teach private lessons in harmony and counterpoint in Vienna and Mödling and to formulate his ideas in music pedagogy that he would later expand in his *Harmonielehre*. With interruptions by two short appointments at the Stern Conservatory in Berlin in 1902-1903 and in 1911, Schoenberg taught at the Schwarzwald School and the Imperial Academy of Music in Vienna from 1903-1920. His last major appointment in Europe before emigrating to the United States was at the Prussian Academy in Berlin from 1925 to 1933.<sup>88</sup>

Schoenberg's most renowned students from these European years were Alban Berg, Erwin Stein, and Anton Webern. Each of these students contributed his own works to music pedagogy, which not only reflect their years of study with Schoenberg, but also serve to illustrate how Schoenberg's early analytical practices were continued in European writings. Berg, for example, wrote several articles concerning music theory and contributed important analyses of

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<sup>86</sup> Paraphrased from Arnold Schoenberg's essay devoted to influences on his compositions, titled "My Evolution" in *Style and Idea: Selected Writings of Arnold Schoenberg*, edited by Leonard Stein with translations by Leo Black, (New York: St. Martin's Press, 1975), pp. 80-81.

<sup>87</sup> *Ibid.*, p. 80. Zemlinsky and Schoenberg became close friends and not only did Schoenberg join Zemlinsky's chamber ensemble to play cello, but also in 1901, Schoenberg married Zemlinsky's sister Mathilde. More details of Schoenberg's private lessons with Zemlinsky are described in H.H. Stuckenschmidt's extensive biography of Schoenberg titled, *Arnold Schoenberg: His Life, World and Work*, translated by Humphrey Searle, 1959, pp. 33-38.

<sup>88</sup> For a detailed chronology of Schoenberg's teaching appointments, see Warren Langlie's "Schoenberg as Teacher," University of California, Los Angeles, unpublished dissertation, 1960. There is a brief discussion about the Schwarzwald lecture notes in H.H. Stuckenschmidt, *Schoenberg: His Life, Work and Work*, translated by Humphrey Searle, 1959, p. 245.

Schoenberg's works, including *Gurrelieder*, *Pelleas und Melisande*, and the *Kammersymphonie*.<sup>89</sup> In addition, Berg assisted Schoenberg with several of the indices for *Harmonielehre*, an indication of a close working and editing relationship between the two that spanned many years.<sup>90</sup>

As a result of his private lessons with Schoenberg, Stein was asked to prepare a guide for *Harmonielehre* to be used by both teachers and students in music theory.<sup>91</sup> Anton Webern included many of Schoenberg's teachings in his lecture series, published in works such as *Der Weg zur neuen Musik*, and *Über musikalische Formen*.<sup>92</sup> Near the beginning of the *Weg* lectures, Webern summarizes a concept taken from Schoenberg that indicated the historical understanding underlying his pedagogy: that the two forms of the sentence and period "are the basic element, the basis of all thematic structure in the classics and everything further that has occurred in music down to our time."<sup>93</sup>

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<sup>89</sup> See Alban Berg, *Arnold Schönberg, Gurrelieder; Führer von Alban Berg* (Leipzig-Vienna: Universal Edition, 1914); *Arnold Schönberg, Kammersymphonie, Op. 9*, (Vienna: Universal Edition, 1920), *Pelleas und Melisande Symphonische Dichtung für Orchester V; kurze Thematische Analyse von Alban Berg* (Vienna: Universal Edition, 1920). For a translation of Berg's analyses of Schoenberg's works see "Berg Guides" by Mark DeVoto in *Journal of the Arnold Schoenberg Institute* 16(1-2)1993: 236-268.

<sup>90</sup> Berg's analysis and handwritten notes are catalogued and stored in the Music Collection of the Austrian National Library in Vienna and published in Werner Grünzweig, *Ahrung und Wissen, Geist und Form: Alban Berg als Musikschriftsteller und Analytiker der Musik Arnold Schönbergs*, Rudolf Stephan, editor, *Alban Berg Studien*, v. 5 (Vienna: Universal Edition, 2000), pp. 296-302.

<sup>91</sup> See Erwin Stein, *Praktischer Leitfaden zu Schönbergs Harmonielehre* (Vienna: Universal Edition, 1912). Stein's work also includes a compilation of the early correspondence of Schoenberg titled, *Arnold Schönberg, ausgewählte Briefe* (Mainz: Schödt, 1958).

<sup>92</sup> See Anton Webern, *Der Weg zur neuen Musik* edited by Willi Reich (Vienna: Universal Editions, 1960). Translated by Leo Black as *The Path to the New Music* (Pennsylvania: Theodore Presser Co., 1963). *The Path to the New Music* is the translation of the lecture notes of Rudolph Ploderer who attended several lectures Webern gave in Vienna in the 1930s. *Über musikalische Formen* (Mainz, Germany: Schott, 2002) includes the lecture notes of Ludwig Zenk, Siegfried Oehlgieser, Rudolf Schopf and Erna Apostel from Webern's lectures at the Musikwissenschaft an der Wiener Universität, the Schwarzwaldschule, and in private sessions, as well as discussions of Webern's teachings with such students as George Robert and Louis Krasner. The documents concerning Webern's teachings and analysis were written between the years 1930 and 1945 and are stored and catalogued at the Paul Sacher Stiftung in Basel, Switzerland.

<sup>93</sup> See Anton Webern, *The Path to the New Music*, p. 27.

Schoenberg's *Harmonielehre* was his first completed book of music theory, largely compiled from his private lessons with Berg, Stein, and Webern during the Vienna, Mödling, and Berlin years before 1910. In the first chapter of *Harmonielehre*, titled "Theory or System of Presentation?" Schoenberg claimed that music theory should be presented in a manner exclusive of "gratuitous aesthetics" and should present the subject as objectively and systematically as possible.<sup>94</sup> He discussed this presentation as it pertains to instruction as follows:

One of the foremost tasks of instruction is to awaken in the pupil a sense of the past and at the same time to open up to him the prospects for the future. Thus instruction may proceed historically, by making the connections between what was, what is, and what is likely to be. The historian can be productive if he sets forth not merely historical data, but an understanding of history, if he does not confine himself simply to enumerating, but tries to read the future from the past.<sup>95</sup>

Schoenberg also maintained in *Harmonielehre* that he presents a system to account for all possibilities when analyzing the whole of a musical work. This "system" is speculative in nature, perhaps as a reaction against more conservative theory pedagogy offered by Richter in his *Lehrbuch der Harmonie* (1853) or by Guido Adler in *Der Stil in der Musik* (1911), or by Riemann's many pedagogical texts, including the *Katechismus* series published in the late nineteenth century.<sup>96</sup> As revealed in his preface to Stein's book, Schoenberg clearly recognized

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<sup>94</sup> See Arnold Schoenberg, *Harmonielehre*, pp. 10-11.

<sup>95</sup> *Ibid.*, p. 29.

<sup>96</sup> Ernst Friedrich Richter's *Lehrbuch der Harmonie* is a practical manual on harmony that became popular in Western Europe during the second half of the nineteenth century. Schoenberg describes Richter's approach to modulation as "too abrupt" with "too few modulatory chords recommended as too artless and primitive" in *Harmonielehre* (1911), p. 15. Guido Adler, the famous musicologist at the University of Vienna had a lasting effect on many music theorists and historians in Western Europe. For Schoenberg, Adler assumed a capacity similar to Zemlinsky in that he introduced Schoenberg to "the existence of a theory of music" and directed Schoenberg to the study of prominent nineteenth-century theorists, including Simon Sechter, and possibly, Anton Bruckner. There is some evidence that Schoenberg may have attended lectures by Bruckner on harmony and counterpoint at the University of Vienna in the mid-1880s. For a detailed examination of Bruckner's harmonic theories from the University of Vienna, see Ulrich Krämer, "Schönbergs Kompositionslehre und Ihr Verhältnis zur Tradition (AB Marx-J.C. Lobe)", in *Alban Berg Als Schüler Arnold Schönbergs Quellenstudien und Analysen zum Frühwerk* (Wien: Universal Edition, 1996). This article depends on the lectures of Anton Bruckner edited by Ernst

the speculative content of his harmony book. But he also understood the importance of thorough explanations to guide the student in composition:

Meine *Harmonielehre* is selbstverständlich viel zu lang. Wenn ihr Autor – das noch lebende Hindernis für vernünftige Kürzungen – einmal aus dem Weg gegangen sein wird, muss sicher drei Viertel des Text es daran glauben.<sup>97</sup>

Though parts of *Harmonielehre* may be considered speculative, it was intended “towards the goal of instruction” and is clearly linked to theorists from the eighteenth- and nineteenth centuries. As Schoenberg began his book with definitions reminiscent of Rameau, Kirnberger, and especially Sechter, he illustrated the vertical (products of the overtone series) and the horizontal (products of the scale), which encompass all the materials necessary for the student to compose independently.<sup>98</sup>

#### The *Grundton* and Natural Law

The *Harmonielehre* is Schoenberg’s earliest attempt to define his conceptions of the fundamental and its overtones as imitations of nature. Early in *Harmonielehre*, Schoenberg illustrates how the series of tones of a diatonic scale relate back to the fundamental tone (*Grundton*). He summarized his belief that a musical sound (*Klang*) is a “composite” of a series of tones sounding together, thereby forming vertical chords. Schoenberg defined the “natural model” of the tone as exhibiting the following characteristics:

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Schwanzara and titled *Vorlesungen über Harmonielehre und Kontrapunct an der Universität Wien* (Vienna: Österreichischer Bundesverlag, 1950). Schoenberg discusses Adler briefly in, “My Evolution,” from *Style and Idea*, pp. 79-80. Riemann’s *Funktionstheories* were discussed in the previous chapter.

<sup>97</sup> See Erwin Stein, *Praktischer Leitfaden zu Schönbergs Harmonielehre: ein Hilfsbuch für Lehrer und Schüler*. (Vienna: Universal Edition, 1912), p. ii.

<sup>98</sup> See Arnold Schoenberg, *Harmonielehre*, p. 11. In the chapter titled “Teaching Harmony,” Schoenberg refers to his preference for the “older method” of teaching harmonic progression. Throughout *Harmonielehre*, Schoenberg refers to his predecessors in theory pedagogy as the “older” method or theory. He only cites Sechter by name once (about common chord connection and modulation), p. 270, Bellerman twice (about dissonant leaps in voice leading), pp. 43, 45, and Bruckner once (about connecting chords), p. 39.

From a fundamental C, the overtones are, c, g, c<sup>1</sup>, e<sup>1</sup>, g<sup>1</sup>, (b<sup>β1</sup>), c<sup>2</sup>, d<sup>2</sup>, e<sup>2</sup>, f<sup>2</sup>, g<sup>2</sup>, etc. with the strongest of these tones as C because it occurs the greatest number of times, and because it is actually played or sung itself, as a fundamental....and the next strongest tone is G because it occurs the earlier in the series, therefore more often than the other tones. This G presupposes the C as the fundamental and dependent upon the fifth below it, F. Now if the C is taken as the midpoint, then its situation can be described by reference to two forces, one of which pulls downward, toward F, the other upward, toward G:



What is important for the moment is to establish that these tones are very closely related to one another, that they are next of kin. G is the first overtone of C, and C the first of F. Such an overtone bears the closest similarity to the fundamental (after the octave), therefore contributes most to the quality (*Charakteristik*) of the sound, to its euphony.

| Fund. | Overtones |    |       |      |       |
|-------|-----------|----|-------|------|-------|
| F     | f         | .. | c     | ..   | f . a |
| C     |           |    | c ... | g .. | c . e |
| G     | _____     |    |       |      |       |
|       | f         | c  | g a   | d e  | b     |

Adding up the overtones (omitting repetitions) we get the seven tones of our scale. Here they are not yet arranged consecutively. But even the scalar order can be obtained if we assume that the further overtones are also in effect.<sup>99</sup>

<sup>99</sup> Ibid., pp. 23-24. See Rameau's definition of the *corps sonore* and modified mean tone temperament, Kirnberger's unique system of tempering, and Sechter's model of just intonation all discussed in chapter 2 of this study under "Vertical Sonorities."

By determining that the diatonic scale is created by the relationship of the fundamental (in this case of the fundamentals C, G, and F) to its overtones, Schoenberg has also defined how musical space occupies both the vertical and the horizontal dimensions. He stressed that he was attempting to create a vocabulary to describe both vertical and horizontal phenomena in musical sound:

Whenever all chords of a complete piece of music appear in progressions that can be related to a common fundamental tone, one can then say that the idea of the musical sound (*Klang*) (which is conceived as vertical) is extended to the horizontal plane. Everything following it springs from this fundamental postulate, refers back to it, even when antithetical to it, elaborates and complements it, and finally leads back to it, so that this fundamental is treated in every respect as central, as embryonic.<sup>100</sup>

The *Grundton* and its related tones are defined by Schoenberg as the premise to which all elements of a composition are connected. The fundamental and its subsequent chord formations, and how they connect through progression, both establish and contradict a specific tonality. If the fundamental and the related overtones imitate nature, artists may use these resources responsibly yet separate them from science and rely on their own internal instincts to create the musical work.

Schoenberg applied the notion of artistic responsibility to his teaching of composition. As he stated, “[this must be based on] observation, experience, reasoning, and taste, on knowledge of natural laws and the requirements of the material.”<sup>101</sup> Schoenberg discussed his pedagogy in *Harmonielehre* not to teach his students about natural law, but to teach the elements by which tonality is expressed, as he emphasized that students must rely on their own internal

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<sup>100</sup> Ibid., p. 28. Schoenberg has extended the original *corps sonore* principle of Rameau here by applying the idea of the *Klang* to both the vertical and the horizontal.

<sup>101</sup> Ibid., p. 7.



processes to produce a composition, rather than relying on external laws (both natural and scientific) imposed and determined by others.

### Tonality

In his teaching Schoenberg emphasized expressing the key, expressing the dynamic of a work, and then expressing what he called the “contrary of key,” or modulation.<sup>102</sup> These dynamics he taught through the examples of chord connection, fundamental progressions, and cadence which reinforced his concepts of “the structural functions of harmony.”<sup>103</sup>

Schoenberg’s chord progressions are always defined by their relationship to the tonic, with the importance of the root of each chord emphasized over all of the other tones. His directions for voice leading emphasized that “each voice take the smallest possible step or leap,” so that there is a sustained quality to the harmony.<sup>104</sup> For Schoenberg each chord has a root, and each scale degree has a chord.<sup>105</sup> Every chord tone has multiple meaning in that it can function as a chord tone in at least two other triads. For example, the root of one chord is capable of serving as the fifth of another chord and the third of yet another chord. Schoenberg taught that the relationship of any two diatonic chords in a progression depends not only on the sequence of roots but also on the function of the chord within a tonality.<sup>106</sup>

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<sup>102</sup> Ibid., p. 15.

<sup>103</sup> Ibid.

<sup>104</sup> Ibid., p. 39. This section includes Bruckner’s famous citation about chords and that “Sie gehorchen dem *Gesetz* des nächsten Weges,” or chords must obey “the law of the shortest way.”

<sup>105</sup> This is taken almost directly from Sechter and his theories of *Stufen* and multiple meaning. See chapter 2 introduction and Sechter’s discussion of vertical chord formations and fundamental bass.

<sup>106</sup> Ibid., p. 39. In a pedagogical chapter in *Harmonielehre* entitled “Guidelines” Schoenberg explains several chord progressions “provided the root progressions allow it,” pp. 191-192.

Table 3.1 Schoenberg's Common Tone Chords

| <u>Degree</u> | <u>Has Common Tone with</u> |           |            |           |
|---------------|-----------------------------|-----------|------------|-----------|
| I             | III                         | IV        | V          | VI        |
| II            | IV                          | V         | VI         | (VII)     |
| III           | I                           | V         | VI         | (VII)     |
| IV            | I                           | II        | VI         | (VII)     |
| V             | I                           | II        | III        | (VII)     |
| <u>VI</u>     | <u>I</u>                    | <u>II</u> | <u>III</u> | <u>IV</u> |
| VII           | II                          | III       | IV         | V         |

Harmonic functions through chord progression produce motion that leads to a goal, yet constantly moves away from it; for Schoenberg there was a difference between weak and strong progressions, depending on the root of the chords, the tones of the chords, and their relationship to each other and to the tonic. In what he called the “tendency of the tone,” Schoenberg reorganized Sechter’s fundamental progressions as: 1) strong or ascending progressions, 2) descending progressions (weak), and 3) superstrong progressions. The following table compares and summarizes Sechter’s root successions with the three progressions adopted by Schoenberg in *Harmonielehre*:<sup>107</sup>

<sup>107</sup> For a summary of Sechter’s harmonic progressions and motions of the fundamental bass, see James Chenevert, “Simon Sechter’s *The Principles of Musical Composition: A Translation of and Commentary on Selected Chapters*,” PhD dissertation, University of Wisconsin-Madison, 1989, p. 34 and chapter 2 of this study.

Table 3.2 Sechter and Schoenberg's Fundamental Progressions

|                          | <i>Sechter</i>  | <i>Schoenberg</i>  |
|--------------------------|---|--|
| Strong progression       | Descending 5 <sup>th</sup> (asc. 4 <sup>th</sup> )<br>Descending 3 <sup>rd</sup> (asc. 6 <sup>th</sup> )        | Ascending 4 <sup>th</sup> (desc. 5 <sup>th</sup> )<br>Descending 3 <sup>rd</sup> |
| Weak progression         | Descending 4 <sup>th</sup> (asc. 5 <sup>th</sup> )<br>Ascending 3 <sup>rd</sup>                                 | Ascending 5 <sup>th</sup> (desc. 4 <sup>th</sup> )<br>Ascending 3 <sup>rd</sup>  |
| Super/Strong progression | (implied) Desc. 3 <sup>rd</sup> /Desc. 5 <sup>th</sup><br>(implied) Asc. 4 <sup>th</sup> /Desc. 5 <sup>th</sup> | Ascending step<br>Descending step  |

In his chapter titled “Directions for Obtaining Better Progressions,” Schoenberg began by defining his theories of weak, strong, and superstrong harmonic progressions:

These progressions force the connection; and it may be for this reason that the older theory explains them in a unique way: each as the sum of two progressions, of which one, the more important, is a root progression a fourth upward.<sup>108</sup>

A strong progression for Schoenberg occurs when the root of the first chord (in this case G) becomes the fifth of the next chord. This is “strong” because when the root becomes “subordinate” in the second chord it contradicts itself, becoming a problem that requires eventual resolution. Schoenberg described the “strong” progression of the root ascending by a fourth, as he stated:

The tone that was previously the principal tone, the root, becomes in the second chord a dependent tone, the fifth. More generally, the bass tone of the second chord is a higher category, a higher power, for it contains the first, the tone that itself was previously the root. In the triad on G the g is sovereign, but in the triad on C the g is subordinate and the c is sovereign.<sup>109</sup>

<sup>108</sup> See Arnold Schoenberg, *Harmonielehre*, pp. 116-117. The “older theory” Schoenberg refers to is Sechter’s theories of strong, weak, and strongest fundamental progressions (see chapter 2 of this study). In his *Die Grundsätze der musikalischen Komposition*, Sechter defines his fundamentals in terms of “successions” in order to illustrate connection between harmonies (*harmonisches Bindungsmittel*). In his *Harmonielehre* and later in *Structural Functions of Harmony*, Schoenberg distinguishes *succession* as being “aimless” and *progression* as “having the function of establishing or contradicting a tonality.” This study will use the term “progression” to stay consistent with the term Schoenberg used to refer to chord progressions as having a functional relationship to tonic. Definitions of succession and progression are in *Structural Functions of Harmony*, p. 1.

<sup>109</sup> See Arnold Schoenberg, *Harmonielehre*, p. 116.

In the same category of strong progressions, Schoenberg defined the descending third as being connected by two common tones, explaining that “the former root is overcome and becomes a mere third. But the earlier third becomes the fifth, thus advances; and the new chord is differentiated from the former by only one new note.” This strong progression by descending third still contradicts the “tendency of the tone” because the root of the first chord becomes the third of the second chord, and by combining two descending third progressions, there is the same result as that of the fourth ascending strong progression. Schoenberg illustrated his “strong” progressions as follows: <sup>110</sup>

Ex. 3.1 Schoenberg’s “Strong” Chord Progressions

From Schoenberg's *Harmonielehre*, 1911

The image shows two musical staves, treble and bass clef, illustrating chord progressions. The first progression, labeled 'Ascending Fourth/Descending Fifth', shows a V chord (G-B-D) in the bass clef moving to an I chord (C-E-G) in the treble clef. The second progression, labeled 'Descending Third', shows a V chord (G-B-D) in the bass clef moving to an III chord (B-D-F) in the treble clef. The notes are represented by whole notes on the staff lines.

For Schoenberg, chord progressions refer back to the diatonic scale steps (*Stufen*) that articulate a specific tonality and each step represents the root of a diatonic chord that possesses a functional relationship to the tonic. He takes Sechter’s argument and asserts that the strongest root progressions “connect a degree with precisely those two degrees that have nothing in

<sup>110</sup> Ibid., p. 116.

common with it ... which force the connection ... each as the sum of two progressions.”<sup>111</sup>

Schoenberg described the “strongest root progressions” as going further than any progressions examined so far. The progression by step produces chords with no tones in common, yet they still need to be defined by fundamental connecting motion by the strong progression of the ascending fourth. In order to illustrate fundamental motion by fourth, Schoenberg stated:

They [chords a second upward] connect a degree with precisely those two degrees that have nothing in common with it, to which it is least related. In the connection of V (G) with VI (A) it would actually be the IIIrd degree (E) that is connected, only the root of the latter is missing; in that of V (G) with IV (F) the I (C) would play the same role.<sup>112</sup>

### Ex. 3.2 Schoenberg’s “Strongest” Chord Progressions

From Schoenberg’s *Harmonielehre*, 1911

The image shows a musical staff with two systems of staves. The top system has a treble clef and a key signature of one flat (B-flat). The bottom system has a bass clef and the same key signature. The first system shows a chord labeled V (III) in the bass clef and a chord labeled VI in the treble clef. The second system shows a chord labeled V (I) in the bass clef and a chord labeled IV in the treble clef. The chords are represented by groups of notes on the staves.

Schoenberg is careful to distinguish between the use of the term “strong” and “weak” when describing the ascending third and fifth progressions. “Weak” does not necessarily mean “bad” in comparison to “strong”: rather, Schoenberg prefers ascending strong progressions as they produce more contradiction in the motion of the harmony.

<sup>111</sup> These progressions become so important to Schoenberg’s harmony pedagogy that they are presented again in one of the leading chapters in his most significant American textbook, *Structural Functions of Harmony*. See *Harmonielehre*, pp. 115-122.

<sup>112</sup> *Ibid.*, p. 117.

To define his descending (weakening energy) successions, Schoenberg began with the movement of a descending fourth in which the fifth of the first chord becomes the root of the second chord. He described this progression as turning the first fifth (in this case G) from “a subordinate into the principal tone,” or the root of the second chord.<sup>113</sup> In his words, this is “decadence” because the progression is “yielding” motion rather than promoting motion.

Schoenberg stated:

One could counter with the assertion that this advancement testifies to the power of the one promoted and that here the root was overcome. But the power of the promoted one consists only in the former root’s yielding, deliberately yielding, its power to the new; it gave in voluntarily to the new, for the latter, the fifth, is after all contained within it; it gave in only, so to speak, out of its good nature, as when the lion enters into friendship with the rabbit.<sup>114</sup>

### Ex. 3.3 Schoenberg’s Descending “Weak” Progressions

From Schoenberg’s *Harmonielehre*, 1911

I                      V                      I                      III

Even more “noticeable” in the loss of motion is when the third of the first chord becomes the root of the second chord. Schoenberg described this progression as “the weakest of all,” because it promotes the advancement of inferior tones.<sup>115</sup>

<sup>113</sup> Ibid., p. 119.

<sup>114</sup> Ibid.

<sup>115</sup> Ibid.

Schoenberg's progressions do not emphasize only the use of ascending, strong progressions but also recommend including descending progressions in combination with stronger to promote "the articulation of the phrase."<sup>116</sup> A chord progression that moves by ascending fifth, then by ascending second, producing a progression a third downward will still meet the demands of "the rise and fall of tone, of emphasis."<sup>117</sup>

Schoenberg taught chord progressions to present to his students a method to compose harmonic successions not from given figured basses as had been typically done in the past, but from root progressions that envelop and define a fundamental movement that regards tonic as the center.<sup>118</sup> Early in *Harmonielehre*, Schoenberg defined tonality as the "formal possibility that emerges from the nature of the tonal material," and in regard to chord progressions stated:

To realize [the possibility of tonality] it is necessary to use in the course of a piece only those sounds (*Klänge*) and succession of sounds, and these only in a suitable arrangement, whose relations to the fundamental tone of the key, to the tonic of the piece, can be grasped without difficulty.<sup>119</sup>

In teaching these fundamental progressions, Schoenberg hoped that the student would develop an understanding of the contradictions, imbalances, motion, and balance of tonality that shape the total musical work.

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<sup>116</sup> Ibid., p. 120.

<sup>117</sup> Ibid.

<sup>118</sup> As discussed in chapter 2 of this study, Rameau taught fundamental bass movement in terms of how to compose, while Kirnberger and Sechter were primarily theory pedagogues. Kirnberger and Sechter, especially, regarded chordal roots and the diatonic scale as the organizing factor for harmony while Rameau considered melody as derived from harmony.

<sup>119</sup> Ibid., p. 27.

## Cadence

Schoenberg described the harmonic plan of a musical work as an extended cadence. Tonal expression relied on extending a phrase by leading away from the “principal tone” and challenging it with as many elements as needed to ensure motion; the stronger the elements that challenge the tonic, the stronger the harmonic requirements to restore balance.<sup>120</sup>

For Schoenberg, the cadence became the model for tonal expression that restores rest and balance to the phrase. In *Harmonielehre*, Schoenberg wrote of the cadence:

The digressions from the tonic and the assertion of the tonic are such that in spite of all new elaborations of the secondary tones, however remote, the tonality is finally victorious. That function would then really be an extended cadence, essentially the harmonic plan of every musical composition, however large.<sup>121</sup>

Schoenberg also believed that a harmonic progression in a piece can be regarded as an extended cadence with chords offering the following functions:

I = assertion (of a tonality)  
IV (II) = challenge  
V = refutation of IV (reassertion of V)  
I = confirmation (of the tonality)<sup>122</sup>

Schoenberg began with the subdominant (in C Major, F) because it can be challenging to tonic, yet become its own tonic. The subdominant tone is also contained in II and VII, triads which can “subdue” the strength of the dominant and “lend such progressions their vigor.”<sup>123</sup> It is necessary though, to find another chord that can subdue both the power of F and G. The

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<sup>120</sup> Ibid., pp. 130-131.

<sup>121</sup> Ibid., p. 152.

<sup>122</sup> This definition is based on Moritz Hauptmann’s theory of dialectical cadence. Hauptmann’s *Die Natur der Harmonik und Metrik* attempts to give a Hegelian explanation of the laws of music defined as thesis, antithesis, and synthesis, whereas Schoenberg emphasized the harmonic behavior of specific chords in the context of cadence.

<sup>123</sup> Ibid., p. 131.



progression of IV-II-V offers great unrest because the II interrupts the tendency of IV to resolve back to the tonic, and movement from II to V continues the desirable progression of the ascending fourth.

After introducing II as the “alternate” of IV, Schoenberg extends the cadence by adding what he calls “neutral chords” that include III (as the resemblance of V), then VI and VII which can belong to either region of IV or V or can lead from “one to the other.”<sup>124</sup> Schoenberg introduces the cadential pattern I-III-IV-V-I (in C Major) as an example of neutralizing IV by placing the dissonant B-natural in the III and V chord before and after the subdominant. By placing these neutral chords in a progression, Schoenberg not only extends the cadence but also introduces the possibilities of using neutral chords as pivot chords for modulation. He suggests that if neutral chords are reinterpreted as driving in a new direction (especially if they contain the leading tone of the new key) or, in the case of equidistant chords, if they can mediate between the original key and the new key, much more variety can be introduced into the enriched cadence.<sup>125</sup> Schoenberg described these “simple” modulations and these short cadential phrases as examples of changing tonality:

The digressions arrive at a new tonality. This happens continually in the course of a piece, but only apparently; for this new tonality does not have independent meaning within a piece, but only expresses more elaborately the tendencies of the secondary chords. These remain all the while secondary chords within the piece that is circumscribed by a key.<sup>126</sup>

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<sup>124</sup> Ibid., p. 150.

<sup>125</sup> Ibid., 161. Schoenberg uses the word *Beseitigung* for the term neutralization to mean an immobilization of either the tension or the resolution of the harmonic phrase. He also uses neutralization in his discussion of substitute tones. His reference to neutralization in this section on modulation refers not only to chords in harmonic progressions, but also to the sixth and seventh tones in the minor. When referring to neutralization of pivot tones, he is making reference to melodic material rather than harmonic material.

<sup>126</sup> Ibid., p. 153. Schoenberg continues to describe “simple” modulations as those to the relative minor key and those into the keys of the upper and lower fifths together with their relative minor keys. He often referred to these modulations using the term *Zusammenhang* which provides cohesion between keys.

It is important to state that Schoenberg never discussed cadence, cadential progression, or harmonic progression as background elements in a musical work. In fact, a separation between surface phenomena and phenomena at other levels is not consistent with the way that Schoenberg taught harmony. In his definition of harmony, Schoenberg stated that his method of teaching harmony was a process, consisting of components working together to define the musical work. To Schoenberg, teaching harmony was “the study of simultaneous sounds [chords] and of how they may be joined with respect to their architectonic, melodic, and rhythmic values and their significance, their weight relative to one another.”<sup>127</sup> There are few discussions of melody and motive in *Harmonielehre*, yet Schoenberg described the motive early on in terms of needing the evolution of modulation to “form the basis for motivic development.”<sup>128</sup> One of the first discussions for considering melody and motive and their relationship to harmony is of the “pivot tones” of the minor mode; it is in discussing this subject that Schoenberg begins to consider chromaticism and how substitution and chord alterations affect harmonic progression.

### The Minor Mode

Schoenberg also derives his notion of the minor scale from Sechter in that there are three forms of the minor scale: the harmonic, the melodic, and the natural minor. Schoenberg obtains the minor scale from the natural Aeolian mode, which is modified through the introduction of a leading note, or seventh degree. Substitute tones can also be explained as originating from the church modes, or as Schoenberg wrote, “the church modes had a tendency to imitate a certain characteristic of the Ionian, whose seventh tone is an ascending leading tone, that is, a tone only

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<sup>127</sup> Ibid., p. 13.

<sup>128</sup> Ibid., p. 15.

a half step below the eighth.”<sup>129</sup> In his theories of harmonic progression in the minor mode, Schoenberg introduced his crucial concept of *Wendepunkte* as, “turning points, that is points where the melody turns either upward toward the fundamental or downward away from it,” and this, in essence, defines melodic motion to or from the tonic scale degree.<sup>130</sup>

Schoenberg’s explanation of *Wendepunkte* is an early example of some of the rules for voice leading he demonstrated for his students. These include his concept of neutralizing chromatic substitutes. In the minor mode, if the leading tone is not “raised,” the scale resembles its major counterpart, therefore in the A minor mode, G becomes G#. This, of course, creates an augmented second between the sixth and seventh scale degrees, so Schoenberg raises the sixth degree, but only “when a leading tone was needed for a cadence on A.”<sup>131</sup> By introducing the raised sixth and seventh degrees, Schoenberg has offered chromatic substitutes that define the diatonic collection of the A minor mode.

Schoenberg directly cites Sechter when he presents the possible diatonic triads in minor and describes how these should function in harmonic progressions. For example, he indicates that only chords with one or more common tones should be used, including the IV and V which include both major and minor triads, and the VI and VII which include both major and diminished triads and should be treated as “no different from those in the relative major.” With the addition of chromatic substitutes in A minor, the following thirteen triads are produced:

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<sup>129</sup> Ibid., p. 95.

<sup>130</sup> Ibid., p. 98.

<sup>131</sup> Ibid., p. 97. See especially Sechter’s discussion of the minor mode and his definitions of “substitutes.” By combining all three forms of the minor scale, Sechter devises thirteen vertical chords. For an illustration of these see chapter 2 of this study.

### Ex. 3.4 Schoenberg's Diatonic Triads in the Minor Mode

From Schoenberg's *Harmonielehre*, 1911

Schoenberg defines the “pivot tones” in terms of four rules: two rules for the ascending chromatic substitutes and two rules for the process of neutralizing the descending tones. The first two rules are for the ascending substitute seventh tone and substitute sixth tone:

What was said here, summed up in rules, yields the *four laws of the pivot tones (Wendepunktgesetze) of the minor scale*:

*First pivot tone, g#:* g# must go to a; for g# is used only for the sake of the leading-tone progression. Under no circumstances may g or f follow g#, nor may g# go to f#.

*Second pivot tone, f#:* f# must go to g#; for it appears only for the sake of the g#. Under no circumstances may g follow, nor, of course, f.<sup>132</sup>

The descending form of the A minor mode is more concerned with neutralizing the sixth and seventh tones than the ascending form:

*Third pivot tone, g:* g must go to f, because it belongs to the descending form of the scale. Neither f# nor g# may follow it.

*Fourth pivot tone, f:* f must go to e, because it belongs to the descending form of the scale. F# may not follow it.

Any other treatment of the raised sixth and seventh tones can easily serve to erase the feeling of tonality, which we want at first to keep absolutely pure and unequivocal.<sup>133</sup>

<sup>132</sup> Ibid., p. 98. Schoenberg also discusses the difference between “raised” and “unraised” in terms of “altered.” He believed that raising a tone was replacing it (substituting), not merely altering it.

These rules must be followed to keep the substitutes in a diatonic context. Chromatic substitutes in the ascending A minor mode are F#-F-natural and G#- G-natural. It remains necessary to neutralize, or subdue the chromaticism of these tones while descending to ensure that all turning points or pivot tones remain diatonic to the natural minor mode.

The rules for *Wendepunkte* and minor chord progressions clearly assert that any chromatic elements in a scale will still be considered in a diatonic context. The harmonic progressions that result from these rules are not only inherent in the voice leading instructions, but conform to the rules of strong root progression. In the sense that his rules are addressing both melodic and harmonic considerations, Schoenberg also illustrates how voice leading rules conform to the following progressions:<sup>134</sup>

Ex. 3.5 Schoenberg's Minor Mode in Harmonic Progression

From Schoenberg's *Harmonielehre*, 1911

I      III      I    IV    II    V      I      V      I      VI

<sup>133</sup> Ibid., p. 98.

<sup>134</sup> See Arnold Schoenberg, *Harmonielehre*, p. 100. For further definitions of “pivot tones” see Murray Dineen, “Problems of Tonality: Schoenberg and the Concept of Tonal Expression,” 1988, p. 199 and Robert Wason, *Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg*, 1985. Wason maintains that the term *Wendepunktgesetz* may be directly related to Sechter’s “stepwise motion.” See Wason’s chapter titled, “Sechter’s System at the End of the Century,” p. 104.

Schoenberg's early discussions about minor chord progressions were important because, for the first time, he taught how chromatic tones could become part of the diatonic fabric. These early chord progressions with chromatic substitutes include only root position chords because Schoenberg placed clear restrictions on his students to help them understand the basics of root progression before they attempted to construct more advanced harmonic progressions. At this point in his discussion of chord progression, Schoenberg illustrated how dissonances had to be prepared and resolved by the ascending fourth root progression, and "excluded" specific progressions such as a progression with the "raised" III or VII.<sup>135</sup>

In his illustrations of the minor mode, Schoenberg began to incorporate chromaticism into a diatonic framework. By defining how chromatic substitution offers a bridge between modality and the major-minor system, more complicated chromatic alterations begin to extend tonality even further. It was not until his discussions of nondiatonic tones, altered chords, and vagrant harmonies that Schoenberg began to incorporate chromaticism into a diatonic framework and to further illustrate the continuation of classical tonality.

#### 'Emancipation of the Dissonance'

Schoenberg believed that the modern major and minor modes were artificial, produced by historical evolution rather than by or through nature. His first definition of the minor mode revolves around the notion of this mode as "synthetic" or "a product of art."<sup>136</sup> Though Schoenberg believed that the major-minor system had evolved historically, it was not present in nature but rather had undergone a transformation to last with it. The major mode, especially, had

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<sup>135</sup> Ibid., pp. 101-102.

<sup>136</sup> Ibid., p. 95.

evolved to include all of the nondiatonic notes of the seven church modes that were “constructed on the seven diatonic tones of our major scale”<sup>137</sup> Here, Schoenberg defends his notion that each bass note can impose its own overtones, thus becoming the root of each chord; though they may be construed as “artificial,” they are not because they imitate a “prototype” in nature, the overtone series.<sup>138</sup>

The major and minor modes are the simplification of an earlier modal system, with the addition of “nondiatonic phenomena.” In *Harmonielehre*, Schoenberg wrote of this central premise:

If we sum up the characteristics of the church modes, we get major and minor plus a number of nondiatonic phenomena. And the way in which the nondiatonic events of one church mode were carried over to the other modes I conceive as the process by which our two present-day modes (major and minor) crystallized out of the church modes. Accordingly, major and minor contain all those nondiatonic possibilities inherently, by virtue of this historical synthesis.<sup>139</sup>

Schoenberg characterized nondiatonic phenomena in the alteration of chords as a continuation of the major-minor system, and eventually taught that there is no difference between consonance and dissonance.<sup>140</sup> This argument resulted in his famous theory of the ‘emancipation of the dissonance,’ a concept Schoenberg borrowed from Rudolph Louis’s *Der Widerspruch in der Musik*, which addresses historical connotations not intrinsic in the original meanings of consonance and dissonance.<sup>141</sup> When working out the ‘emancipation of the

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<sup>137</sup> Ibid., p. 175.

<sup>138</sup> Ibid., p. 176.

<sup>139</sup> Ibid., pp. 427-428.

<sup>140</sup> Ibid., p. 152-153.

<sup>141</sup> See Norton Dudeque, *Music Theory and Analysis in the Writings of Arnold Schoenberg (1874-1951)* (Burlington, Vermont: Ashgate Publishing, Ltd., 2005), p. 44. Dudeque summarizes Louis’s treatise in the context of other nineteenth-century harmonic theories. Louis’s treatise addresses dissonance in late nineteenth-century music. As the original German reads in Louis’s treatise: “Von der ‘Emancipation der Dissonance’ haben wir schon

dissonance,' Schoenberg was "attacking a structural-ornamental distinction that claims to be valid for all music, not distinctions appropriate to individual pieces, styles or composers."<sup>142</sup> As

Schoenberg wrote clearly in *Harmonielehre*:

There are, then, no non-harmonic tones, no tones foreign to harmony, but merely tones foreign to the harmonic system. Passing tones, changing tones, suspensions, etc., are, like sevenths and ninths, nothing else but attempts to include in the possibilities of tones sounding together – these are of course, by definition, harmonies – something that sounds similar to the more remote overtones. Whoever gives rules for their use is describing, at best, the ways in which they are most generally used. He does not have the right, though, to claim that he has then precisely separated those possibilities in which they sound good from those in which they sound bad.<sup>143</sup>

Turning points, pivot tones, neutralization, chromatic substitutes, and nondiatonic phenomena are concepts Schoenberg began teaching to address the changing context of dissonance in late nineteenth-century harmonic theory. In his chapter titled "At the Frontiers of Tonality," Schoenberg began to illustrate what he called "vagrant harmonies," defining the diminished triad, diminished seventh chords, and the augmented sixth chord and explaining how each of these chords functions in harmony.

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gesprochen; hier gab es keine Grenzen, und heute sind wir so weit, dass praktisch alle Dissonanzen frei sind, und die Anzahl der möglichen Akkorde hat sich so erweitert, dass kaum eine Töne-Zusammenstellung denkbar ist, die nicht auch faktisch anwendbar wäre. (Am weitesten sind hierin, wie überhaupt in harmonischen Freiheiten, die Komponisten der neu-russischen und neu-französischen Schule gegangen – ich erinnere Beispiels halber nur an Borodin, B. Godard, Wormser's "Enfant prodigue" u.a. – wo, wenigstens in technischer Beziehung, ein tatsächlicher Fortschritt über Wagner und Liszt hinaus zu erkennen ist" from *Der Widerspruch in der Musik* (Leipzig: Breitkopf & Härtel, 1893), p. 80.

<sup>142</sup> See Jack Boss' article "Schoenberg on Ornamentation and Structural Levels," in *Journal of Music Theory* 38(2) (1994): 187-216. For a summary of the differences of the theories of Schoenberg and Schenker, see Norton Dudeque's chapter "Speculative and Polemical Contents in Schoenberg's Tonal Theory," in *Music Theory and Analysis in the Writings of Arnold Schoenberg*, p. 43.

<sup>143</sup> See Arnold Schoenberg, *Harmonielehre*, p. 321.



## Vagrant Harmonies

Schoenberg believed that all vagrant harmonies could belong to a tonality and could have multiple meaning within a tonality, and in harmonic progressions could still honor the strong movement by ascending fourth or descending fifth. Schoenberg began with the diminished seventh chord as belonging to both major and minor (if considered as a ninth with root omitted). He also considered the diminished seventh chord to be unique in that it could not only bring distantly related chords “closer to each other,” but could also “play a leading role in creating chromaticism.”<sup>144</sup> For example, to illustrate a progression from V-I in A minor, the diminished seventh chord built on G#-B-D-F, has the root E which lies a third below G#; this E resolves by ascending fifth to A in the bass on I.<sup>145</sup> The fully diminished seventh chord therefore functions as a V chord. In terms of multiple meaning, the second measure illustrates the first diminished chord B-D-F-Ab as functioning either as the VII of C or the I<sub>9</sub> of G (with root omitted).<sup>146</sup> Schoenberg did not prefer this definition, however, because he stressed that the diminished chord must be used by students to demonstrate that “every chord can be connected with every other.” Schoenberg also explained the diminished seventh chord as providing “a phenomenon of greater activity” due to the presence of more unrest in contemporary compositions, yet the student must still use it carefully so as not to produce “harshness” in progressions.<sup>147</sup>

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<sup>144</sup> Ibid., p. 238.

<sup>145</sup> Ibid., p. 241 and reproduced in *Structural Functions of Harmony*, p. 44.

<sup>146</sup> See chapter 2 of this study for discussions about Rameau’s *double emploi*, Kirnberger’s explanation of fundamental bass motion by step to include the “essential” suspended ninth, and Sechter’s notions of *Stellvertreter* (the VII chord as the substitute for the V<sub>7</sub> chord), hybrid chords as altered diatonic chords, and “implied” roots a third below the lowest note of the fully diminished seventh chord.

<sup>147</sup> Ibid., p. 240.

Ex. 3.6 Schoenberg's Root Progression in the Diminished Seventh Chord

From Schoenberg's *Harmonielehre*, 1911

Diminished 7th chords

a: V                      I                      C: V                      I  
 Root: E                      A                      G                      C

Schoenberg also discussed the augmented six-five and four-three chords in terms of multiple meaning in that these chords could function either as the augmented sixth chord or as the dominant seventh chord, simply by an enharmonic change in the notation.<sup>148</sup> Schoenberg began by discussing how these chords function within a tonality by identifying the root, how these chords sound similar, and how they need to be resolved. For example, in the following illustration, the second chord in the second measure could either be the augmented six-five chord in the key of C Major needing to be resolved to V, or it could be reinterpreted as a seventh chord built on Ab' needing to be resolved to the dominant of C by way of the Neapolitan (Db).<sup>149</sup>

<sup>148</sup> Sechter defines the multiple meaning of the German augmented sixth chord functioning as a dominant seventh chord as having a “false” fifth as its root. For example, in C minor, the German augmented sixth chord (Ab-C-Eb-F#) can be spelled enharmonically as Ab-C-Eb-Gb becoming the V<sub>7</sub> of the Neapolitan of C. See chapter 2 of this study under chromaticism.

<sup>149</sup> See Arnold Schoenberg, *Harmonielehre*, p. 254.

### Ex. 3.7 Schoenberg's Multiple Meaning in the Augmented Sixth Chord

From Schoenberg's *Harmonielehre*, 1911

The image shows two staves of musical notation. The top staff is in treble clef and contains six measures of music, each with a different chord. The bottom staff is in bass clef and contains six measures of music, each with a different chord. The chords are: 1. D major triad (D, F#, A), 2. D minor triad (D, F, A), 3. D major triad (D, F#, A), 4. D minor triad (D, F, A), 5. D major triad (D, F#, A), 6. D minor triad (D, F, A).

Fundamental:

II  
(D)

With a view toward the greatest “enrichment of the tonality,” Schoenberg discussed how the above progression can be resolved according to the patterns V-I, V-VI, or V-IV, thus reinforcing the notion that fundamental progression and the strongest of harmonic progressions is by ascending fourth (descending fifth) and ascending step.<sup>150</sup>

#### Final Systems of Presentation

In the last chapters of *Harmonielehre*, Schoenberg emphasized the importance of “putting melody over a *single* diminished seventh chord,” and defined root progressions when equidistant chords such as the augmented triad are interpreted in the vertical harmonies.<sup>151</sup> Most importantly, Schoenberg concluded *Harmonielehre* by defining how major and minor triads can

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<sup>150</sup> Ibid., p. 254.

<sup>151</sup> Ibid., p. 380. Schoenberg uses the word “equidistant” for the first time when defining the whole tone scale in *Harmonielehre*, p. 390.

contain modal mixture (vertical considerations) with the construction of the twelve note scale (horizontal considerations) which he called the “chromatic scale as a basis for tonality.”<sup>152</sup>

Schoenberg defined several chord formations, including the fully diminished seventh, the augmented six-five and four-three chords, the five- and six-part chord (based on the whole tone scale), and the chord constructed in fourths, as progressions that start from one chord tone and move the harmony forward.<sup>153</sup> For example, the whole tone scale is a result of adding chord tones and dividing the major third into three equal parts, producing a chord that contains all six tones (G, A, B, C#/Db, D#, F):

Ex. 3.8 Schoenberg’s Chord Construction of Whole Tones



According to Schoenberg, its resolution is this:

Ex. 3.9 Schoenberg’s Resolution of the Whole Tone Chord



<sup>152</sup> Ibid., p. 384.

<sup>153</sup> Ibid., p. 391.



All of these elements in chord formations were taught by Schoenberg to ensure coherence and connection in harmonic progression. He was concerned with teaching prototypes, yet extended the theories of earlier theorists to incorporate these prototypes into other harmonic considerations and described the phenomenon of composition as having “no boundaries.”<sup>156</sup> By recognizing that the student has a unique contribution to make to composition, Schoenberg also taught that it was the artist’s responsibility to “invent” rather than to imitate.<sup>157</sup>

### Substitution in Harmonic Progression

To extend diatonic function Schoenberg described “substitution” in the major and minor modes as the “imitation of a modulatory process [which] permits the introduction of these nondiatonic occurrences even into the key itself.”<sup>158</sup> For example, in C Major by substituting the minor triad of G-Bb-D for G-B-D, this produces more remote relationships to the original key.

Patricia Carpenter described Schoenberg’s “inclusive” tonality by identifying two distinct phenomena that create tonal imbalance through contradictory elements: ambiguous diatonic pitches and pitches that are foreign to the diatonic pitch collection. The ambiguous elements do not have a clear relationship to the tonic. Whereas the foreign elements become incorporated into the tonality as single pitches and chord transformations, their function defined by their relationship to the tonic.<sup>159</sup>

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<sup>156</sup> Ibid., p. 319. These prototypes extended, primarily, the theories of Sechter to incorporate the changes in the musical language of late nineteenth century literature.

<sup>157</sup> Ibid., p. 383.

<sup>158</sup> Ibid., p. 386.

<sup>159</sup> See Patricia Carpenter, “Grundgestalt as Tonal Function” *Music Theory Spectrum* 5(1983): 17.

Carpenter further emphasized that “the structure of a tonality may be extended to include all possible elements and relations. The diatonic pitch collection may be enriched by tones borrowed from other tonal areas and substituted for the diatonic scalar material.”<sup>160</sup>

In *Harmonielehre*, Schoenberg developed the notions of tone substitution to teach the construction of a harmonic language that was becoming more common and more complex in later nineteenth-century music. The following is an illustration of Schoenberg teaching a chord progression from C#-C, beginning on III in A Major:

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<sup>160</sup> Ibid., p. 17.

Illustration 3.1 Schoenberg Teaching at the Board





The root of the first ninth chord is C#. The chord is spelled C#-E#-(G#)-B-D, which Schoenberg has respelled in the bass clef of the second measure for clarification. By substituting G-natural for G#, he illustrates how G (the tritone from C#) can be interpreted in another way as the root of a G-B-D-F chord which resolves to the final chord of C-E-G. With the root of C, this final chord not only provides motion from A major to A minor but also functions as III in both keys. As Phipps observes about Schoenberg's considerations of chromaticism when describing late nineteenth-century harmonic practices, "the only necessary condition is to understand the contextual temporal significance of each of the phenomena. Thus one must comprehend how a given element of the musical language is part of the whole language at the time of the composition."<sup>161</sup> In this short example, Schoenberg has demonstrated how substitution, transformed chords, and root motion by descending fifth (G to C) establish a relationship between chromatic tones and diatonic tones, thus creating an inclusive tonality in which the chromatic scale expresses the musical whole.

Two more examples of chord progressions with harmonic motion from C to C#, substitution, and transformed chords are in Appendix C. The first example is a progression from *Harmonielehre* with key movement from C Major to C# minor;<sup>162</sup> the second is an example from George Robert's class notebook of a lesson by Anton Webern<sup>163</sup> that introduces chromatic tones into the diatonic scale to move a harmonic progression from C Major to C# minor, thus carrying on the traditions established by Schoenberg.

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<sup>161</sup> See Graham H. Phipps, "The Logic of Tonality in Strauss's *Don Quixote*: A Schoenbergian Evaluation," 19<sup>th</sup> *Century Music* IX/3(Spring 1986): 190.

<sup>162</sup> See Appendix C, fundamental bass progression from C major to C# minor, example 213 from *Harmonielehre*, p. 284.

<sup>163</sup> See Appendix C, fundamental bass progression from C major to C# minor, for exercises from Anton Webern's *Harmonielehre* (here an illustration by his student George Robert).

## Conclusions

In one of his final chapters in *Harmonielehre*, Schoenberg summarized several main points of his harmonic theories, including how he attempted to define the vertical and horizontal as separate subdivisions within the musical work. Schoenberg's summary begins by defining connection between tones:

The raw material of all forms (*Gestalten*) produced by the connecting of tones is a series of twelve tones. (That there are twenty-one note names here, and that their presentation begins with c, is consistent with and derives from our imperfect notation; a more adequate notation will recognize only twelve note names and give an independent symbol for each.)<sup>164</sup>

|           |           |             |           |           |             |             |
|-----------|-----------|-------------|-----------|-----------|-------------|-------------|
| C<br>/ \  | D<br>/ \  | E<br>/ \    | F<br>/ \  | G<br>/ \  | A<br>/ \    | B<br>/ \    |
| Cb C#     | Db D#     | Eb E#       | Fb F#     | Gb G#     | Ab A#       | Bb B#       |
| (Cb) C C# | (Db) C D# | (Eb) E (E#) | (Fb) F F# | (Gb) G G# | (Ab) A (A#) | (Bb) B (B#) |

From these twelve tones different scales may be formed (listed here in historical and pedagogical order):

1. twelve times seven church modes;
2. twelve major and twelve minor modes;
3. a number of exotic modes that are not used in European art music, or very rarely at least; it is best to include here also the two whole-tone scales, which can be referred to any one of the twelve tones as fundamental;
4. twelve chromatic modes;
5. one chromatic mode.<sup>165</sup>

By extending the seven note diatonic scale to all twelve tones, and by recognizing that each scale step was the root of a chord, Schoenberg expressed that a tonality now includes every

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<sup>164</sup> It is important to note that the first edition of *Harmonielehre* (1911) ended with this statement, followed by a quote from Schoenberg (in a footnote) that stated, "a future theory will undoubtedly follow that course; it would thereby reach the only correct solution to this otherwise difficult problem," p. 434. The continued outline is from the third edition (1922), which indicates that Schoenberg's harmonic theories "had reached a frontier," which paralleled what was happening in his music and his twelve tone method of composing. See translator's preface, *Harmonielehre*, p. xvii.

<sup>165</sup> See Arnold Schoenberg, *Harmonielehre*, p. 387.

tone. Also, by furthering his discussion of connecting tones and demonstrating how chromaticism can be inclusive (beginning with the minor mode), Schoenberg describes how the introduction of tones outside the seven-tone diatonic scale can create extended systems of tonality. He goes on to define the elements of what he called “extended tonality”:

For the sake of stylistic and formal completeness (*Geschlossenheit*) the characteristics that derive from the conditions peculiar to each scale are clearly worked out:

Laws of tonality. Tonality is extended as follows:

- (a) through *imitating* and *copying from* each other the keys become more similar to one another;
- (b) similar things are considered *related* and are under certain conditions treated as identical (for example, chords over the same root).<sup>166</sup>

The laws of tonality begin for Schoenberg with the notion that the tonic (fundamental) “governs” the other members of the scale with the dominant as its “vessel” leading the tonic to follow (in the same way as a cadence).<sup>167</sup> The image of comparing tones of the scale to sociology and society also lend Schoenberg’s descriptions of chord connection and members of the scale to the idea of all tones being in relationship to each other.

By including chords that are chromatically altered, chords that are based on the whole-tone scale, fourth chords, and chords with six or more tones, Schoenberg blurred the distinction between consonance and dissonance in composition. He also provided examples from the musical literature to illustrate for his students that dissonance is not only a nineteenth-century phenomenon but has a distinct place in the historical evolution of harmony.<sup>168</sup> In the next section, Schoenberg defined relationships, the multiple meaning of chords, and the “ambiguities” of some of these relationships as all basically belonging together:

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<sup>166</sup> Ibid., p. 388.

<sup>167</sup> Ibid., pp. 32-33.

<sup>168</sup> Ibid., p. 324.

The reduction of the eighty-four church modes to twenty-four major and minor keys and the development of the relationship of these twenty-four keys to one another takes place as follows:

Horizontally.

- (a) Relationship, resting on identically and similarly constituted chords, divides the church modes into those like major and those like minor;
- (b) The mutual imitation of cadences allows the major to incorporate everything from the major-like church modes and the minor everything from the minor-like modes, and later also allows major and minor to approach one another so closely that they resemble one another from beginning to end;
- (c) Of the seven times eighty-four, i.e. 588, triads of the church modes, in part different, in part just differently related, a great many duplicate one another, hence are referred to a smaller number of keys, whereby seven times twelve, i.e. eighty-four, chords are left, chords referred to two types of key (major and minor); each chord, however, is found in several major and minor keys;
- (d) The chord relationship mentioned under (a) and;
- (e) That through common roots bring about closer ties with the keys that lie one, three, and four steps away in the circle of fifths;
- (f) By virtue of the smaller number of boundaries and the simplified character of the keys; by virtue of the multiple meaning of chords and scale segments and the extensive implications of this ambiguity; by virtue of the diminished triads that emerged from the necessities of the scale together with the corresponding seventh chords (free imitation of the natural triad) and their imitation on other degrees-by virtue of all that the more remote keys are also made more accessible (those two, five, and six steps removed in the circle of fifths).<sup>169</sup>

The horizontal to Schoenberg began with the diatonic scale created as a product of the overtone series. As he began adding what he called “substitutes” that were basically the addition of a leading tone into the modal system, chromaticism was also introduced into both horizontal and vertical sonorities. Also specific to horizontal considerations, and significant to Schoenberg’s harmony pedagogy, was his method of teaching his students how harmony functions in root progression, chord progression, and the connection of common tones between the chords. Root progression, especially, represents how tones could be connected horizontally, thus producing progression that is ultimately defined by cadence. As Schoenberg stated about

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<sup>169</sup> Ibid., p. 388.

cadence, it is “the attainment of the goal”: without cadence, therefore, the horizontal realization of harmony has no coherence or objective.<sup>170</sup>

#### Vertically

The vertical aspect assumes some of the burden of the horizontal by the use of four and five-part chords. A seventh chord, since it introduces four tones of the scale, contributes a third more to the key definition than a triad, a ninth chord two thirds more.

Transition from twelve major and twelve minor keys to twelve chromatic keys. This transition is fully accomplished in the music of Wagner, the harmonic significance of which has not yet by any means been theoretically formulated.

The polytonal chromatic scale.<sup>171</sup>

Interestingly, Schoenberg defined the vertical as “assuming some of the burden of the horizontal,” and he was clear to place emphasis on how common tones provide connection to produce harmonic progression which, in turn, provides cohesion and motion in the musical work.<sup>172</sup> It is in the inclusion of dissonance (from major-minor to chromatic keys) that Schoenberg emphasized the logical evolution of how tonal relationships become more complex yet still remain within a diatonic framework. In his discussions of vertical formations and non-harmonic tones, Schoenberg wrote that chords and voice leading are interdependent because they both originate from one “impulse to bring the natural material, the tone, into proper relation with all secondary and tertiary functions contributing to perception.”<sup>173</sup>

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<sup>170</sup> Ibid., 126.

<sup>171</sup> Ibid., pp. 388-389.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid., p. 313.

Schoenberg wrote often about combining the notions of vertical (chordal) versus horizontal (melody) in *Harmonielehre*, especially as he began to consider more and more that the motive was the “motor” of a composition.<sup>174</sup> Schoenberg believed that the motive was a motor because it “vitalizes” progressions, cadences, and modulation, with vertical harmonies to be regarded as the structures that provide cohesion. Schoenberg taught that chords, common tones, and subsequent fundamental progressions coupled with melody are the “components” which provide “articulation” to the dynamics of the musical work.<sup>175</sup>

Schoenberg carried eighteenth- and nineteenth-century theories such as notions of the *Klang*, the overtone series and the scale, the fundamental bass and harmonic progression with him into the early twentieth century and began writing more about concepts that combined both vertical and horizontal considerations in the musical literature. In particular, he extended the theories of Sechter by broadening the definition of consonance and dissonance and including the more remote overtones of the harmonic system, constructing chords based on the whole tone scale, fourths, and six or more tones, and constructing a twelve note scale as the product of a seven note scale - all of these elements in combination resided in tradition, yet looked to the future of harmony pedagogy.

The next chapter of this study will focus on the resulting European publications, with the *Zusammenhang*, *Kontrapunkt*, *Instrumentation*, *Formenlehre* (ZKIF) fragments which represent Schoenberg’s early writings on counterpoint and polyphony. The *Gedanke* manuscripts, written predominantly in the mid-1930s, offer a compendium of phrases and concepts that Schoenberg began to define, especially those emanating from the musical idea. The *Gedanke* manuscripts

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<sup>174</sup> Ibid., p. 34.

<sup>175</sup> Ibid., p. 289.

span several years. They were abandoned shortly after Schoenberg's arrival in America as he concentrated on more practical treatises in both counterpoint and harmony.

## CHAPTER 4

### THE EUROPEAN FRAGMENTS AND SCHOENBERG'S COUNTERPOINT PEDAGOGY

#### Introduction

In a letter to his Universal Edition publisher Emil Hertzka dated 1911, Schoenberg maintained that *Harmonielehre* was to be only the first in a series of texts he wished to publish as teaching aids. Schoenberg wrote:

I would perhaps be ready to draw up a contract for my entire activities as a writer on music. I plan in the near future the following writings: an instrumentation text. There is nothing like this now, for all available books deal with the instruments themselves. I wish to teach the art of composing for orchestra. This is a major distinction and something absolutely new.

Then a *Preliminary Study of Form: An Investigation into the Formal causes of the effects of modern compositions*. This writing will probably be limited to the study of Mahler's works. Then, later also as a preliminary to the study of form, *Formal Analysis and laws resulting from it*. Finally, *Theory of Form*. All of these books are texts or teaching aids. They form in their entirety an *Aesthetic of Music*, under which title, I wish to write a comprehensive work. For all of these works I already have ideas and also notes.<sup>176</sup>

Six years after this letter was written, Schoenberg began working on his unpublished manuscript, *Zusammenhang, Kontrapunkt, Instrumentation, Formenlehre (ZKIF)*. For purposes of this study, *ZKIF* will be discussed as one of the first texts Schoenberg wrote on counterpoint, a subject he taught extensively in Vienna, Berlin, and the United States. *ZKIF* is one of the first written fragments from Schoenberg that defines concepts such as coherence, comprehensibility, and logic in the process of composing. The other significant European fragments written by Schoenberg in the earlier 1930s were translated and published in *Der musikalische Gedanke, und die Logik, Technik, und Kunst seiner Darstellung*.

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<sup>176</sup> Letter quoted and translated in Bryan R. Simms, "Arnold Schoenberg: *Theory of Harmony* translated by Roy E. Carter," *Music Theory Spectrum* 4 (1982): 156-157.



These texts offer definitions of such formal principles as *Grundgestalt*, developing variation, and related discussions on motivic association, interaction, and the significance of the development of the musical *Gedanke*.<sup>177</sup>

Important to Schoenberg in his counterpoint pedagogy was the notion that melody was not the result of harmony, but rather a “particular kind of theme” that connects motivic transformations whose possibilities lie within the reshaping of the basic idea, or *cantus firmus*.<sup>178</sup> Schoenberg stated in *Preliminary Exercises in Counterpoint* that, “counterpoint will not be considered as a theory, but as a method of training, and the foremost purpose of this method will be to teach the pupil so that he becomes able to use his knowledge later when he composes.”<sup>179</sup>

In further discussions about his counterpoint pedagogy, Schoenberg outlined the notions of the *unraveling* or *unfolding* of the *Gedanke* which eventually evolved into his *Preliminary Exercises in Counterpoint* textbook, published posthumously almost fifty years after the first discussions of counterpoint were written in the early European fragments. Schoenberg’s last publication, *Fundamentals*, offers even further illumination into some of the fragments in the *ZKIF* manuscript, with particular emphasis on Schoenberg’s *Formenlehre* and the development of motives and themes and the elements of cadence of structural points to produce formal logic and coherence.<sup>180</sup>

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<sup>177</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*. Edited, translated and with commentary by Patricia Carpenter and Severine Neff (New York), pp. 89-91.

<sup>178</sup> *Ibid.*, p. 181.

<sup>179</sup> *Ibid.*, p. xii.

<sup>180</sup> See Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, edited by Leonard Stein, 1963. *Fundamentals of Composition*, 1967, is the last textbook published after Schoenberg’s death and was edited by Gerald Strang, Schoenberg’s teaching assistant at the University of Southern California. *Fundamentals* is largely a product of some of the ideas Schoenberg was developing from his classes at the University of Southern California and was intended to “provide a basic text for undergraduate work in composition,” according to the Editor’s Preface written by Gerald Strang.

*Preliminary Exercises in Counterpoint* and *Fundamentals* contain fewer philosophical terms than the European fragments, as Schoenberg concentrated on breaking down concepts including motive, phrase, and sentence, as examples, for more practical application by his beginning American composition students.

### The European Fragments

As Severine Neff notes in the preface to *ZKIF*:

The four topics of *ZKIF* proved seminal for the major theoretical works of Schoenberg's later life: "Zusammenhang" for the book-length manuscript "Der musikalische Gedanke und die Logik, Technik und Kunst seiner Darstellung: [The musical idea and the logic, technique, and art of its presentation]; "Kontrapunkt" for *Preliminary Exercises in Counterpoint*; "Instrumentation" for the incomplete manuscript "Theory of Orchestration;" and "Formenlehre" for *Fundamentals of Musical Composition*.<sup>181</sup>

Sections of *ZKIF* were written as a compendium of Schoenberg's teaching years in Vienna and Berlin, a time when one of his primary concerns was coherence as it related to comprehensibility and perception. In the first section titled "Zusammenhang" in *ZKIF*, Schoenberg distinguished coherence as a compositional process from comprehensibility as an *effect* of consciousness.

Schoenberg described this crucial difference as follows:

The limits of comprehensibility are not the limits of coherence, which can be present even where comprehensibility has ceased. For there are connections inaccessible to consciousness. Such connections possibly have an effect on more experienced or trained individuals. Musical coherence is based on the characteristics of the material and on the physical and psychological (characteristics) of the listener.<sup>182</sup>

Experienced hearing is necessary to comprehend what Schoenberg means by the *Gedanke*, which encompasses the common experience of all listeners. In the art of composing,

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<sup>181</sup> The manuscript definitions are paraphrased by Severine Neff in her descriptions of the catalogues of Josef Rufer in his *The Works of Arnold Schoenberg: A Catalogue of His Compositions, Writing and Paintings*, translated by Dika Newlin (London: Faber & Faber, 1961). See Arnold Schoenberg, *ZKIF*, p. xxv.

<sup>182</sup> *Ibid.*, p. 9.

Schoenberg was clear to elucidate that “only the composer knows its essence intimately. It is the composer’s task to translate the musical idea into an organic form comprehensible to the listener.”<sup>183</sup> In the *Gedanke* manuscripts especially, Schoenberg defined an idea as a tonal relation in which “an idea is the establishment of relations between things or parts between which no relation existed before that establishment.”<sup>184</sup>

Schoenberg continued to define the idea in terms of *process*, by describing how tones are related to each other. He continued in the *Gedanke* manuscripts:

Every succession of tones produces unrest, conflict, problems. One single tone is not problematic because the ear defines it as a tonic, a point of repose. Every added tone makes this determination questionable. Every musical form can be considered as an attempt to treat this unrest either by halting or limiting it, or by solving the problem. A melody re-establishes repose through balance. A theme solves the problem by carrying out its consequences. The unrest in a melody need not reach below the surface, while the problem of a theme may penetrate to the profoundest depths.<sup>185</sup>

Schoenberg often taught that the “unrest” produced by tonal conflict was inherent in the nature of the musical idea. The unrest in composing must be solved through the process of *composing out*, a method which is defined in both *ZKIF* and the *Gedanke* manuscripts under the headings “unraveling” and “unfolding,” respectively. In *ZKIF*, Schoenberg was concerned with the “liquidation” or “unraveling” (*abwickelnd*) of the initial theme, which needs to be directed to the goal of allowing new ideas to present themselves.<sup>186</sup> In the *Gedanke* manuscripts, Schoenberg was careful to define “unfolding” (*Abwicklung*) in the context of counterpoint pedagogy by stating:

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<sup>183</sup> Ibid., p. lv.

<sup>184</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, p. 422.

<sup>185</sup> Ibid., p. 399.

<sup>186</sup> See Arnold Schoenberg, *ZKIF*, p. 39.

*Unfolding* is the method appropriate for the contrapuntal-polyphonic style. For the essence of this *style* is based upon the fact that a number of tones are brought into a mutual relationship of successiveness and simultaneity (counterpointed), such that all configurations appearing in the course of the piece are already contained, formed, or present in this *grundgestalt*, or are partially determined by its possibility.<sup>187</sup>

On the first page of the section on *Kontrapunkt* in *ZKIF*, Schoenberg indicated that the material on counterpoint can be listed as appropriate for both “Zusammenhang” and “Kontrapunkt,” and can be collectively designated by the term “Coherence” at the top of the indexed page.<sup>188</sup> From the very start, the discussion about counterpoint includes a definition of the development of the independent voice, which can include two methods of developing the motive: 1) by including ornamental changes, and 2) introducing *developing variation* by way of rhythmic changes, intervallic changes, harmonic changes, phrase changes, changes in the instrumentation, and dynamic changes.<sup>189</sup>

In his objection to the term “linear counterpoint,” Schoenberg was careful to define what he meant by the “reshaping of the basic shape” in contrapuntal themes. He continued to state, “whatever happens in a piece of music is nothing but the endless reshaping of a basic shape,” which occupies more importance than considering melodic lines independently.<sup>190</sup> It is more

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<sup>187</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, p. 400. The original German reads: Abwicklung ist die dem kontrapunktisch-polyphonen Stil gemäße Methode. Denn das Wesen dieses Stils beruht darauf, das eine Anzahl von Tönen in ein solches gegenseitiges Verhältnis des Nach-und Mit-einander gebracht (kontrapunktiert) werden, dass dadurch all im Laufe des Stückes erscheinenden Gestalten in dieser Grundgestalt bereits enthalten, ausgebildet, vorhanden oder teilweise ihrer Möglichkeit nach bestimmt sind. Das daraus entstehende Stück wickelt wie ein Film Bild um Bild, Gestalt um Gestalt bloß ab, den auch die Reihenfolge der Geschehnisse ist hier logisch fast ganz gegeben.

<sup>188</sup> See Arnold Schoenberg, *ZKIF*, p. 65.

<sup>189</sup> *Ibid.*, p. 39.

<sup>190</sup> See Arnold Schoenberg, “Linear Counterpoint,” in *Style and Idea: Selected Writings of Arnold Schoenberg*, p. 290. Part of Schoenberg’s rejection of the term “linear polyphony” was in reaction to Ernst Kurth’s notion that counterpoint “must have cohesion between a number of parts intended to be heard simultaneously . . . in a direction other than the linear.” Schoenberg believed the interpretation of independent counterpoint lines must be regarded in terms of how each line affects the whole of the composition, not just the individual parts. See “Linear Counterpoint: Linear Polyphony,” in *Style and Idea*, p. 294.

important to regard all material as “springing” from the theme and all material subsequent to the initial motive as being “traced back to it”; therefore there are no independent lines in linear counterpoint, rather all lines are connected to the initial motive and idea.<sup>191</sup>

### Gedanke

In one of his later essays in *Style and Idea*, Schoenberg wrote about composing the musical idea which he often referred to in his counterpoint classes:

A musical idea, accordingly, though consisting of melody, rhythm, and harmony, is neither the one nor the other alone, but all three together. The elements of a musical idea are partly incorporated in the horizontal plane as successive sounds, and partly in the vertical plane as simultaneous sounds. The mutual relation of tones regulates the succession of intervals as well as their association into harmonies; the rhythm regulates the succession of tones as well as the succession of harmonies and organizes phrasing.<sup>192</sup>

To stress *process* as aiming toward providing comprehensibility, Schoenberg was careful to distinguish between merely presenting an idea and bringing elements together that would otherwise have nothing in common. This concept can be applied to contrapuntal writing, as the traditional belief that all lines were independent of each other must now come into focus as one entity. As Schoenberg stated in “Ornaments and Construction”:

In contrapuntal forms, the basic combination occurs almost exclusively between the *principal* notes. The subsidiary notes serve partly to take the edge off certain *harsh* occurrences, partly to make them possible at all, without infringing the laws of counterpoint. But, in particular, they are placed so that, harmonically and rhythmically, there is more than one way of grasping them (function of ‘puzzling’ changing-notes). Apart from this contrapuntal aim, their task is to invest with ‘material’, with living substance, with flesh the naked constructive facts, the bones, the framework of the construction – to case these dry facts in a pleasing form and give them, through additions and a broader presentation, the shape which alone fulfills the demands of comprehensibility.<sup>193</sup>

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<sup>191</sup> Ibid., p. 296.

<sup>192</sup> See Arnold Schoenberg, “Composition with Twelve Tones,” in *Style and Idea*, p. 220.

<sup>193</sup> See Arnold Schoenberg, “Ornaments and Construction,” in *Style and Idea*, p. 312.

The essential idea of a piece comprises not only its separate tones or lines but also the manner in which the tones are related to each other, worked out, and developed to restore balance, as well as the manner in which all parts are related to the whole of the piece. In his famous definition from “New Music, Outmoded Music,” Schoenberg wrote of the totality of the idea:

In its most common meaning, the term idea is used as synonym for theme, melody, phrase or motive. I myself consider the totality of a piece as the *idea*: the idea which its creator wanted to present. But because of the lack of better terms I am forced to define the term idea in the following manner: Every tone which is added to a beginning tone makes the meaning of that tone doubtful. If, for instance, G follows after C, the ear may not be sure whether this expresses C major or G major, or even F major or E minor; and the addition of other tones may or may not clarify this problem. In this manner there is produced a state of unrest, of imbalance which grows throughout most of the piece, and is enforced further by similar functions of rhythm. The method by which balance is restored seems to me the real idea of the composition. Perhaps the frequent repetitions of themes, groups, and even larger sections might be considered as attempts towards an early balance of the inherent tension.<sup>194</sup>

Schoenberg expanded the idea to include the *process* of a work as he defined what needs to be contained in the basic shape and in contrapuntal forms.

### Historical Background

Schoenberg taught counterpoint throughout the whole of his teaching career, including private lessons in Vienna and Berlin and larger classes during his years at UCLA. He described two models that he relied on to formulate his own counterpoint pedagogy, Heinrich Bellermann’s *Der Kontrapunkt* and Johann Fux’s *Gradus ad Parnassum*.<sup>195</sup> Both Bellermann and Fux

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<sup>194</sup> See Arnold Schoenberg, “New Music, Outmoded Music,” in *Style and Idea*, pp. 122-123.

<sup>195</sup> See Heinrich Bellermann, *Der Kontrapunkt oder zur Stimmführung in der musikalischen Composition*. Berlin: Julius Springer, 1862; Johann Fux, *Gradus ad Parnassum*. Vienna: Universal, 1725.

presented the pedagogy of counterpoint in terms of species. Bellermann, especially, restored the use of modality in an attempt to return counterpoint to the study of melody instead of harmony alone. By the late nineteenth century, Fux's species method of counterpoint instruction had essentially been abandoned as there was renewed interest in interpreting the music of Johann Sebastian Bach as a set of harmonic-tonal practices.

In his early models, Schoenberg relied on Bellermann as the example of a treatise that combined the history of counterpoint with systematic textbook instruction. According to Alfred Mann, Bellermann's treatise was popular in the nineteenth century because it "restored the modal teaching of Fux," a method Schoenberg used in combination with a tonal approach.<sup>196</sup>

Bellermann also emphasized a return to melodic analysis and polyphonic writing in the style of Palestrina, rather than chordal analysis when interpreting the counterpoint practices of the eighteenth and early nineteenth centuries. As Bellermann stated in his treatise of 1862:

Our music, as it evolved gradually since the thirteenth century, is *polyphonic* music. A large part of its effects depends on the simultaneous sounding of several concurrently led voices. Herein lies true polyphony, not however in a succession of ready-made chords (as is frequently done today in compositions, and is even recommended in instruction manuals). Rather, the chords are only the result of connecting several melodically (singable) voices.<sup>197</sup>

What Bellermann passed on to Schoenberg relied on consideration of melody first and on composing independent lines to achieve coherence in polyphonic structures.

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<sup>196</sup> See Alfred Mann, *The Study of Fugue*, 1958, p. 70.

<sup>197</sup> See Heinrich Bellermann, *Der Kontrapunkt*, p. ix. Translated in *Ernst Kurth: selected writings*, by Lee A. Rothfarb, 1991. The original German reads: Unsere Musik, wie sie sich seit dem dreizehnten Jahrhundert allmählich entwickelt hat, ist die *mehrstimmige* Musik; ein grosser Theil ihrer Wirkungen beruht auf einem gleichzeitigen Erklingen mehrerer nebeneinander geführter Stimmen. Hierin besteht die wahre Mehrstimmigkeit, nicht aber in einer Aneinanderreihung von fertigen Accorden (wie dies heutzutage häufig in Compositionen angewendet, ja sogar in Lehrbüchern anempfohlen wird), sondern die Accorde sind erst die Folge einer gleichzeitigen Verbindung mehrerer melodisch-singbar geführter Stimmen.

As new interest developed in the music of eighteenth-century counterpoint, Schoenberg found himself teaching counterpoint at a significant crossroads between two different pedagogical views that stressed the contrasting styles of homophony and polyphony:

The homophonic-melodic treatment depends basically on development of a motive by variation. In contrast, the contrapuntal treatment does not vary the motive, but displays the possibilities of combination inherent in the basic theme or themes.<sup>198</sup>

Schoenberg wanted to establish a pedagogy in place of the traditional teachings that concentrated on defining the melody as independent from the harmony and an entity that contained all possibilities for determining the structural whole. He continued to describe counterpoint as a *process* by defining the parameters for composing contrapuntal music and the elements that must be included in the independent lines. He listed:

1. In a contrapuntal piece the idea is compressed in the form of a theme whose constituent elements, sounding together, form a kind of 'point of departure.'
2. This 'point of departure,' this theme, contains all the possibilities for future redeployment of the elementary material.
3. In the course of the piece, the new shapes born of redeployment (varied forms of the new theme, new ways for its elements to sound) are unfolded, rather as a film is unrolled. And the way the pictures follow each other (like the 'cutting' in a film) produces the 'form.'

Schoenberg argued against the definition of counterpoint as uniquely "linear," and instead insisted that counterpoint must be regarded as containing both melodic elements and harmonic-tonal elements in composing the cantus firmus line. As he planned to write his own counterpoint textbook, Schoenberg began to outline some of the rules that he believed should be applied to composing in a contrapuntal structure. In "Linear Counterpoint" he listed some of these:

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<sup>198</sup> See Arnold Schoenberg, *Fundamentals of Composition*, p. 142.



- A. (a) never move (carry out) in parallel for long;
- (b) do not have to work with the same motive;
- (c) if they work with the same motive, develop it differently;
- (d) are independent rhythmically, in fact ought to contradict each other;
- (e) ought to have different dynamics, performing indications, climaxes, cadence;

But must take it [elements] to mean also that parts ought to be independent of each other even in their harmonic relationship. This means:

- B. (a) that in sounding together they need not be related to a common harmony;
- (b) that no sort of 'registerable' harmony has to result from the way they sound together;
- (c) that if possible they should produce dissonances when they sound together (to show how little they are worried);
- (d) that there need be no attempt to produce harmonic *progressions* ('registerable') ones, such as cadences or any other identifiable fundamental-progressions, and that such progressions are no criterion of the parts' function;
- (e) that so far as possible one should avoid any articulation such as can arise from the coincidence of parts in articulating 'steps'.<sup>199</sup>

Regarding diatonic rules and the formation of any cantus firmus, Schoenberg further developed his laws of substitution by spanning modality to include specific chromatic notes to establish a connection from the modal scales to major-minor tonalities. In *Preliminary Exercises in Counterpoint*, Schoenberg began by defining six modes in terms of how each can be treated diatonically. He was also careful to state that the modes are to be interpreted as beginning and ending with "a tone of the diatonic scale." Schoenberg stated:

This writer believes that the ancient modes – Greek or Medieval are more perfect attempts at tonality than the pentatonic or the exotic scales, but that they are steps only towards the diatonic major scales. The modes, then, would not be brought in here at all, were it not that they offer some advantages in the writing of fugues, as will be seen later. It is only because of this – and only in so far as there are any advantages – that these scales are discussed here; the aim is not the achievement of a 'modal style.'<sup>200</sup>

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<sup>199</sup> Ibid., pp. 291-292.

<sup>200</sup> See Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, p. 59.

Ex. 4.1 Schoenberg's Mode and Transposition Definitions

1: Ionian                      2: Dorian                      3: Phrygian

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

4: Lydian                      5: Mixolydian                      6: Aeolian                      7: Hypophrygian?

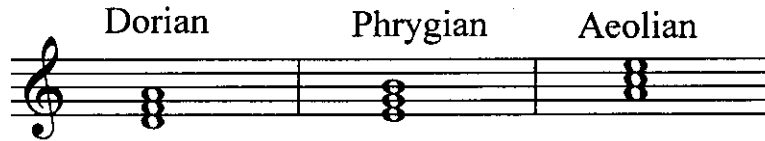
4 5                      7 8                      3 4                      6 7                      2 3                      5 6

Thus each tone of the diatonic scale is treated as the tonic of a scale...All these scales can be transposed to other keys; they would begin at the equivalent tones in the scale and use the tones of these keys as their material. Thus, transposed to Eb, A, or D, for instance, Dorian would still begin with the 2<sup>nd</sup>, Aeolian with the 6<sup>th</sup>, and Phrygian with the 3<sup>rd</sup> tone of the keys:

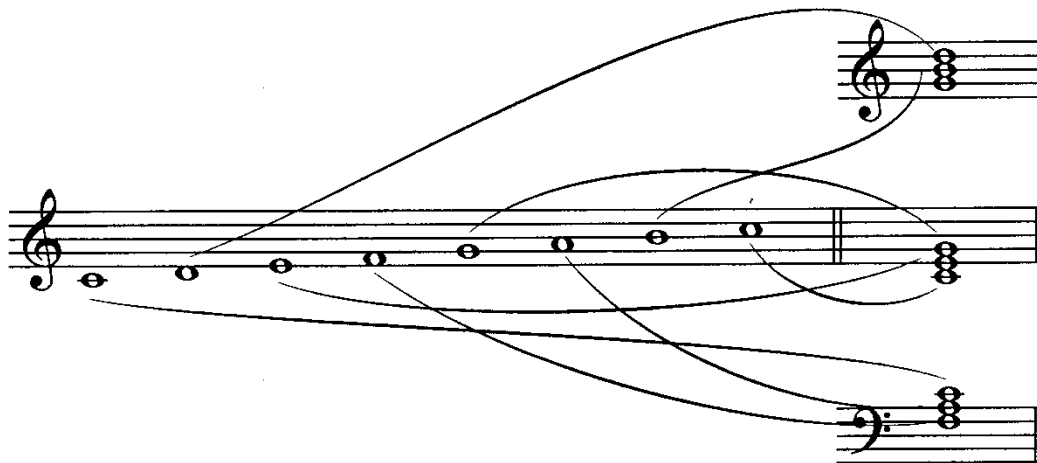
Dorian in Eb                      Aeolian in A                      Phrygian in D

2nd tone                      6th tone                      3rd tone

Three of the six modes are major-like because their tonic is a major triad [and] three are minor-like:



The Ionian scale, identical with our major scale, is undeniably the true natural product of the physical conditions of the tone, because it is based on the relations between the three main triads, which also contain the seven tones of the diatonic scale:<sup>201</sup>



To enhance the modes, Schoenberg relied on both transposition and illustrating “major-like” and “minor-like” triads to define the Ionian scale. Schoenberg also defined the necessity of adding a leading tone, comparing these modes to major-minor scales:

<sup>201</sup> See Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, p. 60.

Probably in consequence of these shortcomings [absence of a leading tone], a process began which made the modes obsolete and finally caused progressive composers of the seventeenth century to abandon them entirely. This process is to be observed principally in a tendency of the major-like Lydian and Mixolydian modes to become similar to the Ionian mode, and of the minor-like Dorian, and to some extent the Phrygian, to resemble the Aeolian mode. But there also took place a mutual *reaprochement* between the major-like and minor-like modes as well, the result of which was that major could contain almost every harmony of minor and vice versa.<sup>202</sup>

As a continuation of modality, Schoenberg defined the major mode to include a pitch collection of the diatonic scale enriched by five chromatic notes derived from the church modes, each serving as the leading tone or, in the case of the raised sixth, to avoid the augmented second present in the minor mode. As he stated in *Structural Functions*, “only four ascending and one descending leading tones are used in the modes.”<sup>203</sup> From the original six modes he defined, Schoenberg added the ascending C# to Dorian and D# to Phrygian to produce the leading tone to E (and defined the G# as also being added to produce the major triad in the Phrygian cadence), F# to Mixolydian, G# to Aeolian and the Bb from the Lydian (and the descending Dorian) to avoid the tritone between ascending tones one and four and descending tones six and three, respectively.

Schoenberg relied on the melodic minor ascending scale to introduce the leading tone, producing half step motion between the seventh and eighth notes. As he defined:

The minor tonality is in its descending form, identical with the Aeolian mode. To procure a leading tone in the ascending scale in this mode, and then in the minor tonality also, the natural 7<sup>th</sup> tone was replaced by a tone a half-step lower than the 8<sup>th</sup> tone:

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<sup>202</sup> Ibid., p. 60.

<sup>203</sup> See Arnold Schoenberg, *Structural Functions of Harmony*, p. 19 with earlier illustrations of the accidentals added to the modes on p. 15.



This replacement produced an interval of an augmented second between the natural 6<sup>th</sup> and the ‘substitute’ 7<sup>th</sup> tone. All augmented and diminished intervals were strictly forbidden by the composers of strict counterpoint. So to avoid this forbidden interval of the 6<sup>th</sup> tone also was replaced by a substitute tone a half-step higher than the natural 6<sup>th</sup> tone:



The ending of the descending scale is the same as that of the major scale: 2 to 1, a whole step. Accordingly the descending scale needs no substitutes:<sup>204</sup>



By finally defining the descending step progressions of both the major and minor scales, Schoenberg was able to create a bridge from modal counterpoint practices to those of eighteenth-century practices.

<sup>204</sup> See Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, pp. 59-61.

## Schoenberg's Counterpoint Pedagogy

In his foreward to Schoenberg's *Preliminary Exercises in Counterpoint*, Leonard Stein characterizes Schoenberg's method of teaching counterpoint as one of "trying every possible solution ... to treating each note of the *cantus firmus* with every possible consonance – prime, octave, perfect fifth, third, and sixth – proceeding measure by measure while discussing the advantages and shortcomings of each combination."<sup>205</sup> As was typical of Schoenberg, he improvised many of the *cantus firmi* at the board, and these became the basis for his students' counterpoint assignments, which included expecting them to find their own solutions to the problems inherent in the original line. Examples of the *cantus firmi* with several sample "solution" lines focus on error detection. Schoenberg would correct the lines created by his students and produce line after line of comments and suggestions. For example, in one of the solutions to an assigned *cantus firmus*, Schoenberg marks off the problem intervals of the fifth in the first line (listed as the number 1 solution), while marking the second half of the *cantus firmus* as "not good with two a's," suggesting that the *cantus firmus* must avoid exact repetition. He also stressed that the melody must contain variety in both rhythm and intervals while avoiding the fifth to provide more tension to the unraveling of the line. His comments on student solutions often included suggestions such as "8th notes [instead of suspensions]" and arrows to indicate that melodic motion also was a consideration when providing variety to a solution (see number 6 solution).

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<sup>205</sup> Ibid., p. xi.

Illustration 4.1 Schoenberg's *Cantus Firmus* Example Sheet

Copyright by Arnold Schoenberg, Los Angeles, October 1936

№ 4 Mixed notes and interrupted solution (play and criticize)

1) 2) 3) 4) 5) 6) 7) 8) 9) 10) 11) 12) 13) 14) 15) 16)

*de note because chromaticism becomes better*

*This CF is not good: the two...*

*not good*

The image displays a handwritten musical score for Schoenberg's Cantus Firmus Example Sheet, consisting of 16 numbered staves. The notation is dense and includes various musical symbols such as notes, rests, and dynamic markings. Annotations in italics are present throughout the score, including 'de note because chromaticism becomes better' and 'This CF is not good: the two...'. The score is oriented vertically on the page, with the staves numbered 1 through 16 from top to bottom. The handwriting is in black ink on a white background.

At other times, Schoenberg would hand out a *cantus firmus* with his own contrapuntal solutions, often hiding them in the sheet of examples and asking his students to decide which solution was his and to provide reasons for thinking so. He subsequently asked his students to make suggestions of their own and to “correct” his work or continue on with the line that they created together.<sup>206</sup>

Schoenberg also consistently marked specific motives that required closer scrutiny by the students. In an effort to reinforce variety while maintaining coherence between the motives, Schoenberg noted specific groupings that resembled the original line in the *cantus firmus*. For example in an exercise titled “Cambiata,” Schoenberg marked several 5-note patterns that begin in one direction and skip to motion in the opposite direction, similar to the original first line of the *cantus firmus*. Schoenberg also seemed to prefer descending step motion, a descending skip of a third, then reverse motion of ascending steps for the 5-note patterns. He seemed also to emphasize that the beginning and ending notes were only a step apart and that each motive included the same interval pattern that crossed the barline adding rhythmic as well as intervallic variety to the melodic line.

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<sup>206</sup> In a conversation with Leonard Stein, June 2002. I met with Leonard Stein twice in Vienna to discuss his experiences as Schoenberg’s Teaching Assistant at UCLA. The first meeting in May 2001, consisted mainly of a list of questions I had prepared in advance. Because of my overzealousness as a nervous graduate student, our meeting was very objective and not very interesting. Our second meeting in June 2002, was much more casual as I simply brought a notepad and pen without any agenda. Dr. Stein talked very openly about Schoenberg’s dedication to his students and how much he loved teaching. Without sounding too anecdotal, Stein knew most of the students were intimidated by Schoenberg, yet they always produced their best work for him. Stein described Schoenberg as a very disciplined teacher, though he improvised much of the material he presented during each class period. Stein believed that regardless of his presentation style, Schoenberg’s encyclopedic knowledge of the musical literature lent his lectures to be less structured. His focus was always on instilling a historical understanding of the literature while simultaneously teaching “how” to compose. Stein also noted that Counterpoint was one of the first classes Schoenberg taught at UCLA (see Appendix A). The predecessor to this class was a section taught on “thematic analysis” at the University of Southern California when Gerald Strang was Schoenberg’s Teaching Assistant. Stein spoke about the Counterpoint classes as a continuation of thematic study, which is why Schoenberg spent so much time teaching “solutions” to the *cantus firmi* while focusing his instruction on continuing the melodic line and “stringing together” varied motives to produce a whole composition.



Illustration 4.2 Schoenberg's Corrections to Cantus Firmus Solutions

*Play and mixtise, there might be some faults*

**Nr. 3 (CAMBIATA)**

*wrong, 3 differences*

*grind a de her way so this*

*wrong*

*am to try this cambiata*

*5*

*7*

*1*

*2*

*3*

*4*

*5*

*6*

*7*

*8*

*9*

*10*

*11*

*12*

*13*

*14*

*15*

*16*

*17*

*18*

*19*

*20*

*21*

*22*

*23*

*24*

*25*

*26*

*27*

*28*

*29*

*30*

A) One may do this occasionally — B) is used here to try successions which cannot be done in C — Copyright by Arnold Schoenberg, Los Angeles October 1926  
 C) FUG, Austrian Theoretic, in his areas as PARSIPPUM (1728) — None these same. I do not like them very much but would rather prefer in case of emergency to use D)

Though each of the solutions to these *cantus firmi* appear in one voice, Schoenberg began each of his counterpoint classes by stressing that the terminology of strict counterpoint should be less concerned with first, second, and third species, and specific note patterns, and more concerned with how to analyze the efficacy of the *cantus firmus* and how to provide variety in the development of the original line.

### Grundgestalt and Cadence

The application of motion implicit in the *Grundgestalt* -- unfolding, generating organicism, and endless reshaping -- all suggest Schoenberg was struggling with traditional music theory rhetoric. At the same time, he tried to establish a continuity between harmonic theories and the traditional melodic composition theories. This resulted in a pedagogy that emphasized compositional approaches to unite both the vertical and the horizontal. Because of this constant struggle, Schoenberg seemed always to be searching to find ways to unify a composition, beginning with the smallest definitions of the motive and the *Grundgestalt* that each motive contained:

[A] *motif* is the smallest musical form, consisting of at least one interval and one rhythm. The next sized form is the *Grundgestalt* or phrase, “as a rule 2 to 3 bars long” (the number of bars depending on the tempo, among other things), and consisting of the “firm connection of one or more motifs and their more or less varied repetitions.” The next sized form, the *theme*, “arises from the need to connect several shapes together” and consists of “the connection (here he expressly does not say *firm*) of the *Grundgestalt* (basic shape) with its more or less varied repetitions.”<sup>207</sup>

To Schoenberg, motivic and thematic unity depended on three things, which he defined in the *Gedanke* manuscripts:

1. *Stringing together*(*Aneinander-Reihung*)
2. *Unfolding*(*Abwicklung*)
3. *Development* (*Entwicklung*)

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<sup>207</sup> Rufer, p. viii.

*Stringing together* is in itself the most primitive of the three methods, but it can nevertheless be used with more artful treatments. Its presupposition is a certain unproblematic or relaxed quality, *a certain rest between the constituent parts* of the components which just barely allows continuation without demanding it. Even where contrast is apparently great, connection is based on the repetition of numerous components, particularly the main ones, whereas here it is the subordinate components that are more numerous and significantly different.<sup>208</sup>

Schoenberg provided a more formal description of *unfolding* in the *Gedanke* manuscripts as the method appropriate for the contrapuntal-polyphonic style. As he related the process of composing counterpoint in contrast to homophony, Schoenberg described this style and the number of tones in the theme: “already contained, formed, or present in this *grundgestalt*, or are partially determined by its possibility.”<sup>209</sup> The contrapuntal piece, then, contains a compressed idea that serves as the “point of departure” for the *unfolding* of the dynamic process intrinsic in the unrest contained in the *Grundgestalt*. As Phipps asserts, “in evaluating a composition in terms of the *grundgestalt* principle, one cannot presuppose a knowledge of the preliminary sketches nor of the creative thought processes of the composer other than those revealed in the composition itself. One must examine the developmental aspects of the music alone.”<sup>210</sup> In this regard, the *Grundgestalt* contains the potentials of the whole of the composition, which must unfold logically out of the beginning materials.

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<sup>208</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, p. 379. The original German reads: Aneinander-Reihung ist an sich die primitivste der drei Methoden, kann aber trotzdem bei kunstvolleren Ausführungen angewendet werden. Ihre Voraussetzung ist eine gewisse Problem – Lösigkeit oder – Gelöstheit, eine gewissen Ruhe zwischen den zusammensetzenden Teilen der Element, welche die Fortsetzung, ohne sie zu fordern, gerade noch zulässt. Die Verbindung beruht, auch dort, wo der Gegensatz scheinbar groß ist, auf Wiederholung zahlreicher Bestandteile, insbesondere hauptsächlichere, während es hier die nebensächlichen sind die mehr und weitgehend verschieden sind.

<sup>209</sup> *Ibid.*, p. 400.

<sup>210</sup> See Graham H. Phipps, “Schoenberg’s *Grundgestalt* Principle: A New Approach with Particular Application to the *Variations for Orchestra*, op. 3, PhD dissertation, University of Cincinnati, 1976, p. 7.

Schoenberg's definition of *Grundgestalt* dates to the early 1920s and evolved to often become interchangeable with his concept of *Gedanke*. Though there are inconsistencies and ambiguous applications of the term *Grundgestalt*, one element remains constant: the *Grundgestalt* of a composition contains an *energy* that occupies and represents the whole of a composition, and each composition has its own unique *Grundgestalt*. In his early teachings on *Grundgestalt*, Schoenberg explained *how* to compose, whether it was the process of composing counterpoint, homophony, or "twelve-note" music, a method of composing he was formulating at the time. In an important letter to Josef Rufer, Schoenberg explained the *Grundgestalt*:

As being the musical shape or phrase which is the *basis* of a work and is its 'first creative thought' (to use Schoenberg's own words). Everything else is derived from this – in music of all kinds, not only twelve-note music; and it is not derived merely from the basic *series* which is contained in the basic shape – that is to say, those elements which, together with the series as the melodic element, give it its actual shape, i.e. rhythm, phrasing, harmony, subsidiary parts, etc.<sup>211</sup>

This refined statement was the result of a time in Schoenberg's life when both his teaching and composing were concerned with unity in musical composition and the formal processes involved in maintaining coherence in the musical whole. As he moved into the twelve-note method of composing, Schoenberg never implied that there was an exclusivity to this process, but rather that all approaches to composing must ensure that "everything within a closed composition can be accounted for as originating, derived, and developed from a basic motive or at least from a grundgestalt."<sup>212</sup>

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<sup>211</sup> See Joseph Rufer, *Composition with Twelve Notes Related Only One to Another*, pp. vi-vii. At the end of *Structural Functions of Harmony* is an interesting essay about how Schoenberg taught both *Grundgestalt* and motive as he refers back to his Vienna teaching years: [in] "my school, including such men as Alban Berg, Anton Webern and others... [as] the Method of Composing with Twelve Tones derives all configurations [elements of a work] from a basic set (*Grundgestalt*) [tone-row or note-series]. The order in this basic set and its three derivatives – contrary motion [inversion], retrograde, and retrograde inversion respectively, is like the motive [in classical music], obligatory for a whole piece," pp. 193-194.

<sup>212</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, p. 135.

In the *Gedanke* manuscripts, Schoenberg distinguished the *Grundgestalt* from the motive by defining:

Grundgestalten are such gestalten as (possibly) occur repeatedly within a whole piece and to which derived gestalten can be traced back. (Formerly, this was called the motive; but that is a very superficial designation, for gestalten and grundgestalten are usually composed of several motive forms; but the motive is at any one time the smallest part.)<sup>213</sup>

Schoenberg always was careful to define the *Grundgestalt* as holding the unique qualities of a musical piece as the *Gedanke* in a musical piece is its own entity, as well. In his pedagogy, Schoenberg relied on historical and style content before applying any outside concepts and took into consideration the structure of the motive, the rhythmic aspects, and structural points such as the cadence when analyzing the individual *Grundgestalt* of a composition.

In his counterpoint pedagogy, Schoenberg used the words “combination,” “formulation,” and “configurations” to demonstrate how the original *cantus firmi*, or subjects, can be transformed. As he wrote about his counterpoint pedagogy:

Contrapuntal composition does not produce its material by development, but by a procedure rather to be called *unraveling*. That is, a basic configuration or combination taken asunder and reassembled in a different order contains everything which will later produce a different sound than that of the original formulation. Thus, a canon of two or more voices can be written in one single line, yet furnishes various sounds. If multiple counterpoints are applied, a combination of three voices, invertible in the octave, tenth and twelfth, offers so many combinations that even longer pieces can be derived from it.<sup>214</sup>

Schoenberg often related cadence and the establishment of structural points and the intersection of melody and harmony as obeying the “tendency of the smallest notes.”<sup>215</sup> Though he often considered the cadence as defining the progressions of the harmonies, Schoenberg also

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<sup>213</sup> Ibid., p. 169.

<sup>214</sup> See Arnold Schoenberg, “Bach,” in *Style and Idea: Selected Writings of Arnold Schoenberg*, p. 397.

<sup>215</sup> For a related discussion of the “law of the shortest way” as discussed in Schoenberg’s *Harmonielehre*, see chapter 2 of this study under the heading “Tonality.”

wrote of the cadence as a *type* of progression, not just the vertical conclusion of the phrase. He also wrote of cadence as determining structural degrees and points where both the harmony and melody define section divisions. In the “Concordance of Terms” section in the *Gedanke* manuscripts, Schoenberg finally defined cadence as “the digressions from the tonic and the assertion of the tonic are such that in spite of all new elaborations of the secondary tones, however remote, the tonality is finally victorious. That [function] would then really be an extended cadence, essentially the harmonic plan of every musical composition, however large.”<sup>216</sup>

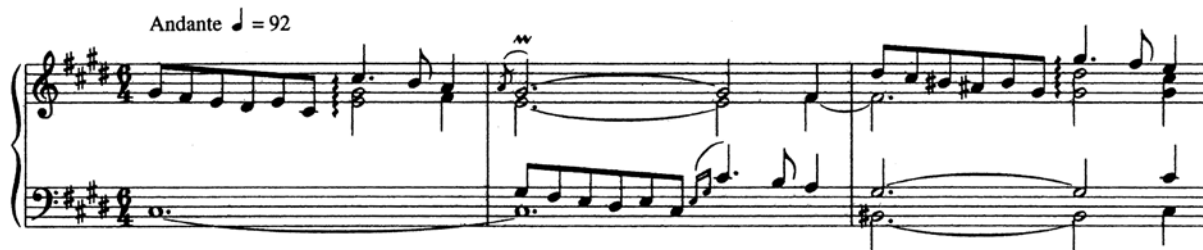
In relation to counterpoint, Schoenberg defined the end of a phrase as not necessarily indicating a modulation. To Schoenberg, the structural plan did not always determine the tonal plan of the whole. Thus, the end of a phrase by way of transition and the presence of the vertical harmony does not mean the melodic line and harmonies conclude simultaneously. For example, Schoenberg cites Johann Sebastian Bach’s C# minor Prelude as containing “daring contradictory” entries in the introduction of a B# in the bass at measure 3 at a point when the top line should indicate a modulation to G# minor.<sup>217</sup>

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<sup>216</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, pp. 358-359. The original German reads: Die Abweichungen vom Grundton und sein Auftreten sind derart, daß trotz aller aufgewendeten, noch so entfernt liegenden Neubildungen der Nebentöne die Tonalität schließlich siegt. Das wäre dann eigentlich eine erweiterte Kadenz, wie sie im Grunde jedem noch so großen Tonstück als harmonischer Plan dient. This original definition is from *Harmonielehre*. Carpenter and Severine Neff summarize on p. 359 of *The Musical Idea* that in *Harmonielehre*, Schoenberg uses the word *Kadenz* for a perfect authentic cadence, and *Schluss* or close or *Schlussfall* or cadential fall for all types of cadences. See *Harmonielehre*, pp. 125-143.

<sup>217</sup> See Arnold Schoenberg, “On the Question of Modern Composition Teaching,” in *Style and Idea: Selected Writings of Arnold Schoenberg*, pp. 374-375.

Ex. 4.2 JS Bach's *Das Wohltemperierte Klavier*, Book I, C# minor Prelude, ms. 1-3



The paradox of the leading tone of C# minor suspended in the bass continues throughout the fabric of the prelude without interruption or stopping at a predicted structural point. Instead, the paradox of B# against B-natural is not resolved until the very end of the prelude, enforcing the concept that contradiction can be defined at the beginning, can sustain the musical fabric of the whole, yet the piece also remains coherent. Schoenberg also argued that instead of rejecting the dissonance of the passing B-natural in the subject against the B# pedal point in measure 3, the unraveling of the idea with its inherent unrest should be embraced.<sup>218</sup> Schoenberg believed that Bach has obeyed the rules of cohesion in providing variety to the original subject by defying the predicted external characteristics while still maintaining the coherence and logic of the compositional whole.

Schoenberg further discussed the importance of separating the “how” of presentation from imposing a value on the “what,” which is the musical structure itself. If the “how,” that is the external characteristics of formal design, is the only concern of the pedagogue or composer, originality is lost or dismissed because it may not fit the theory.<sup>219</sup>

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<sup>218</sup> Ibid., p. 375.

<sup>219</sup> Ibid., p. 375.

Illustration 4.3 Schoenberg's Sketch of Counterpoint, 1921





In his lectures on polyphony, Schoenberg stressed that the *cantus firmi* were to be considered the point of departure (the themes) and contain all of the possibilities for further materials. He finally defined the idea in a contrapuntal piece as “compressed in the form of a theme whose constituent elements, sounding together, form a kind of ‘point of departure.’”<sup>220</sup>

In his counterpoint pedagogy, Schoenberg always was insistent that the anomalies to traditional pedagogy were where the *Grundgestalt* was contained and that the beginning *Gedanke* includes the basic idea and the material from which all further subdivisions and cadential progressions arise.

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<sup>220</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, p. 400. The original German reads: Der Gedanke eines kontrapunktischen Stückes ist in die Form eines Themas komprimiert, in welcher die ihn zusammensetzenden Elemente bei gleichzeitigem Erklingen sozusagen eine “Ausgangsstellung” einnehmen.

## CHAPTER 5

### THE LEONARD STEIN COLLECTION

#### Introduction

The Leonard Stein Satellite Collection was originally stored at the Arnold Schoenberg Institute at the University of Southern California and was moved to the current location at the Arnold Schönberg Center in Vienna, Austria, in 1998. The whole of the Stein collection numbers over 8,000 leaves of materials including correspondence with students, composers and performers; newspaper clippings, photographs and slides; programs and recordings; conference announcements and articles; and Schoenberg's text manuscript for *Der biblische Weg*, among other categories of documents. Following his tenure as Schoenberg's teaching assistant at the University of California, Los Angeles, from 1936-1944, Stein was a performing pianist and teacher. He has performed and recorded all of Schoenberg's works for piano while teaching at both the California Institute of the Arts and the University of Southern California. Stein was also the first director of the Arnold Schoenberg Institute, which opened at the University of Southern California in 1974. As part of the large Stein collection, the UCLA class notes, dated 1936-1944, numbers over 700 pages and are organized in folders, numbered 103 through 117. Each folder divides the classes that Schoenberg taught at UCLA into a variety of subjects, which include transcribed lecture notes, class exercises, examination masters, student examinations, compositional exercises and Schoenberg's own lecture notes, transcribed primarily by Stein.

The class materials overlap chronologically and have been catalogued according to daily discussions of topics in music analysis. They include extensive references of the musical literature from the common practice period. By examining Schoenberg's practical theories, which were taught almost exclusively to American students, this chapter will demonstrate that

Schoenberg continued his pedagogy in theory and composition from the foundations discussed and published in the *Harmonielehre* and the European manuscript fragments. Schoenberg's practical theories are also maintained in the American published texts, including *Structural Functions*, *Models for Beginners*, *Preliminary Exercises in Counterpoint*, and *Fundamentals* and in several unpublished fragments on theoretical subjects. To supplement the published works, another resource for the study of Schoenberg's practical theories is the Stein class notes. As one of Schoenberg's students, Stein was chosen specifically to participate in editing and revising Schoenberg's later published texts and, because Stein was closely involved with Schoenberg's writings and theories, his class papers call for more detailed investigation.

### Counterpoint and Composition Classes

A chronology of Schoenberg's classes at UCLA has been reconstructed from the UCLA archives and the Stein notes and appears in Appendix A.<sup>221</sup> While it is difficult to establish an exact chronology from the Stein notes, there are common concepts discussed throughout Schoenberg's classes. The concepts of "motivic unrest" and "phrase construction" are consistent topics elucidated in each of Schoenberg's classes whether the students were studying counterpoint, composition, harmony, or formal organization. Schoenberg stressed pragmatically that the purpose of the original motive was to bring things into relationship with each other by way of repetition, the source of logic and coherence in the musical work. For example, one of Schoenberg's earliest classes in Counterpoint is divided into 3 folders; one folder includes the class lectures transcribed by Stein, one folder has the master examination with the students'

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<sup>221</sup> This information was collected from the archives at the University of California, Los Angeles, including class schedules and undergraduate bulletins, dates written on some of the Stein class notes, and testaments by some of Schoenberg's students, including Patricia Carpenter, Gerald Strang, Warren Langlie, and Dika Newlin detailing dates of their classes with him at UCLA. For a full list of Schoenberg's American students at UCLA, consult [www.schoenberg.at](http://www.schoenberg.at).

completed examinations (with Schoenberg's corrections), and the last folder has original Schoenberg counterpoint lines that the students worked from to complete various exercises and assignments.<sup>222</sup>

The early years concentrated on classes called Counterpoint and Composition, with the class notes containing demonstrations of composing original lines or "ideas" followed by exercises in harmonic progressions. While at times Schoenberg provided his own examples, he seemed more interested in explaining basic principles of developing the theme or subject. From these explanations, he expected his students to compose harmonies that "moved" the melody line forward. In these classes, Schoenberg typically handed out a sheet of melody lines with instructions to "criticize and analyze" the inherent "unrest" contained in the theme. He provided guidelines for the students' processes of composing out (*ausführen*) from the original line. Guidelines included instructions to add "free suspensions and appoggiaturas," to add sequencing and rhythmic balance, and to produce possible harmonies in four-part writing that could develop the beginning melody.<sup>223</sup> The aim was to teach the students not to treat progressions and counterpoint as prefigured exercises, but rather to regard the musical parts as serving the whole of the composition.

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<sup>222</sup> All archive illustrations are from the Leonard Stein Satellite collection, *Arnold Schönberg Center Privatstiftung*, Vienna, dated between 1936-1944. These notes are from the UCLA Advanced Composition class 1940, folder 103. For a detailed compilation of the Stein notes, folders and dates stored in Vienna, see Appendix B.

<sup>223</sup> *Ibid.*, folder 103.

Illustration 5.1 Schoenberg Lecture in Beginning Composition Class

Insert passing notes, <sup>2</sup>) free suspensions: (Ex. 5)

Use of Appoggiatura, wherever susp.

Passing note: dissonant tones bet 2 consonances comprising 3<sup>rd</sup> or 4<sup>th</sup>.

Free Suspensions: embellishing tones - real suspensions not often used (older style).

Embellishing Tones: like grace notes.

later: <sup>from</sup>

Process of Variation: Preserve rhythm mostly - Change intervals at first) in order to preserve comprehensibility.

[Assignment: Variations on a broken chord form.]

Unity by preserving rhythm, repetition of some features of a motive.

Ex. 8) Broken Chord forms, with Accompaniment:

The early classes in Counterpoint and Beginning Composition provided a foundation for the students that Schoenberg described as “models not made for beauty but to show many technical possibilities.” The study of these technical principles were developed in much greater depth in his later classes, particularly large formal structures.<sup>224</sup>

Illustration 5.2 Schoenberg’s Continued Lecture in Beginning Composition Class

July 2. passing notes.

free suspensions or appoggiatura.

I a) 2 notes 3 notes like grace notes

possible like mordents or cambriates also other harmonies.

all conventionalized formulas. know they will resolve & fit to the harmony.

(add to Preface: models not made for beauty but to show many technical possibilities.) → sequence, difficulty.

2 harmonies: Be careful not to overcrowd - unbalanced.

Tendency of the smallest notes.

better sudden use of small notes also not good - should appear before.

add up beat: uses passing note to meet harmony tone then returns to a.

characteristic rhythms.

or full half measure

<sup>224</sup> Ibid., Beginning Composition class, c. 1938, folder 103.

These beginning classes at UCLA are summarized in his two textbooks, *Preliminary Exercises in Counterpoint* and *Models for Beginners*, extracted for the most part from the Stein notes from 1936 to 1938.<sup>225</sup>

### Structural Functions of Harmony Classes

The later years at UCLA (1941- 1944) focused on harmony and the development of Schoenberg's theories of monotonicity, regions and pitch function. In his introduction to the *Structural Functions* textbook, Stein describes Schoenberg's dismay that American students were so "poorly prepared" in their knowledge of the musical literature. Because of this illiteracy, Schoenberg compiled hundreds of examples from the musical literature. These he introduced in the Structural Functions classes to teach lessons on thematic analysis and to annotate his theories of harmonic structure, modal development, and progressions for compositional purposes. Almost all of the topics covered included extensive references to the musical literature, predominately from the common practice period. Interestingly, Schoenberg very rarely discussed his own compositions in his classes at UCLA, yet at times he would refer to what he called "my modern music" or "the new music."

The practical concepts discussed much earlier in *Harmonielehre* such as harmonic progression, chord progression, vertical chord function, part-leading and cadence types were expanded in Schoenberg's Structural Functions classes from 1939-1942.<sup>226</sup> There is a clear

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<sup>225</sup> See Stein's forward in each of these textbooks that describes some of the processes involved with composing simple melody lines. Guidelines can be found in both *Preliminary Exercises in Counterpoint*, edited by Leonard Stein, 1964 and in *Models for Beginners in Composition*, edited by Leonard Stein, 1943. *Models for Beginners in Composition* is Schoenberg's only American textbook published before his death in 1951.

<sup>226</sup> See the discussions about these harmonic elements in *Harmonielehre* in chapter 3 of this study. Schoenberg brought elements such as harmonic progression, chord progression, vertical chord function, and cadence from *Harmonielehre* into his Structural Functions classes, and the consequent *Structural Functions* textbook, but the examples from *Harmonielehre* in *Structural Functions* are much more condensed.

order to these classes with Schoenberg moving from smaller considerations such as the definition of triad quality and rhythmic balance, to analysis of a given work in “terms of keys” with section divisions and cadence, and modulations in “roving” sections that provide cohesion through connection to the musical whole.<sup>227</sup> Schoenberg relied extensively on musical literature in these classes to provide examples to teach his practical theories. In his lectures, however, he extracted only a limited number of measures to illustrate concepts for his students to master, leaving more lengthy analyses for classroom presentations and discussions in the advanced seminars that he taught later in his career at UCLA and privately.

In all of the examples from the Structural Functions classes, Schoenberg stressed that tonality revolves around the fields of tonal functions attracted to a single tonic. According to this principle, “every digression from the tonic is considered to be still within the tonality, whether directly or indirectly, closely or remotely related.”<sup>228</sup> As he developed his ideas of monotony and the Chart of Regions, Schoenberg had consistently taught rules for traditional four-part writing and harmonic progression introduced in the Counterpoint and Beginning Composition classes. Now, he was integrating an approach for understanding the “logic” of tonality and the “balances and imbalances” that shape a work. In an outline from a lecture on class procedures to construct a musical work, the regions are clearly emphasized with the lectures focusing on balance and relationship of notes held in common between triads. There is also a reference to the

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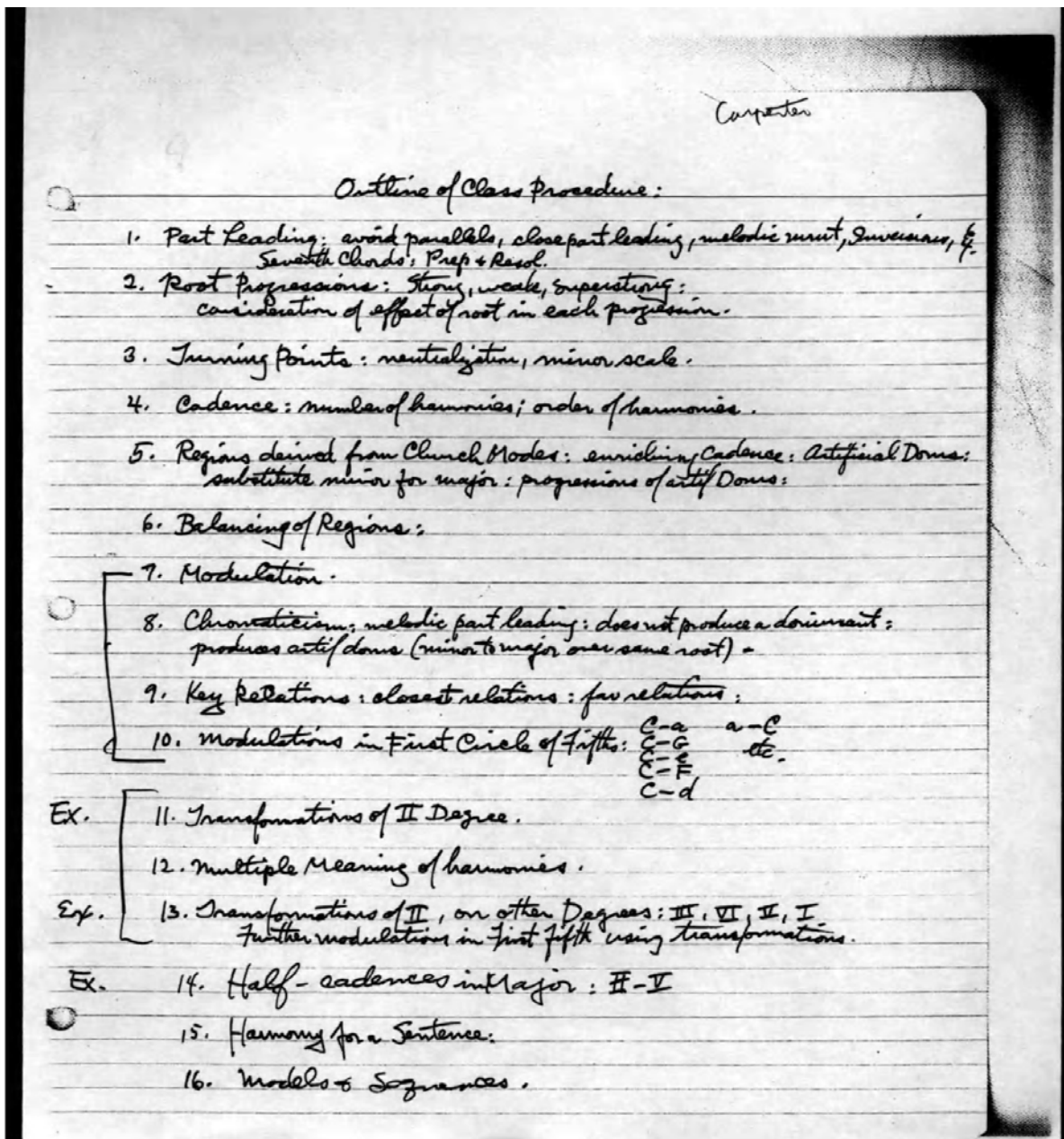
<sup>227</sup> See the Leonard Stein Satellite Collection, Structural Functions of Harmony classroom notes dated 1941, folder 107.

<sup>228</sup> This cite was reproduced from an earlier Structural Functions class in the *Structural Functions of Harmony* textbook edited by Leonard Stein in 1954, p. 19. As is discussed in chapter 3 of this study, regardless of the presence of chromaticism, all harmonies are diatonically related with tonic as the center. The “logic” of his concept of tonality, then, is that all phenomena are connected, and there is no difference between consonance and dissonance.



circle of fifths as the “first relationship” that Schoenberg always stressed before moving into secondary region relationships and indirect and direct modulations.<sup>229</sup>

Illustration 5.3 Schoenberg’s Outline of Class Procedures and Counterpoint Exercises



<sup>229</sup> See the Leonard Stein Satellite Collection, class outline notes from Structural Functions of Harmony, c. 1941, folder 107.

To reinforce the harmonic language of a work, Schoenberg would instruct his students to select a composition, then analyze it according to several strict procedures. According to Stein, Schoenberg would begin each semester by introducing a small number of examples, usually taken from early Beethoven piano sonatas. Schoenberg would then gradually introduce more and more examples from the literature, including passages from Mozart and Haydn string quartets, Beethoven string quartets, Schubert Lieder, and occasionally small sections from the Brahms quartets. By the end of the semester, Schoenberg would write the name of a piece on the board and expect the students to be able to dictate from memory the main themes, the corresponding keys and regions, cadence types (and measure numbers), transition and liquidation sections including an explanation as to how the original motives are transformed, and the main section divisions in larger movements. By having his students experience a work several ways, including listening, harmonizing, and composing, Schoenberg expected them to expand their knowledge of the musical literature through experiences which enabled them to memorize themes, their harmonic relationship to the tonic and to relate these to the whole of the composition. By teaching these “skills,” as Schoenberg called them, students were prepared to analyze and compose longer compositions and put to use a more thorough knowledge of original motives, phrases and themes.

#### Advanced Composition and Special Studies Seminars

From 1942 to 1944 Schoenberg taught his last classes at UCLA, seminars titled “Advanced Analysis in Special Studies” and “Advanced Composition.” In these classes he demonstrated application of the potentials of materials such as motive, phrase and theme that serve large-scale form. From viewing the class schedule (see Appendix A), there appears to be a

linear development in Schoenberg's analytical methods as he pays special attention to the construction of phrases and analysis of formal structure in his last years of teaching. The Stein notes record a summary of materials presented in his earlier classes in Counterpoint and Structural Functions, particularly in areas of four-part writing and harmonic analysis. The Stein notes on these last classes also record a changed focus, with a concentration on larger works to illustrate the technical processes involved in composing large-scale form. One of the more noteworthy students in the late classes, the theorist Patricia Carpenter, describes these classes as the culmination of Schoenberg's early theories combined with his late theories, as they focused on "the unity of the presentation of the musical idea."<sup>230</sup> The musical examples used in these last classes were briefly cited in the *Structural Functions* publication, but the concepts presented in the lectures and illustrated in the class notes involve greater depth and a more comprehensive approach to thematic and melodic analyses.

Especially evident in the Advanced Composition classes are Schoenberg's ever present discussions of the motive and phrase as the basic focal point for thematic analysis. In the notes from an Advanced Composition class dated 1940, Schoenberg discussed motive, phrase, and what he calls the "broken chord" forms in the compositions of Beethoven, Bruckner, Wagner, and Mozart. As Schoenberg demonstrated the three elements of motive, phrase, and broken chord forms, he stressed the need for embellishment and rhythmic change and the manner in which broken chords in a melody line can define the harmony.

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<sup>230</sup> See Jacques-Louis Monod, "Patricia Carpenter and Her Studies with Arnold Schoenberg," *Journal of the Georgia Association of Music Theorists* 7 (1997): 65. Carpenter describes her lessons in counterpoint with Schoenberg as well as some of the Structural Functions lectures she attended at UCLA in the early 1940s.

Most importantly, Schoenberg illustrated the notions of transformations, repetition, and variation to develop the basic form of the original motive. All of these elements combined, Schoenberg continued, extend a motive in order to produce a phrase structure; the motive and phrase were the two components, which he said “must always be considered first.”<sup>231</sup> Schoenberg considered “motive” as the determinant of structural points and large-scale formal organization. He taught that the motive must be developed using repetition and variation to retain, yet transform, the original idea.<sup>232</sup> By developing the motive through various means such as rhythmic articulation, suspension, inversion, and intervallic combinations, the composer is producing an “unrest” which, in turn, produces a problem that must be solved. All of these elements, in essence contributing to the *Grundgestalt* contained in the original *Gedanke*, must make the presentation of the musical idea intelligible as they contribute to a cohesive structural organization.<sup>233</sup>

In this Composition class, Schoenberg lectured about extending the motive through repetition, embellishment, and variation, whereby the composer produces an “unrest” which, in turn, produces a problem that must be solved. Schoenberg also taught that the motive was not the idea of a piece but rather the element used to express the *Gedanke*.<sup>234</sup> All of these elements in essence contributing to the *Grundgestalt* contained in the original idea make the presentation of the musical idea intelligible if they contribute to a cohesive structural organization.

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<sup>231</sup> See the Leonard Stein collection, Advanced Analysis and Composition Class, 1942, folder 103.

<sup>232</sup> Ibid., folder 103. Schoenberg often used motive and theme interchangeably, to indicate the first musical gesture of a composition. Though at times his language could be contradictory, Schoenberg’s terminology must always be considered in the context of the literature being discussed.

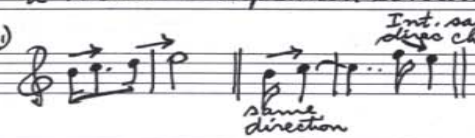
<sup>233</sup> Ibid., folder 103.

<sup>234</sup> Ibid., folder 114.

Illustration 5.4 Schoenberg's Lecture on Composition Process

Motive: Composition (1)

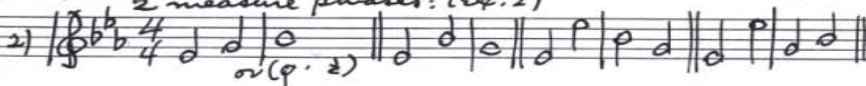
Number of features: *rhythms, intervals, harmony.*  
*basis of repetition, varied or unvaried, thruout a piece.*  
 A piece consists of forms of a basic motive, "used in the manner of a motive" - *repetition or variation, transformations (ex. 1)*

1)  *Int. same dirgo changed.*  
*same direction*

Consider Phrases first; Motives later.  
 Broken Chord forms: Add embellishments.  
*Changes:*  
 1) Order in which tones appear.  
 2) Rhythm.

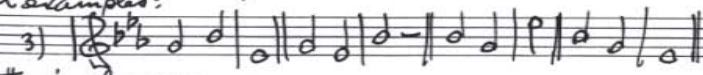
Broken chord explains harmony.  
 Many compositions use broken chord.  
 Beethoven: Eroica, First Sonata; Mozart: G minor Symph.,  
 Bruckner: E major Symph.; Wagner: many motifs, etc.

Broken chd establishes a tonality -  
 [Assignment: write broken-chord forms in several keys. It's also different meters.  
 2 measure phrases: (ex. 2)]


2)   
*or (q. 2)*

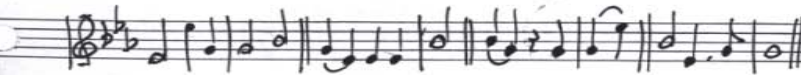
Phrase: "a breath", punctuation: structurally: contains more than one form of the Basic Motive. generally 2 measures.

Other examples:

3) 

Rhythmic changes:

4) 



Schoenberg spent many classes teaching his students how to compose motives. The examples he produced were as short as two measures. He would provide careful guidelines on how to develop the motive and what devices to use or avoid. For example, in the Stein notes Schoenberg devotes entire lectures to motivic structure, always beginning with an example and

illustrating how this should be developed. Schoenberg suggested different features of the “basic” motive, including “rhythm,” “intervals” and [intrinsic] harmony looking at the entire phrase first, because this “structurally contains more than one form of the basic motive.” In this exercise example, Schoenberg introduces a two measure “model” and has the students develop this model through varying rhythm while always keeping the structure of the phrase in primary focus. Consequently, the student creates a 4 + 4 symmetrical phrase that begins with two relatively simple chords.<sup>235</sup>

In *Harmonielehre*, Schoenberg defined construction of the phrase (*Sätzchen*) very simply; it involves establishing the tonic, modulating, then expressing the key by way of cadence at the end.<sup>236</sup> Phrase construction also was defined in *Fundamentals* where Schoenberg stated:

Construction of the beginning determines the construction of the continuation, in its opening segment a theme must clearly present its basic motive. The continuation must meet the requirements of comprehensibility.<sup>237</sup>

Similarly, Schoenberg wrote in the *Gedanke* manuscripts, that “phrase is the more or less connected stringing together of gestalten, motivic transformations, and motives.”<sup>238</sup> From this general design, the relationship between small elements of a work and the overall formal design is comprehensible and coherent only if the smallest parts are perceived as belonging together. Schoenberg believed form in music must adhere to coherence in small-scale structures (motive and phrase) that could be extended and elaborated in the large-scale design of the musical work.

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<sup>235</sup> Ibid., folder 110.

<sup>236</sup> See Arnold Schoenberg, *Harmonielehre*, p. 42.

<sup>237</sup> Schoenberg left almost complete revisions of *Fundamentals of Musical Composition* with Gerald Strang who edited the work in collaboration with Leonard Stein and published the textbook in 1967. Both Severine Neff and Charlotte Cross have stated that many of the concepts in *Fundamentals* are a continuation of those discussed in the fragments of *ZKIF* from 1917. See *ZKIF*, p. xxi.

<sup>238</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, p. 167.

Illustration 5.5 Schoenberg's Lecture on Phrase Construction

3) "Phrases"

Broad on two triads: I V, I IV, I VI, I III, I II.

avoid not melodically related, no rule

expresses preference to certain progression.

Also avoid other phrases - only scale line.

Melody writing -  
change in direction, leaps,

Examples using 2 harmonies

I-IV

differs from Motive

do not use all the features.

divid. transp. augm.

In his Advanced Composition classes, Schoenberg instructed his students to envision the phrase first, then construct the motive to include features such as “variation and repetition,” and to use a “broadness of distribution of features” as tools for comprehensibility. Both the instructions for how to compose motives and the examples cited in the literature are concerned with the principle of “restricted variation” so that melodic material does not move too fast or too

far from the original, thereby losing coherence. Schoenberg believed that students should analyze in order to acknowledge the destiny of the motive and try as many similar developments in their own compositions. Only from these constructions can the design of the work be seen as a problem of relationship, in which the parts relate to the whole.<sup>239</sup>

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<sup>239</sup> The Leonard Stein Satellite Collection, class notes from Advanced Composition class, 1942, folder 103.

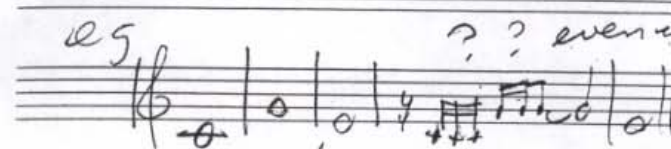


Illustration 5.6 Schoenberg's Lecture on Motive Construction

2) Variation + repetition foremost tools for coherence  
& comprehensibility

Variation; danger - if too far & too fast - <sup>lose</sup> coherence,  
must be restricted to a degree.

eg. ? ? even in simple broken chord -



"<sup>need</sup> Breadth of distribution of features,"  
do not change too often.

music differs from novel or poem or picture -  
because effect of music based on time,  
continuous playing without interruption.

do not vary everything at once or too far reaching,  
<sup>vary</sup>

What to Vary,

Motive: composed of number of features of rhythm & interval  
becomes motive in measures in which it is used,  
Manner of use: varied or unvaried repetition,  
("Motive idea of a piece"; misunderstanding),  
element which is used to express musical idea,  
not "germ" of piece - as composer does not  
compose from germ - must know length of piece,  
compositions vary in size - no law to  
determine size.

composer does not merely add one measure to another,

In one of his Special Studies seminars in 1943, Schoenberg wrote out definitions for each part of sonata form and defined “structural points” and pattern sequencing as important for the “organization” to reinforce coherence in larger movements.<sup>240</sup> Schoenberg often offered his own notes on large notebook staff paper in these seminars where there were fewer students, mostly advanced students who had been studying with Schoenberg for several years. Both Dika Newlin and Stein describe these Special Studies groups as much more intimate than Schoenberg’s early classes in such subjects as Counterpoint. An example of Schoenberg’s notes from the Special Studies sections is in the following illustrations.<sup>241</sup>

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<sup>240</sup> Schoenberg may have been influenced by some of the theories of Adolph Bernhard Marx and his *Die Lehre von der musikalischen Komposition, praktisch-theoretisch*, (1837-1847). One of the main premises for Marx was the adaptation of an organic development of form and the belief that a musical composition grows from an underlying three-part movement (*Sonatenform*), including rest to motion (part one), instability (part two), and back to rest (part three). Instead of relying on a harmonic plan to determine form, Marx paid greater attention to the role of melody as he emphasized thematic contrast. Marx systematized a hierarchical theory of form so that the smallest element consisted of the motive, which combined with one or more other motives, determines theme, which, then, determines the *Satz*. The *Satz* represents a closed, complete structure (sentence), which expresses the beginning and ending tonic. Marx defined the beginning motives as generating four-bar phrases through ternary song forms and posited that the first section establishes tonic, a second section moves away from tonic, and a third section moves back to tonic, thus emphasizing the three-part form. Marx applied his theories to the early piano works of Beethoven to illustrate motive and formal structures, literature that Schoenberg used often in his formal structure lessons. For Marx and Schoenberg, the Beethoven piano sonatas represented ideal formal structures which they used to describe context in terms of the development of a theme. Using Beethoven’s motives as examples to develop theme, both Marx and Schoenberg described theme as an independent entity, rather than one defined by harmony. For further studies of Marx’s theories of organic formal structure see Scott Burnham, “Criticism, Faith, and the *Idée*: AB Marx’s Early Reception of Beethoven,” *19<sup>th</sup> Century Music*, 12(1989-1990): 183-192.

<sup>241</sup> See Dika Newlin’s *Schoenberg Remembered: Diaries and Recollections, 1938-1976* (New York: Pendragon Press, 1980). The notes described are from the Leonard Stein Satellite collection, UCLA Special Studies seminar c. 1940’s, folder 103. *Arnold Schönberg Center Privatstiftung*, Vienna, Austria.

Themes to elaborate:

- 1 Unimportant themes or ideas
- 2 princ. th
- 3 subor. themes
- 4 princ. & subor. themes
- 5 codetta

*slab almost  
and  
positions  
possible*

Liquidation leads to preparation  
for appearance of recap. on an  
upbeat harmony (pedal)  
*(sometimes a list of most prominent  
features of first theme in recaps)*

Themes -

Definite strong rhythm

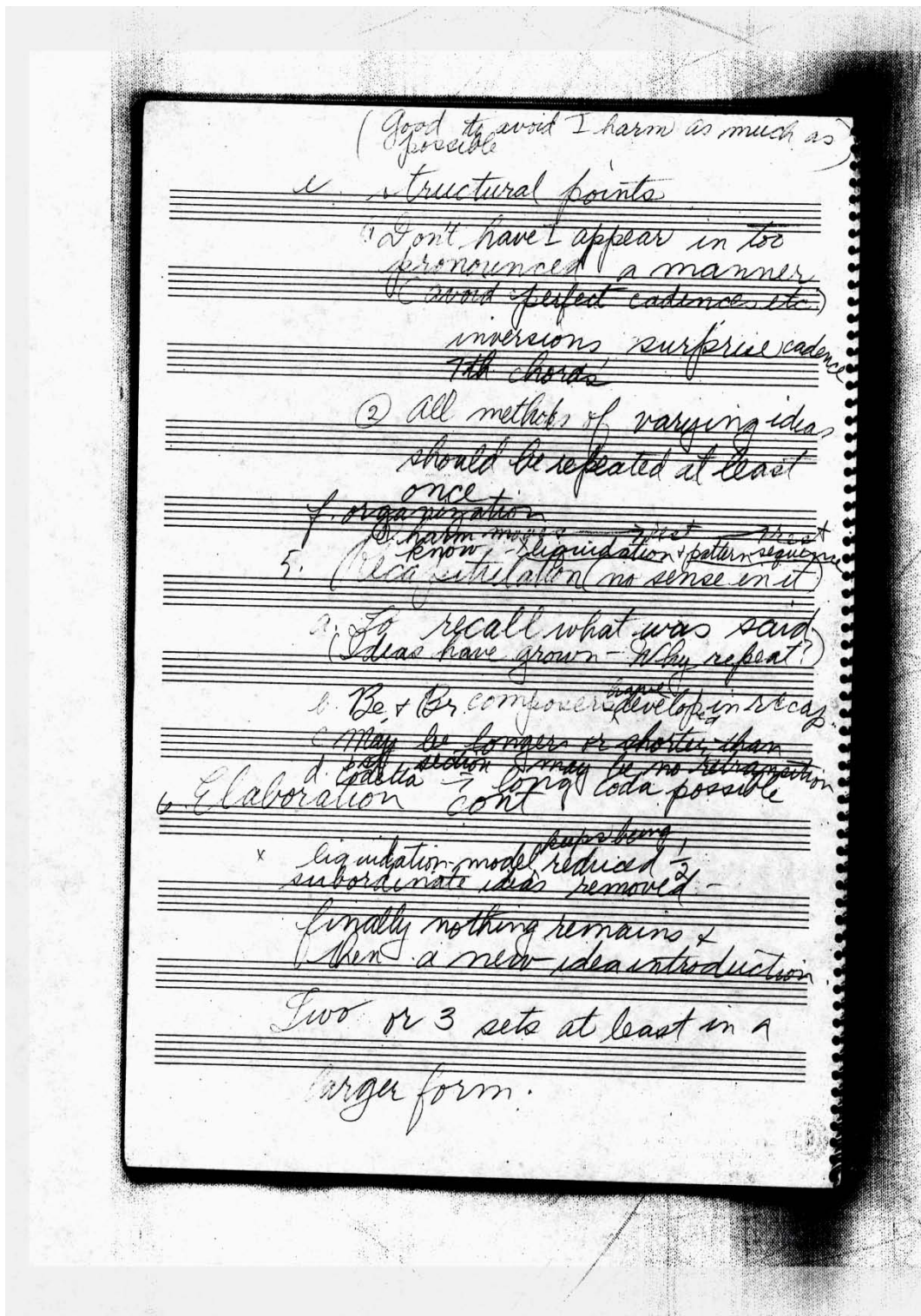
*look over beginnings of  
many sonatas*

Recapitulation -

*(look at Strauss's themes  
in libe  
in tonic  
Coda often added (no. of small Coda sections  
of Strauss are repeated)*

Carl Fischer, Inc. New York  
No. 504 - 12 lines.

Illustration 5.8 Schoenberg's Lecture on Structural Points



Always present in these last classes is Schoenberg's analysis of the literature that tended to involve increasingly longer sections of musical works and discussions of complex formal organization as development of an original theme or idea. Schoenberg's approach to overall form analysis began with one of two emphasized concepts. The first concept includes teaching rules of composition that govern the musical work. Produced as a commentary for one of his last classes at UCLA, Schoenberg provided an interview titled "The Task of the Teacher" later published in the essay collection, *Style and Idea*. Schoenberg stated:

A teacher cannot help a student to invent many and beautiful themes, nor can he produce expressiveness of profundity. Instead, he can teach structural correctness and the requirements of continuity; he also may train a sense for the expansion and broadness, or, on the contrary, for brevity and limitation of the presentation, and a judgment of the productivity of an idea.<sup>242</sup>

The second concept of form analysis is concerned with the definitions of the separate parts necessary for development of the musical idea. In *Fundamentals*, Schoenberg began to describe motive as being elaborated into sections:

Form means that a piece is *organized*; i.e., that it consists of elements functioning like those of a living organism ... The chief requirements for the creation of a comprehensible form are *logic* and *coherence*. The presentation, development and interconnection of ideas must be based on relationship. Ideas must be differentiated according to their importance and function.<sup>243</sup>

Though Schoenberg had earlier defined form as consisting of parts such as phrase, theme and melody in the *Gedanke* manuscripts, the most important determinant of large-scale form is the development of the first motive, that contain a "problem" to be solved. Schoenberg asserted that the parts of large forms develop through the generating power of "contrasts" and these

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<sup>242</sup>See Arnold Schoenberg, "The Task of the Teacher," in *Style and Idea*, p. 389.

<sup>243</sup> See Arnold Schoenberg, *Fundamentals of Composition*, p. 1.

sections “illuminate the main idea” of the work.<sup>244</sup> Larger forms created through procedures, that include connection, opposition, contrast, transition, and, most importantly, variations can be divided into stable (*feste*) and loose (*lockere*) formations. Stability, for example, can be established if smaller motives do not “move away from a perceptible center” while loose formations in larger sections include independent motion not necessarily connected to the center.<sup>245</sup> As Schoenberg stated in the *Gedanke* manuscripts, “the theme is the connection of a number of motivic transformations that for their part are usually linked together into phrases and often, too, into small phrases, [resulting] in a unified form.”<sup>246</sup>

In his later classes in Advanced Form and Composition, Schoenberg elaborated his theoretical principles and analytical methods by asserting that there is no understanding of musical structure without first understanding the ideas of the masters. In another essay entitled “Brahms the Progressive” in *Style and Idea*, Schoenberg wrote as late as 1947:

The most important capacity of a composer is to cast a glance into the most remote future of his themes or motives. He has to be able to know beforehand the consequences which derive from the problems existing in his material, and to organize everything accordingly. Whether he does this consciously or subconsciously is a subordinate matter.<sup>247</sup>

In all of the examples, exercises, assignments, exams and analyses in his classes, Schoenberg is explicit about the function of the theme. He consistently asserted that the theme is to be considered as the recurring structural unit upon which all subsequent events or *Grundgestalt* should be founded. To Schoenberg, transitions, transformations, and the process of *liquidation* in larger forms defined elements of the *Grundgestalt* that serve to connect motive and phrase and to harmonically develop structure to support the musical *Gedanke*.

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<sup>244</sup>See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its*, p. 178.

<sup>245</sup> *Ibid.*, p. 177.

<sup>246</sup> *Ibid.*, p. 181.

<sup>247</sup> See Arnold Schoenberg, “Brahms the Progressive,” in *Style and Idea*, p. 422.

These subjects were all taught extensively in Schoenberg's classes, including a concern with the roles of introductions, broken chord formations, transitions and subordinate ideas, thematic unity, and the continuity of the musical discourse through an analysis of the musical masterpieces.

In one of the Advanced Analysis classes, Schoenberg cites the Mozart G minor Symphony, K. 550, as a model to provide a summary of aspects of both the *Gedanke* and *Grundgestalt*. Through careful examination of the first movement of Mozart's G minor Symphony, and using the class notes as a starting point, a thorough analysis will bring together Schoenberg's theory publications, discussions from Schoenberg's earlier classes in Form and Analysis, and his last Advanced Composition and Special Studies seminars.

## CHAPTER 6

### SCHOENBERG'S INTERPRETATION OF MOZART

#### Introduction

Analysis was of such importance to Schoenberg that it served as the tool for his pedagogical practices concerning the musical masterpieces from the common practice period and beyond, including Wagner, Richard Strauss, and Mahler. In an essay devoted to Mahler, Schoenberg described the importance of understanding the musical whole through analysis:

We analyse because we are not satisfied with comprehending nature, effect and function of a totality as a totality and, when we are not able to put together again exactly what we have taken apart, we begin to do injustice to that capacity which gave us the whole together with its spirit, and we lose faith in our finest ability – the ability to receive a total impression.<sup>248</sup>

Schoenberg's practice of analysis was directly related to his pedagogical activities. He emphasized an approach that gave special attention to a wide and rich repertoire that was assessed as "necessary for illustrating and clarifying every problem [contained in the musical examples]."<sup>249</sup> In his American published manuals and textbooks, Schoenberg discussed his own music only sporadically. Instead, as a teacher he insisted that his students study the musical examples of past masters and, as his teaching career progressed in America, Schoenberg gave integrated lectures focusing on motive, phrase, thematic analysis, and formal structure.

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<sup>248</sup> See Arnold Schoenberg, "Gustav Mahler," is an essay first written shortly after the death of Mahler (1912), then revised in 1948 to include discussions of the themes in Mahler's symphonies, in *Style and Idea*, p. 449.

<sup>249</sup> See Arnold Schoenberg, *Structural Functions of Harmony*, p. vii. This quotation is written by Leonard Stein who is quoting Schoenberg in his acknowledgments.



## Analysis of the First Movement of Mozart's G minor Symphony, K. 550

### *Background*

Consistently present in Schoenberg's last seminars are his analyses of the literature, which involved increasingly longer sections of musical works and discussions of complex formal organization to demonstrate the development of an original theme or idea. In these classes, Schoenberg often cited the Beethoven symphonies, the Brahms symphonies, examples from Wagner, and the later Mozart symphonies.<sup>250</sup>

Schoenberg frequently indicated transformation as a procedure that exerts a decisive influence on the development of the original idea. In particular, he often used Mozart's G minor symphony, K. 550 as an example to illustrate several of his theories both in his published manuscripts and in his later seminars. In applying his theories, Schoenberg always began with the motive and phrase, and in his analysis of the thematic structure of this Mozart symphony, he began with the first three measures. As a point of departure for an analysis of the first movement of the G minor symphony, discussions are found in three of his publications, including *Harmonielehre*, *Structural Functions*, and *Fundamentals* and in his later classes as well, including *Structural Functions*, *Special Studies in Form*, and *Advanced Composition*.

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<sup>250</sup> See the Leonard Stein Satellite collection, Advanced Composition class 1942, folder 103, *Arnold Schönberg Center Privatstiftung*, Vienna, Austria. Other examples from the literature cited in this particular class as involving broken chord formations to ensure neutralization, produce stability and as a harmonic scaffold are Beethoven's Eroica symphony and the F minor Sonata, Op. 2, No. 1, Wagner's "many motives," and Bruckner's E Major Symphony, No. 7. See chapter 5 and the discussions on Schoenberg's Advanced Composition classes.

In every one of these examples, Schoenberg explored the five elements, that he stated he had learned from Mozart. They are:

1. Inequality of phrase-length;
2. Co-ordination of heterogeneous characters to form a thematic unity;
3. Deviation from even-number construction in the theme and its component parts;
4. The art of forming subsidiary ideas; and
5. The art of introduction and transition.<sup>251</sup>

These qualities in Mozart's music served to direct Schoenberg's analyses of his music. Both in his writings and in his classes, Schoenberg's analyses of Mozart's symphony concentrates on problems present in the original motives and such roles of the individual elements as broken chord formations, transitions and subordinate ideas, thematic unity, harmonic structure and the continuity of the musical discourse through an analysis of the original motives. Schoenberg related all of these elements to the *Grundgestalt* and the basic shape of the original phrase.

### *Motivic Analysis and Sentence*

In part of his analysis in the Advanced Composition class notes from 1942, Schoenberg analyzed the Mozart symphony as one example of "motive as the determinant" of large-scale structure; yet Schoenberg stated that phrases must be considered first, with motives to follow. In this class, Schoenberg defined a piece of music as consisting of varying forms of a "basic" motive containing unrest and the need for resolution. To transform the motive further, the use of broken chords can "explain" the harmonies, support transitory passages, neutralize unstable measures, and develop the original theme further. In a second page of notes from the same lecture, Schoenberg continued to define the writing of melody and phrase as needing a "change

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<sup>251</sup> See Arnold Schoenberg, "National Music" from *Style and Idea*, p. 173. This essay was devoted to the influence of several composers on both Schoenberg's compositional practices and his method of analysis. Composers discussed are Bach, Mozart, Beethoven, Brahms, and Wagner.

in direction” to include “leaps” to vary a motive. All of these elements serve to expand Schoenberg’s definitions of the *Gedanke* as a reworking of the technical aspects of the *Grundgestalt*. At the end of the definitions there is a short discussion on the phrase as a punctuation (as a sentence construction) that must structurally contain more than one form of the basic motive.<sup>252</sup>

Illustration 6.1 Schoenberg’s Lecture on Composing Melody and Phrase

3/ Phrases: easier than Motives at first.  
 Idea of Phrase: derives from Singing.  
 1) sing in one breath.  
 2) Phrase contains more than one form of Basic Motive.

Page 5: ~~##~~  
 #47. use of rhythmic feature of upbeat twice. also #48.

Model  $\frac{8}{8}$  I  $\frac{9}{8}$  VI  $\frac{6}{8}$  change accoup. #6

repetition of rhythm + intervals.

↑ upbeats  
 obligatory I II model

see p. 13 - inserted harmonies - Bass is second melody not so many features

I LVI II inserted

Drone: from the New World. Bibliography;  
 Score, Book

Themes: backbone. Score Instruments;  
 Symphony  
 Tempo marks - meter

imitation.

<sup>252</sup> See the Leonard Stein Satellite collection, Advanced Composition class, 1942, folder 103, Arnold Schönberg Center Privatstiftung, Vienna, Austria. These classes were discussed in detail in chapter 5.

These definitions are best illustrated in Schoenberg's motivic and thematic analysis of the initial measures in the Mozart symphony. Schoenberg explained in a majority of musical works that the principal idea of the first movement adheres to a prototype, for which he used a term from traditional analysis, using the word *Satz* or later in English, "sentence":

The sentence is a higher form of construction than the period. It not only makes a statement of an idea, but at once starts a kind of development. Since development is the driving force of musical construction, to begin it at once indicates forethought. The sentence form is much used in leading themes of sonatas, symphonies, etc; but is it applicable also to smaller forms.<sup>253</sup>

The original idea in this Mozart symphony adheres to these principles and is built on the scaffold of a descending "broken chord" containing two motives of two notes each. The first motive is the step descending motion from Eb to D, and the second motive is the interval of an ascending sixth from D to Bb, which concludes the first three unstable measures. The scaffold of a descending "broken chord" elaborates the original two note motives and outlines a descending seventh chord from Bb to C ending at measure 5. The step motion motive is also repeated up a fifth moving from Bb to A, then descending by a step to C, again at measure 5. Schoenberg described this passage as a "broken chord formation" and measures 4 and 5 as providing stability to neutralize and better define a diatonic context, in contrast to the unrest of the first three measures.<sup>254</sup>

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<sup>253</sup>See Arnold Schoenberg, *Fundamentals of Musical Composition*, p. 58.

<sup>254</sup> See the Leonard Stein Satellite collection, Advanced Composition class in 1942, folder 103. The term "neutralization" in relationship to chord, is discussed in *Harmonielehre* and later in *Structural Functions of Harmony* as simulating a major tonality within a minor tonality, with the seventh tone of a scale appearing naturally as this F tone does in the descending broken chord at measure 4. See chapter 3 under "the minor mode" and in *Harmonielehre*, p. 161; *Structural Functions of Harmony*, pp. 18, 22.

Ex. 6.1 Motivic Analysis of Mozart's K. 550, ms. 1-5

Allegro molto

Oboe

Clarinet in B $\flat$

Flute

Bassoon

Trumpet in B $\flat$

Cornet

Violin I

Violin II

Viola

Cello

Motive 1 (m2)

Motive 2 (m6)

Broken chord (neutralization)

*p*

*p*

*p*

*p*

After this neutralization, which concludes the first half of this compound phrase, two transitions directly related to the first two motives begin on the last beat of measure 5.

As is typical of the Classical period, the first three measures repeat, this time transposed a step down from the first Eb, beginning with the step motion from D to C and ending again with the interval of an ascending sixth from C to A at measure 7. There is again a descending broken chord neutralization ending on Bb at measure 9, which concludes the second half of the head phrase of this symphony.

Ex. 6.2 Transition and Neutralization in Mozart's K. 550, ms. 6-11

The image displays a musical score for measures 6 through 11 of Mozart's Symphony No. 25, K. 550. The score is arranged in a standard orchestral format with the following parts from top to bottom: Oboe (Ob.), Clarinet in B-flat (B♭ Cl.), Flute (Fl.), Bassoon (Bsn.), Trumpet in B-flat (B♭ Tpt.), Cello (Cnt.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello/Double Bass (Vc.).

Measures 6-11 are marked with a '6' in the top left corner of each staff. The key signature is B-flat major (two flats). The score includes several annotations in the Violin I part: 'Transition (M2)' in measure 6, 'Transition (M46)' in measure 7, 'Broken Chords (neutralization)' in measure 8, and 'Tritone Motive' in measure 9. The Viola part features a dense texture of sixteenth-note chords throughout the passage. The Cello/Double Bass part provides a simple harmonic accompaniment with quarter notes and rests.

Schoenberg also lectured often about finding the elements that contradict tonic, to establish elements of the *Grundgestalt*. These elements will be contained in the theme as well, and as Schoenberg stated in the *Gedanke* manuscripts:

This *unrest* is expressed almost always already in the *motive*, but certainly in the *gestalt*. In the theme, however, the problem of unrest that is present in the *motive* or the *fundamental gestalt* achieves formulation. This means that as the theme presents a number of *transformations* (*variations of the motive*), in each of which the problem is present, but always in a different manner, the tonic is continually contradicted anew.<sup>255</sup>

Tonic is also contradicted in the baseline, beginning at measure 1. The G pedal functions as tonic at first, but at measure 5, as the melodic line descends in a broken chord neutralization, the G becomes dissonant in the bass and becomes the fifth as a  $iv4/3$  chord is formed vertically.

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<sup>255</sup> In this particular *Gedanke* manuscript (no. 10), dated June 1934, Schoenberg stresses the words “transformations” and “rounding off” through “unification” in order for unrest to produce an “apparent state of rest.” This manuscript is one of Schoenberg’s earliest discussions of motive alone as affecting the fundamental *gestalt*. See *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, p. 106.

Ex. 6.3 G Tonic as Dissonance, Mozart's K. 550, ms. 1-5

Allegro molto

Oboe

Clarinet in B $\flat$

Flute

Bassoon

Trumpet in B $\flat$

Cornet

Violin I

Violin II

Viola

Cello

Motive 1 (m2)

Motive 2 (m6)

Tonic as Dissonance

G as fifth of iv 4/3

*p*

*p*

*p*

*p*

At measures 6-7 the bass changes, with G descending a half step to F# (a V6/5 chord is formed vertically) which resolves by ascending a sixth interval to D (or V7/G), resolving to tonic at measure 9. At the dominant to tonic motion in the bass from measures 7-9, there is another broken chord neutralization in the melody line, this time outlining a  $iii_7$  (built on B) or a half step seventh chord from the first broken chord neutralization on C from measure 3-5.



Ex. 6.4 G Resolution to V7/G, Mozart's K. 550, ms. 6-11

The musical score displays the following annotations and features:

- Violin I:** G-F# half step motion, F#-D sixth motion, Broken Chords (neutralization), Tritone Motive.
- Violin II:** Similar melodic line to Violin I.
- Viola:** Complex rhythmic pattern of sixteenth notes.
- Violoncello:** Bass line with notes corresponding to the V6/5 and V7/G chords.

From the first five measures of the first two motives, it is apparent that the presence of Eb provides an unrest to the tonality of G minor in that it is unclear how the Eb is functioning. It is not clear if the Eb is the VI of G or, because of the repetition and phrasing, functioning as the Neapolitan (in first inversion with G in the bass) of D to prepare for the appearance of D as the dominant of G at measure 8. This Eb also has meaning as the subdominant of Bb Major, which

does not become clear until the new material begins in the recapitulation after the establishment of the tonic G minor, at measure 185. The function of Eb is difficult to ascertain from the first three unstable bars; therefore further analysis of the compound phrase is needed to determine if a conclusion to the unrest unfolds throughout the movement.

### *Varied Repetition*

Schoenberg wrote often about varying the repetition of a motive in order to produce comprehensibility. For Schoenberg, motives must be varied and recurrent in order for gradual development to occur throughout the whole composition. On the last beat of measure 9, the Bb-A descending motive occurs again, although this time the motive is “broken” as a variation to include a tritone, a diminished triad (F#-A-C) and the descending sixth interval from Bb to D at measure 11.<sup>256</sup> The Bb-D motion not only restates the descending motion from measures 3-4, but also varies motive 2 by descending the sixth interval from Bb-D, rather than ascending as in measure 3. These two measures are immediately repeated, followed by the last broken chord neutralization that descends by step from G to D and cadencing on a half cadence at measure 16 to end the first period.

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<sup>256</sup> Rudolph Réti considers this tritone motive a new theme in his analysis of the motives in this symphony. This study does not consider this a new “melodic idea,” but rather directly connected to the first broken chord forms that stressed triadic movement between the descending sixth from Bb to D. See Réti’s analysis in *The Thematic Process in Music*, 1961, p. 118.

Ex. 6.5 Varied Repetition of Original Motives, Mozart's K. 550, ms. 12-16

The image displays a musical score for measures 12-16 of Mozart's Symphony No. 40. The score is arranged in a system with ten staves, each representing a different instrument: Oboe (Ob.), Bass Clarinet (B. Cl.), Flute (Fl.), Bassoon (Bsn.), Bass Trombone (B. Tpt.), Contralto (Cnt.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The key signature is B-flat major (two flats), and the time signature is common time (C). The first measure (measure 12) is marked with a '12' above the staff. The score shows the varied repetition of original motives across these instruments. The Violin I staff has two annotations: 'Transition (TT)' above the first measure and 'Broken Chord (to half cadence)' above the second measure. The Viola and Violoncello parts feature rhythmic patterns in the first two measures, with the Viola part showing a sequence of eighth notes and the Violoncello part showing a sequence of quarter notes.

Schoenberg used these first sixteen measures as the focal point for his analyses of the gradual process of the thematic development in the first movement of this Mozart symphony. These *Gestalten*, as Schoenberg called the elements of the tonal problem, include the use of transition, varying the motive harmonically, and applying the broken chord motion to neutralize the unrest produced by the original motives.

Rhythmically, Schoenberg stressed that varying the original motives also will connect subsequent phrases and subordinate themes. Lastly, from the first two motives, which include the intervals of the step from Eb to D and the sixth from Db to B, Schoenberg discussed a harmonic plan that emphasizes these step relationships and the VI relationship in the regional G minor key areas for the first movement.

### *Transition*

According to Schoenberg, the first transition in the exposition in this symphony is “one of the most interesting instances of contrast” and occurs at measure 28 with a pivot chord that moves the harmony from G minor to the relative major Bb, then to the key a step above Bb to C Major, then back again to the dominant of Bb at ms. 42.<sup>257</sup> Schoenberg described measures 28-42 in the transition from first to subordinate theme as *continuing* the original idea by reworking the keys implied in the original two motives in measures 1 to 3, G Minor and Bb Major, rather than introducing new material.

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<sup>257</sup> See Arnold Schoenberg, *Structural Functions of Harmony*, p. 144.

Ex. 6.6 Transition Material in Exposition in Mozart's K. 550, ms. 28-42

From Schoenberg's *Structural Functions of Harmony*, 1969  
 Ex. 144: Transition in Exposition, Mozart G Minor Symphony

ms. 28

t: III  
 M: I      V      IV      I      II      I

Total measures

To ms. 42      15

H      V

This transition provides both a connection to the main theme with the consistent element of the broken chord formations and a variation in rhythm and harmony that necessarily sets up the second key area (Bb Major) while still providing coherence to the overall structure.

*Subordinate Theme*

Schoenberg also discussed the subordinate theme at measure 44 in *Fundamentals* existing only as a result of the first theme.<sup>258</sup> According to Schoenberg, this subordinate theme contains characteristics of the first motives, especially with the descending step motion from F-E-Eb, and the movement from G in measure 48 to a sixth below to Bb in measure 51. Like the ascending

<sup>258</sup> See Arnold Schoenberg, *Fundamentals of Musical Composition*, p. 184.

sixth motion of D to B $\flat$  at measure 11, this descending sixth also concludes the first phrase of the subordinate second theme. Interestingly, this sixth motion happens on the same notes, G and B $\flat$ , which are the first two key areas in the movement as they harmonically develop the first two motives.

Ex. 6.7 Subordinate Theme Analysis in Mozart's K. 550, ms. 44-51

The image displays a musical score for measures 44-51 of Mozart's K. 550. The score is arranged in a system with ten staves, each representing a different instrument: Oboe, Clarinet in B $\flat$ , Flute, Bassoon, Trumpet in B $\flat$ , Cornet, Violin I, Violin II, Viola, and Cello. The key signature is one flat (B $\flat$ ), and the time signature is common time (C). The music is marked with a dynamic of *p* (piano). The Oboe, Clarinet in B $\flat$ , Flute, and Bassoon parts feature a melodic line with a descending sixth motion, which is highlighted by a slur and a bracket. The Violin I part is marked with a dynamic of *p* and features a melodic line with a descending sixth motion, which is also highlighted by a slur and a bracket. The Violin II, Viola, and Cello parts provide harmonic support with sustained notes and moving lines. The score includes various musical notations such as slurs, brackets, and dynamic markings. The measures are numbered 44 through 51. The Oboe part starts with a double bar line and a fermata, indicating a rest. The Clarinet in B $\flat$  part starts with a dynamic marking of *p*. The Flute part starts with a dynamic marking of *p*. The Bassoon part starts with a dynamic marking of *p*. The Trumpet in B $\flat$  part starts with a dynamic marking of *p*. The Cornet part starts with a dynamic marking of *p*. The Violin I part starts with a dynamic marking of *p*. The Violin II part starts with a dynamic marking of *p*. The Viola part starts with a dynamic marking of *p*. The Cello part starts with a dynamic marking of *p*. The score is annotated with "Subordinate Theme (step motion)" and "Subordinate Theme (sixth descending motion)" in the Violin I part.

After a restatement of the first “phrase” of the subordinate theme, this time in the woodwinds, there is brief movement to Eb Major in the bass beginning at measure 58. This movement to Eb continues with a reverse augmentation in the bass of the first motive of the subordinate theme (F-E-Eb), moving from Eb-E-F beginning at measure 58 to measure 64 with F functioning as V/Bb, ending at the first cadence on Bb in the second key area of Bb Major.

Ex. 6.8 Subordinate Theme Restatement in Mozart’s K. 550, ms. 52-66

The image displays a musical score for measures 52-66 of Mozart's K. 550. The score is arranged in a system with ten staves, labeled on the left as Ob., B♭ Cl., Fl., Bsn., B♭ Tpt., Cnt., Vln. I, Vln. II, Vla., and Vc. The key signature is Bb major (two flats). The time signature is 4/4. Above the first staff, the text "Subordinate Theme (step motive restatement)" is written, with a measure rest symbol (52) above it. The woodwind parts (Ob., B♭ Cl., Fl., Bsn.) play the subordinate theme, which is a stepwise descending eighth-note motif. The strings (Vln. I, Vln. II, Vla., Vc.) play a first motive, which is a reverse augmentation of the subordinate theme's first motive. The first motive is labeled "First Motive (reverse augmentation)" at the bottom right of the score. The score shows the progression of the music, including a key change to Eb major in the bass at measure 58.

60

Ob.

B♭ Cl.

Fl.

Bsn.

B♭ Tpt.

Cnt.

Vln. I

Vln. II

Vla.

Vc.

*p*

*f*

*p*

*f*

*f*

*f*

First Motive  
(reverse augmentation)

Arrival at Second  
Key Area of B♭ Major

*f*

By retaining characteristics of the first theme in the subordinate theme, Schoenberg stated that Mozart realizes a “contrasting derivation” that retains certain specific qualities of the first motives, yet the subordinate theme also presents a new character and a different harmonic context than the initial original motives.<sup>259</sup>

<sup>259</sup> Gianmario Borio discusses the first and subordinate theme definitions of Schoenberg by using the examples of Beethoven’s early piano sonatas, compositions that Schoenberg used often in his early classes at both USC and UCLA in thematic analysis. See Gianmario Borio, “Schenker versus Schoenberg versus Schenker,” *Journal of the Royal Musical Association*, 126 (2001): 256-267.



Ex. 6.9 Closing Theme and Motivic Restatement in Mozart's K. 550, ms. 76-80

The image displays a musical score for Mozart's K. 550, measures 76-80. The score is arranged in a standard orchestral format with ten staves. From top to bottom, the instruments are: Oboe, Clarinet in B $\flat$ , Flute, Bassoon, Trumpet in B $\flat$ , Cornet, Violin I, Violin II, Viola, and Cello. The music is in G major (one sharp) and 3/4 time. The dynamic is marked *f* (forte). The section is labeled "Closing Theme and Motivic Restatement" above the Cornet staff. The score shows various melodic lines and accompaniment patterns, including a prominent bassoon line with eighth-note figures and a cello line with a similar rhythmic pattern. The music concludes with a final cadence in measure 80.

*Elaboration (Durchführung) Section*

In *Fundamentals*, Schoenberg described the elaboration section as modulatory, yet still related to the original themes presented in the exposition. Schoenberg wrote of elaboration:

Because the exposition is stable, the elaboration tends to be modulatory. Because the exposition uses closely related keys, the elaboration usually includes more remote regions. Because the exposition “develops” a wealth of differing themes from the basic motive, the elaboration normally makes use of variants of previously “exposed” themes, seldom evolving new musical ideas.<sup>260</sup>

<sup>260</sup> See Arnold Schoenberg, *Fundamentals of Composition*, p. 206.

The elaboration (*Durchführungen*) section of the Mozart symphony does modulate to more remote keys from G minor, yet still concentrates on the step relationships between keys and in the bass movement. The elaboration section begins at measure 101 after an interesting chord progression bridge of V<sub>7</sub>/G (second inversion) – i/G – G#<sub>7</sub><sup>°</sup> (third inversion) – i/F# minor at measure 105. This chord progression produces the descending step motion from A-G-F-F# in the bass from measures 100 to 105. The harmonic plan of the elaboration section is as follows:

|            |      |          |
|------------|------|----------|
| m. 101-122 | S/m  | F# minor |
| m. 122-131 | SubT | F Major  |
| m. 131-138 | V/V  | G Minor  |

As Schoenberg described in the *Gedanke* manuscripts, the *Durchführungen* often brings “into new situations (destinies) the *Gestalten*, phrases and themes presented in the first section.”<sup>261</sup> The purpose of this middle section resembles that of a transition, yet one of the main functions is that of liquidation of the material that sets up motion of a resolution of the musical statement.<sup>262</sup> In this ternary form, the recapitulation is the section where resolution of structural tension takes place.

### *Recapitulation and Retransition*

The recapitulation begins with an exact repetition of measure one through the second beat of measure 22, here measures 164-185 in G minor. Unlike the exposition, which has the consequent phrase melody repeating the Eb-D and D-Bb motives, the recapitulation consequent phrase begins with a Bb-Ab-G motive that combines elements of the first motive of the first theme (step motion) with the first motive of the subordinate theme (3 descending steps) as well

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<sup>261</sup>See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, p. 271.

<sup>262</sup> *Ibid.*, p. 253. Schoenberg defines *liquidation* as allowing tensions to ebb, so as to neutralize the obligations of the earlier *gestalten* thus providing the possibility for something different to come forward.

as modulating to the key of the first note of the original melody, or Eb Major. Also like the first Eb note, which could be foreshadowing the subordinate key area (Bb Major) as the subdominant, the Ab is emphasized from measures 185-189 as the subdominant of this transition section in Eb Major.

Ex. 6.10 Recapitulation Consequent Phrase in Mozart's K. 550, ms. 185-190

The musical score shows the recapitulation consequent phrase in Mozart's K. 550, measures 185-190. The score is in Bb major and 4/4 time. The Oboe, Clarinet in Bb, and Flute parts feature melodic lines with dynamics p and f. The Violin I part has annotations: "Combined Motives Transposed 1Fifth from measure 23" and "Ab Emphasis".

Schoenberg discussed an emphasis for the rest of the movement in the harmonies of the retransition section, which includes an “overlap” of key areas in the submediant (Eb Major) and the key a step above at the subtonic (F minor). The retransition begins at measure 191 in Eb

Major, moving to F minor at measure 198 until a pivot chord at measure 204 on Bb moves the material back to tonic at measure 211. This retransition is important because harmonically it represents the key areas that were implied by the melody of the first measures of this movement with step motion between keys (Eb and F minor and F minor and G minor), transforming the first note of the first motive into a harmonic passage (both on Eb) and pivoting back to tonic on Bb at measure 204, just as the Bb also pivots the broken chord formation into a restatement of the first motives at measure 3. The full score also demonstrates a clear exchange of material between the upper and lower strings that connects the instrumentation from the beginning with the full statement of the first phrase from measures 1 to 13 taking place entirely in the strings.

Ex. 6.11 Retransition of Broken Chord Formation in Mozart's K. 550, ms. 191-211

Retransition Section in Recapitulation

191

Oboe

Clarinet in B

Flute

Bassoon

Trumpet in B

Cornet

Violin I

Violin II

Viola

Cello

Eb Retransition/Vi of G minor

196

Ob.

B♭ Cl.

Fl.

Bsn.

B♭ Tpt.

Cnt.

Vln. I

Vln. II

Vla.

Vc.

Arrival in F minor

202

Ob.

B♭ Cl.

Fl.

Bsn.

B♭ Tpt.

Cnt.

Vln. I

Vln. II

Vla.

Vc.

Arrival in B♭ Major  
 as Pivot chord back  
 to tonic G minor

207

Ob.  
B $\flat$  Cl.  
Fl.  
Bsn.  
B $\flat$  Tpt.  
Cnt.  
Vln. I  
Vln. II  
Vla.  
Vc.

V - iG minor

### Harmony

Schoenberg also addressed the harmonic overlapping in *Structural Functions* with this retransition in the recapitulation moving to Eb at measure 191, instead of Bb, as the exposition transition did at measure 28. By moving to Eb Major, then ultimately to F minor (or v/Bb), Schoenberg explains that Mozart has produced logic and coherence to his overall structure by



harmonically producing stability that connects elements of the motive with elements of the overall structure. Schoenberg illustrates this passage in *Structural Functions* as follows:<sup>263</sup>

Ex. 6.12 Harmonic Analysis of Retransitions in Mozart's K. 550, ms. 191-225

From Schoenberg's *Structural Functions of Harmony*, 1969  
 Ex. 144: Transition in Recapitulation, Mozart G Minor Symphony

Ms. 191

t: VI  
 SM: I V IV I II VI  
 subt: I V VI V

t: VII  
 subt: I V II I V VII III  
 I

VI II ♯ I II V t: I ♯ IV I

Total measures

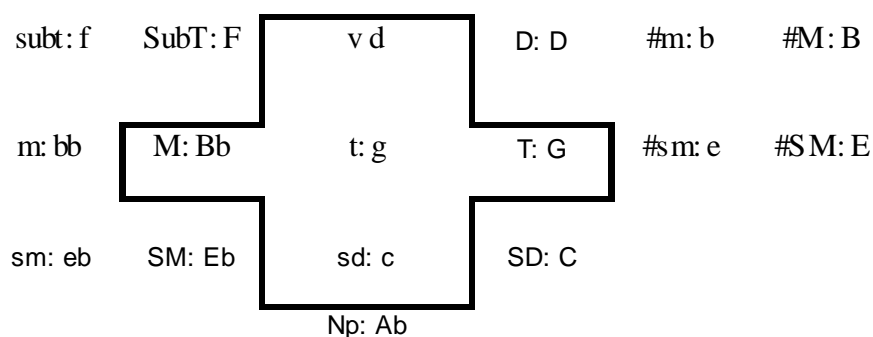
to ms. 225 35

II I II V

<sup>263</sup> Schoenberg discussed “retransitions” in terms of liquidation and how Mozart begins his recapitulations in both his String Quartet in A Major, K. 464, first movement and the G Minor Symphony in *Fundamentals of Composition*, pp. 208-209.

In *Structural Functions*, the Chart of the Regions for any minor key is far less extensive than the chart in the major mode. According to Schoenberg, the natural minor tonic does not exert as much control over its regions as does the major tonic, because the dominant is not a major triad. Thus, the number of related regions is smaller, and the corresponding chart of the regions is less complete.<sup>264</sup> The Mozart G minor symphony has the following regions with G as tonic:

Table 6.1 Harmonic Regions of Mozart's K. 550, G minor



t = tonic minor  
sd = subdominant  
v = dominant minor  
SD = subdominant major  
D = dominant major  
SM = submediant major  
M = mediant major  
SubT = subtonic major

sm = submediant minor  
m = mediant minor  
subt = subtonic minor  
#m = raised mediant minor  
#SM = raised submediant minor  
#M = raised mediant major  
Np = Neapolitan  
S/m = supertonic minor

<sup>264</sup> See Arnold Schoenberg, *Structural Functions of Harmony*, p. 30.

Accordingly, the overall harmonic plan and section divisions of the first movement are as follows:

Table 6.2 Harmonic Plan of the First Movement of Mozart's G Minor Symphony, K. 550

| <i>Mozart's G minor symphony, K. 550, first movement</i> |             |   |
|--|-------------|---|
| <i>Exposition</i>  |             | <i>Recapitulation</i>                     |
| <i>First Group Statement</i>                             |             | <i>First Group Restatement</i>            |
| m. 1-5   | t           | G minor                                   |
| m. 5-20  | D           | V/G minor                                 |
| m. 20-29   | t           | G minor                                   |
| <i>Transition</i>  |             | <i>Transition</i>                         |
| m. 28-42   | M           | Bb Major                                  |
| (m. 38-42)   | V/M bridge  |   |
| <i>Second Group Contrast</i>                             |             | <i>Second Group Contrast Restatement</i>  |
| m. 43-66   | M           | Bb Major                                  |
| (m. 58-62)   | IV/M bridge |   |
| <i>Codetta</i>   |             | <i>Coda</i>                               |
| m. 66-100  | M           | Bb Major                                  |
| (ends on V <sub>7</sub> /G Minor)                        |             |   |
| <i>Elaboration</i>                                       |             |   |
| m. 101-122   | S/m         | F# minor                                  |
| m. 122-131   | SubT        | F Major                                   |
| m. 131-138   | V/V         | G Minor                                   |
| <i>Retransition (Recapitulation Anticipation)</i>        |             |   |
| m. 138-164   | M           | Bb Major                                  |
|  |             | m. 164-185 M Bb Major                     |
|  |             | m. 185-194 SM Eb Major                    |
|  |             | m. 195-203 subt F minor                   |
|  |             | m. 204-225 V <sub>7</sub> /G minor bridge |
|  |             | m. 227-286 t G minor                      |
|  |             | m. 286-299 t G minor                      |

The *Grundgestalt* of the opening motives and the “interesting transitions” are arguably the most important aspects of the first movement of this symphony. The two beginning motives set up important problems that are addressed in the subordinate theme, the elaboration section, and the recapitulation in the rest of the movement. The presence of the Eb in both the motive and the harmonic structure certainly lends itself to providing “unrest” and instability in a G minor piece.

With the strong presence of the tonic G, the presence of Bb in both the related major key area of the subordinate theme and the broken chord formations, and the emphasis on Eb both harmonically and in the first motive, this movement could be considered an early example of a ternary form based on the relationships of thirds that Beethoven and Brahms historically continued in their own symphonies.

In his later classes in Advanced Form and Composition, Schoenberg elaborated his theoretical principles and analytical methods by asserting that there is no understanding of musical structure without first understanding the ideas of the masters. In 1930, Schoenberg stated “in my activities as a teacher no one can compose or understand music theory without careful analysis of past masters, primarily Bach and Mozart, and secondarily Beethoven, Brahms and Wagner.”<sup>265</sup> Through consideration and study of the analyses that Schoenberg provided in both his publications and in his classes, there is much to be revealed in careful studies of the musical idea.

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<sup>265</sup> In “National Music,” Schoenberg also discusses the influences on both his teaching and his compositions. This essay is published in *Style and Idea: Selected Writings of Arnold Schoenberg*, edited by Leonard Stein with translations by Leo Black (New York: St. Martins Press, 1975), pp. 398-441.

## CHAPTER 7

### CONCLUSIONS

This study has examined the published and unpublished materials involved in Schoenberg's teaching life. Teaching was always central to his life, and in the end, Schoenberg could claim to have taught over a thousand students throughout his long career. Beginning with *Harmonielehre*, which represents the culmination of most of his ideas from his teachings in Vienna, Mödling, and Berlin, this study has attempted to distinguish and define many of Schoenberg's pedagogical methods as his *oeuvre* of published manuscripts has become more studied in recent years.

While *ZKIF* and the *Gedanke* manuscripts are also considered manuscripts from Schoenberg's European teaching years, this study has also shown that these fragments became starting points for many of Schoenberg's American writings. *ZKIF*, in particular, served to be the skeleton of his American publication *Fundamentals*, Schoenberg's basic outline of form analysis. The *Gedanke* manuscripts served to clearly define the musical idea in the less traditional sense of motive and theme and their development as defining the whole of a musical work. Coupled with the *Grundgestalt*, the *Gedanke* and the stable and loose formations that generate the technical coherence and comprehensibility of a work becomes the central issue in all of Schoenberg's later major theoretical works and so too, in his teaching.

Throughout his career, Schoenberg equated organicism with totality. As he often uses the metaphor of the human body or a physical organism, to discuss wholeness he stated in the *Gedanke* manuscripts:

Above all, a piece of music is (perhaps always) an articulated organism whose organs, members, carry out specific functions in regard to both their external effect and their mutual relations. The difference between members and parts can best be explained as follows: if I cut up a whole (for example, a loaf of bread), I get parts. But I will never obtain members in this way. Members are parts that are equipped, formed, and used for a special function.<sup>266</sup>

In the same way that a musical totality is always developing from the first image the composer has of the whole, so Schoenberg regarded his role as a teacher as including instruction in counterpoint, harmony, and form as a comprehensive approach to teaching composition.

Early in his American years of teaching he wrote an essay titled “Principles of Construction” in which he defines the construction of a musical composition. Schoenberg maintained that a student learns best by knowing the elements of natural science, rather than learning external laws and theories. Yet even in knowing science, the composer (artist) must stay true to his/her instincts in internalizing the art work. As Schoenberg wrote in 1936:

Were the construction of a musical composition merely to follow the requirements of logic, as in science, it would simply not be art, but science. The difference between art and science lies herein: that even where both aim to represent the same area, science must try to include all conceivable cases, whereas art confines itself to those that are characteristic, appropriate, or otherwise “fitting.” While science will therefore have to place every case in the clearest light, art may change the relationships of meaning to heighten their effect.<sup>267</sup>

As early as *Harmonielehre*, he described both artist and scientific phenomena as facts which must be understood rather than studying external explanations which are imposed on facts.

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<sup>266</sup> See Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of Its Presentation*, p. 119.

<sup>267</sup> *Ibid.*, p. 115.

In this context, Schoenberg believed that the desire to seek an understanding of external phenomena was an organic process more than theorizing from outside rules. As he stated:

Our noblest impulse, to know and understand, makes it our duty to search. Even a false theory, if found through genuine searching, is superior to the complacent certainty of those who presume to know – to know, although they themselves have not search!”<sup>268</sup>

Searching for an understanding of the musical whole may explain why Schoenberg insisted his students study counterpoint and harmony together at the same time. It was not enough for his students to merely analyze the musical work; he asserted that his students compose everyday in order to internalize an understanding of the musical whole. As Patricia Carpenter talked of her years as Schoenberg’s student at UCLA and in later private lessons,

Schoenberg begins with voice-leading. And that was the way we were taught: given these three pitches or four pitches, where can they go in terms of voice-leading. That’s one aspect – that he wasn’t separating the two dimensions...From the pedagogical point-of-view, because he taught everything, we were not confronted with this split between vertical and horizontal...I guess if I were to try to say what was the most important thing I learned from him, it was an immensely unified view of music.<sup>269</sup>

*Structural Functions* and *Preliminary Exercises in Counterpoint* were Schoenberg’s two primary American textbooks that were more pedagogical rather than analytical. Both of these textbooks were compiled around the same time and were direct results of Schoenberg’s lectures at UCLA. Leonard Stein believed *Structural Functions* “can be studied not only as a practical guide in harmonic technique and analysis but, at the same, as a document of the evolution of Schoenberg’s own musical philosophy.” Because *Structural Functions*, especially, intertwines sections with *Harmonielehre*, some of the theories in his regions and monotonicity sections can be interpreted as describing the harmonies of a single composition as having a whole tonal body.

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<sup>268</sup> See Arnold Schoenberg, *Harmonielehre*, p. 8.

<sup>269</sup> See Jacques-Louis Monod, “Patricia Carpenter and Her Studies with Arnold Schoenberg,” *The Journal of the Georgia Association of Music Theorists* 7(1997): 64.

This study has specifically tried to demonstrate that *Preliminary Exercises in Counterpoint* in combination with the examples of Schoenberg's counterpoint exercises from the Stein class notes, contain some of his most comprehensive examples in teaching counterpoint. Schoenberg also taught cadence frequently in combination with counterpoint. Stein points out in the foreword to *Preliminary Exercises in Counterpoint*, "careful attention is paid to the cadence throughout the book," making it necessary for the American students to study the vertical in combination with the horizontal.<sup>270</sup> Stein also makes it clear that Schoenberg intended to write much more about counterpoint and the vertical and horizontal combinations contained in polyphony.

Lastly, this study discussed a trajectory of Schoenberg as both musical thinker and musical pedagogue. Though his student audiences were quite different from Europe to America, Schoenberg's commitment to teaching was present throughout his life. He based the creation of his writings and lessons on the needs of his students who, like his writings, covered all levels of musical understanding. As he describes in his essay "The Task of the Teacher":

A true teacher must be a model of his pupils; he must possess the ability to achieve several times what he demands of a pupil once. It does not even suffice here to give direct advice for better procedures; he must work it out in the presence of the student, improvising several solutions to a problem, showing what is necessary.<sup>271</sup>

Just as he stated that a teacher must provide an example, so too did Schoenberg provide examples in both his classes and in his private lessons. He was also very dedicated to teaching and to his students and just as he considered the personal and individual attributes of each of his students, he also devoted his life to understanding the unique characteristics of each musical whole.

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<sup>270</sup> See Arnold Schoenberg, *Preliminary Exercises in Counterpoint*, p. xiv.

<sup>271</sup> See Arnold Schoenberg, *Style and Idea: Selected Writings of Arnold Schoenberg*, p. 389.



APPENDIX A  
SCHOENBERG'S SCHEDULE OF CLASSES  
UNIVERSITY OF CALIFORNIA, LOS ANGELES, 1936-1944

Schoenberg's Schedule of Classes  
University of California, Los Angeles, 1936-1944

1936-1937

First Semester

14A Counterpoint  
104A Form and Analysis  
105A Composition  
122A Double Counterpoint,  
Canon and Fugue

Second Semester

14B Counterpoint  
14B quiz Counterpoint  
104B Form and Analysis  
105B Composition  
122B Double Counterpoint,  
Canon and Fugue

1937-1938

First Semester

14A Counterpoint  
104A Form and Analysis  
105A Composition  
122A Double Counterpoint,  
Canon and Fugue

Second Semester

14B Counterpoint  
104B Form and Analysis  
105B Composition  
122B Double Counterpoint,  
Canon and Fugue

1938-1939

First Semester

14A Counterpoint  
104A Form and Analysis  
105A Composition  
122A Double Counterpoint,  
Canon and Fugue  
123A Advanced Form and  
Composition  
199 Special Studies

Second Semester

14B Counterpoint  
104B Form and Analysis  
105B Composition  
122B Double Counterpoint,  
Canon and Fugue  
123B Advanced Form  
199 Special Studies

1939-1940

First Semester

105A Composition  
106A Harmonic Construction  
122A Double Counterpoint  
199 Special Studies  
201A Advanced Form and  
Composition

Second Semester

105B Composition  
106B Harmonic Construction  
122B Double Counterpoint  
199 Special Studies  
201B Advanced Form and  
Composition

1940-1941

First Semester

105A Composition  
106A Harmonic Construction  
122A Double Counterpoint  
199 Special Studies  
201A Advanced Form and  
Composition

Second Semester

105B Composition  
106B Harmonic Construction  
122B Double Counterpoint  
199 Special Studies  
201B Advanced Composition

1941-1942

First Semester

14A Counterpoint  
104A Form and Analysis  
105A Composition  
106A Structural Functions of  
Harmony  
199 Special Studies  
201A Advanced Composition

1941-1942

Second Semester

104B Form and Analysis  
105B Composition  
106B Structural Functions of  
Harmony  
201B Advanced Composition  
261 Special Studies

1942-1943

First Semester

104A Form and Analysis  
105A Composition  
122A Advanced Composition  
261 Seminar: Special  
Studies for Composers

Second Semester

104B Form and Analysis  
105B Composition  
122B Double Counterpoint,  
Canon and Fugue  
261 Seminar: Special  
Studies for Composers

1942-1943

First Semester

104A Form and Analysis  
105A Composition  
106A Structural Functions of  
Harmony  
261 Seminar: Special  
Studies for Composers

APPENDIX B  
CATALOG OF LEONARD STEIN SATELLITE COLLECTION  
UCLA CLASS NOTES, 1936-1942

Leonard Stein Satellite Collection Folders  
UCLA Class Notes, 1936-1942

UCLA, 1936-1937

Counterpoint 14A (folder 103)

Counterpoint 14B (folder 103)

UCLA, 1936-1938

Counterpoint 14A (folders 103, 117)

Counterpoint Quizzes (folders 103, 117)

Original compositions and melody lines by Schoenberg for Counterpoint instruction

UCLA, 1937-1938

Counterpoint 14A (folders 103, 104, 108)

Counterpoint 14B (folders 103, 104, 108)

Composition 105A (folder 103)

Composition 105B (folder 103)

UCLA, 1940-1941

Advanced Form 201A (folder 103, 108)

Advanced Composition 201B (folder 103)

Harmonic Construction, 106A (folder 108)

Harmonic Construction 106B (folder 108)

UCLA, 1941-1942

Form and Analysis 104A (folders 102, 110)

Structural Functions 106A (folder 107)

Structural Functions 106B (folder 107)

UCLA, 1942-1944

Advanced Composition 122A (folders 103, 110, 114)

Structural Functions 106A (folders 109, 113)

Special Studies for Composers 261 (folders 103)

APPENDIX C  
CHORD PROGRESSION EXAMPLES FROM SCHOENBERG'S *HARMONIELEHRE*,  
CHORD PROGRESSION EXAMPLE BY GEORGE ROBERT,  
ANTON WEBERN'S STUDENT

Schoenberg's example from *Harmonielehre* of Fundamental Bass movement from C-C# minor as "modulations to keys as distant as those of the fifth or sixth circle of fifths," Ex. 213, p. 284.

The image displays three systems of musical notation, each consisting of a grand staff (treble and bass clefs) with a brace on the left. The notation is in C-C# minor, indicated by a key signature of one sharp (F#) and a common time signature (C). The first system shows a sequence of chords in the right hand and corresponding bass notes in the left hand. The second system continues this sequence with more complex chordal textures. The third system concludes the passage with a final cadence. The notation includes various accidentals (sharps, flats, naturals) and rests, illustrating the fundamental bass movement through distant modulations.

Tritone equivalency in a modulating phrase using the Stellvertreter concept, from the George Robert Harmonielehre, p. 174. Chord fundamentals added.



C [A D#] G# [D# A] D B [G C#] F# [A D# = E# A# = G#] A [D# - G# - C#]

APPENDIX D  
SCHOENBERG'S MUSIC THEORY LIBRARY HOLDINGS



## **Arnold Schoenberg's Library of Music Theorists and Their Works**

\* contains Schoenberg's annotations

Adler, Guido. Gustav Mahler. Leipzig: Universal-Edition, c1916.

Adorno, Theodor Wiesengrund. Philosophie der neuen Musik. Tübingen: J.C.B. Mohr (Paul Siebeck), 1949.

Bach, David Josef, editor. Denkschrift zu den Meisteraufführungen Wiener Musik, veranstaltet von der Gemeinde Wien, 26. Mai-13. Juni 1920. Vienna: Österreichische Staatsdruckerei, 1920.

Bach, David Josef. Der Kugelmensch: die Filmfläche, Phantasien und Gedenken. Vienna; Leipzig: Anzengruber, Verlag Brüder Suschitzky, c1938.

Hanslik, Erwin. Österreich, Erde und Geist. Schriften des Instituts für Kulturforschung, 3. Vienna: Institut für Kulturforschung, 1917.

\*Koch, Heinrich Christoph. Musikalisches Lexicon: auf Grundlage des Lexicon's von H. Ch. Koch. Written by Arrey von Dommer. 2. durchaus umgearbeitet und vermehrte Auflage, by Arrey von Dommer. Heidelberg: Academische Verlagsbuchhandlung von J.C.B. Mohr, 1865.

Louis, Rudolf. Die deutsche Musik der Gegenwart. 2. Auflage. Munich: Georg Müller, 1909.

Marx, Adolf Bernhard. Anleitung zum Vortrag Beethovenscher Klavierwerke. Nach der Originalauflage von 1863 neu hrsg. von Eugen Schmitz. Deutsche Musikbücherei, Bd. 3. Regensburg: G. Bosse, [1912].

Marx, Adolf Bernhard. Die Lehre von der musikalischen Komposition: praktisch theoretisch. Leipzig: Breitkopf & Härtel, v. 1-4, 1868-1887.

Rameau, Jean-Philippe. [Démonstration du principe de l'harmonie. German]. Démonstration du principe de l'harmonie servant de base à tout l'art musical théorique et pratique: Paris 1750. In Übersetzung und mit einer Einleitung und Anmerkungen hrsg. von Elisabeth Lesser. Quellenschriften der Musiktheorie, I. Wolfenbüttel: Georg Kallmeyer, 1930.

\*Riemann, Hugo. Beethoven's Streichquartette. Erläutert von Hugo Riemann. Meisterführer, Nr. 12. Berlin: Schlesinger'sche Buch- und Musikhandlung, [1910?].

Riemann, Hugo. Katechismus des Musik-Diktats: systematische Gehörsbildung. [Illustrierte Katechismen, Bd. 11]. Max Hesse's Illustrierte Katechismen, Bd. 11. Leipzig: Max Hesse's Verlag, 1889.

\*Riemann, Hugo. [Musik-Lexicon]. Hugo Riemanns Musik-Lexikon. Edited by Alfred Einstein. 10. Auflage. Berlin: Max Hesse, 1922.

Rousseau, Jean Jacques. [Confessions. German]. Rousseaus Bekenntnisse. After the translation by Levin Schücking. Neubearbeitet und herausgegeben von Konrad Wolter und Hans Bretschneider. Meyers Klassiker-Ausgaben. Leipzig: Bibliographisches Institut, [1916?].

\*Schenker, Heinrich. Beethovens Neunte Sinfonie: eine Darstellung des musikalischen Inhaltes unter fortlaufender Berücksichtigung auch des Vortrages und der Literatur. 1. Ausgabe. Vienna: Universal-Edition, 1912.

\*Schenker, Heinrich. Ein Beitrag zur Ornamentik: als Einführung zu Ph. Em. Bach's Klavierwerken, umfassend auch die Ornamentik Haydns, Mozarts u. Beethovens etc. Vienna: Universal-Edition, [1908?].

\*Schenker, Heinrich. Neue musikalische Theorien und Phantasien. Erster Band. Harmonielehre. Stuttgart: J. G. Cotta'sche Buchhandlung Nachfolger, v. 1, 1906.

\*Schenker, Heinrich. [Neue musikalische Theorien und Phantasien. Zweiter Band. Kontrapunkt]. Kontrapunkt. Erster Halbband. Cantus Firmus und zweistimmiger Satz. Stuttgart: J. G. Cotta'sche Buchhandlung Nachfolger, v. 2, 1910.

APPENDIX E  
SCHOENBERG'S TEACHING APPOINTMENTS, MAJOR WRITINGS,  
AND COMPOSITIONS TIMELINE

## Schoenberg's Teaching Appointments, Major Writings and Compositions Timeline

|  |  |           |
|--|--|-----------|
| Opus 1   | Zwei Lieder für Bariton  | 1897      |
| Opus 2   | Vier Lieder für hohe Stimme<br>(inc. Erwartung)                    | 1897      |
| Opus 4   | Verklärte Nacht für Streichsextett<br>(text: Dehmel)               | 1899      |
|  | { Gurrelieder }<br>(text: Jacobsen)                                | 1900-1911 |
| <b>Stern Conservatory, Berlin (1901-03)</b>    |  |           |
| Opus 5   | Pelléas und Melisande  | 1903      |
| <b>Schwarzwald School (1903-1920)</b>          |  |           |
| Opus 6   | Acht Lieder<br>(inc. Mädchenlied)                                  | 1903-05   |
| <b>Webern/Berg Private Lessons (1904-1933)</b> |  |           |
| Opus 7   | 1 <sup>st</sup> Streichquartett                                    | 1905      |
| Opus 8   | Sechs Orchesterlieder  | 1904      |
| Opus 9   | 1 <sup>st</sup> Kammersymphonie                                    | 1906      |
| Opus 10  | 2 <sup>nd</sup> Streichquartett<br>(text: Stefan George)           | 1908      |
| Opus 11  | Drei Klavierstücke   | 1909      |
| Opus 12  | Zwei Balladen für Gesand/Klavier                                   | 1907      |
| Opus 13  | “Friede auf Erden” für A Cappella Chor                             | 1907      |
| Opus 14  | Zwei Lieder  | 1907      |
| Opus 15  | Das Buch der Hängenden Gärten (15 lieder)<br>(text: Stefan George) | 1908-09   |

|         |   |         |
|---------|---|---------|
| Opus 16 | Fünf Orchesterstücke<br>(no. 3, Klangfarbenmelodie)       | 1909    |
| Opus 17 | “Erwartung”   | 1909    |
|         | <b>Imperial Academy of Arts</b>                           |         |
|         | <b><i>HARMONIELEHRE, 1<sup>st</sup> edition</i></b>       |         |
|         | <b>Stern Conservatory, Berlin</b>                         |         |
| Opus 18 | “Die glückliche Hand”                                     | 1913    |
| Opus 19 | Sechs Kleine Klavierstücke                                | 1911    |
| Opus 20 | “Herzgewächse”<br>(für Sopran, Celesta, Harfe, Harmonium) | 1911    |
| Opus 21 | “Pierrot Lunaire”<br>(21 Melodrama: Sprechstimme)         | 1912    |
| Opus 22 | Vier Orchesterlieder<br>(Rilke, George)                   | 1913-16 |
|         | <b>ZKIF (1917)</b>  |         |
| Opus 23 | Fünf Klavierstücke  | 1920-23 |
| Opus 24 | Serenade  | 1920-23 |
| Opus 25 | Suite for Klavier   | 1921    |
|         | <b><i>HARMONIELEHRE, 3<sup>rd</sup> edition</i></b>       |         |
| Opus 26 | Bläserquintett  | 1923-24 |
|         | <b>Prussian Academy, Berlin (1925-1933)</b>               |         |
| Opus 27 | Vier Stücke für gemischten Chor                           | 1925    |
| Opus 28 | Drei Satiren für gemischten Chor                          | 1925    |
| Opus 29 | Suite für Klavier, drei Holzbläser/drei Streicher         | 1924-26 |
|         | <b><i>Der musikalische Gedanke, (no. 2) (1925)</i></b>    |         |
| Opus 30 | 3 <sup>rd</sup> Streichquartett                           | 1927    |

|         |  |         |
|---------|--|---------|
| Opus 31 | Variationen für Orchester                  | 1926-28 |
| Opus 32 | “Von heute auf morgen”<br>(Opera in 1 act) | 1928-29 |

***Der musikalische Gedanke, (no. 4) (1929)***

|              |   |         |
|--------------|---|---------|
| Opus 33a & b | Klavierstücke   | 1929-31 |
| Opus 34      | Begleitungsmusick /Lichtspielszene<br>(Accompaniment to a Film Score) | 1929-30 |
| Opus 35      | Sechs Stücke für Männerchor   | 1929-30 |

**Malkin Conservatory, Boston (1933-**

***Der musikalische Gedanke, (no. 10) (1934)***

|         |                                   |           |
|---------|-----------------------------------|-----------|
| Opus 36 | Concerto for Violin and Orchestra | 1934-1936 |
|---------|-----------------------------------|-----------|

**University of Southern California (1935-1936)**

|         |                                |      |
|---------|--------------------------------|------|
| Opus 37 | 4 <sup>th</sup> String Quartet | 1936 |
|---------|--------------------------------|------|

**University of California, Los Angeles (1936-1944)**

|              |                                 |         |
|--------------|---------------------------------|---------|
| Opus 38a & b | 2 <sup>nd</sup> Kammersymphonie | 1906-39 |
|--------------|---------------------------------|---------|

|         |                        |      |
|---------|------------------------|------|
| Opus 39 | Kol nidre für Sprecher | 1938 |
|---------|------------------------|------|

|         |                                      |      |
|---------|--------------------------------------|------|
| Opus 40 | Variations on a Recitative for Organ | 1941 |
|---------|--------------------------------------|------|

|         |  |      |
|---------|--|------|
| Opus 41 | Ode to Napoleon Buonaparte<br>(text: Lord Byron) | 1942 |
|---------|--|------|

|         |                                  |      |
|---------|----------------------------------|------|
| Opus 42 | Concerto for Piano and Orchestra | 1942 |
|---------|----------------------------------|------|

|              |                                    |      |
|--------------|------------------------------------|------|
| Opus 43a & b | Theme and Variations for Full Band | 1943 |
|--------------|------------------------------------|------|

***Models for Beginners in Composition (1943)***

**Private Lessons, Brentwood, California (1944-1951)**

|         |  |      |
|---------|--|------|
| Opus 44 | Prelude for Mixed Chorus and Orchestra | 1945 |
|---------|--|------|

|         |             |      |
|---------|-------------|------|
| Opus 45 | String Trio | 1946 |
|---------|-------------|------|

|         |                        |      |
|---------|------------------------|------|
| Opus 46 | A Survivor from Warsaw | 1947 |
|---------|------------------------|------|

|           |                                |                    |
|-----------|--------------------------------|--------------------|
| Opus 47   | Phantasy for Violin with Piano | 1949               |
| Opus 48   | Drei Lieder für tiefe Stimme   | 1933               |
| Opus 49   | Drei Volksliedsätze            | 1948               |
| Opus 50a  | Dreimal tausend Jahre für Chor | 1948               |
| Opus 50b  | Psalm 130 for Mixed Chorus     | 1950               |
| Opus 50c  | Moderner Psalm for Sprecher    | 1951               |
| Fragments | Moses and Aaron                | 1928-1932          |
|           | Jakobslieder                   | 1917-1922,<br>1944 |

|  |
|--|
| <p style="text-align: center;"><b>Posthumous Textbook Publications</b><br/> <i>Structural Functions of Harmony, (1954)</i><br/> <i>Preliminary Exercises in Counterpoint, (1964)</i><br/> <i>Fundamentals of Musical Composition, (1967)</i></p> |
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## BIBLIOGRAPHY

### Schoenberg's Publications

- Schoenberg, Arnold. *Der Musikalische Gedanke und die Logik, Technik, und Kunst seiner Darstellung*. Published as *The Musical Idea and the Logic, Technique, and Art of Its Presentation*. Ed. and Trans. Patricia Carpenter and Severine Neff. Columbia University Press, 1995.
- *Fundamentals of Musical Composition*. Ed. Gerald Strang and Leonard Stein. London: Faber and Faber, 1967.
- *Harmonielehre*. 3rd ed., Vienna: Universal Editions, 1922. Translated as *Theory of Harmony*, by Roy E. Carter. Los Angeles: University of California Press, 1978.
- *Letters*. Ed. by Erwin Stein. Trans. Eithne Wilkins and Ernst Kaiser. London: Faber and Faber, 1964.
- *Models for Beginners in Composition*. Ed. Leonard Stein. Los Angeles: Belmont, 1943.
- *Preliminary Exercises in Counterpoint*. Ed. Leonard Stein. New York: St. Martin's Press, 1964.
- *Structural Functions of Harmony*. Ed. Leonard Stein. New York: Norton, 1954.
- *Style and Idea: Selected Writings of Arnold Schoenberg*. Ed. Leonard Stein. Trans. Leo Black. Los Angeles: University of California Press, 1975.
- "Two Fragments (c. 1945): 1) Tonality, 2) Form." *Theory and Practice-Journal of the Music Theory Society of the New York State* 17 (1992): 1-4.
- "Four Fragments." in *Theory and Practice-Journal of the Music Theory Society of the New York State* 18 (1993): 1-27.
- *Zusammenhang, Kontrapunkt, Instrumentation, Formenlehre [Coherence, Counterpoint, Instrumentation, Instruction in Form] (ZKIF)*. Ed. Severine Neff. Trans. Charlotte Cross and Severine Neff. Lincoln: University of Nebraska Press, 1994.



## General References

- Alderman, Pauline. "Arnold Schoenberg at USC." *Journal of the Arnold Schoenberg Institute* 5(2) (1981): 203-210.
- Antokoletz, Elliot. "A Survivor of the Vienna Schoenberg Circle: An Interview with Paul A. Pisk." *Tempo* 154 (1985): 15-21.
- Bailey, Walter, editor. *The Arnold Schoenberg Companion*. Greenwood Press, 1998.
- Beach, David. "The Harmonic Theories of Johann Philipp Kirnberger, Their Origins and Influence." PhD Dissertation, Yale University, 1974.
- Bellermann, Heinrich. *Der Contrapunkt oder zur Stimmführung in der musikalischen Composition*. Berlin: Springer, 1862.
- Bent, Ian, editor. *Music Analysis in the Nineteenth Century, volume I: Fugue, Form and Style*. Cambridge Readings in the Literature of Music. Cambridge: Cambridge University Press, 1994.
- . *Music Analysis in the Nineteenth Century, volume II: Hermeneutic Approaches*. Cambridge Readings in the Literature of Music. Cambridge: Cambridge University Press, 1994.
- Berg, Alban. "Berg Guides." *Journal of the Arnold Schoenberg Institute* 16 (1993): 1-2.
- Bernstein, David W. "Nineteenth-century harmonic theory: the Austro-German legacy." In *The Cambridge History of Western Music Theory*, 778-811. Ed. Thomas Christensen. Cambridge: Cambridge University Press, 2002.
- . "Schoenberg Contra Riemann: *Stufen*, Regions, Verwandtschaft, and the Theory of Tonal Function." *Theoria: Historical Aspects of Music Theory* 6 (1992): 23-53.
- Borio, Gianmario. "Schenker versus Schoenberg versus Schenker: The Difficulties of a Reconciliation." *Journal of the Royal Musical Association* 126:2 (2001): 250-274.
- Boss, Jack. "Schoenberg on Ornamentation and Structural Levels." *Journal of Music Theory* 38(2) (1994): 187-216.
- Brand, Juliane, and Christopher Hailey, editors. *Constructive Dissonance: Arnold Schoenberg and the Transformation of Twentieth Century Culture*. Berkeley: University of California Press, 1997.

- Brand, Juliane, Christopher Hailey, and Donald Harris, editors. *The Berg-Schoenberg Correspondence – Selected Letters*. London: The MacMillan Press, Ltd., 1987.
- Bruckner, Anton. *Vorlesungen über Harmonielehre und Kontrapunkt an der Universität Wien*. Ed. Ernst Schwanzara. Vienna: Österreichischer Bundesverlag, 1950.
- Burnham, Scott. "Criticism, Faith, and the *Idée*: AB Marx's Early Reception of Beethoven." *19<sup>th</sup> Century Music* 12 (1989-1990): 183-192.
- Caplin, William E. *Classical Form, a Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven*. Oxford: Oxford University Press, 1998.
- . "Harmony and Meter in the Theories of Simon Sechter." *Music Theory Spectrum*, 2 (Spring, 1980): 74-89.
- Carpenter, Patricia. "A Problem in Organic Form: Schoenberg's Tonal Body." *Theory and Practice* 13 (1988): 31-63.
- . "Grundgestalt as Tonal Function." *Music Theory Spectrum* 5 (1983): 15-38.
- . "Musical Form and Musical Idea: Reflections on a Theme of Schoenberg, Hanslick, and Kant." In *Music and Civilization: Essays in Honor of Paul Henry Lang*, 394-427. Ed. MR Maniates, E. Strainshamps and Christopher Hatch. New York: Norton, 1984.
- Carpenter, Patricia and Severine Neff. "Schoenberg's Philosophy of Composition: Thoughts on the 'Musical Idea and Its Presentation,'" In *Constructive Dissonance, Arnold Schoenberg and the Transformations of Twentieth-Century Culture*, 146-159. Ed. Juliane Brand and Christopher Hailey. Berkeley: University of California Press, 1997.
- Chenevert, James. "Simon Sechter's *The Principles of Musical Composition*: A Translation of and Commentary on Selected Chapters," PhD dissertation, University of Wisconsin-Madison, 1989.
- Christensen, Thomas, editor. *The Cambridge History of Western Music Theory*. Cambridge: Cambridge University Press, 2002.
- Covach, John R. "Schoenberg and the Occult: Some Reflections on the Musical Idea" *Theory and Practice* 17 (1992): 103-118.
- Cross, Charlotte. "Schoenberg's Earliest Thoughts on the Theory of Composition: A Fragment from c. 1900." *Theoria: Historical Aspects of Music Theory* 8 (1994): 113-133.
- . "Three Levels of 'Idea' in Schoenberg's Thought and Writings." *Current Musicology* 30 (1980): 24-36.

- Cross, Charlotte and Russell A. Berman, editors. *Schoenberg and Words: The Modernist Years*. New York: Garland Publishers, Inc., 2000.
- Dahlhaus, Carl. "Schoenberg and Schenker." *Proceedings of the Royal Musical Association* 100 (1973): 209-215.
- "Some Models of Unity in Musical Form." *Journal of Music Theory* 19(1) (1975): 2-30.
- Dineen, Murray. "From the Gerald Strang Bequest at the Arnold Schoenberg Institute: Documents of a Teaching." *Theory and Practice* 18 (1993): 109-126.
- "Problems of Tonality: Schoenberg and the Concept of Tonal Expression." PhD Dissertation, Columbia University, 1989.
- "Schoenberg's Concept of Neutralization." *Theoria: Historical Aspects of Music Theory* 2 (1987): 13-38.
- Dudeque, Norton. *Music Theory and Analysis in the Writings of Arnold Schoenberg (1874-1951)*. Burlington: Ashgate Publishing, 2005.
- Dunsby, Jonathan. "Schoenberg on Cadence." *Journal of the Arnold Schoenberg Institute* 4(1) (1980): 41-49.
- Dunsby, Jonathan and Arnold Whittall, editors. *Music Analysis: in Theory and Practice*. London: Faber & Faber, 1988.
- Fischer, George. "System and Impulse: Three Theories of Periodic Structure from the Early Nineteenth Century." *Current Musicology* 49 (1991): 29-47.
- Frisch, Walter. *Brahms and the Principle of Developing Variation*. Berkeley: University of California Press, 1984.
- Frisch, Walter, editor. *Schoenberg and His World*. Princeton University Press, 1999.
- Goehr, Alexander. "The Theoretical Writings of Arnold Schoenberg." *Proceedings of the Royal Musical Association* 100 (1973-74): 85-96.
- "Schoenberg's Gedanke Manuscript." *Journal of the Arnold Schoenberg Institute* 2(1) (1977): 4-25.
- Grant, Cecil Powell. "The Real Relationship Between Kirnberger's and Rameau's Concept of the Fundamental Bass." *Journal of Music Theory* 21(2) (1977): 328-336.
- Grave, Floyd K. and Margaret G. Grave. *In Praise of Harmony: The Teachings of Abbé George Joseph Vogler*. Lincoln: University of Nebraska Press, 1987.

- Gruber, Gerold W., editor. *Arnold Schönberg: Interpretationen seiner Werke*. Bands I and II. Laaber-Verlag: Deutschland, 2002.
- Hailey, Christopher and Donald Harris, editors. *The Schoenberg-Berg Correspondence*. New York: Norton, 1987.
- Haimo, Ethan. "Schoenberg and the Origins of Atonality." In *Constructive Dissonance: Arnold Schoenberg and the Transformation of Twentieth Century Culture*, 71-84. Ed. Juliane Brand and Christopher Hailey. Berkeley: University of California Press, 1997.
- . *Schoenberg's Serial Odyssey*. Oxford: Clarendon Press, 1990.
- Hatch, Christopher and David Bernstein, editors. *Music Theory and the Exploration of the Past*. Chicago: University of Chicago Press, 1993.
- Hoffman, Richard. "Komponieren lehren und lernen: Arnold Schonberg." *Osterreichischer Musikzeitschrift* 42(12) (1987): 576-577.
- Jeppeson, Knud. *Counterpoint: The Polyphonic Vocal Style of the Sixteenth Century*. Trans. Glen Haydon. New York: Prentice-Hall, Inc., 1939.
- Kirnberger, Johann Philipp. *The Art of Strict Musical Composition*. Trans. David Beach and Jurgen Thym. New Haven: Yale University Press, 1982.
- . *Die Kunst des reinen Satzes*. Vol. I Berlin, 1771-1779.
- Knight, Lovina May. "Classes with Schoenberg, January through June 1934." *Journal of the Arnold Schoenberg Institute* 13(2) (1990): 137-162.
- Krämer, Ulrich. "Schönbergs Kompositionslehre und Ihr Verhältnis zur Tradition (A.B. Max-J.C. Lobe)," In *Alban Berg Als Schüler Arnold Schönbergs-Quellenstudien und Analysen zum Frühwerk*, 38-67. Wien: Universal Edition, 1996
- Kurth, Ernst. *Selected Writings*. Ed. And Trans. Lee A. Rothfarb. Cambridge: Cambridge University Press, 1991.
- Langlie, Warren. "Schoenberg as Teacher." PhD Dissertation, University of California, Los Angeles, 1960.
- Lessem, Alan. "Teaching Americans Music: Some Emigre Composer Viewpoints, ca. 1930-1955." *Journal of the Arnold Schoenberg Institute* 11(1) (1988): 4-22.
- Lester, Joel. *Compositional Theory in the Eighteenth Century*. Cambridge, MA: Harvard University Press, 1992.

- . "Rameau and eighteenth-century harmonic theory." In *The Cambridge History of Western Music Theory, 753-777*. Ed. Thomas Christensen. Cambridge: Cambridge University Press, 2002.
- Lewis, Christopher. "Mirrors and Metaphors: Reflections on Schoenberg and Nineteenth-Century Tonality." In *Music at the Turn of the Century*, 15-31. Ed. Joseph Kerman. Berkeley: University of California Press, 1990.
- Louis, Rudolph. *Der Widerspruch in der Musik*. Leipzig: Breitkopf & Härtel, 1893.
- MacDonald, Malcolm. *Schoenberg*. London: JM Dent & Sons, 1976.
- Marx, Adolf Bernhard. *Die Lehre von der musikalischen Komposition: praktisch theoretisch, volumes 1-4*. Leipzig: Breitkopf und Härtel, 1868-1887.
- McBride, Jerry. "Teaching Materials in the Arnold Schoenberg Institute Archives." *Journal of the Arnold Schoenberg Institute* 4(1) (1980): 103-108.
- Milstein, Silvina. *Arnold Schoenberg: notes, sets, forms*. Cambridge: Cambridge University Press, 1992.
- Monod, Jacques-Louis. "Interview: Patricia Carpenter and Her Studies with Arnold Schoenberg." *Journal of the Georgia Association of Music Theorists* 7 (1997): 61-74.
- Musgrave, Michael. "Schoenberg and Theory." *Journal of the Arnold Schoenberg Institute* 4(1) (1980): 34-40.
- Neff, Severine. "Goethe and Schoenberg: Organicism and Analysis," In *Music Theory and the Exploration of the Past*, 409-433. Ed. Christopher Hatch and David Bernstein. Chicago: University of Chicago Press, 1993.
- . "Reinventing the Organic Artwork: Schoenberg's Changing Images of Tonal Form." In *Schoenberg and Words: The Modernist Years*, 275-308. Ed. Charlotte Cross and Russell Berman. New York: Garland Publishing, Inc., 2000.
- . "Schoenberg as Theorist: Three Forms of Presentation." In *Schoenberg and His World*, 55-84. Ed. Walter Frisch. Princeton University Press, 1999.
- . "Schoenberg's Theoretical Writings after the *Harmonielehre*: A Study of the Published and Unpublished Manuscripts." *College Music Symposium* 23 (1994): 171-211.
- . "'This I have Learned from My Students': The Teachings of Arnold Schoenberg." *Journal of the Georgia Association of Music Theorists* 7 (1997): 3-30.
- Newlin, Dika. *Bruckner, Mahler, Schoenberg*. New York: Norton 1978.

- . *Schoenberg Remembered: Diaries and Recollections*. New York: Pendragon Press, 1980.
- Phipps, Graham. "A Response to Schenker's Analysis of Chopin's Etude, p. 10, no. 12, Using Schoenberg's Grundgestalt Concept." *The Musical Quarterly* 69(4) (1983): 543-569.
- . "Comprehending Twelve-Tone Music as an Extension of the Primary Musical Language of Tonality." *College Music Symposium* 24(2) (1984): 35-54.
- . "Die Erscheinungen and Brahms – A Critical Essay on Peter H. Smith's *Expressive Forms in Brahms's Instrumental Music*." *Theoria* 14 (2007): 149-161.
- . "Harmony as a determinant of structure in Webern's variations for orchestra." In *Music Theory and the Exploration of the Past*, 377-407. Ed. Christopher Hatch and David Bernstein. Chicago: University of Chicago Press, 1993.
- . "Review of Simon Sechter." *19<sup>th</sup> Century Music* 5(2) (1981): 167-168.
- . "Schoenberg's Grundgestalt Principle: A New Approach with Particular Application to the Variations for Orchestra, Opus 31." PhD Dissertation, University of Cincinnati, 1976.
- . "The Logic of Tonality in Strauss's *Don Quixote*: A Schoenbergian Evaluation." *19<sup>th</sup> Century Music* IX/3 (Spring 1986): 89-205.
- . "Tonality in Webern's Cantata I." *Music Analysis* 3(2) (1984): 125-158.
- . "The Nature of Things and the Evolution of Nineteenth-Century Musical Style: An Essay on Carl Dahlhaus's Studies on the Origin of Harmonic Tonality." *Theoria* 7 (1993): 141-163.
- . "The Tritone as an Equivalency: A Contextual Perspective for Approaching Schoenberg's Music." *Journal of Musicology* 4 (1985): 51-69.
- Rameau, Jean-Philippe. *Treatise on Harmony*. Trans. Philip Gossett. New York: Dover Publications, 1971.
- . *The Complete Theoretical Writings of Jean-Philippe Rameau*, 6 vols. Ed. Erwin Jacobi. American Institute of Musicology, 1967-1972.
- Rasch, Rudolf. "Tuning and temperament." In *The Cambridge History of Western Music Theory*, 193-222. Ed. Thomas Christensen. Cambridge: Cambridge University Press, 2002.
- Ratz, Erwin. *Einführung in die musikalische Formenlehre*. Österreichischer Bundesverlag, Vienna: Universal, 1973.

Reich, Willi. *Schoenberg: A Critical Biography*. Trans. Leo Black. New York: Praeger, 1971.

Réti, Rudolph. *The Thematic Process in Music*. London: Faber & Faber, 1961.

Riemann, Hugo. *Gross Kompositionslehre I. Band Der homophone Satz (Melodielehre und Harmonielehre)*. Berlin: W. Spemann, 1902.

------. *Katechismus der Harmonie und Modulationslehre*. Leipzig: Max Hesse, 1906.

Rexroth, Dieter. "Arnold Schönberg als Theoretiker der tonalen Harmonik." Inaugural-Dissertation, Rheinische Friedrich-Wilhelms Universität Bonn, 1971.

Rufer, Josef. *Composition with Twelve Tones Related Only to One Another*. Trans. Humphrey Searle. London: Rockliff, 1954.

------. *The Works of Arnold Schoenberg: A Catalogue of His Compositions, Writings and Paintings*. Trans. Dika Newlin. London: Faber and Faber, 1962.

Schenker, Heinrich. *Harmony*. Trans. Elizaeth Borgese. Chicago: University of Chicago Press, 1954.

------. "Free Composition," in *New Musical Theories and Fantasies*, volume III. Ed. and Trans. Ernst Oster. New York: Longman, 1979.

Sechter, Simon. *Die Grundsätze der musikalischen Komposition*, 3 volumes. Leipzig: Breitkopf und Härtel, 1853-1854.

------. "The Correct Order of Fundamental Harmonies: A Treatise on Fundamental Bases, and their Inversions and Substitutes." Trans. C.C. Müller. New York: Wm A. Pond & Co., 1880.

Shirlaw, Matthew. *The Theory of Harmony*. 2nd edition. DeKalb, IL: Birchard Coar, 1955.

Simms, Bryan. "Review of Arnold Schoenberg, *Theory of Harmony*, translated by Roy Carter." *Music Theory Spectrum* 4 (1982): 155-162

------. "Schoenberg: The Analyst and the Analyzed." In *The Arnold Schoenberg Companion*, 223-250. Ed. Walter Bailey. Greenwood Press, 1998.

Smith, Joan Allen. *Schoenberg and His Circle – A Viennese Portrait*. New York: Schirmer Books, 1986.

Stein, Erwin. *Praktischer Leitfaden zu Schönbergs Harmonielehre: ein Hilfsbuch für Lehrer und Schüler*. Vienna: Universal Edition, 1912.

- Stein, Leonard. "Satellite Collection S23." The Arnold Schönberg Center Privatstiftung, Vienna Austria, 1894-1996.
- Steuermann, Clara. "From the Archives: Satellites II." *Journal of Arnold Schoenberg Institute*, 2(2) (1977): 61-62.
- Straus, Joseph. *Remaking the Past, Musical Modernism and the Influence of Tonal Tradition*. Cambridge: Harvard University Press, 1990.
- Stuckenschmidt, H.H. *Schoenberg: His Life, World and Work*. New York: Schirmer Books, 1974.
- Wason, Robert. *Viennese Harmonic Theory from Albrechtsberger to Schenker and Schoenberg*. Ann Arbor: University Microforms International, 1985.
- Webern, Anton. *The Path to the New Music*. Trans. Willi Reich. London: Theodore Presser Co., 1963.
- . *Über musikalische Formen*. Basel: Paul Sacher Stiftung, 1999.
- Wellesz, Egon. *Arnold Schoenberg*. Trans. W.H. Kerridge. London: J.M. Dent, 1924.
- Wintle, Christopher. "Schoenberg's Harmony: Theory and Practice." *Journal of the Arnold Schoenberg Institute* 4(1) (1980): 50-67.