THE HARMONIC LANGUAGE OF ARNOLD SCHOENBERG'S
SECOND STRING QUARTET OP.10

by

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Abstract

Arnold Schoenberg's Second String Quartet, Op.10, completed in 1908, is the last of his works in which a key signature is used, and is generally regarded as a transitional work leading towards his 'atonal' period. Each of the first three movements has a key signature, whereas the last movement has no key signature—a characteristic of his later atonal works.

This study traces how the harmonic language evolves over the four movements of the quartet. The present analysis of each movement shows the structural procedures, the nature of the polyphony and the compositional techniques employed, including those which result in the dissolution of tonality. These changes contribute to the significance of the quartet as a critical work within the transition from the tonal to atonal medium.
Résumé

Le Deuxième Quatuor à cordes (opus 10) d’Arnold Schoenberg composé en 1908 est la dernière œuvre dans laquelle il utilise une armature. En général, ce quatuor est considéré comme une œuvre de transition vers sa période atonale. Une armature est utilisée dans les trois premiers mouvements du quatuor, mais non dans le dernier mouvement -- un trait caractéristique de ses dernières œuvres atonales.

Dans cette étude, on retrace comment le langage harmonique évolue à travers les quatre mouvements du quatuor. L’analyse de chaque mouvement démontre les processus structuraux, la nature de la polyphonie et les techniques de composition utilisées, incluant celles qui mènent à la dissolution de la tonalité. Ces changements montrent que le deuxième quatuor à cordes est une œuvre majeure dans la transition du médium tonal au médium atonal.
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Arnold Schoenberg's creative career may be divided into four periods. (1) The music of the first period (1895-1908) is described as tonal, but the extensive use of chromaticism foreshadows the dissolution of tonality, which occurs in his second, the so-called 'atonal' period (1909-1914). At the beginning of the 1920s, after several years of silence, Schoenberg entered the third period (1923-1933), i.e., 'twelve-tone' composition. The works from the last period (1933-1951), which was spent in the United States, show a great stylistic diversity including the occasional return to tonality.

The Second String Quartet, Op.10 (1907–1908), is generally regarded as a transitional work, concluding the first phase of Schoenberg's career and leading to the second. The transitional nature of the piece with respect to tonality is immediately evident in the use of a key signature for the first three movements but its omission in the fourth movement, in which the key center is F# major. The highly chromatic writing, involving the exploitation of non-harmonic tones and augmented chords in the first two movements as well as the increasing dissonance of the third movement, resulting from the extensive contrapuntal texture, make the chords that open and close each movement referential features rather than functional tonics. Although the final movement ends with an F# major triad and the tonal...
center is stated sporadically, the harmonic structure of some passages reaches far beyond the principles of traditional harmony.

My thesis will investigate the evolution of Schoenberg's harmonic language by tracing the path to atonality within the framework of the Second String Quartet.
Schoenberg's Second String Quartet

Before the Second String Quartet, Schoenberg had composed a number of important works. These include *Verklärte Nacht* (1899), a string sextet later arranged for string orchestra, a symphonic poem *Pelleas und Melisande* (1902-1903) for large orchestra and the First String Quartet, Op.7 (1904-1905) all in a single-movement structure. The gigantic cantata *Gurrelieder*, written in 1900-1901, is also regarded as an important composition of this period, although the orchestration was not completed until 1911. The works from the first period are described as post-romantic, still remaining within the boundaries of tonality. Schoenberg considered that the climax of the period was reached in the *Kammersymphonie*, Op.9 (1906). The principal key of the piece is E major, as indicated in the key signature, but the work contains melodic and harmonic elements built in fourths and fifths as well as pitch structures based on whole-tone scales. Thus the work is considered to be the turning point in Schoenberg's evolution from 'explicit' tonality to 'implicit' atonality. Further steps towards atonality were, however, not so conspicuous in the next two works, *Friede auf Erden*, Op.13, which could be described as pan-diatonic (4), and *Zwie Balladen*, Op.12, the immediate predecessors of the Second String Quartet, which are
still very tonal. (5)

The Second String Quartet was finished in 1908. During the same year Schoenberg started to compose the pieces of Das Buch der hangenden Garten, Op.15, one of the first of a series of atonal compositions which includes Drei Klavierstücke, Op.11 and Fünf Orchesterstücke, Op.16. In 'My Evolution', Schoenberg described the quartet as a work which marks the transition to his second period. He also discussed the main features of the work.

In the first and second movements there are many sections in which the individual parts proceed regardless of whether or not their meeting results in codified harmonies. Still, here, and also in the third and fourth movements, the key is presented distinctly at all the main dividing-points of the formal organization. Yet the overwhelming multitude of dissonances cannot be counterbalanced any longer by occasional returns to such tonal triads as represent a key. It seemed inadequate to force a movement into the Procrustean bed of a tonality without supporting it by harmonic progressions that pertain to it. (6)

Schoenberg himself admitted that this quartet played a great role in his career, although he denied a definite progression towards atonality within the work. He commented that "Within [the quartet], one finds many sectional endings on more or less remote relatives of the key. ...the obstacles to comprehension have to be found in the inclusion of extratonal progressions in the themes, which require clarification by remotely related harmony progressions, which are themselves obstacles to comprehension." (7) These are regarded as important transitional features of the piece.

In his book Schoenberg, Anthony Payne considers the quartet as one of the most fascinating of all transitional works because
it takes steps to sever the tonal bond completely while at the same time parts of it are overtly tonal. (8)

Egon Wellesz writes that the piece forms a bridge between the works of the earlier and later styles. "Here the new tendencies become more obvious, and in the final movement one can clearly recognize the complete change in style." Wellesz goes on to say:

With this quartet, which shows Schoenberg in full possession of technical power, he abandons traditional form and devotes himself to new problems. And this it is which makes the decisive step. (9)

This decisive step was probably towards 'atonality'.

Malcolm MacDonald begins his book on Schoenberg with a discussion of the Second Quartet. He explains the reason for the public scandal at the first performance of the quartet in 1908 as the undermining of the listener's basic assumption about the key, i.e., "its unheard-of rapidity in modulation plunged the audience into a half-familiar yet unsettling world." He maintains that "[the piece is] an important stage in Schoenberg's own musical and spiritual development, and a crucial document in twentieth-century music." (10)

Because of its significance among Schoenberg's works, the Second String Quartet has received a fair amount of consideration from scholars. Most of the discussions are descriptive, mainly dealing with form and motivic content--thus they are limited in scope. Some studies deal with the programmatic aspect and the relationship between text and music in the third and fourth movements (Lessem, Eversen, Baily). There are also several scholars who attempt rather comprehensive
analyses of the piece. Five of these studies will be summarized according to the chronological order.

Philip Friedheim's dissertation, "Tonality and Structure in the Early Works of Arnold Schoenberg," in 1963, includes an analysis of the quartet. His work is "a special study of the musical structure of the early works of Schoenberg as influenced by the movement away from tonality toward atonality,"(11) and includes numerous works from the early period to the atonal composition, Three Piano Pieces, Op.11. The analysis of the quartet begins with a short description of each of the four movements. It is devoted to the harmonic and motivic aspects of important local events in each movement as well as the overall formal design. Friedheim states that it is possible to trace the dissolution of tonality from the Brahmsian opening theme to the final movement which goes far beyond the limits of traditional harmony. But an integrated view of the entire piece, which would support this assertion, is not presented.

John C. Crawford's study of Schoenberg's vocal works, "The Relationship of Text and Music in the Vocal Works of Arnold Schoenberg, 1908-1924," contains an analysis of the Second Quartet. The author describes the musical structure of each movement, stylistic differences from the earlier works, and the texts of the last two movements. Since his study is devoted to Schoenberg's vocal pieces, a major portion of the discussion is concentrated on the relationship between the text and music in the third and fourth movements, dealing with form, harmonic language and musical symbols. There follows a summary of the
Crawford concludes: "All the innovations of the Second Quartet, however, whether they are attributable to textual or purely musical considerations, take place within a traditional framework of musical form and tonality."(12)

The 1973 master's thesis by John Kimmy, "Prolegomena to a Phenomenology of Music: a Comparative Study of Arnold Schoenberg and Edmund Husserl," features a detailed study of thematic development in the quartet. The author traces the transformation of the main motives throughout the whole piece. He proposes that an initial motive could be the basis of all musical material in a movement or work and regards the quartet as such a work, built on a germ motive.(13) Although he includes a brief analysis of cadential devices used in the piece, he does not present a general discussion of the harmonic aspects of the work.

"Tradition and the Breaking of Tradition in the String Quartets of Ives and Schoenberg," is the title of the dissertation by Gwyneth Walker which contains full analyses of four string quartets, the first and second by each composer. In the analysis of Schoenberg's Second Quartet, Walker illustrates important features of each movement: patterns of harmonic modulation and the role of tempo markings and dynamics in determining the phrase structure in the first movement; motivic content and harmonic vocabulary of the second movement; and
cohesive construction achieved by contrapuntal technique in the third movement. The analysis of the fourth movement is rather extensive with an intervallic analysis of the introduction, and discussion of the harmonic duality in the thematic material and postlude. Walker considers Schoenberg's arrival at atonality as "a gradual process involving the emancipation of dissonance through an increased awareness of and dependence upon other compositional procedures." (14) She also proposes that the progression toward atonality is a gradual process from movement to movement rather than a sudden change. The author then summarizes the characteristics of the piece revealed in her analysis as follows:

The first movement combined a tonal-thematic clarity with extreme delineation of the formal structure. The second movement tightened the motivic construction while essentially discarding a triadic vocabulary... The third movement relied upon reiteration of the tonic triad and pitch identity for stability. The motivic-contrapuntal considerations were primary... The fourth movement completed the process of the previous movement by abandoning both a triadic center and supportive structures. The resulting atonality was the final link in a chain whose connections were based not only on the progressive rejection of tonal procedures, but also on the increased cogency in motivic derivation and formal delineation. (15)

Some of these views are shared by Jim Samson who offers a concise and complete interpretation of the quartet as a whole in his book, Music in Transition, a study of early twentieth century music, published in 1977. He, too, explains the important harmonic and melodic features of all four movements through well-defined musical examples that support his points convincingly. (16)

The works of Samson and Walker are relevant to the
viewpoints which will be considered in the present study. By presenting a more detailed harmonic analysis than most critics, the characteristics summarized by both Walker and Samson will be clarified. Their points of view will be referred to wherever necessary as the analysis progresses. The pitch structure of the first and the final movements will be subjected to harmonic analysis. A study of some harmonic elements from the second and third movements will contribute to the understanding of the evolution of Schoenberg's harmonic language toward the atonality of the final movement. The analytic methods will include reductive technique for long-range harmonic progression, general harmonic analysis, and pitch-class set analysis for atonal passages.
(1) Some scholars divide Schoenberg's musical development into three stages as presented in the writings by E. Wellesz and N. Demuth. Patricia Kerridge adapted this view in her master's thesis of 1986. Since Schoenberg's music from the American period varies in style from his previous period, a four-period view is a suitable division for his compositional output, and the same view can be found in the writings of O. Neighbour, J. Machlis, P. Gradenwitz, W.R. Martin and J. Drossin.


(3) Nicolas Slonimsky, Music since 1900 (New York: Charles Scribner's sons, 1971), p.104. The term 'explicit' is defined as 'clearly expressed' and 'implicit' as 'not directly expressed but contained or understood'.


(5) Schoenberg, Style and Idea, p.517.

(6) Schoenberg, "My Evolution", p.86.


(15) Ibid., p. 99.

CHAPTER II

An Analysis of the First Movement

Unlike the First String Quartet, which is a single-movement work, the Second String Quartet consists of four separate movements. The first and second movements are solely instrumental, while the last two movements contain settings of poems by Stefan George, for soprano voice.

The first movement is in f# minor and follows the outlines of sonata form. The exposition (mm.1-89) has two thematic groups: the main thematic group consisting of two themes, and the subordinate group of three themes. The development (mm.90-159) begins with a motive from the main theme, but subsequently it is mainly based upon the subordinate themes. In the recapitulation (mm.159-201), the main themes are stated in reverse order in the home key; the subordinate themes are not fully recapitulated, but provide motives for the coda which begins with the long-held tonic pedal note (mm.202-233).(1)

The first main theme (mm.1-12) begins with the tonic and ends with the dominant of the home key (Ex.1a). It features a periodic design, in which the consequent restates the basic idea in the key of a minor rather than in the relative A major key. The modulation is achieved not by a pivot chord but by a note that enharmonically belongs to both keys--B#, the root of VII/V in f# minor, becomes C natural, the third of the a minor triad.

Ex. 1b.
The theme ends on the dominant of f# minor in bar 12, introduced in measure 9 by the same vii/V, which was left unresolved in bar 4. It seems that the resolution of the previous vii/V is finally provided at the end of the theme. The dotted line in Ex.1b indicates this voice-leading. The two upper voices, A and C#, are supported by the tonic at the beginning of the theme and there follows a voice-exchange between them in bar 3. The Ab and C natural that appear in bar 5 can be regarded as neighbour notes to A and C#; A is restored in bar 8, as is C# in bar 10. The top voice line suggests a motion from scale degree 3 to 2 spanning the whole theme; this is accompanied by the long range bass progression from tonic to dominant of the home key. Example 1c shows the fundamental triadic structure of the main theme. The arpeggiation of the tonic triad, which occurs in bars 3-5, parallels the bass progression of the theme from F# through A in bar 8 to C# in bar 12. The prolonged C natural in the middle of the theme (a note foreign to the home key of f# minor) foreshadows the 'F#-'C' duality of keys which occurs in the fourth movement. The above analysis clearly shows the triadic structure of the first main theme within a regular phrase grouping and formal design.
The second theme of the first thematic group immediately follows at bar 12. The melody line is first stated in the viola part (mm.12-24) then partly repeated by the first violin (mm.24-33). This theme sounds harmonically unstable because of its highly chromatic structure, supported by bass and the second violin which move almost continuously by semitone. As shown in the harmonic analysis (Ex.2), the first part of the theme may be analyzed in the key of f# minor, though the tonic chord only appears in its major form (alternative readings of some chords are given in brackets). Here, the cross rhythm of the melody and bass, and the chromaticism in the second violin part not only accelerate the rate of harmonic change, but also make it difficult to distinguish non-harmonic tones. This passage may well be one of those Schoenberg referred to as "many sections in which the individual parts proceed regardless of whether or not their meeting results in codified harmony."(2) By making the melody and bass move in the same rhythm, a clearer view of the harmonic progression of the same passage emerges (Ex.2 second stave; non-harmonic tones are marked by crosses). The harmony of the latter part of the theme (mm.20-24) briefly deviates from f# minor tonality. The presence of c minor triad (mm.20 & 22) suggests the key which is related to the home key by a tritone, while the melody arpeggiates the F major triad. The voice-leading between the outer voices which also features tritones in measure 22 and 23 is another indication of the weaker tonal framework of the last phrase. Thus, the tonal center of this phrase is not clear. At the end of the theme in
24, the V of f# minor appears to begin the restatement of the theme in the first violin. Although the chromaticism and irregular progressions greatly weaken the key center of the second theme, it still remains within the boundary of tonality and maintains the structures of triads and seventh chords. Following the partial restatement of the second theme, the first main theme returns briefly and leads to the subordinate theme group which begins in bar 43.

The first subordinate theme again features a periodic structure with a regular phrase grouping. Indeed the second phrase begins almost identical to the first, with the basic idea that is supported by the same chord or pitch collection (Ex.3).

Ex. 3. Schoenberg, String quartet Op.10, I, mm.43-51.
The beginning of the theme is preceded by vii7 of A major. The key is supported by the presence of dominant seventh and other diatonic seventh chords as well as the melodic line which moves by semitones from C# (m.43) to A, and finally to G# which is supported by the dominant seventh chord in measure 46. Because of the absence of the tonic triad, the key is only implied here and not fully established. Furthermore, the main referential sonority is not one of these chords in A major but an altered German sixth chord which consists of an augmented triad and a diminished third/major second--Forte's set 4-24 composed of four notes from the whole-tone scale. This functions as a structurally important chord that begins each idea and helps to delineate the phrase structure (marked by squares in Ex.3).

Towards the end of the theme, the German sixth chord of the key of A major (m.49) progresses to an altered dominant triad containing a raised fifth degree which is followed by a French sixth chord in measure 50. The altered German sixth chord (4-24) appears to be Schoenberg's substitution for a tonic chord in traditional harmonic writing.

There is another pitch collection used linearly in the first subordinate theme. The pitches used in the first four bars of the theme contain two 4-2 sets. This set was used previously at the end of the transition (Ex.4a) which leads to the beginning of the subordinate theme in measure 43 (Ex.4b). Each of the four parts ends with the same pitch collection (whole-tone + semitone + semitone).(3)
Ex. 4. Schoenberg, String quartet Op.10, I, mm.39-40, mm.43-44.

A transition which carries the melody of the theme in the cello immediately follows in bar 51 and leads to the second subordinate theme which begins in bar 58. The theme consists of a two-bar idea and its repetition which is accompanied by its inversion (m.61). This is followed by a stretto which produces a contrapuntal texture (Ex.5). The thematic idea linearly implies the whole-tone sonority (only one circled note of each group in squares does not belong to the whole-tone scale, C#-D#-F-G-A-B), and is accompanied by the chords also based on the same whole-tone scale, except for C in bar 58.

Although the first chord can be labelled as c minor triad with added 6th, it is not followed by a chord progression which implies any tonality. Instead the third statement of the thematic idea in the cello, inverted (mm.61-62), suggests a dominant seventh of Bb major. Here again, the following progression is not in the same key. It should be noted that the first four pitches from the motive, excluding the circled one, create a different form of the seventh chord of the first subordinate theme (4-24), the whole-tone tetrachord.

The following rhythmic acceleration leads to a section which presents an alternation of remotely related chords resulting from movement by semitones (Ex.6). The first chord is a collection of "black" notes (marked by squares in Ex.6) and the next one consists of all "white" notes (mm.68-69).


The third theme of the subordinate group begins at bar 70. This theme is characterized by less dissonance than the preceding passage, but the key of C major becomes apparent only
at the end of measure 71 where the dominant chord is stated, then followed by the tonic ninth in measure 72. The continuous use of Eb along with E, makes the tonality of the phrase ambiguous. The following closing section retrieves the notes belonging to f# minor until we get the dominant ninth to the tonic progression in measure 85. But the following chord progression is no longer in the home key, while the first violin brings out the first main theme idea. The idea is harmonized by half-diminished chords (mm.88-89), and the exposition quietly ends on the German sixth chord of D (enharmonic equivalent for the dominant seventh of Eb) which proceeds to a d minor triad at the beginning of the development (Ex.7).

Ex. 7. Schoenberg, String quartet Op.10, I, mm.87-92.

The development (mm.90-145) begins with the basic idea of the first main theme now harmonized by a d minor triad. The d minor chord is immediately followed by the iv and V chords of the home key, f# minor. The key center then shifts to C major (Ex.7). The rapid modulation here makes the tonality of the development section unstable from the beginning. The development also features canons by inversion and augmentation exploiting the material from the subordinate themes.
The first main theme reappears as early as in measure 146. While the viola plays the theme in a minor (as in the presentation of the theme in bar 8), the cello part restates the augmented form of the same theme in d minor (Ex. 8). The main theme is stated in f# minor by the cello from measure 150, and the return of the home key is prepared by its dominant which arrives in measure 152, though the semitone content clouds the harmonic structure of the second beat in measure 151.

Ex. 8. Schoenberg, String quartet Op. 10, I, mm. 146-152.

Here, the same main theme has been presented in different forms, whereas in the fourth movement, which is also in sonata form, the main theme and the subordinate theme are stated simultaneously in the recapitulation. Since the main theme here is not presented in the home key, this section could be regarded as a false recapitulation. Schoenberg stated that "the recapitulation proper begins in F and only gradually turns to f# minor." (5) I think that he referred to bar 146 where the F major triad appears. The restatement of the second theme in the home key begins in measure 159 and is usually regarded as the
beginning of the tonal recapitulation (6), but clearly the recapitulation begins with the main theme statement (m.146) as Schoenberg intended.

After the second theme reappears in the home key, the restatement of the first main theme begins in bar 186. It features an extensive contrapuntal texture—a stretto among the lower three instruments, and the first violin adds a sixteenth-note figure as a counterpoint. The main theme is not fully restated in here; only the basic idea of the theme and its fragments are presented. The idea is first stated in a minor by the cello and secondly in c# minor by the second violin, then in f# minor by the viola. The second statement of the idea in three instrumental parts begins a major third above the previous entry. The second violin also carries the thematic idea although not in exact form (Ex.9). The three thematic statements implying different minor keys linearly often result in chord progressions in relative major keys.

In measure 187, the sixteenth-note figure in the first violin displays the pitches that make up a dominant eleventh chord which is followed by its resolution in the form of a thirteenth chord, the root of which is implied. The same progression occurs in measure 189 in a different key as if in sequence.

After fragmentations and intervallic expansions of the first main theme, the coda begins in bar 202. The beginning of the coda is supported by an F# pedal note affirming the home key. The coda features some thematic ideas from the subordinate theme group, then ends on the tonic chord.

The above analysis of the first movement shows how the harmonic language evolves: the first main theme has a clear triadic structure; the less stable second main theme still stays within traditional harmonic language; in the first subordinate theme the function of a major triad is replaced by an augmented seventh chord (a whole-tone tetrachord); the second subordinate theme presents a nearly whole-tone melody; while the third subordinate theme is preceded by the alternation of black-key and white-key chords which contributes to the lack of a strong sense of key. Some of these approaches are developed fully in the remaining three movements.

Concerning the overall structure of the piece, Schoenberg wrote that the key was presented distinctly at all main dividing points of the formal organization. The main formal divisions and the chords that begin each section are presented in Figure 1. Among the main dividing-points, only the development section does not begin with the tonic of the home key.
Fig. 1. The key presented at the main dividing-points of the first movement.

**EXPOSITION**

- **MTI**
  - 0
  - (E)
  - $f_{\#}$: $i$
- **MTII**
  - 12
  - (G)
  - $f_{\#}$: $i$, $V$
- **STI**
  - 13
  - (A$^+$)
- **STII**
  - 53
  - (Bb)
  - $f_{\#}$: vii$_6$, iv, $V_6$
- **STIII**
  - 70
  - (B$lat$)
  - $f_{\#}$: vii$_6$, iv, $V_6$

**DEVELOPMENT**

- **MTIII**
  - 60
  - (C$\natural$)
  - $f_{\#}$: $i$, $V_5$

**RECAPITULATION**

- **CODA**
  - **MTIV**
    - 20
    - (D$lat$)
    - 218
    - (E$\natural$)
    - 233
    - (F$\natural$)
    - $f_{\#}$: $i$, $V_5$

**CODA**

- **MTV**
  - 233
  - (F$\natural$
  - 228
  - (E$\natural$
  - 223
  - (D$\natural$
  - 16
  - (C$\natural$
  - $i_6$
  - $f_{\#}$: $i$, $i$, $i$, $i$
At the beginning of the development, the main theme idea is harmonized by the minor vi chord which is followed by the ii6 and a second inversion of the dominant seventh chord of the home key. It is resolved deceptively to the minor iii instead of the tonic. Even though the section begins with a d minor triad, the d minor key is not supported by other chords, rather the dominant of f# minor maintains f# minor tonality. Also, the main theme idea is quoted at the same pitch level which opens the movement. The first main theme brings tonal stability after the development, which is tonally unstable, and usually restores a key center in between the unstable areas—thus serving as an important unifying factor within the whole movement.

It is necessary to consider the relations between the keys used in this movement. Figure 2 is a chart showing the relationship between various key regions within f# minor according to the principles established in Structural Functions of Harmony, by Schoenberg. (8)

Fig. 2. The chart of regions in f# minor. (9)
In the first movement, Schoenberg tried to stay within related key regions, although the keys used in the subordinate theme group are not clearly supported by means of traditional harmonic progressions and do not last long enough to establish themselves as tonal centers. The a minor key which comes at the beginning of the false recapitulation is relatively stable harmonically, in spite of the bass which states the theme in d minor. Indeed, C major region is not even shown in this chart because of its remote relationship with the home key. Also in the fourth movement, the C major region plays an important role despite its distance from the home key of F# major.

Reference will now be made to the cadential formulas (10), which conclude the important formal divisions (Fig. 3). Only the first main theme is presented in the tonic, thus the eliding cadence points in this movement come at the beginning of the restatements of the main theme.

Fig. 3. Major cadence points in the first movement.

1. The beginning of the development (mm. 89-90).
(Fig 3 cont'd)

2. The restatement of the main theme (mm.145-146).

3. The beginning of the recapitulation (mm.158-160).

4. The beginning of the coda (mm.201-202).
5. The final cadence of the movement (mm. 230-233).

The other cadences can be found at the formal divisions where the tonic of the home key appears. Most of these are approached by semitones not by the fifth progression which we normally expect at a cadence point. Cadences 1 and 2, each occurring at a major sectional change, lead to regions different from f# minor. Cadence 3 comes at the beginning of the recapitulation and is like a deceptive cadence, that is, the bass moves up a whole-tone instead of a fourth. The chord progression here displays dominant chords built on the bass notes which move up from V-vi-vii-i: an altered dominant seventh chord on C#, the dominant ninth on D with the fifth (A) and the raised fifth (A#), and the dominant seventh on E with the lowered third (G) and the third (G#). The voice-leadings of the outer parts, G-F# and E-F#, provide a framework for the following cadences. Cadences 4 and 5 have voices moving by semitone, E#-F# and G-F#, which result in a progression from an augmented sixth to an octave. In cadence 4, the #vii chord is followed by its altered dominant seventh (C-E#-G-Bb) instead of a regular augmented...
sixth chord, which then progresses to the tonic within the framework of an augmented sixth. The inner voice in cadence 5 suggests a descent from E to D# then to C#—a clear reference to the descending motion in the opening theme. Indeed, the four-note figure (m.230) is very similar to the melody (m.2) of the main theme. The semitone cadence is used extensively during the course of the quartet.

Samson considers Schoenberg’s primary concern in the first movement as “the refinement of traditional procedures rather than an attempt to move significantly beyond them.”(11) It is certain that the first movement remains within traditional formal structure. However, the extensive use of chromaticism sometimes results in a chord succession rather than a functional harmonic progression, and the chords other than the tonic plays an important role in some places. Some of these procedures are used and further developed in the remaining three movements.
NOTES: CHAPTER II

(1) A detailed formal analysis is presented at the beginning of the score by Erwin Stein.

(2) Schoenberg, "My Evolution", p.86.

(3) See The Structure of Atonal Music, by Allen Forte.

(4) At the beginning of the movement, the second violin plays the same pitch collection (4-2) in mm.1-2. Also, the opening three pitches of the main theme (A-G#-F#) is a subset of set 4-2. This set appears throughout the piece whenever the first subordinate theme is used. Consecutive uses of the set are found in mm.79-81 where the set is presented three times in the first violin part. The same set is frequently used melodically as a motive in the fourth movement.

(5) Rauchhaupt, op. cit., p.44.

(6) See the analysis by E. Stein.

(7) Schoenberg, "My Evolution", p.86.


(9) The regions shown in the chart are related to f# minor either directly or indirectly. (Schoenberg, Ibid., p.74.)

(10) The cadential formula here denotes the phrase articulation--"the movement toward and ultimate definition of some goal of momentary or final conclusion," as defined by Alden Ashforth in his article, "Linear and Textural Aspects of Schoenberg's Cadences," (Perspectives of New Music 16/2 (1978), p.195.)

CHAPTER III

An Analysis of the Second Movement

The second movement of the quartet is a scherzo and trio in which the scherzo consists of three parts: exposition, development and closing section. The movement begins with an extended pedal D in the cello part which returns in the last few measures of the movement, thus giving it a framing tonal center. Although the movement has a key signature of d minor, the themes in the exposition of the scherzo are not supported by functional chord progressions in the key. Also, the contrapuntal texture of the following development section features tonally ambiguous passages. Throughout the movement, the key of d minor is not fully established by traditional harmonic progressions. Rather, a pitch center serving as a referential element replaces a tonal center. The pedal D at the beginning and its return at the end of the movement becomes the main factor connecting the movement to the tonality of d minor. The d minor triad makes a few appearances and helps to suggest the key of d minor.

The exposition of the first section of the scherzo features three themes (mm.1-19) which are divided by fermatas. The development of each theme follows immediately (mm.20-84) and the closing section brings back the first theme (mm.85-97). The trio (mm.98-164) shows a ternary design (A-B-A) in which the middle part serves as a development section. There follows a
transition (mm.165-194) which contains a quotation from the German folk song, "Ach, du Lieber Augustin". The return of the scherzo (mm.195-258) restates all three themes presented in the exposition, and the coda (mm.259-275) begins with all four instruments playing the same idea from the first theme of the scherzo. The movement ends on D which is preceded by the same pedal note in the cello.

Figure 4 shows the harmonic aspects of the themes and the main dividing-points in this movement. There is no established key center for the themes and their development in the scherzo other than D minor, the home key. The trio begins and ends in the relative D major with C major briefly appearing in the middle (mm.123-125). The tonic note D is frequently used in order to support the key center and its appearance as a triad becomes noticeable in the return of the scherzo. Besides the tonic, the mediant triad, implied in the presentation of the second theme, is used for several points of articulation. Semitone motion is common not only in the bass but also in the other voices due to the other chords used instead of the dominant at the cadence points (m.35, 53, 85, 219, 238).(1)

The second movement is mainly composed of two textures: an extensive contrapuntal structure of linear melodies which frequently results in chromatic passages, and chordal sections with more stable harmony. The structure of the three themes in the exposition shows in a microcosm of that of the whole second movement.
Figure 4. The keys presented in the themes and the main divisions of the second movement.(2)

Scherzo

Theme I  Theme II  Theme III  Dev. of Theme I

Dev. of Theme II  Dev. of Theme III  Closing Section

Trio  Expo  Recap.  Transition

Recap. of Scherzo

Theme I  Theme II  Theme III  Coda
The first theme (mm.5-13) features a sentence-like design in which the presentation consists of a two-bar idea (Ex.10) and its repetition. The melody of the idea has two motives; one ascending, and the other descending. In this theme, the harmony arises as a result of the linear motion of each part which moves rapidly.

Ex. 10. Schoenberg, String quartet Op.10, II, mm.5-7.

The melody of the second violin displays the important intervallic content of thirds and fourths, and tends to ascend from A to B then to C# which is eventually resolved to the tonic. The viola part plays four-note chromatic figures which descend from A to G then to F, the third of the tonic triad. Schoenberg articulates the melodic lines by providing them with a goal, the tonic triad. Thus over the pedal point, the vii-i progression occurs and helps to establish the regular phrase structure. The harmonic analysis of the main theme shows a chord progression which is not connected in a functional way, but every two measures the tonic triad appears with proper voice-leading. The continuation features the descending motive.
twice, then its variant in measure 11. The melody introduces flats towards the end of this section which ends on a chord built on Db in the bass (m.13).

The second theme (Ex.11) begins with the third and fifth of the d minor triad, and is framed by the mediant triad (F-A-C). The theme has a very important motivic figure of eighth-notes (E-G-A-D), which originates in the cello in measure 10. This figure is a variant of a chord built in fourths (E-A-D-G), and followed by an arpeggiated augmented triad which is a characteristic vertical sonority of the third theme. Here, the melodic progression with slow rhythm gives the theme a relatively stable feeling in establishing a key center. Indeed, the first two measures feature the pitches belonging to the d minor key including the d minor triad.


The chromatic third theme (Ex.12) features augmented triads in sixteenth- and eighth-notes along with other harmonic elements. The third theme sounds unstable because of its chromatic harmonic and melodic nature. These chromatic melodies are fully realized later in the development section.

The second movement is structured by the alternation of these thematic areas, between stable and unstable sections. The following analysis of passages from the movement will demonstrate the harmonic aspect of those sections and the general harmonic language of the second movement.

Towards the end of the development of the first theme, which is constructed similarly to the theme in the exposition by keeping the same motivic content and pitch structures, a chord built partly in fourths appears and leads to the development of the second theme. This chord, which is also pentatonic, first goes to a G major triad in measure 31 with chromatic voice-leading. The chord then proceeds to a d minor triad in measure 35, the beginning of the development of the second theme, resulting in a similar semitone movement in the voices (Ex.13).

The second theme now has accompanying voices which add vertical sonorities. In measure 36, the eighth-note figure is harmonized by the first inversion of the supertonic triad. Following this is a chord based on a whole-tone scale (m.37) which progresses to the chord of A-G-B by semitone. This step neutralizes the preceding pattern, and also prepares for the next chordal passage which begins in measure 38.

The following phrase uses the combination of sixteenth-note and double-dotted quarter-note as a motive that prominently displays the interval of a fourth (Ex.14).


Another characteristic feature here is the presentation of the chords vertically as well as linearly. In measures 38 to 42, the bass first arpeggiates a diminished seventh chord (D-F-Ab-Cb), then its resolution, the eb minor triad with raised seventh (Eb-Gb-Bb-D). The chord built on D in measure 38 is a half-diminished chord (D-Ab-F-C) and the difference between this and the arpeggiated chord in the cello part is Cb. Indeed, the four pitches which could also make up another seventh chord are
played by the first violin at the same time (Ab-F-Db-Cb) in measures 38 to 39, and there is one tone difference between the bass arpeggiation, Db instead of D. The following chord on F, the down beat of measure 39, is a chord built in fourths (F-Bb-Eb-Ab), the predominant interval in the melody. The next chord is an altered dominant seventh chord (Ab-Cb-Eb-Gb) followed by a whole-tone tetrachord in measure 40. The chord which begins the the next segment (m.40-42) is the second inversion of Db major's dominant seventh, which differs from the seventh chord in measure 39 by only one note, C. The chord built on Bb in measure 41 is the second inversion of eb minor seventh chord (Bb-Gb-Db-Eb) which could be interpreted as the supertonic of Db major. Again, there is only one note difference between this and the cello arpeggiation, Db instead of D. This four-bar phrase begins and ends on D, but in the intervening measures the harmony fluctuates between two tonal areas, d minor andDb major—areas related by a semitone foreshadowed at the end of the first theme. The repetitive use of pitches and semitone motion are also found in the following phrase (Ex.15), in which the melodic motives of the second theme are used—the eighth-note figure which incorporates the interval of a third. This motive is stated three times until the top note reaches Db in measure 48. The main characteristic of this passage is dissonances created by the semitones used against one of the members of a triad. The first example is in measure 43 where C and Cb clash briefly and result in set 4-18. The same sonority is found on the downbeat of the next measure in which
the Bb is superimposed on the e minor triad.


It is followed by the dominant seventh of Eb with raised fifth, the whole-tone tetrachord of set 4-24. In measure 46, an eb minor triad is played against Cb. The Cb is an added note to the eb triad as raised fifth, B natural. The extensive use of flats in this phrase suggests the key of Db major, but the Db triad first appears in measure 48 when the first violin plays Ab (on the third beat) at the top voice. Here the tonic is stated with the fifth (Ab) and raised fifth (A), once again clouding the triadic structure. Nevertheless, the Db triad is stated linearly by the first violin as well as vertically from measure
40, and maintains the key center. The semitone content in vertical sonorities is also observed later in the development of the third theme. It is apparent that Schoenberg uses the triad as the basis for the important structural points. However, the triadic statements become less clear due to the chromatic alterations. Although these various changes do not bring forth the same set structure, some of the vertical structures (4-18, 4-20, 4-25) are realized linearly as the transformations of the eighth-note figure in the following section.

The second part of the development of the second theme begins in measure 53 with a chord of F-A-C#, an augmented mediant of d minor or enharmonically augmented tonic of Db major in first inversion (Ex.16). Due to the slow change of harmonic rhythm, the first four measures sound more stable than the preceding passage. But the contrapuntal statement of motive and chromatic voice-leading result in unstable areas for the following measures.


The eighth-note figure now becomes a sixteenth-note one and the intervallic content varies from its original (different forms
are illustrated in Ex.17a). It is possible to analyze this phrase harmonically considering certain notes as non-harmonic tones but not in a functional way. The rate of harmonic change is so rapid--every eighth-note--that one cannot possibly recognize the harmonic progression. Indeed one can no longer hear a chord progression in measures 59 and 60 where the motive, a combination of eighth-note and sixteenth-note figures, is repeated with voice-exchange. The pitch collection of every eighth-note reveals four distinct sets; 3-11 (major triad), 5-27 (minor ninth chord), 5-33 (whole-tone chord), and 4-20 (major seventh chord). The first and last sets are linearly presented as well in the eighth-note figures.

Ex. 17a. Schoenberg, String quartet Op.10, II, mm.57-62.(4)
Here again, the harmony is dependent upon linear movements of each voice which moves towards the very last chord in measure 62, the dominant seventh of F# (Gb) key, #III of the home key d minor (Ex.17b). The final chord is reached by semitone in the bass. The section begins with F in the bass (m.53) and the next section with F# (m.62) -- another semitone-related region.

The beginning of the development of the third theme
presents the third theme of the exposition first. With a d minor triad in pizzicato, the actual development starts in measure 65 (Ex.18). The first violin plays the same melody line as that of the theme in augmented form with octave displacement. This figure is taken from the first violin melody in measure 7. Each voice moves in eighth-notes, providing a relatively slow and stable feeling compared to the previous section, but the key center of this section is not clearly supported by functional chord progressions. Although it contains many triads, there is usually one voice which carries a note that does not belong to the chord: an example of weaker treatment of the tonal frame observed earlier in the development of the second theme. The d minor triad is stated twice on the down beat (mm.65, 67), again with interference of other notes. Some chords in the middle belong to Db major—a familiar key in semitone relation to the home key. However, the semitone content in the melody brings about some non-diatonic chords which are not resolved properly.

These are: whole-tone chords (4-24, 5-33), a chord built in fourths (4-23), a French sixth chord (4-25), and a minor triad with raised seventh (4-19). (5) At the end of the development, the d minor chord is approached by chromatic neighbor notes making up a half-diminished chord (m.76), while the bass introduces the thematic idea of the first theme (mm. 75-78).
Here the pitch structure of the cadential harmony displays a pattern consisting of seventh chords instead of a dominant-tonic progression. The transition begins in measure 80. The cello states the first theme in b minor in augmentation while the viola plays the theme in d minor. The tonality of this section is clouded by the cello, and the resulting harmony does not secure the d minor tonality. The restatement of the first theme in d minor ends quietly in measure 97.

The trio consists of two textures, the linear melodic statement and chordal section (Ex.19). The first phrase of six measures has two melodic lines played by the first violin and cello. It is not possible to provide a harmonic analysis for the phrase with only two voices, nevertheless, the melody implies a certain triadic structure. Example 19 shows the pitch relationships between the first violin and the cello.

The first four pitches of the cello line are presented in the melody of the first violin in reversed order and make up the set 4-24, a whole-tone tetrachord used as an important referential chord in the subordinate theme of the first movement. Virtually every note in the cello line is first played by the first violin, however briefly. Six out of the eight pitches in the cello melody line are played at the downbeat of each measure by the first violin. The following chordal phrase (mm.104-107) features a prolongation of the A major triad, the dominant of the key of D major: the dominant triad is followed by the bVI ninth chord which is then changed into an eleventh chord. These are built on a diminished triad arpeggiated in the bass (A-C-Eb). The second inversion of the dominant triad is briefly stated on the downbeat of measure 107, and the V7 of vii progresses to the dominant triad by semitone in the bass (m.108). The nature of the harmony in the chordal section, a prolongation of the dominant chord, brings stability which was lacking in the previous section. The recurring interval in the trio is the third, not only in the chordal sections, but also in the melodic sections.

The trio ends in measure 164 and a transition to the recapitulation of the scherzo begins with a quotation from the Viennese folk song "Ach, du Lieber Augustin" in D major. The melody is accompanied by the same figure which was used in the development of the third theme in the scherzo section. The quotation is not harmonized traditionally due to the chromatic first violin part and the continuous use of chromatic neighbour
notes to the tonic and dominant in the cello. (6) Considering that the quotation emphasizes the characteristic interval of a third, its appearance here does not impair the cohesive structure of the movement.

The return of the scherzo (mm. 195-258) restates the first theme in the key of f# minor (mm. 195-202), the mediant of D major in the previous section, then the second theme and its development (mm. 203-218) in d minor. The third theme appears in an expanded form (mm. 219-239) and the first theme reappears at the end (mm. 240-258) in the home key. The coda (mm. 259-275) begins with the melodic idea of the first theme played by the all four instruments. In measure 272, the cello initiates a D pedal, then each instrument ceases to play until only the cello remains. The movement ends with a D, which also began the movement, now played pizzicato by all four instruments.

Although the second movement does not have many sections based on traditional harmonic progressions, the key of d minor is maintained by the tonic which is stated at certain points including the formal divisions. The movement contains two textures, an extensive contrapuntal structure made up of linear melodic statements, and chordal or homophonic sections whose vertical sonority is also realized in the contrapuntal lines. The second movement is constructed mainly by the alternation of these two textures while occasionally providing the tonic note. The referential element is 'D', not necessarily the triad. In the second movement, Schoenberg presents short themes and the
and the development which keep the individual pitch identities and intervallic content. In this way the movement maintains coherent structure in which the tonality is not fully established by means of the traditional harmonic progression. Two characteristics of the second movement, the dense motive working in the contrapuntal texture and the use of non-diatonic chord structure, are further exploited in the following movements.
NOTES: CHAPTER III

(1) Some of these non-diatonic chords displaying distinct set forms (4-18, 4-22) are also found in the development section as a result of linear melodic statements of the motives.

(2) In this figure, the inversions are not indicated for the penultimate chords at the cadential points.

(3) The pitch collection of this figure is set 4-23 which is used extensively in the fourth movement as non-tonal referential sonority. Also, the main theme motive of the fourth movement features the same set.

(4) The figures are labelled according to the set structure, not according to the intervallic content displayed within the figure. Therefore, the intervallic patterns of two figures labelled as B might be different while their prime forms are the same.

(5) These sets are used vertically in the fourth movement as non-tonal chord forms in the thematic areas.

(6) The characteristics of the harmonization of the quotation are summarized by Alan Philip Lessem in Music and Text in the Works of Schoenberg: the Critical Years, 1908-1922 (Ann Arbor: UMI Research Press, 1979, p.23.)
CHAPTER IV

An Analysis of the Third Movement

The third movement of the quartet, presented in the form of Theme and Variations, is a setting for soprano of Stefan George's poem 'Litanei'. The form follows the outline of the text: five variations corresponding to the first five strophes, and the finale comprising the remaining three strophes of the poem.

Litanei (1)

Var.I Tief ist die trauer, die mich umdustert,
Ein tret ich wieder, Herr! in dein haus.

Var.II Lang war die reise, matt sind die glieder,
Leer sind die schreine, voll nur die qual.

Var.III Durstende zunge darbt nach dem weine.
Hart war gestritten, starr ist mein arm.

Var.IV Gönne die ruhe schwankenden schritten,
Hungrigem gaume bröckle dein brot!

Var.V Schwach ist mein atem rufend dem traume,
Hohl sind die hände, fiebernd der mund

Finale Leih deine kuhle, losche die brände,
Tilge das hoffen, sende das licht!

Gluten im herzen lodern noch offen,
Innerst im grunde wacht noch ein schrei..

Töte das sehnen, shliesse die wunde!
Nimm mir die liebe, gib mir dein glück!

The text, a type of prayer, is responsible for the use of variation form for this movement, according to Schoenberg: "I
was afraid the great dramatic emotionality of the poem might cause me to surpass the borderline of what should be admitted in chamber music. I expected the serious elaboration required by variation would keep me from being too dramatic." (2) Despite the formal restraints, the harmonic structure of some passages in this movement goes beyond the traditional harmonic language.

The third movement as a whole is often described as the 'development' of the quartet, as Schoenberg himself considered it to be. (3) All the motives of the Theme (mm.1-9), taken from the previous two movements, are presented in the key of eb minor (Ex.20).


Motive A is from the first main theme of the first movement, and displays a broken form of the eb minor triad. Motive B is the head motive of the second main theme of the first movement. The
neighbour motion is at first around Bb, the fifth of the eb minor triad (B1), then around Gb, the third of the triad (B2). Each of these tones are followed by Cb and G respectively and suggest a G major triad which is remote to the home key eb minor--a mediant triad on raised scale degree three. Motive C is taken from the second theme of the second movement, and motive D, which begins and ends with Bb, is from the second subordinate theme of the first movement. This motive carries the notes C, A and D in the middle, suggesting the motion towards Bb, the dominant of eb minor. The motive and its variations are used extensively in the movement as 'contrapuntal or harmonic accompaniment' as explained by Schoenberg.(4) Thus the harmonies of the variations are affected by motive D and the region implied in it, that is, Bb major. In the Theme all the motives are employed in the context of eb minor, and the three pitches that comprise the eb minor triad--Eb, Gb, Bb--are emphasized in the four motives. However, the substitutes borrowed from the relative Bb major region and the chromatic neighbour notes B and G foreshadow the complex harmonic language of the following variations. Motive A is the main motive and maintains the pitch identity of the eb minor triad. It stabilizes the key of the movement by framing each variation. The continuous use of all four motives throughout the movement is effective in creating a coherent structure. Moreover, various ideas derived from the motives and their fragments are employed in the course of the movement.

The first variation (mm.9-17) begins with the first three
motes played at exactly the same pitch level and in the same
order as in the Theme by the upper three strings (Ex.21).


The soprano enters with the first strophe of the poem in measure
14 (labelled as motive E), accompanied by motive D in the cello.
The vocal line begins with the broken form of the eb minor
triad, but the notes which do not belong to the key appear in
the middle over the cello which alludes to the Bb major region. The harmony of the first variation can be described as a mixture of two key regions, eb minor and Bb major, but not with a harmonic progression that pertains to these keys. Schoenberg's comments here provide an explanation for the chromatic aspect of the first variation:

Evidently melodic progressions like Ex.13 [above example] and Ex.14, from the third movement cannot be accompanied by tonal triads, and if at all by chords, they would have to be transformed by alterations. Instead, one finds accompanying voices whose purpose is not harmonic at all; they do not aim for chord production.(5)

Although the variation begins with the eb minor triad, the dissonant relationships do not allow the further chord progression. At the end, the soprano melody is accompanied by the other voices which form the eb minor triad but the chord structure is clouded by the chromatic viola melody. The vocal line consists of the first three motives A, B and C. This soprano melody is stated as a whole or partially in the following variations and is labelled here as motive E. Besides motive D, the motive E and its fragments are frequently used as harmonic accompaniment contrapuntally throughout the movement.

The second variation (mm.18-27) has a very complicated contrapuntal structure. According to Samson, in this movement Schoenberg reaches "a culminating point in a technique of exhaustive motive working through variation and contrapuntal procedure..."(6) and this variation supports Samson's opinion. The variation is framed by the motive A in the instrumental part (Ex.22a). All the motives of the Theme and motive E from the
soprano melody of the first variation accompany the vocal line of the variation which is twice as long as that of the first variation. The beginning of the vocal melody is supported by motive A and B₁ in measure 18. Motive C is presented as a whole at the beginning (mm.19-21) and its fragmented form appears extensively in the cello and viola parts afterwards (mm.22-24). Motive D which begins in measure 21 is ornamented by neighbour notes, and motive E starting in measure 22, is occasionally filled in with passing tones. In the second variation the motive D, mainly appearing in the upper parts, plays an important role in the harmonic structure.

The vocal melody of the variation features motive B₂ at the beginning and is accompanied by the tonic chord. The inversion of the head motive C (m.20) carries B and G, instead of Bb and Gb from the eb minor scale. Along with the note A in the vocal line, these notes briefly create dissonances against the cello which states motive C as in the Theme. The harmonic structure of the following measures (mm.22-24) becomes complicated due to the motives employed in a contrapuntal texture. The harmonies are affected by motive D which is played by the first violin (mm.21-25). Also the fragments of motive C in the viola (mm.22-23) state a variant of motive D. In measure 22, i₆ and vi chords are used as a structural frame. But the frame is clouded by non-harmonic tones in the following measure. In measure 24, the melodic statement of motive E and counterpoint bring about a more complex harmonic structure while the note C in the first violin completes its descent from Db to Bb in
measures 24 and 25. The pitches used for the fragments of motive C conform to the second violin line, motive E, reflecting Schoenberg's concern for the melodic progression (Ex.22b).

The muddy sound resulting from the dense pitch structures of the lower two strings is clarified when all four voices end on an altered dominant seventh of Bb (F-Ab-C-Eb) in measure 25. The
Bb is, however, soon incorporated into the eb minor triad. Although some diatonic chord forms are found in the second variation, one can notice chiefly the melodic statements which move independently from the eb minor harmonic structure.

The fourth variation, the entry of which is accompanied by motives B1 and A, shows pervasive motive working (Ex.23). Motive D once again proves to be an important constructional element; it is stated twice in the cello and second violin (mm.38-39), and the transpositional level of motive B is controlled by motive D. The placing of the motives is not completely dictated by harmonic thinking and chromatic notes add more ambiguity to the vertical structure.

The harmony is dependent upon melodic progression and counterpoint which result in some consonant chords briefly at certain points. But they do not seem to follow a particular rule. This variation is regarded as an early example of Schoenberg's work which reveals an aspect of his serial technique. (7)

The beginning of the Finale is not introduced by motive A, but again supported by the tonic of eb minor in measure 50. The vocal melody, which begins almost in an identical form as that of the fourth variation, is accompanied by the fragments of motive E. When the soprano reaches a high Gb in measure 58, the contrapuntal texture is transformed into a more elaborated homophonic structure (Ex.24). Here, the upper three strings
play a whole-note chord for the first time in the movement while the cello states an idea derived from motive D. The vocal line features not only motive B2 from the second main theme of the first movement but also the following second main theme melody; this is clearly shown in the example of Maegaard. In the original motive of the first movement, the scale degree five goes to six then goes back to five of f# minor: C#-D-C#. Now it is transposed to Gb-G-Gb, where the Gb serves as the raised scale degree five (F#) of the Bb major, the dominant of eb minor. The diminished seventh of Bb (A-C-Eb-Gb) by the upper three strings leads to the Bb of the first and second violins in the dominant seventh chord of ii in measure 59. However, these chords are clouded by the cello which plays a diminished triad (D-F-Ab) and the non-chord tones such as E, G (m.58), then Gb (m.59). Here, a fragment of motive E is joined by the other parts which do not produce a chord progression.

(Ex. 24 cont'd)
Also the extensive use of non-harmonic tones hinders the harmonic reading. Thus the result is a complex harmonic structure which contains a succession of altered chord forms which do not follow the voice-leading rules. Motive E is played again in measure 61 but this time it is followed by the inverted form in the viola (m.62). This two-bar idea from motive E, which was not accompanied by tonal triads in the first variation, is again harmonized by the voices which do not bring about a chord progression. The variant of the head motive E is played by the viola in measure 63, followed by the vocal line which is a combination of the head motive C and motive B (mm.64-66). Otto Deri described this climax as containing the most dissonant harmonies of the movement. These harmonies are a direct result of chromatic voice-leading in the accompaniment which ends on an altered seventh chord on Db in measure 66, preceded by the half-diminished chord built on D (m.65). The harmonic structure of this chromatic passage features different kinds of chord forms not related in a functional way—no longer susceptible of traditional harmonic analysis. The last line of the poem returns to the eb minor triad in measure 66, reminding us of motive A. Motive B1 is presented in an augmented form in the first violin (mm.67-75). The chord built on C in measure 67 is an altered German sixth chord of Gb, which is enharmonically the dominant seventh of G major altered by the raised fifth. It is then resolved to a G triad with lowered fifth in measure 68 (enharmonic spelling is given in Ex.24). The chord forms used in measure 67 are
whole-tone tetrachords accompanying the vocal line which is also a whole-tone melody. The G triad is changed into a diminished seventh chord in measure 68 and held in the upper three strings while the cello plays motive D. The diminished triad is resolved into the ninth chord on A in measure 70 through the common tone G. Finally, the eb minor triad appears in measure 72 over the bass Bb in the position of second inversion. After the head motive of E is played by the lower three strings, the movement ends on the root position of eb minor triad in measure 76.

In the third movement, Schoenberg does not establish a tonal center other than eb minor, the home key. The eb minor triad, mainly in the form of the motive A, is always present at the beginning and ending of each variation though substitutes are used frequently in the middle of the variations. At formal divisions, the home key is always maintained and chord progressions follow the voice-leading rules. But in the middle, the harmonic progressions which arise as a result of linear statements of the motives in the voices give relatively small support to the key establishment. Thus, it is very important for the structure of the movement that the motives serve as a unifying factor throughout the piece. In this movement, Schoenberg introduces the motive with distinct pitch collections, and then transforms the motive while retaining the pitch content as a referential sonority. Through this he also develops techniques of creating coherent structures which are
used in certain sections of the fourth movement in which the key center is not firmly established.
NOTES: CHAPTER IV

(1) An English translation of the poem by Carl Engel appears in the Appendix.

(2) Rachhaupt, op. cit., p.47.

(3) Ibid.

(4) Ibid., p.48.

(5) Ibid., p.43.


CHAPTER V

An Analysis of the Fourth Movement

The fourth movement of the quartet is a setting of "Entrückung", another poem by Stefan George. The movement has an introduction that features a motive consisting of eight pitches from the chromatic scale. Even though there is no specific key signature for the movement, the F# major triad is frequently used in the main and subordinate themes and formal divisions. F# is the tonic of the movement since Schoenberg explains that "Every one of the four movements ends with a tonic, representing the tonality."(1) On the other hand, he admits that: "the overwhelming multitude of dissonances cannot be counterbalanced any longer by occasional returns to such tonal triads as represent a key."(2) The harmonic structure of the movement shows "the interplay of tonally affirmative and tonally evasive material" with limited reference to the F# tonic.(3) It is difficult to find traditional harmonic progressions in the 'tonally affirmative' passages such as the thematic areas since the harmonies result from the voice movement are highly chromatic. 'Tonally evasive' passages have 'non-tonal' material which is systematically organized by the use of the motives. Also, elaborate contrapuntal procedures involving the motivic elements and the use of interval cells are found here. With these compositional techniques, imitative
combination of motives and the employment of intervallic patterns as constructive elements, Schoenberg creates a cohesive and contrapuntally organized structure in the fourth movement, the tonal center of which is stated at certain points but not fully established.

Concerning the form of the movement, Schoenberg writes that "...'Entrückung' recapitulates its most prominent theme,(Ex.33), after a climatic ascension in a manner of a sonata form."(4) The text is divided into three parts corresponding to the three main sections of the movement: the exposition (mm.16-66), the development (mm.67-99) and the recapitulation (mm.100-119). These are framed by the instrumental introduction (mm.1-15) and the coda (mm.120-156).

Entrückung (5)

EXPO. MT Ich fühle luft von anderem planeten.
Mir blassen durch das dunkel die gesichter
Die freundlich eben noch sich zu mir drehten.

Und båum und wege die ich liebte fahlen.
Dass ich sie kaum mehr kenne und du lichter
Geliebter schatten -- rufer meiner qualen --

Bist nun erloschen ganz in tiefern gluten
Um nach dem taumel streitenden getobes
Mit einem frommen schauer anzumuten.

ST Ich lose mich in tonen,kreisend, webend,
Ungründigen danks und unbenamten lobes
Dem grossen atem wunschlos mich ergebend.

DEV. Mich überfahrt ein ungestumes wehen
Im rausch der weihe wo inbrunstige schreie
In staub geworfner beterinnen flehen:

Dann seh ich wie sich duftige nebel lupfen
In einer sonnerfullten klaren freie
Die nur umfangt auf fernsten bergesschlupfen.
Der boden schüttert weiss und weich wie molke.
Ich steige über schluchten ungeheuer.
Ich fühle wie ich über letzter wolke

In einem meer kristallnen glanzes schwimme ---

RECAP. Ich bin ein funke nur vom heiligen feuer
Ich bin ein dröhnen nur der heiligen stimme.

The introduction is divided into two parts by a chord in measure 9. The opening motive displays the intervals of the major seventh and major and minor thirds but has no tonal implication (Ex.25).


The pitch collection of this figure forms set 8-12.(6) The motive transposed by a fifth appears three times in measure 1. The level of the transposition does not provide a dominant-tonic relationship among pitches here. Thus, at the beginning of the introduction, the pitches are not presented in a tonal context: no pitch is dominant over any other. Schoenberg stated that the introduction depicted "the departure from earth to another planet"(7) suggested in the first line of the poem. And this may explain the unusual way of organizing the pitches here.

Two fragments of the opening motive are employed in the next measure; one on D# and the other on C#. The use of whole-tones in association with this figure is apparent here. The figure itself begins and ends on pitches whose interval is a whole-tone, and the two figures are played a whole-tone apart.
They are joined by figures in descending fifths in the two lower strings (m.3), then they descend by a whole-tone in the following measure (Ex.26).


The figure is expanded to a larger figure containing eight pitch classes in measure 5 which is an inverted variant of the opening figure. The interval of a fifth returns in measure 6 in which different forms of set 4-23 are displayed. It is important to notice that the first four notes of the main theme melody (mm.21-25) also form 4-23. The references to the melody appear several times in the introduction. These are; the transpositional level of the opening figure in measure 1, the circle of fifths in measure 3, and the interlocking forms of the fifth in measure 6 (Ex.27).
Ex. 27. Schoenberg, String quartet Op.10, IV, mm.1,3,6.
The pitch content of the first violin melody in measure 6 is the same as the F♯ major scale; so is the pitch collection of the viola and cello. (8)

After the thematic element of the interval of a third is played above the pedal E, a chord appears for the first time in measure 9 (Ex.28). The vertical chord forms set 4-19 while the two lower strings state 4-23 and continue the perfect fifth relationship from the opening.

Ex. 28. Schoenberg, String quartet Op.10, IV, mm.9-10.

The second part of the introduction begins with a new figure played by the viola and cello. The first segment of the viola melody presents set 3-5 which is later used as a vertical chord at the beginning of the main theme in measure 21. The sets are carefully used in measure 10; the figure displays either 3-5 or 3-3, but by voice exchange, the combined pitch content is always
set 5-14 consisting of both sets. The same figure is used in the development section to begin the second part of the development. The interval of each figure is expanded in the following bars while two pedal points of E and D are maintained. The introduction ends on a c minor seventh chord in measure 15. Here again, a reference to the main theme is made by 4-23 in the string melodies as before in measure 6. Although the introduction avoids any tonal implication, it provides important motivic elements: the opening motive, the intervals of third, fifth and seventh, and set 4-23 resulting from the use of the fifth.

The main theme begins with the chord D-A-G# in measure 21 and ends on the F# major triad (Ex.29).

Ex. 29. Schoenberg, String quartet Op.10, IV, mm.21-25.

The D-A-G# chord contains a major seventh interval and this is stated twice, A-G# and D-C#, in the preceding measure. The
vocal line, which states the first line of the first strophe of the poem, displays two minor seventh intervals. The first interval is harmonized by a chord progression featuring the Eb major triad, F major ninth chord and c minor triad (mm. 21-23) which suggests the key of c minor. The second interval is accompanied by a chord progression that contains an augmented triad on D followed by the d minor triad with raised seventh C#, a G major triad and an F# major triad. The second chord in measures 24 and 25 is formed by the linear movement of the upper three voices in semitones. The chord progression is a result of linear voice-leading rather than that of the functional chord progression within F# major key. When we examine the construction of each voice, we can find some distinct set forms. Above the cello's 4-23, the second violin and viola play set 3-2, and the first violin states set 4-2 (the entire three-bar melody of the first violin is set 6-2 whose subsets include 4-2 and 3-2). The semitone movement in the following two measures results in set 4-3 in the first and second violin parts. The first violin melody of the main theme will be referred as motive X since it and its fragments are extensively used throughout the movement. There are some triadic tetrachords used vertically in the main theme which are also marked in example 29.

After a brief bridge, the second line of the first strophe continues in the vocal part (m. 31). The first four notes of the vocal melody also form 4-23, and this is prepared in the bridge by the cello which states the same set (m. 29). This voice's entry is preceded by an augmented triad which is played above
the neighbour motion. The combination is 4-19 which is the first chord structure used in this movement at measure 9 (Ex.30).

Ex. 30. Schoenberg, String quartet Op.10, IV, mm.30-35.

Here, Schoenberg presents the major triad and the augmented triad in such a way that the vertical harmony and linear melody are employed simultaneously and equally emphasized; vertically, the augmented triad is stated three times, and linearly the
three voices state three corresponding major triads in measures 30-31 (Fig.5).

Fig. 5. The pitch structure of the three strings (mm.30-31).

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<th>Vn. I.</th>
<th>Vn. II.</th>
<th>Vla.</th>
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<tr>
<td></td>
<td>C#</td>
<td>A</td>
<td>E</td>
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<tr>
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<td>A</td>
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The use of sets becomes more apparent in this phrase. Set 4-2, used linearly in the first movement (Ex.4), is employed here again in the vocal line (mm.32-33); and set 4-24, also used vertically in the first movement (Ex.3), appears as vertical structure (mm.31-32). Besides these, set 4-11 is used linearly in the first violin (m.32-33) and the vocal line (m.34). The accompaniment becomes chromatic in measure 34, and the vocal line displays the interval of a fifth. The first strophe of the poem ends in measure 35 where a fifth bass progression occurs in the viola part; the dominant seventh on A goes to the incomplete seventh chord on D which lacks the third. This chord contains C and set 3-5 (D-G#-A) which opened the main theme statement. Although G# is resolved to A, the seventh chord on D remains incomplete. The A is quickly changed into G, bringing about the vertical structure of 4-23 at the end of the measure. This
passage, where the tonality is suspended, presents the chord structure and linear melodic segments of the main theme. In this way, the sonority of 'non-tonal' elements becomes familiar to the listener. Here, a succession of triadic tetrachords, as a result of linear melodic statements in voices, replaces the functional harmonic progression. (9)

The subordinate theme is preceded by a bridge which takes its motive from the introduction. The motive is transposed by a semitone while the chord G-F-A is sustained by the first violin and cello (m.49). The chord is changed into an altered form of the dominant seventh of C minor in measure 50. The first note, C, of the vocal line is harmonized by the chord containing fifths in the form of 4-23 in measure 51 (Ex.31). According to Schoenberg, this chord can serve as a substitute for the dominant seventh of F# major. (10) The tonic F# follows immediately in measure 52.

The chord progression in this passage is affected by the chromatic lines in the bass (set 4-1) and in the vocal part (set 6-1). A whole-tone chord is built on G (m.53) then the diminished chord on G# follows in measure 54. The dominant seventh of F# major arrives in measure 55 through three common tones, E#, B and G# in the cello and viola, but it is changed to a whole-tone chord built on A. The second violin line displays 4-2 which was used in the main theme statement for a similar semitone chord progression. The chromatic bass line results in a chord succession by semitone, in which the chords are connected through pivot pitches, either B or E#/F, the leading tones of two key regions of F# and C. The chromatic bass line continuously ascends to E (m.59), then descends to G# in measure 62. The G# is incorporated into the C# seventh chord which is the dominant of F# major in the same measure. The subordinate theme ends on a C major chord when C# pedal note descends to C in measure 66 after lasting four bars. The change from C# to C alludes to the duality of C and F# tonality of the subordinate theme. The harmonic structure of this theme becomes more chromatic than that of the main theme due to the extensive use of semitones.

The first part of the development section features the chromatic motive from the vocal line of the subordinate theme in canon. The beginning of the canon overlaps the end of the subordinate theme in measure 65 (Ex.32). The sixteenth-note figure displaying the interval of a third is added as counterpoint. This figure is taken from the introduction
(mm. 8-9). The harmony is dependent upon the contrapuntal texture of chromatic voices using linear thematic statements. In this passage, the canonic statements result in some diatonic chords but these are clouded by the chromatic counterpoint. The harmony becomes more complicated when three instruments play the canons, and the second violin plays its counterpoint in measure 72.

Ex. 32. Schoenberg, String quartet Op. 10, IV, mm. 65-74.
The first intervals formed briefly among three voices at the beginning of measure 72 are a minor third plus a major third which bring about an eb minor triad. But the intervals are expanded in the next beat; a fourteenth (a minor seventh) and a minor sixth which form an incomplete seventh chord built on A without the third. These are changed into a sixteenth (a major
second) plus a perfect fourth, then a tenth (a minor third) and a minor third resulting in a diminished triad. Also, the interval of a major third played by the second violin is added here. The vertical structure of this measure does not display a chord progression, due to the chromatic canonic statements and counterpoint. At the downbeat of measure 73, the intervals of a ninth (an augmented second) and a tenth (a diminished third) are formed, but soon the viola starts to play the counterpoint figure and joins the second violin. This produces an alternation of whole-tone chords in the second half of the measure. The vocal melody begins with the head motive of the canon accompanied by the introductory motive in measure 74. This chromatic passage ends in measure 82 where the vertical structure of set 4-23 is sustained over the neighbour motive in the cello. The first part of the development has a contrapuntal texture, the harmonic structure of which no longer stays in any key region. The independent voice movement still employs the thematic material, but the chromaticism and the extensive motivic content produce a 'non-tonal' context.

The second part of the development section begins after the double bar line at measure 82. The development is divided into two parts in a way similar to the introduction. The first parts of both sections end on similar chord structures (4-23). The second parts immediately begin with the triplet motives displaying the intervals of a tritone and a minor third which move independently as linear voices. After this instrumental interlude (mm.83-84) which uses thematic material from the
introduction, the soprano voice enters in measure 85. Whereas the first part of the development makes use of the subordinate theme material, the second part employs the motives and pitch collections from the main theme extensively. The extended form of the neighbor motive which was used at the end of the main theme statement in measures 25-26 is used first (mm.86-89), then it is followed by the main theme melody of 4-23 (mm.89-92) in the cello part (Ex.33).

Ex. 33. The set structure of the development (mm.86-92).
Above the bass line, the main theme idea (4-23) is presented by the soprano vocal line (mm.88-89). Also motive X of the main theme is played by the first violin three times (mm.89-91) with a rhythmic diminution. It is preceded by the second violin which plays the set 4-2 twice and the first violin itself--the first notes of each of its seven-note figure also form 4-2 (mm.87-88). The viola part adds chromatic notes in the middle voice while the outer voices feature the motivic statements from the main theme. The harmony is a direct result of the movement of each voice which displays distinct pitch collections (Ex.34). The rate of harmonic change is rapid due to the different pitches used in the sextuplet of the viola. The vertical results show combinations of dissonant intervals such as a minor second, a major seventh and a tritone which remain unresolved most of the time. Their harshness is somewhat diminished by the spacing in an expanded register. But the pitch collections of the vertical structures are mainly non-diatonic and no longer stay within the boundaries of traditional harmonic language, although a few discernible chord forms are present here. Besides, the whole-tone chord structure is found in the first half of measure 91 in which the second violin and viola repeat the notes Eb and F respectively. The development section (mm.86-92) is closely related to the main theme by using the motives and figures of the thematic material, although its harmonic structure is more complicated and chromatic than that of the main theme.
Ex. 34. Schoenberg, String quartet Op.10, IV, mm.90-91.
The 4-2 set from the head motive of X continuously serves as a main motive in the following passage (mm.93-97). It is presented by the first violin and viola and then is fragmented. Towards the end of the development section, the fragments are used not only in the accompaniment, but also in the vocal line (Ex.35). The bass displays 4-23 formed above the pedal G in measures 97-98. The introductory motive is played by the second violin, and the interval of a third in the viola adds more chromatic notes in measure 98. The harmony is still governed by the dense motivic statements linearly presented by different voices. However, the pedal G suggests an important point of articulation which it approaches.

Ex. 35. Schoenberg, String quartet Op.10, IV, mm.97-98.
The recapitulation begins on an F# major triad in measure 100, and features the subordinate theme in the instrumental parts while stating the main theme in the vocal line (Ex.36). The main theme is presented here a semitone lower than the original pitch level.

Ex. 36. Schoenberg, String quartet Op.10, IV, mm.100-104.
The harmony of the accompaniment is exactly the same as that of the subordinate theme: the semitone chord progression in F# major. The chromatic bass line continuously moves up to A (m.109) and results in chord successions which consist of the alternation of chords in the two key regions of F# major and c minor (mm.106-109). The bass begins the statement of the main theme melody (4-23) in measure 110 where the soprano reaches high A (Ex.37).

The first violin plays the same melody line, motive X, as in the main theme, but the note values are augmented. The beginning of the vocal line is exactly the same as that of the viola line (3-2), and the vertical chord forms show the set structures similar to that of the main theme: the D-A-G# chord moves to an Eb major triad, then to an F major ninth chord. It is followed by a chord built in fourths, an Ab minor triad with raised fourth, another chord built in fourths and an Ab major ninth chord. Only the ending is different from the main theme statement in the exposition. The harmony of this passage is controlled by the motivic statements in the voices rather than by the functional harmonic progression of the key.

The coda begins on a pedal F#, the only long-held tonic note in the movement (mm.120-123). Then the dominant seventh of the F# major is prolonged (mm.128-133) in order to support the F# major key. However, the key establishment is interrupted by an abbreviation of the main theme statement.

Ex. 38. Schoenberg, String quartet Op.10, IV, mm.140-144.
The above example shows the duality of key regions in the thematic areas. The D-A-G# chord (3-5) of the main theme is reached in measure 140 through the main theme melody (4-23) sequence started in measure 135. It is followed by an Eb major chord, then the same D-A-G# chord progresses to an F# major triad in measure 142. The next two bars alternate a C major seventh chord and F# major triad. These chords related by a tritone are juxtaposed for the first time in this movement. The D-A-G# chord appears again along with the introductory motive in measure 152. The same chord is prolonged (mm.152-153) before the movement finally concludes on the F# major triad in measure 155 (Ex.39).


Since it is difficult to determine the cadence points in the movement, due to the lack of functional harmonic progressions, the pitch content of the formal divisions should be examined in order to find out how Schoenberg articulates these structural points (Fig.6).
Fig. 6. Four main divisions in the fourth movement.

1. The end of the introduction (mm. 15-16).

2. The end of the exposition (mm. 65-67).
(Fig. 6 cont’d)

3. The end of the development (mm. 99-100).

4. The end of the recapitulation (mm. 119-120).
As indicated in Figure 6, there are four points that make divisions into the five main sections; introduction, exposition, development, recapitulation and coda. The first example shows the vertical structure of a minor seventh chord on C which is a combination of two fifths separated by a minor third. The interval of a fifth in the bass, C-G, is suddenly changed into another fifth on C#, the dominant of F# major. This striking semitone movement foreshadows the F#-C duality at an early stage. The second point comes at the end of the exposition in measure 66. As noted before, the ending of the exposition and the beginning of the development are elided. The last chord of the exposition section is the C major triad which is achieved through the semitone movement from the C# ninth chord, the dominant of F# major. The fifth, C#-G#, formed between the cello and second violin moves a semitone down to another fifth on C. This change from C#-G# to C-G is the exact reverse of the previous change in the introduction. The entry of the canonic statement also shows the semitone movement, C#-C and G#-G. The chord structure and the voice-leading at the end of the development section are very similar to those of the beginning of the subordinate theme. The 4-23 chord progresses to the F# major triad and produces semitone movement in each voice. Here the 4-23 has the framework of the augmented sixth moving to an octave, F#--a characteristic of the cadential progressions found in the first movement. The voice-leading at the end of the recapitulation shows similar semitone movement and the same pitch content. Here again, the 4-23 chord moves to the F# major
triad. This example reveals that there are two types of pattern used in articulating formal divisions: one is the semitone movement between two fifths, and the other is set 4-23 progressing to the F# major triad. Set 4-23 and the F# major triad clearly represent the main theme while the semitone movement shows the chromatic nature of the subordinate theme.

The fourth movement of the Second String Quartet has received a great deal of attention from scholars especially because it does not carry a key signature—a characteristic of Schoenberg's atonal pieces. Schoenberg was aware of the imbalance between the extensive use of the dissonances and the intermittent appearances of the tonic in this movement, and he admitted that the tonality was not supported by harmonic progressions related to the key. In this movement, the key of F# major is not established by harmonic progressions, and the F# major tonality consistently conflicts with the c minor even in the 'tonally affirmative' passages in the thematic areas. Thus the F# major tonic becomes a referential feature. The movement displays Schoenberg's technique of motivic manipulation with contrapuntal devices. The harmony is a result of exhaustive motive working in individual voices and counterpoints which feature their own distinct pitch collections. Besides the F# major tonic, the D-A-G# chord (3-5) and the 4-23 chord play important roles as 'non-tonal' referential chords throughout the movement. There is another 'non-tonal' element used in the introduction, namely the circle of fifths. In the circle, each
note is equal as long as the circle continues. Some of these characteristics of the fourth movement are summarized by Samson:

..the constructive significance of counterpoint, the use of rhythm and texture as a means of shaping and directing the phrase, the replacement of the tonal cadence by other referential features and the subtle integration of tonal reminiscences into a predominantly non-tonal musical language.(12)

His points of view are supported by the analysis presented in this chapter. Samson regards them as the preoccupations of Schoenberg's early atonal music. Through the use of the motive working in contrapuntal procedures, Schoenberg was able to create coherent structure while he cared less about the inclusion of non-harmonic tones. The cohesive structure is obtained by the contrapuntal combinations of motives with the support of the already established structure of the poem used as a text. The atonal motives and their pitch content gain their importance by playing a role as a main structural element, for example, the subordinate theme melody and the introductory motive. All of these helped to justify Schoenberg's not maintaining the pitch hierarchies which are essential in tonality. We can find in this movement the emancipation of dissonance that is very characteristic of his atonal works.
NOTES: CHAPTER V

(1) Rachhaupt, op. cit., p.43.

(2) Schoenberg, "My Evolution", p.86.

(3) Samson, op. cit., p.110.

(4) Rachhaupt, op. cit., p.47.

(5) An English translation of the poem by Carl Engel appears in the Appendix.


(7) Rachhaupt, op. cit., p.48.


(9) The employment of sets as vertical chords in the main theme (mm.21-35) displays a kind of arch-type form in which the bridge is situated in the center.

mm. 21 .. 24 25 26 Bridge 30 31 32 .. 35

3-5 4-24(4-19) 4-22 3-11(4-23) 3-11 4-22 4-24 3-5<4-Z15

(4-19) (4-19)


CONCLUSION

Schoenberg's first atonal work, Das Buch der hängenden Gärten Op.15, written in 1908, marks the turning point in his creative career as a composer. The Second String Quartet Op.10, which was completed before Op.15 in the same year, has received a considerable amount of attention from scholars because it is regarded as a transitional work leading towards his 'atonal' period. The harmonic structure of each movement of the Second String Quartet revealed in the present study will be summarized in the following paragraphs.

The first movement begins with the main theme, the structural basis of which is the f# minor tonality. This tonal movement remains within a traditional formal structure which is often articulated by harmonic progressions which deviate from traditional cadential progressions. The movement is, however, composed against a triadic background more consistently than the following movement, and in the thematic areas the melodic and rhythmic elements move in accordance with a more traditional harmonic structure.

The d minor tonality of the second movement is supported by the constant emphasis on the tonic note and the frequent use of the tonic triad at formal divisions. The triadic background for the articulation of large formal structure is apparent. But the
extensive contrapuntal texture often produces chord progressions not related in a functional way. Also, the semitone content of the melody results in chromatic and dissonant chord forms without conventional resolutions in some places. The use and development of short themes which maintain pitch identities and intervallic content plays a major unifying role for the structure of the movement.

The key of the third movement is suggested by the eb minor tonic triad which appears in the opening motive. The motive frames each variation and serves as the main reference to the tonality of the movement, while the harmonic progressions give little support to key establishment. The harmonic structure is largely the result of melodic statements of the motive, employed in a dense contrapuntal structure. This brings about complex harmonies without discernible chord progressions pertaining to the key of eb minor. The absence of functional harmonic progressions renders the tonal element in this movement more referential than in the second movement. But the thematism, achieved by repeating and developing of thematic material through contrapuntal and variation technique, serves as constructive basis for the coherent structure of the third movement.

The fourth movement begins with an introduction which lacks tonal stability due to the pitches employed in the context where the tonality is suspended. The chordal thematic areas feature linear melodic statements in the voices, the vertical combinations of which produce a chord succession rather than a
functional chord progression. These melodies serve as important motives used later in the contrapuntal texture of the development. The lack of tonal stability is enhanced by the increased independence of voices which are no longer controlled by tonal harmony. Therefore, melodic statements organized through contrapuntal combinations of motives and elaborate canonic procedures become the determinant for the chromatic harmonic structure. The F# major triad serves as a referential element, and its occasional returns at formal divisions are the only references to the tonality of the movement. The continuous use of the motives derived from the thematic areas, and the poem serving as a text help to integrate the elements of the fourth movement without sufficient tonal support.

Within the framework of the quartet, the function of triadic tonal harmony becomes weakened by the gradually increased emphasis on melody and the growing importance of counterpoint. The role of traditional harmony as a constructive element is also diminished in the last two movements, in which the harmony serves the purpose of expressing the emotionality portrayed in the text by accompanying the soprano voice. Therefore, the portion of chromatic harmonic structure dependent upon melody and counterpoint as well as the text outgrows that of tonal structure by the time the fourth movement is reached. The pitch hierarchies and the distinction between consonance and dissonance are temporarily dissolved in certain parts of the fourth movement. This anticipates the emancipation of
dissonance' which takes place in Schoenberg’s next 'atonal' pieces. The disappearance of distinction between consonance and dissonance is then followed by his 'twelve-tone' composition in which each note of the twelve-tone chromatic scale is treated equally—no pitch hierarchy.
Litany

Deep is the sadness that overclouds me,
once more I enter, Lord! in thy house.

Long was the journey, weak is my body,
bare are the coffers, full but my pain.

Thirsting, the tongue craves wine to refresh it,
hard was the fighting, stiff is my arm.

Grant thou a rest to feet that are falt’ring
nourish the hungry, break him thy bread!

Faint is my breath, recalling the vision,
empty my hands, and fev’rish my mouth.

Lend my thy coolness, quench thou the blazes,
let hope be perished, send forth thy light!

Fires are still burning open within me,
down in the depth still wakens a cry.

Kill ev’ry longing, close my heart’s wound,
take from me love, and give me thy peace!
Transport

I feel the air of another planet
the friendly faces that were turned toward me
but lately, now are fading into darkness.

The trees and paths I knew and loved so well
are barely visible, and you beloved
and radiant specter—cause of all my anguish—

You are wholly dimmed within a deeper glow,
whence, now that strife and tumult cease, there
comes the soothing tremor of a sacred awe.

I am dissolved in swirling sound, am weaving
unfathomed thanks with unnamed praise, and
wishless I yield myself into the mighty breath.

A wild gust grips me suddenly, and I can
hear the fervent cries and prayers of women
prone in the dust and seized in pious rapture:

And then I see the hazy vapors lifting
above a sunlit, vast and clear expanse
that stretches far below the mountain crags.

Beneath my feet a flooring soft and milky,
or endless chasms that I cross with ease.
Carried aloft beyond the highest cloud,

I am afloat upon a sea of crystal splendor,
I am only a sparkle of the holy fire,
I am only a roaring of the holy voice.
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