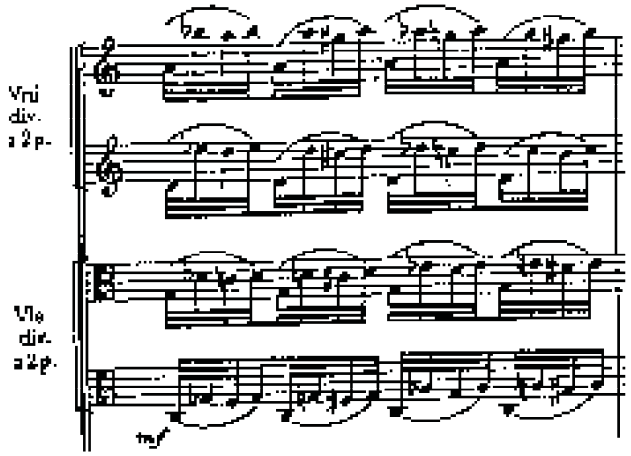
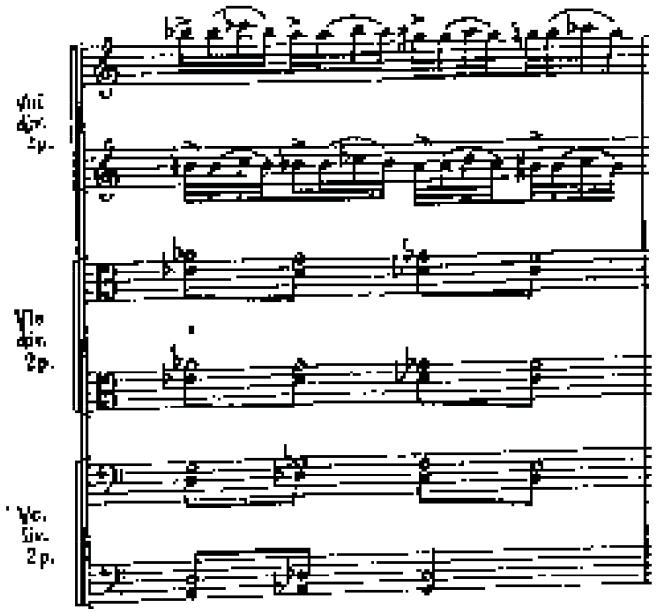
This motive is subsequently rhythmically diminished and includes pulsating pedal points on A, D, G and C.

Ex.7 Second movement, bar 75.



At bar 79 it is fully evolved as principal thematic material on the violins. Its status is underlined by its continual repetition until the end of that section, namely, bar 85.

Ex.8 Second movement, bar 79.

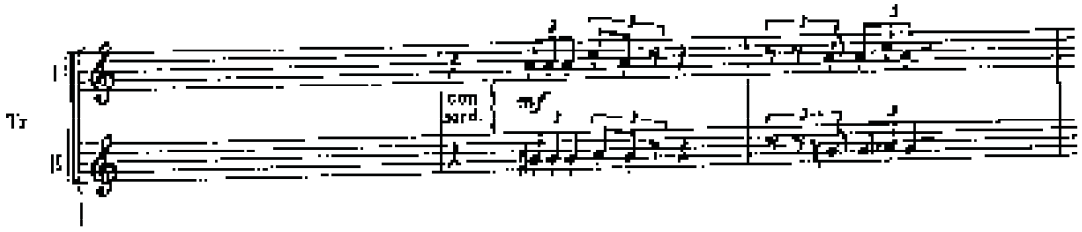


1.2.2.3 Rhythmic Variation

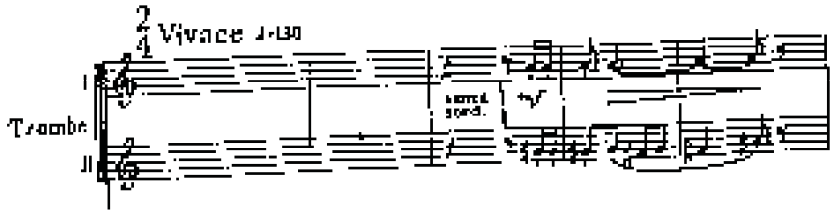
Certain principal themes in contrasting sections and in different movements are rhythmic variations of previous principal themes. Thus similar pitch and intervallic cells are retained or melodically extended, while the rhythmic patterns may be varied. This process may seem initially identical to that of rhythmic transformation described under 1.2.2.1, page 21, however here the process is not continuous. (see Melody 2.3, page 36).

The trumpet theme of the A2 section, first movement, outlines similar pitches and intervals in its counterpart in the third movement, section A1, although it is rhythmically considerably varied with its second appearance.

Ex. 9 First movement, bars 48-50.



Ex. 10 Third movement, bars 1-5.



These three processes discussed above, occur simultaneously. The thematic material is thus constantly in a combined process of restatement, rhythmic transformation, organic growth and rhythmic variation, with old and new material presented in combination.

1.3.1 Metre

Bacewicz's rhythmic vernacular is firmly rooted in the Eastern European dance form with its single metre and symmetrical patterns. The asymmetrical *metres used by Bartok*, called 'Bulgarian rhythm', are common only in Albania, Yugoslavia, Greece and Macedonia. "*The commonest metre throughout Eastern Europe is 2/4, although 3/4 is also much used by the western and northern Slavs.*"[10] Bacewicz's use of a single metre and symmetrical rhythmic patterns is significant. Historically she draws on *perpetuum mobile* rhythmic string figures of *the Baroque period*, Jazz rhythmic patterns and most importantly on Eastern European folk material, all of which are rooted in single metric patterns. The fact that she had to write music that was accessible to a *wide audience*, perhaps accounts to some extent for the lack of rhythmic complexity in her music.

Single 2/4, 3/4, 4/4 and 6/8 metres are sustained throughout full sections of the work. Metric changes therefore clearly underline the sectional structure of the piece. Metre and Tempo therefore function *as secondary articulating features in* the music.

1.3.2 *Tempo*

Contrasting metronome markings similarly *underline the sectional structure of the* piece.

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[10] The New Grove Dictionary of Music and Musicians. Volume 6. Macmillan Publishers Limited. 1980. p. 311.

The following diagram gives an outline of the sectional structure of the piece as outlined by metric and tempo changes:

Sectional Structure	Metric Changes	Tempo Changes
First Movement:		
Introduction (bars 1-10)	4/4	Allegro ♩ = 108
Section A1 (bars 11-42)	None	Poco piu mosso ♩ = 20
Section A2 (bars 43-54)	None	None
Section A3 (bars 55-71)	None	None
Section B1 (bars 72-108)	None	♩ = 104
Section B2 (bars 109-122)	6/8	Meno mosso ♩. = 100
Section B3 (bars 123-144)	4/4 at bar 162	None
Linking Section (bars 145-176)	3/4, 4/4, 2/4	None
Section A1 (bars 177-201)	None	♩ = 120
Stretto (bars 202-219)	None	Accelerando
Second Movement:		
Section A (bars 1-35)	3/4	Adagio ♩ = 50
Section B (bars 36-85)	2/4	Poco piu mosso ♩ = 72
Section C (bars 86-118)	4/4, 3/4, 2/4	None
Third Movement:		
Section A1 (bars 1-69)	2/4	Vivace ♩ = 130
Section B (bars 70- 117)	6/8	♩. = 80
Section A2 (bars 118-136)	2/4	None
Section C (bars 137-204)	None	None
Recapitulation (bars 205-261)	6/8, 3/4, 2/4	None

Apart from underlining the sectional structure of the piece, the tempo changes also clearly underline passages of heightened tension or contrasting low tension areas. These passages usually occur towards the end of sections, when there is a gradual build-up of tension through layering or juxtapositioning of contrasting rhythmic patterns (see Texture, page 48).

2. MELODY

2.1 Character of Themes

The melodic material is firmly rooted in Baroque scalic and arpeggio figures and Eastern European folk melodic characteristics. The result is an individual synthesis of melodic characteristics that make for a highly distinctive thematic style.

2.1.1 Folk Melodic Characteristics

Universally, folk music is essentially dance and vocal music. In vocal music, rhythms are determined by the syllabic patterns of the 'folk' language, and to a large extent dance rhythms are shaped in a similar way.

> *"There is a close correlation between syllabic versification and the repetitive and generative qualities of the rhythmic patterns. Some rhythms are particularly frequent, as are those of the mazurka, krakowiak and polonaise, which were the first 'national dances'."*[11]

Although Bacewicz has drawn directly from Polish folk music in the form of direct quotations of folk melodies, as in the Violin Sonata No.4, or used the national dance rhythms of the mazurka in the Piano Concerto No.1, her use of folk melodic characteristics is rather an integrated element in her thematic vernacular. In this way her use of folk material bears a resemblance to the music of Bartok and Stravinsky.

She makes extensive use of pedal points, repeated-note patterns and ostinati. The use of a drone bass is a characteristic feature of folk music. Furthermore the use of minimal means in creating melody is another important feature of folk music.

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[11] The New Grove Dictionary of Music and Musicians. Volume 15. Macmillan Publishers Limited. 1980. p. 33.

Folk melodies tend to favour small intervals, i.e., seconds and thirds and these are often repeated to create cyclical patterns. Repetitive pitches or intervals are coupled with motoric and repetitive rhythmic patterns to create melodic and rhythmic ostinati.

Ostinati, pedal points and repetitive-note patterns have been used by several 20th century composers with varying effect, depending on the context in which they are used. In the music of Bartok and Stravinsky they give the music a particular folk-like character. In the music of Philip Glass, layered ostinati are used almost exclusively, with very different results. Nevertheless these folk melodic features have important harmonic and hence structural implications (see Pitch 2.3.1 page 37 and 2.3.2 page 40).

Their function as principal or accompanimental material depends on textural manipulation and their resultant role in creating passages of low or high tension is discussed under Texture, page 48.

2.1.2 Neo-Baroque Melodic Figures

These are the various arpeggio and scalic figures that are coupled with the *perpetuum mobile* rhythmic patterns described under Rhythm 1.1.1 page 18. Although Bacewicz's music is not bound to a key, these melodic figures nevertheless outline structures that are inherently repetitive by nature, i.e., certain intervals or groups of intervals are repeated forming scalic figures, in the case of repeated intervals of seconds, and arpeggio figures, through repeated intervals of thirds. These figures are therefore clearly perceived as scalic and arpeggio figures. They outline various synthetic scales although the chromatic scale is featured most frequently, throughout her music in both principal and accompanimental material. The melodic direction of these figures is always directed towards a final 'resolving' tone, a feature that is exploited to the full by

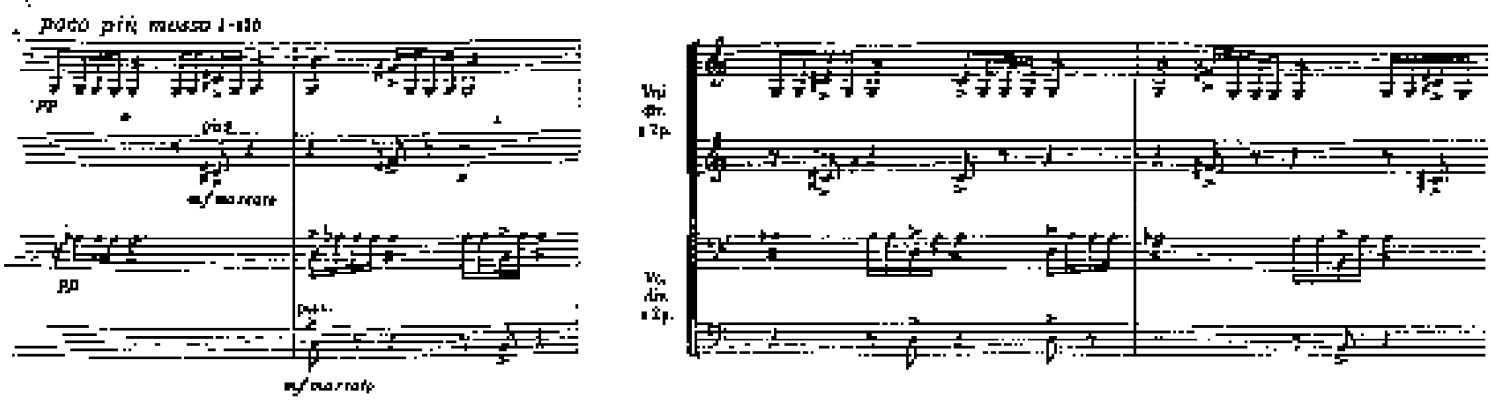
the composer in the building-up of melodic and harmonic tension, with resulting articulatory and structural implications. (see 2.3.1.1 page 37 and Harmony, page 42).

It is obvious that the character of the melodic and rhythmic patterns combines to create a distinctive thematic vernacular from which she draws her principal and secondary thematic material. This material is sufficiently related in general character to unite the music as a whole. Contrast and the creation of areas of greater and lesser tension is accomplished through skilful manipulation of thematic material.

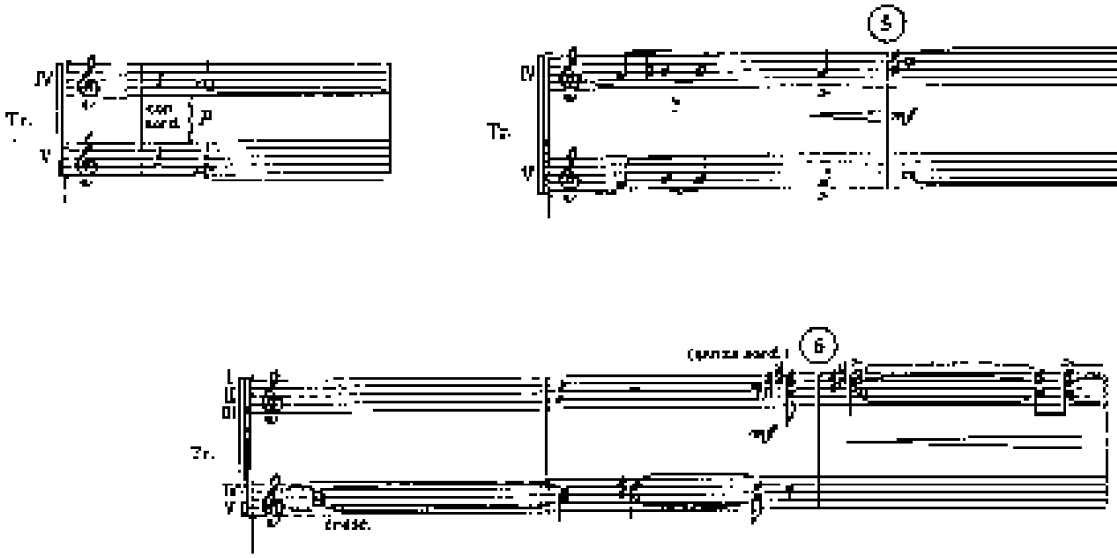
2.2 Macro-Structure: Dual Thematic Construction

Each section of the piece has two principal themes, contrasted in rhythm and in pitch and intervallic content. The following examples show how this thematic contrast is further underlined by the juxtapositioning or superimpositioning of themes within each section. Principal themes define the sectional structure of the piece and are thus labelled accordingly: In the first movement, themes A1(a) and (b) outline section A; themes A2 (a) and (b) outline section A2, etc. (see sectional analysis under Rhythm 1.3.2 page 26).

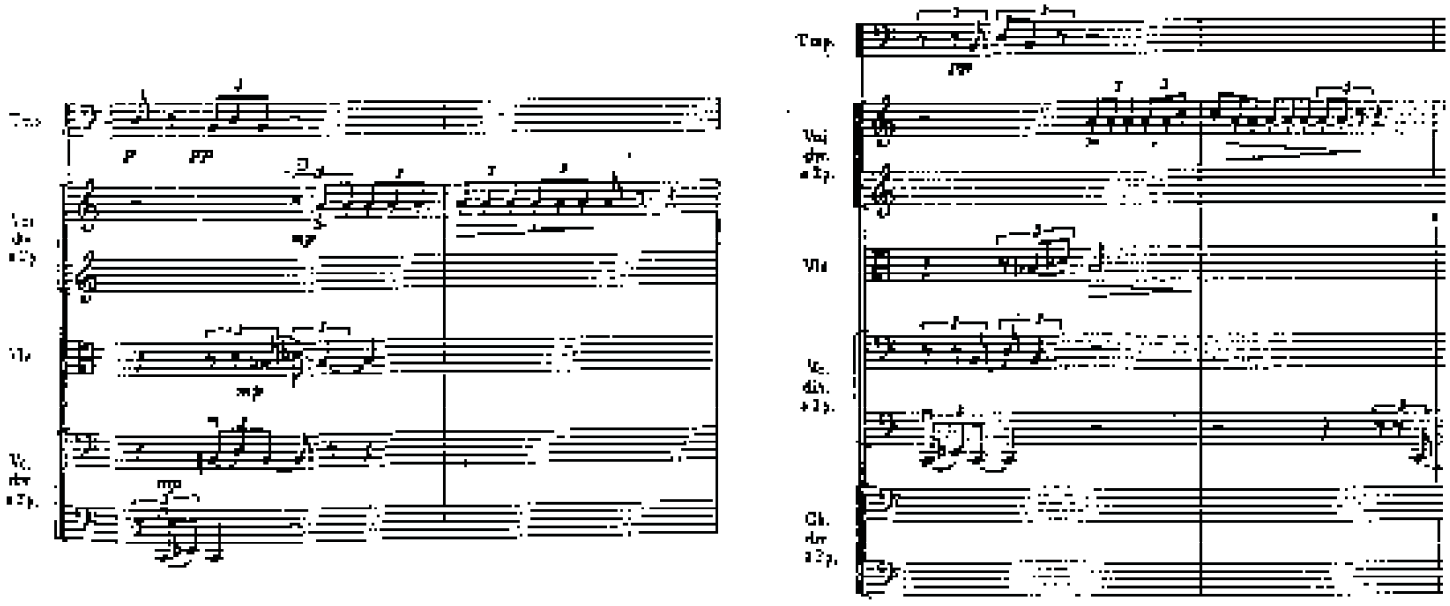
Ex. 11 First Movement, theme A1(a), bars 11-14.



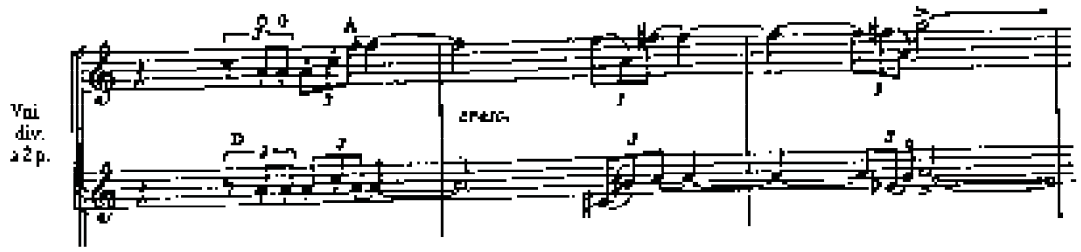
Ex. 12 First movement, theme A1(b), bars 25-31.



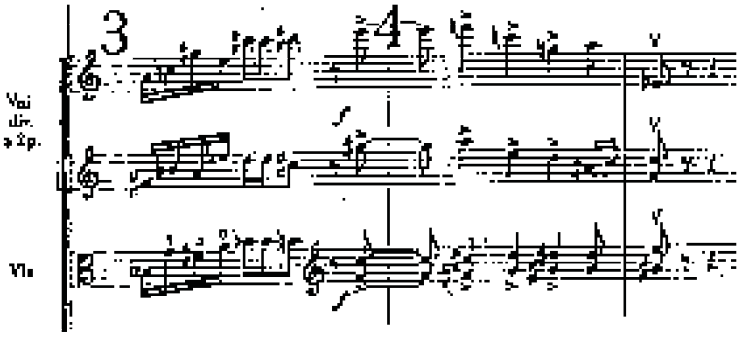
Ex. 13 First movement, theme A2(a), bars 43-46.



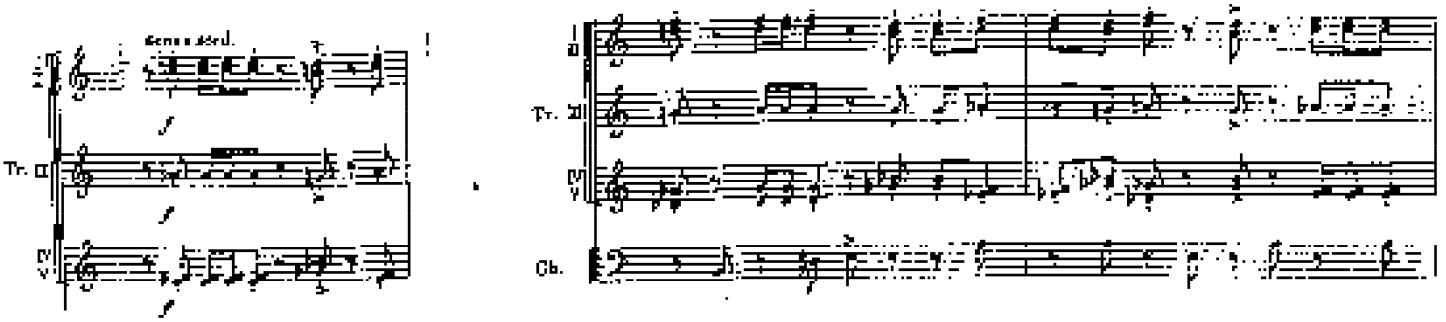
Ex. 14 First movement, theme A2(b), bars 48-50



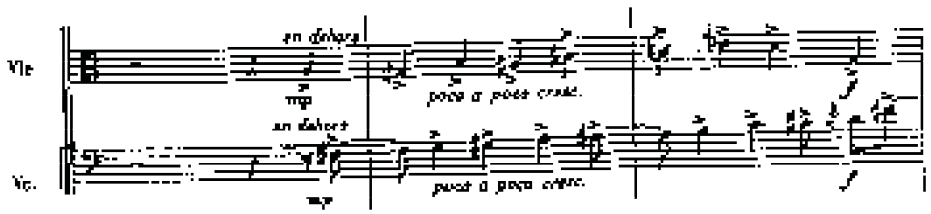
Ex. 15 First movement, theme A3(a), bars 54-55.



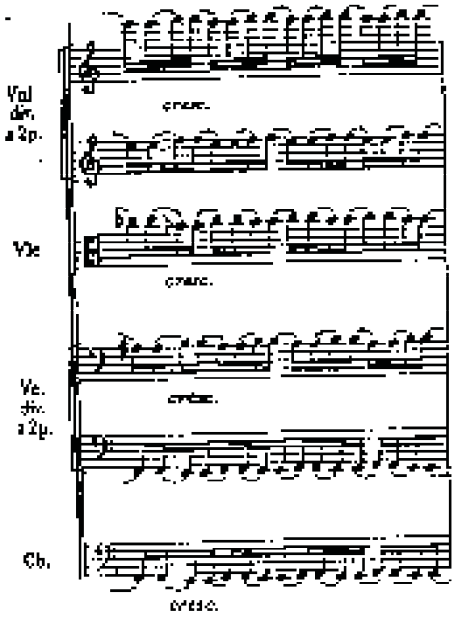
Ex. 16 First movement, theme A3(b), bars 56-58.



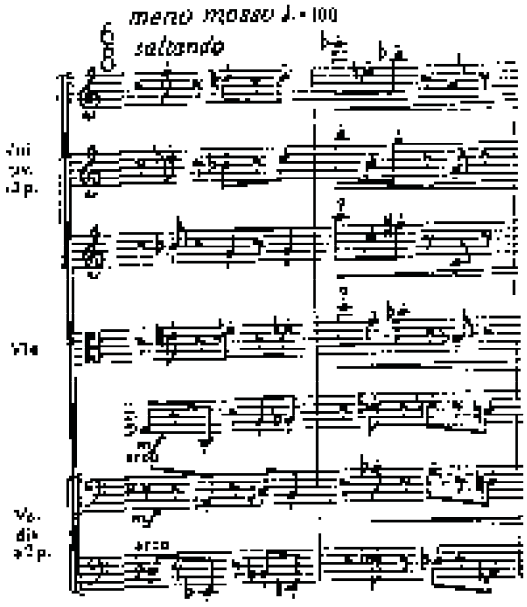
Ex 17 First movement, theme B1(a), bars 94-96.



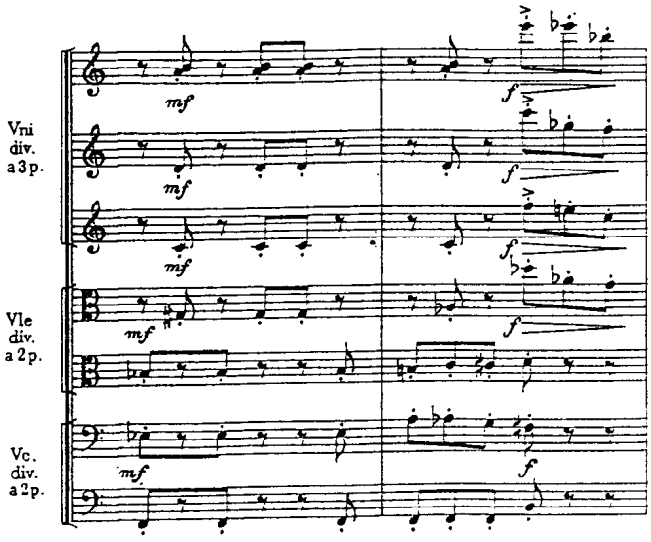
Ex 18 First movement, theme B1(b), bar 102.



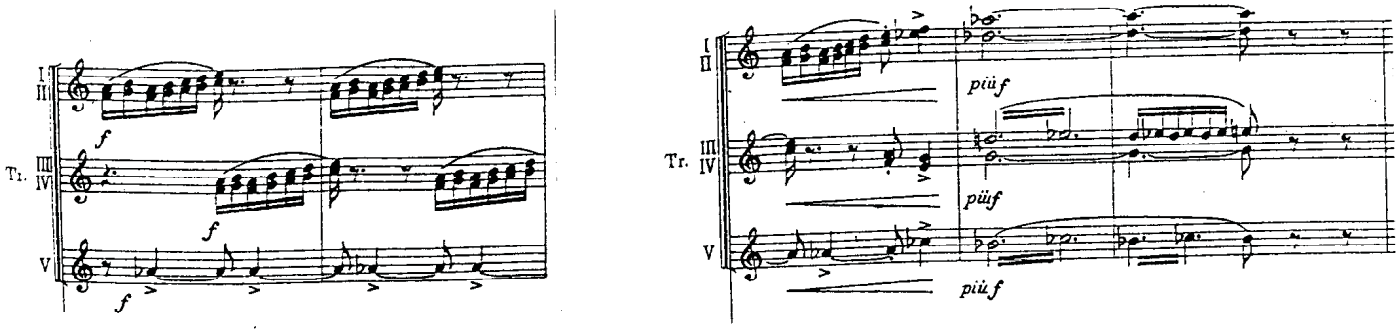
Ex. 19 First movement, theme B2(a), bars 109-110.



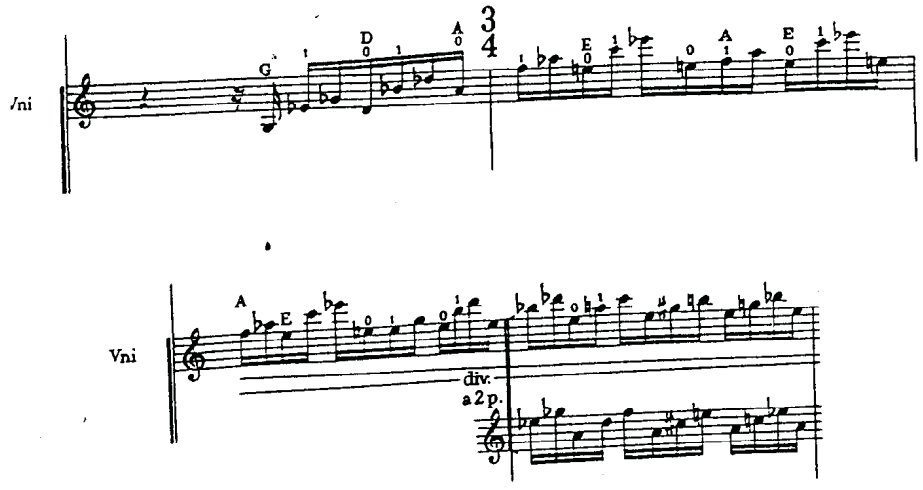
Ex. 20 First movement, theme B2(b), bars 113-114.



Ex. 21 First movement, theme B3(a), bars 123-127.



Ex. 22 First movement, theme B3(b), bars 144-147.



2.3 Micro-Structure: Intervallic Construction and Pitch as Elements of Thematic Cohesion

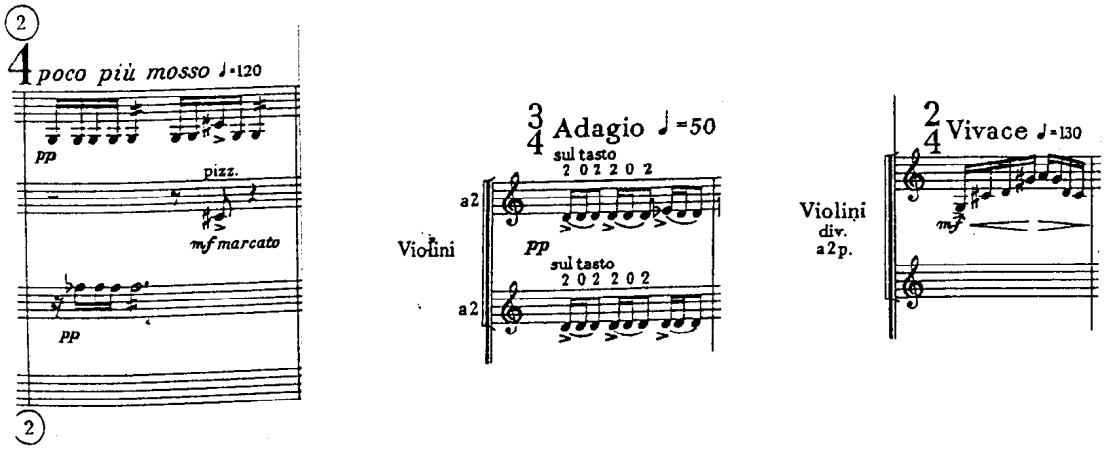
It was stated earlier that rhythm provides the greatest source of contrast and motivic variation (see Rhythm 1.2.2, page 20). Pitch and intervallic content on the other hand are the most cohesive factors in the music.

There is a close relationship between the intervallic construction and pitch groups of all three movements.

For example, the opening string motives of the three movements are remarkably similar in intervallic and pitch construction. All three motives outline minor seconds and tritones. They also revolve around similar pitch centres.

Ex. 23

First Movement bar 11. Second Movement bar 1. Third Movement bar 1.



2.3.1 Pitch: Central Tones

2.3.1.1 Pedal points

Central tones in the form of pedal points are a characteristic feature of many Eastern European folk melodies. These are derived from the bagpipe which is used to accompany most dance music. *"Thus the violin and bagpipes are used to accompany dances, while the violin and various kinds of wooden flutes are also used to play solo music in some areas."*[12]

In the first movement of The Music For Strings Trumpets And Percussion, the trumpet themes of the first three sections (bars 11-71) strongly emphasize A as the focal tone. In theme A1(b), A is featured as a pedal point for several bars (see example 12, page 32).

In theme A2(a) the note A is featured again as central tone (see example 13, page 32). Here it is an unaccompanied repetitive-note figure at the end of the phrase, underlining its function as a central 'resolving' tone. Resolution here has no harmonic or tonal implications, but it is structurally important as it 'resolves' the phrase by virtue of its repetitive nature and its placement at the end of the phrase, hence its articulatory function. In theme A3(b) A is featured again, although not as strongly as before (see example 16, page 33). However it is still featured as a note in the final chord of the melodic figure.

In the second and third movements, pedal points occur frequently and they are structurally as important as in the first movement.

Central or focal tones are therefore featured throughout the work. These notes are given emphasis through various melodic and rhythmic means, pedal points,

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[12] The New Grove Dictionary of Music and Musicians. Volume 15. Macmillan Publishers Limited. 1980. p. 34.

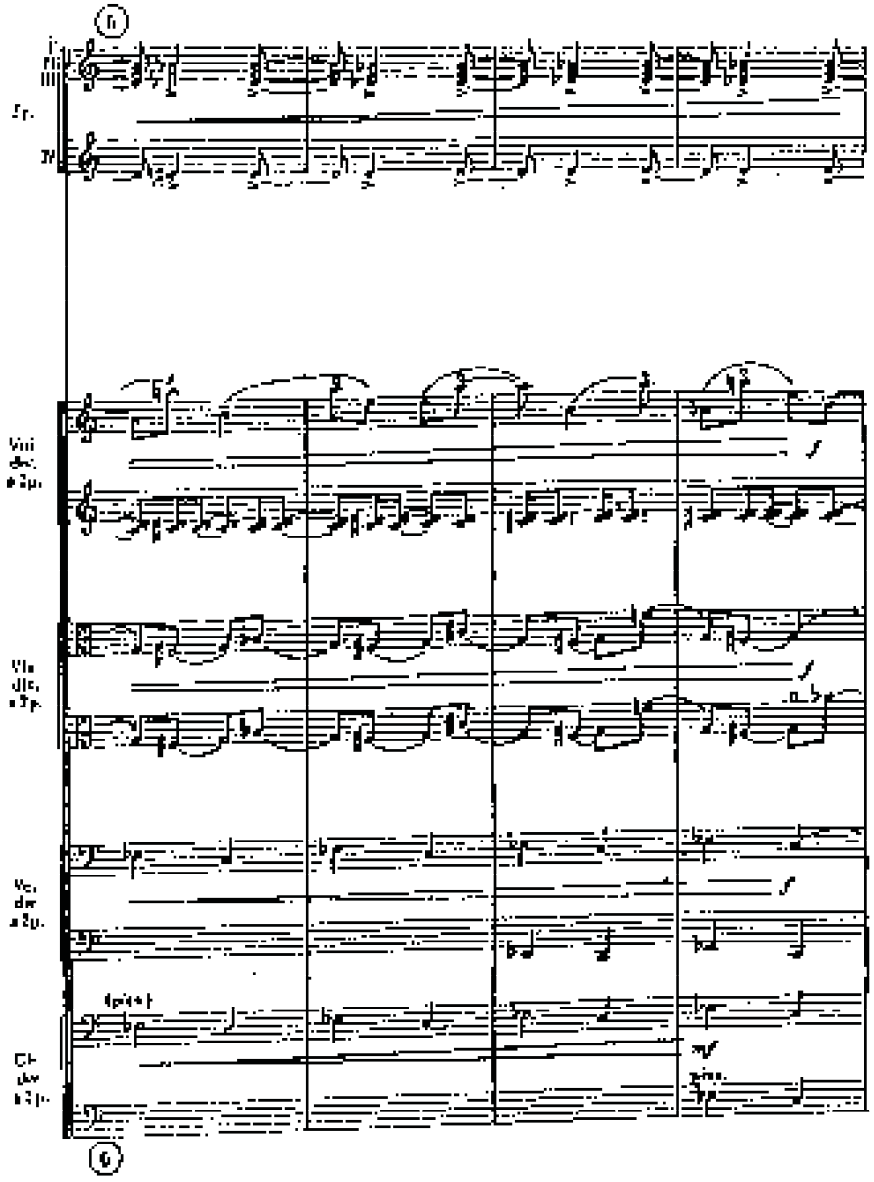
ostinati and repetitive-note figures being the primary ones. Instrumentation, register-placing and articulation are secondary articulating means. These pivotal pitch centres are a central feature of her music generally. They function as points of gravity in the general harmonic vernacular, and give the music its unique character.

2.3.1.2 Ostinati

In the music of Stravinsky these tonal centres are created through melodic and rhythmic ostinati that last for entire sections of the music, as in Les Noces. Here the effect is almost hypnotic in its ritualistic, primitive evocation of a Russian peasant wedding. In the music of Bacewicz certain specific tones are featured as focal points and this is in part achieved through ostinati. In these passages her music is particularly reminiscent of Stravinsky (as in bars 18-51 in the third movement).

Similarly in bars 51-54, second movement , the layered ostinati create blocks of static sound, a technique used by both Bartok and Stravinsky.

Ex. 24 Second movement, bars 51-54.



However the greater part of her music is characterised by passages that use a diversity of symmetrical rhythmic patterns, cast in a single metre Nevertheless, Bacewicz shares a similar tonal language with the aforementioned composers, i.e., tonality by assertion. Certain specific tones are asserted in a variety of ways, ostinati being one melodic technique, and these focal tones function either as static pitches with no surrounding tension tones as in example 25 (page 43), or they can have tonal implications as in example 26 (page 45).

Furthermore they are structurally significant in that they underline the phrase structure as in theme A2(a) first movement (see example 13, page 32). They always articulate the sectional structure of the piece. In this way they function as important gravitational pitch centres.

2.3.2 Intervals

The derivation of thematic material from a reservoir of intervallic and pitch germ cells is a stylistic feature which Bacewicz's music shares with that of Bartok In the previous discussion under Pitch the importance of certain pitch centres was highlighted. The intervallic content is similarly significant.

While the use of certain focal tones creates a stabilising pitch centre in the music, the use of strident, dissonant intervals creates an effective satisfying counterpart.

2.3.2.1 The Minor Second Interval - The Chromatic Scale.

The chromatic scale is frequently used in both principal and accompanimental material in all three movements. In the first movement, bars 48-53, the principal theme A2(b) on the strings uses the chromatic scale to create a systematic build-up of tension, moving from F to G# and to its final resolution on E an octave higher (see example 14, page 33).

The chromatic scale is also used in the accompanimental material in the lower strings in the same passage. Here a descending chromatic scale is outlined. The versatility of the chromatic scale is used to full advantage by the composer throughout the work. Motifs are often repeated in chromatic ascending or descending motion, (see example 8, page 19) or ostinati or pedal points are combined with motifs that ascend or descend chromatically, (see example 7, page 18). Various combinations of these kinds of figures are highly characteristic of her thematic material, especially in her string writing.

In this way the chromatic scale as a melodic feature is used very successfully to build tension and create quasi-tonal implications. Furthermore, the composer remains faithful to the neo-classical ideal of using minimal means to greatest advantage.

Conclusion

The general nature of the thematic material, i.e., a predilection for certain intervals coupled with certain rhythmic figures and the use of pitch centres is an intrinsic micro-structural and cohesive element in the music. However the ongoing rhythmic variation of motivic material, while retaining either its pitch or intervallic content, is an important thematic developmental process. (see Rhythm 1.2.2, page 20).

Therefore, while rhythm provides the greatest element of change, variation and contrast in the music, pitch and intervallic content remain the strongest binding factors in the music.

3. HARMONY

Although the composer makes free use of all 12 tones in the octave, a quasi-tonal character is maintained throughout in both melodic and vertical constructions. This is achieved in various ways.

3.1 "Tonality through Assertion"

"Tonality through assertion" is a phrase coined by Eric Salzman to describe the tonal language in Stravinsky's neo-classical pieces. Specifically it refers to his use of ostinati and other melodic means to create quasi-tonal centres.

> *"There is nothing inevitable about the tonal centers in Stravinsky's music; they are present and effective because they are stated and asserted to be so; and the means of assertion - repetition, ostinato, pedal point, juxtaposition of melodic and harmonic levels on specific tones and intervals, accent and articulation, rhythmic and metrical displacement - provide the basis for both the tonality and the form."*[13]

Here the term 'tonality' is redefined in that it implies the absence of functional tonality with music written in a "key" and with the resultant tension tones and dominant-to-tonic resolutions. The result is a quasi-tonal staticity, where certain tones or ostinati provide a stabilising or gravitational force throughout a passage or section, with no implication of resolution. In Bacewicz's music "tonality through assertion" is one harmonic device used to create a sense of "tonal" focus. This is done through the use of central tones, pedal points and ostinati similar to those found in the music of Stravinsky.

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[13] Salzman, Eric. An Introduction to Twentieth-Century Music. Englewood Cliffs, N.J. Prentice-Hall. 1971. p. 50.

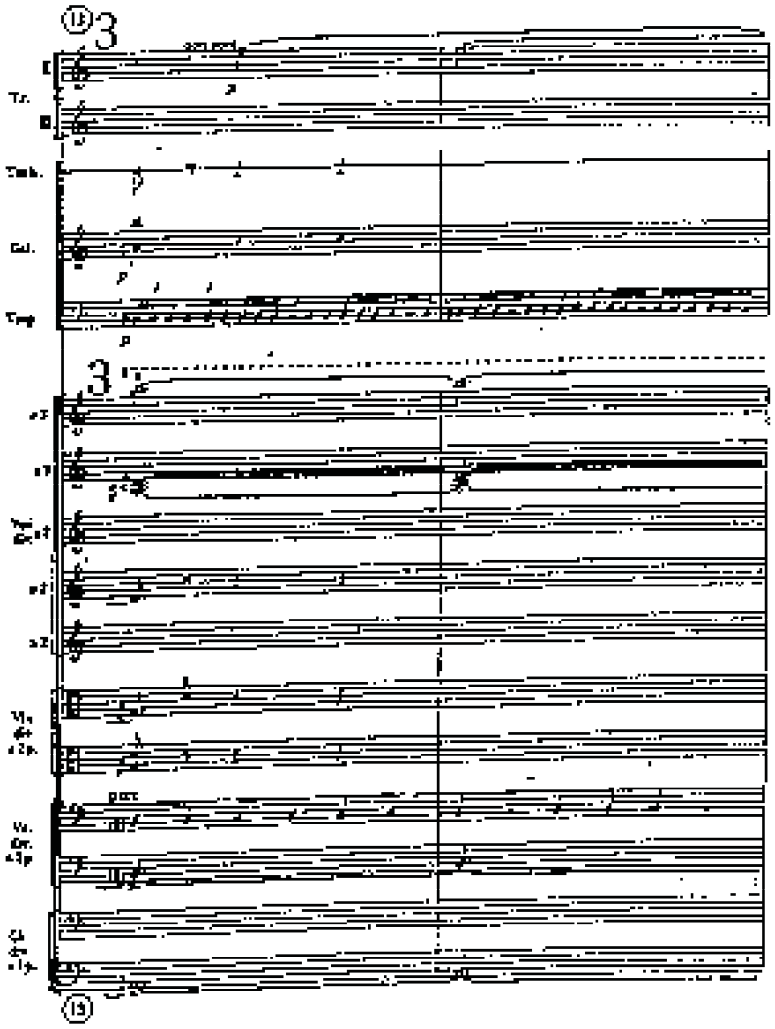
3.1.1 Central Tones (See Pitch 2.3.1, page 37)

Static pitch centres and their articulatory and stylistic roles have been discussed in detail under Melody, page 37. In Bacewicz's music these static pitch centres are fixed throughout a section.

3.1.2 Layered Ostinati

When several ostinati are superimposed, they often outline different focal tones simultaneously. In these passages any sense of quasi-tonal focus would be submerged were it not for the use of secondary articulating features, namely, instrumentation and articulation, to underline and give focus. The resultant vertical formations in these passages are chromatic, further clouding tonal implications.

Ex. 25 Second movement, bars 104-105.



3.2 Tension-Resolution Devices

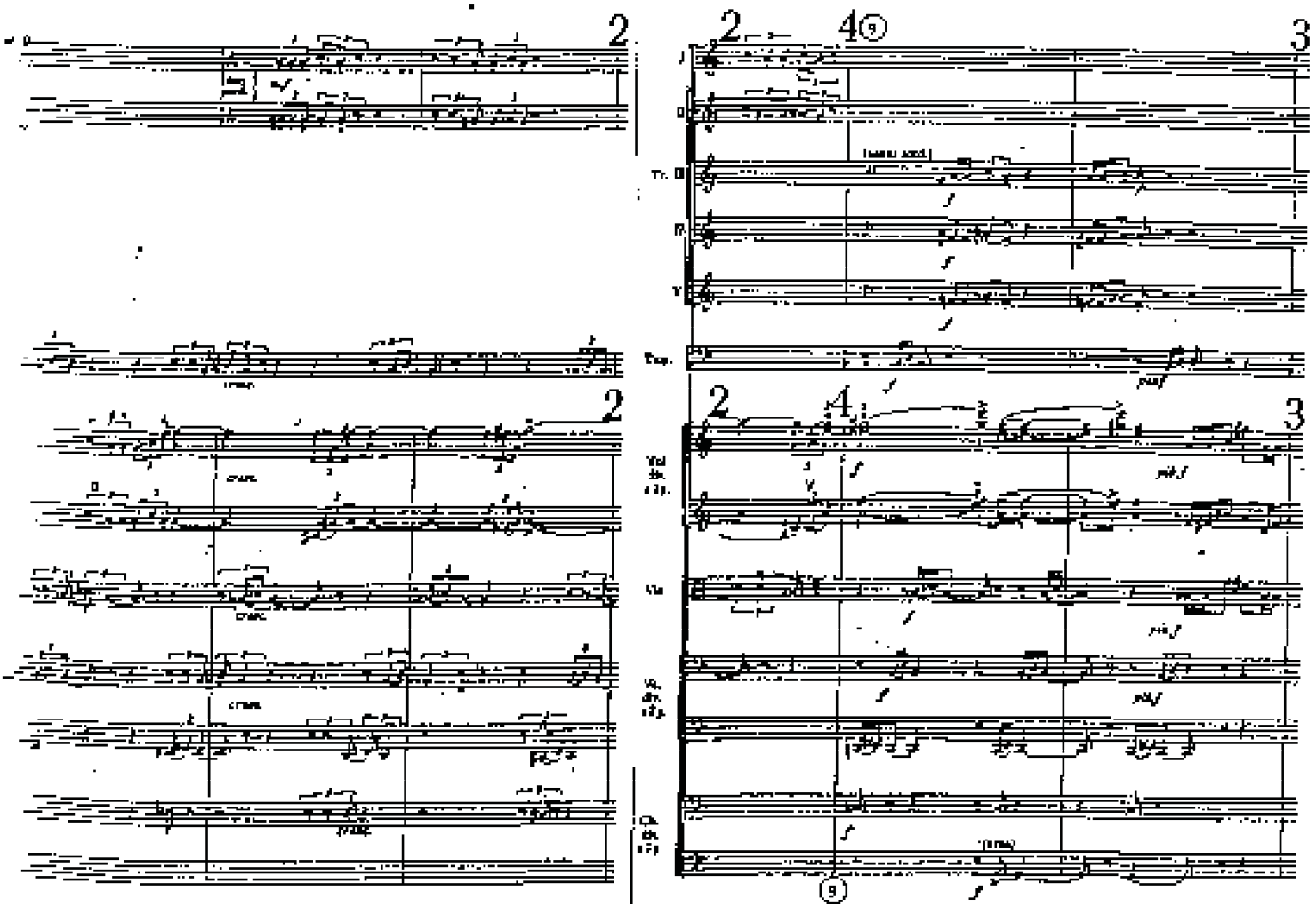
3.2.1 Primary and Secondary Central Tones in Superimposed Themes.

When contrasting themes are superimposed, focal tones can have a primary or secondary function. In the following example 26, the note E emerges as the primary focal tone at the end of the phrase (bar 52, beat 3). The process is further emphasized by register-placing and accentuation of the E pitch.

The secondary focal tones are created by repeated-note accompanimental figures on the timpani, violas and first cellos. The note A is given repeated emphasis in the two superimposed principal themes on violins and trumpets respectively, creating another secondary focal tone. A systematic build-up of tension is created by the chromatic movement in the upper melodic line of the strings, moving from F in bar 48 to G# and E in bar 52.

Although E cannot be defined as a functional tonal centre, it has emerged as a dominant focal tone at the end of the section.

Ex 26 First movement, bars 48-53.

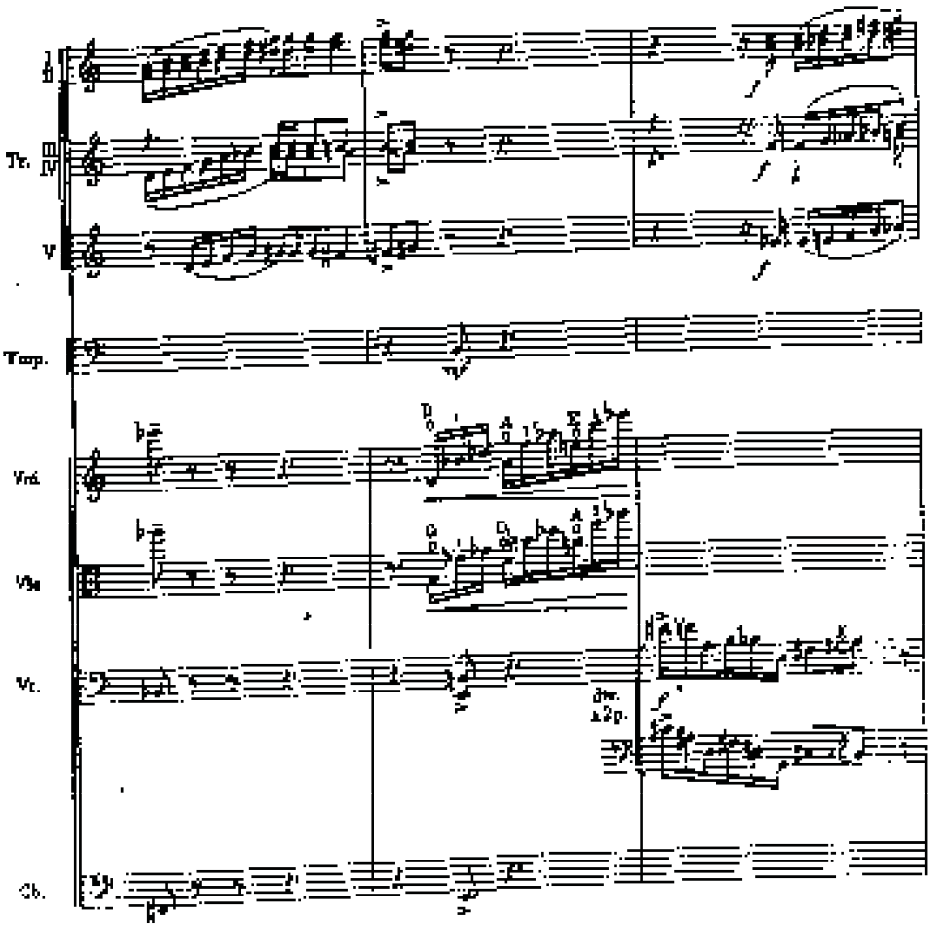


3.2.2 Primary and Secondary Central Tones in Juxtaposed Themes.

A similar process occurs when two principal themes are juxtaposed. In these sections each of the principal themes outlines contrasting chords. Trumpet themes are essentially chordal in construction .These chords are particularly Jazz-like in their tertian constructions that form various seventh or ninth chords.

In the following musical example taken from the first movement, bars 141-143, the trumpet theme resolves on an A7th chord, while the string theme outlines tertian formations on roots a fifth apart, namely, the open strings G, D, A and E. Although any sense of key is absent, certain allusions to tonality, i.e., the 'resolution' of the trumpet theme on the 7th chord on A and the chordal progression on roots fifths apart in the string theme, create a sense of harmonic progression and tension-resolution harmonic relationships.

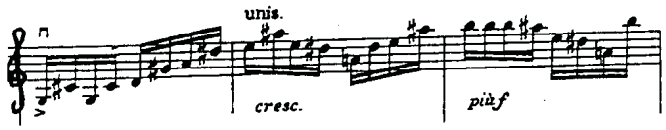
Ex. 27 First movement, bars 141-143.



3.2.3 Linking Phrases

Linking phrases between sections also imply tension-resolution relations. In the following example taken from the third movement, bars 12-14, a series of 'dominant-to-tonic' relationships creates a series of structural tones a fifth apart which resolve finally on B.

Ex. 28 Third movement, bars 12-14.



Conclusion

The composer's harmonic vernacular utilizes various techniques to create areas of greater or lesser tension, or stability in her music. Her skilful handling of these techniques accounts for a quasi-tonal language that is both multi-faceted and vibrant.

4. TEXTURE

Introduction

The texture of the piece is fundamentally contrapuntal. Contrasting principal and accompanimental themes are superimposed or juxtaposed to create contrasting high or low tension areas in the music. Accompanimental figures are always sufficiently contrasted melodically and rhythmically to form independent secondary themes which add to the general rhythmic counterpoint.

Similar textures within a section unite the individual sections within the piece while highlighting contrasting accompanying sections. Texture is therefore an important secondary articulating feature in the music.

4.1 The Superimposition of Thematic Material.

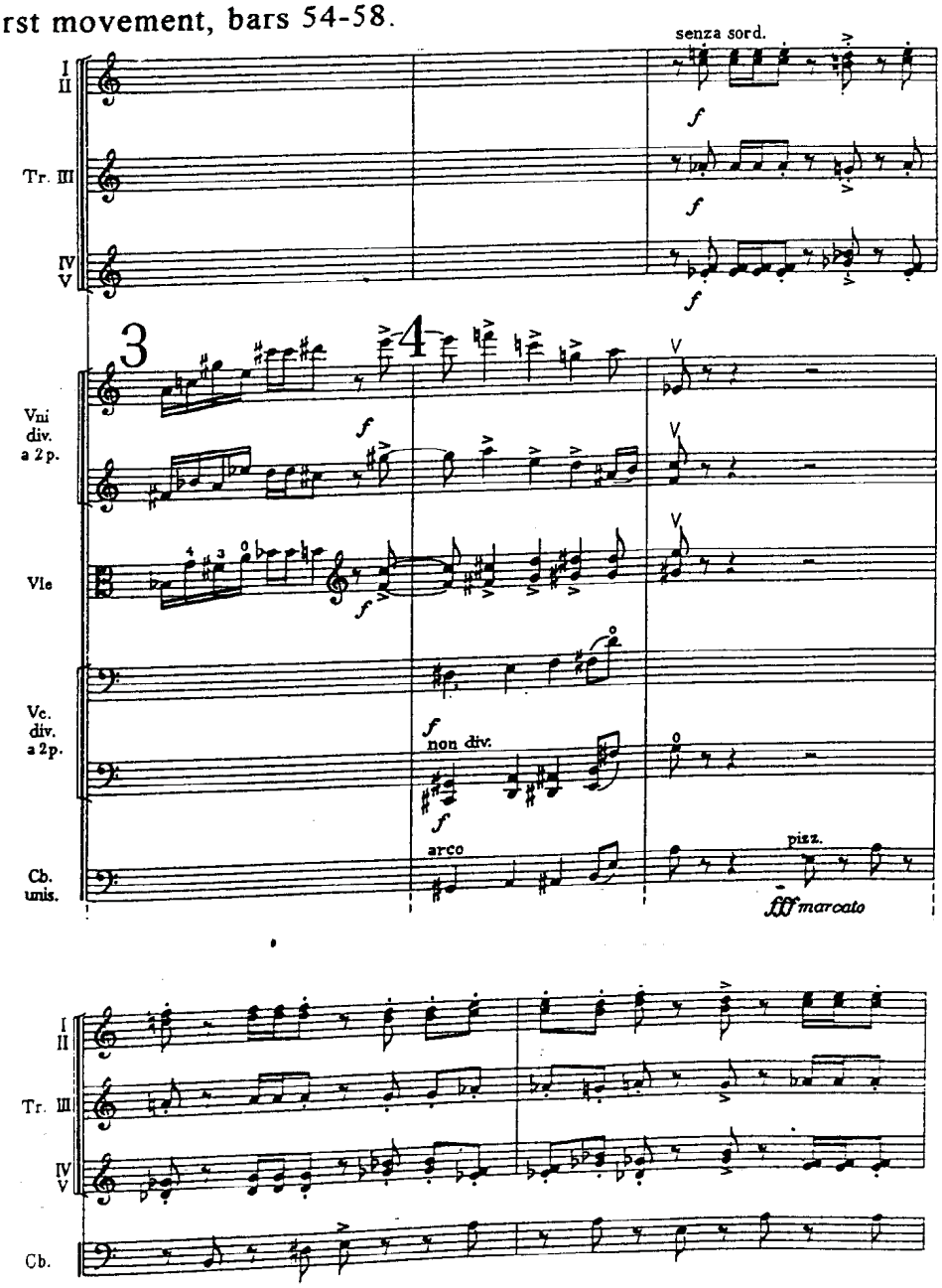
In the first movement, sections A1 and A2 are characterised by the superimposition of the two principal themes within each of the two sections. The superimposition of the contrasting theme results in a systematic intensification of the thematic and rhythmic counterpoint within that section. In these passages, as at the end of section A2 (bars 48-53, first movement), the principal theme becomes a secondary theme with the superimposition of the second theme. Individual contrapuntal lines are further underlined by the contrasting timbre. The second theme gains principal status by virtue of its timbre and register-placing. (see Melody 2.2, page 31 and example 26, page 45).

4.2 The Juxtaposition of Thematic Material.

Several sections of the music are characterised by the juxtapositioning of principal themes. The texture remains contrapuntal, as accompanimental material to primarily chordal thematic material provides rhythmic counterpoint. In the

following example taken from the first movement (bars 54-58), the arpeggio ascent of the principal string theme ends in an alternation of principal and accompanimental material between upper and lower strings. The accompanimental material thus forms a vital rhythmic counterpoint to the principal theme. In bar 56, the principal material on the trumpets is accompanied by a distinct rhythmic figure on double-bass. Its character is further underlined by the pizzicato articulation. In sections like these, where themes alternate, the rapid succession of contrasting contrapuntal material results in shorter phrases, a faster harmonic rhythm and therefore in a section where the tension is generally higher and sustained throughout.

Ex. 29 First movement, bars 54-58.



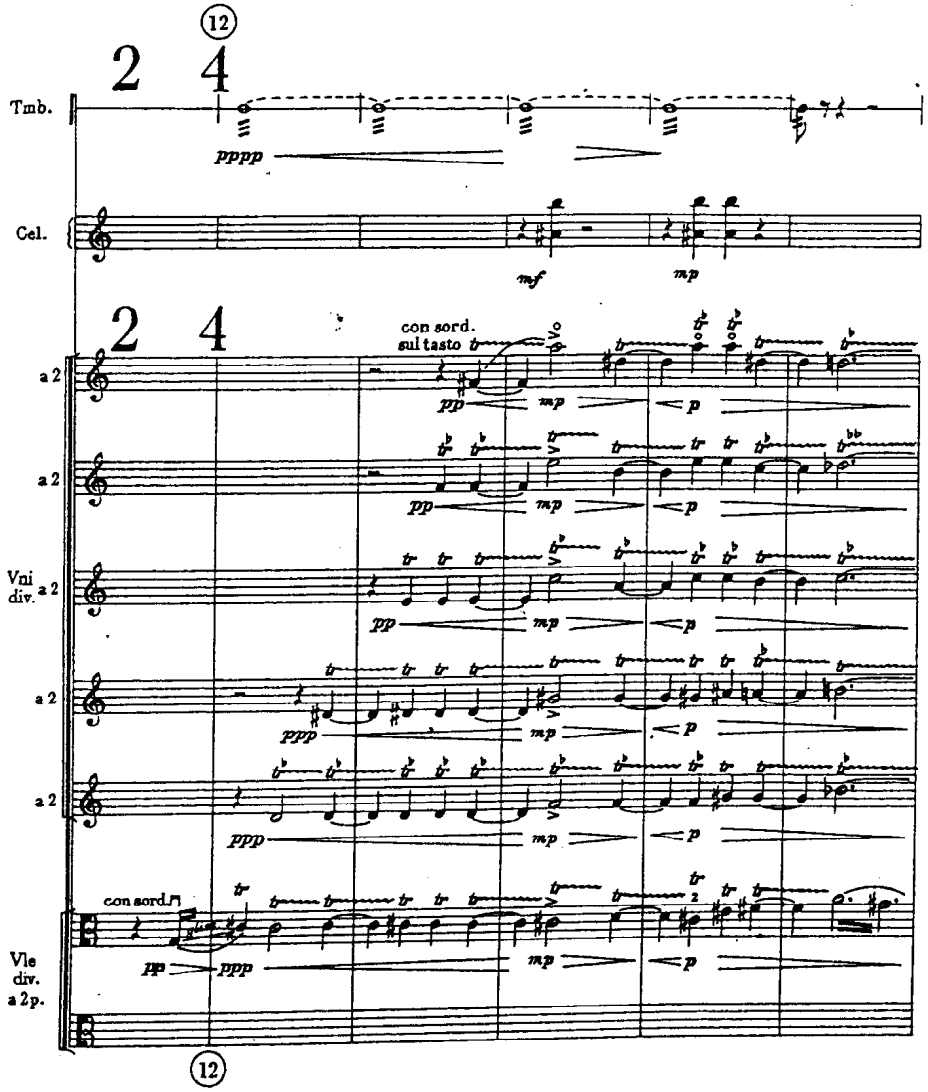
4.3 The Layering of Ostinati

In some sections systematically layered textures are formed by the staggered layering of identical or contrasting ostinati to create a gradual build-up of tension. In example 24 from the second movement (see page 39), the ostinati create a feeling of momentum, engendered primarily by the syncopated and accented nature of the trumpet ostinato which features here as principal material by virtue of its timbre and articulation.

4.4 Texture as a Timbral Feature

The second movement of this piece is characterised particularly by its alternating blocks of layered ostinati, usually 6-8 bars in length creating high tension areas. (see example 24, page 39). More frequently, blocks of layered pedal tones occur, creating low tension areas. In bars 94-99, second movement, a sense of motionlessness is created by the undulating trills. The 'soundscape' is highlighted by single chords on the celeste. Such passages are characterised and articulated by their timbral qualities, as pitch or rhythm as articulating features are absent.

Ex. 30 Second movement, bars 94-99.



Conclusion

Texture is a vital stylistic element in the music. The general contrapuntal nature of the music is a unifying feature throughout the piece, while sectional contrast is created through the layering or juxtapositioning of melodic material within each section. These textural manipulations articulate the macro-structure of the piece. On the micro-structural level, phrase structure is articulated in sections where principal material is juxtaposed.

5. INSTRUMENTATION

The timbral nature of the thematic material is to a large extent determined by the two principal instrumental groups for which most of the material is scored, namely, the strings and trumpets. The percussion instruments, the timpani, snare drum, xylophone and celeste are used sparingly. The strings in fact dominate the timbre of the entire piece. The Baroque-like figurations and folk-like features that characterise her thematic material, are idiomatic to the violin. It is significant that the violin is the most popular folk string instrument in Poland. It is further testimony to her kinship with Polish folk music that she exploits these idiomatic folk characteristics in her writing for the instrument.

Thematic material on the trumpets is characteristically chordal, syncopated and Jazz-like in character, enhanced by the frequent syncopated pizzicato accompaniment on lower strings.

5.1 Idiomatic String Writing

The composer, being a renowned violinist herself, is precise in her notation for the string section. Various bowing and articulatory indications occur throughout the piece. The tremendous timbral versatility of the strings is used effectively in her music, not only widening the timbral spectrum and as such creating timbral variety, but also underlining the folk-like character of her music.

5.1.1 Folk Characteristics

These occur when open strings are indicated and when notes are accented or repeated in an ostinato or drone accompaniment, non-vibrato. The G and D strings, being the lower ones, are particularly favoured for this kind of accompaniment. Other less frequently used features are percussive chordal

accompaniments, string glissandi and single pizzicato chords at ends of phrases. The latter is also a feature used by Stravinsky. It is a significant articulatory device in that it underlines the phrase structure of the piece in the absence of tension- resolution tonal devices.

5.2 Timbre as an Element of Structural Definition.

5.2.1 Articulation of Primary Thematic Material.

Contrasting timbres and articulation are used to full effect to underline the contrapuntal nature of the thematic material. Principal and secondary material is scored for contrasting instruments and/or articulation. The dual thematic construction within sections is underlined by the scoring for the two themes on contrasting groups, namely, strings and trumpets and in the third movement the xylophone shares principal thematic material with the trumpets. This duality is also underlined within sections where themes are juxtaposed..

Thematic delineation through timbral juxtapositioning is particularly marked in the opening bars of the third movement, shown in example 31. The two contrasting themes are played successively by the violins, xylophone and trumpets. This timbral contrast firmly establishes their independent function as contrasting themes within the movement, despite their similar melodic and rhythmic character.