The analysis Of Schoenberg's Gavotte (op.25)

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Contents

Abstract

This work outlines the basic principles of twelve tone composition developed by Arnold Schoenberg and traces them in an author's piece – The "Gavotte" of "Suite for Piano Op.25" in order to determine new musical artistic means discovered by Schoenberg , taking into consideration the musical form and features of this old music form taking into consideration previous analyses of Opus 25 and Gavotte in particular.

Introduction

To begin with it is vital to underline Schoenberg's vision of tonality and his justification of atonal music: author's attitude to tonality was based on a denial of its natural status, but regarding it as an artificial systematization of natural elements, therefore the "Method of composition with twelve tones" was regarded by the author as natural and its main philosophical aim was defined as comprehensibility, which only could be achieved through logic and coherence based on a strict principle (Dudeque, 2005, p.8) and with the help of repetition, as it was defined by the author as a mean of comprehensibility promotion of preliminary stated musical ideas (Schoenberg, 1995, p.199). It was also stated that a musical work should exclude any occasional compounds defined by composer's irrational decision in the definition of pitches (Payne, 1968) p.37), but using a subjective taste only regarding motive (Ashby ,2001, p. 601), which is, according to Schoenberg, a small part of the composition which stays recognizable despite its variations throughout the piece (Schoenberg, 1995, p.129).

This work is dedicated to an analysis of Arnold Schoenberg's Gavotte of "Suite for piano", op. 25, (the first chronologically finished movement of op.25 (Hyde, 1985, p. 87) which appeared a "gigantic stride" in authors progression in serializm (Payne, 1968, p.40), as a "Method of composing with twelve tones which are related only with one another" was used throughout the piece[2].

Opus 25 also shows Schoenberg's interest to older musical forms, where the author investigates their possibilities to modern music and underlines an affinity of his compositions to classical music (Armitage, 1971, p.129), as such form as Gavotte for instance was used extensively by Gluck and Mozart (Cohen, 1998, p.123), so let us look at the main features of this particular genre.

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[2]Polnauer, Joseph. "Speech on the occasion of the unveiling of a memorial plaque at the Schoenberg house", 1959,[Online], <http://www.schoenberg.org/3_moedling/schoenberg_in_moedling_e.htm (accessed 22/02/2009)

1. Theory

1.1.Gavotte

Gavotte is a XIV century peasant dance, which became a popular court dance in XVI century (Craine & Mackrell, 2000, p .200), and its main musical features represent duple meter, which starts in the middle of the measure, moderate tempo, simple harmony structures as it based on T-D relationship due to the chronology of its origin and balanced four or eight bar phrases in question- answer intonation (Little & Natakie, 2001, p. 216).

In case of Schoenberg's Gavotte of op. 25 we can see that its meter do coincide with the older form from the beginning disregarding several changes to a complex 5/4 meter (e.g. in bar five[3]) hypothetically fulfilled in order to emphasize the pause between phrasings, and, as it was said earlier, can be classified as an artistic irrational compound, what would be investigated during further analyses, and certain outcomes regarding subjective tempo changes would be outlined.

It also could seem obvious at first sight that harmony aspect might seem absolutely irrelevant, as it is an atonal piece, though later in this analysis an analogy of harmony structure of conventional Gavotte is going to be confirmed, so let us look at the basics of composition with twelve tones first in order to proceed with analyses.

1.2. Twelve-tone technique

The principle was first demonstrated publicly in Moedling in February 1923 by Schoenberg, where he was mostly speaking about history rather than about the technique, presumably in order to justify it philosophically and historically (Ashby, 2001, p.596), due to a "Komposition mit zwolf Tonen" manuscript found later on in the Austrian National Library in Vienna in Alban Berg section, which presumably represented the notes and comments made by Berg during the Moedling demonstration (Ashby, 2001, p.593), but still the key principles are to be outlined.

The technique is based on ordering the twelve pitches of chromatic scale in such a way that a complementary form is produced, which can be used in any direction, and be used in different ways, such as forming chords and horizontal voicing, (Auner, 2003, p.174), the tones of which cannot be repeated until the whole row

[3] Refer to Fig.4

would be exposed, what is justified not by the means of subjective will of composer, but with economy, so the preservation of the intervallic relation between the notes is the key aspect of twelve- tone composition. (Ashby, 2001, p.601)

Four different forms of row (series) are used and represent an original row [O]; retrograde [*R*], which represents a horizontally reversed version of O; inversion [I], which is an interval based (vertical) inversion of the [O]; and retrograde inversion [RI], which is vertical inversion of *R*.

The use of these rows can be divided into two main categories: 1) One form of the row (*O*, *I*, *R* or *IR*) is used at a time in order to describe every particle of musical texture; 2) Several forms are used simultaneously (Payne, 1968, p. 42), what should be taken onto account during the analyses, as well as allowance of repetition of pitches in a single voice without statement of eleven others between them (Ashby, 2001, p.603). The maintenance of same degree of atonality is also a key point, which presumes an elimination of musical aspects associated with tonal music, such as tonal triads and successions of fourths. The last note of the row can be also regarded as a beginning of a new one and themes (Brindle, 1966, p.12) and themes should not be varied or developed, but presented with vertical and horizontal shifts in voices in kaleidoscopic way. (Schoenebrg, 1995, p.19)

Having acknowledged the basic principles, let us investigate the main rows of op.25.

2.The Analyses

2.1 Op. 25 rows structure

As it was quoted by Schoenberg, the Suite for Piano op.25 consists of 6 movements which are composed using a single row, which represents 3 groups of 4 tones, first two of which ending with tritone and the last one represents a retrograde of B-A-C-H[4], what has been achieved by grouping nonadjacent pitches of the basic set, creating harmony relations similar to linear segments (Hyde & Schoenberg, 1985, p.115) , and there is a sufficient conformation of that notion found in decent amount of articles and books dedicated to op.25 (Frisch, 1999, p.176 / Kurth, 1992, p.189), therefore we can consider [O], [R], [I], and [IR] as:

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[4] Schoenberg Arnold "Composition with twelve tones", [Online], <http://www.duchess.schoenberg.at/6_archiv/music/works/op/compositions_op25_notes_e.htm>, (accessed 04/03/09)

⇒	[O1],[I1]	[O2],[I2]	[O3],[I3]	
0 ⇒	E F G D♭	G♭ E♭ A♭ D	B C A B♭	⇐ R
I ⇒	E E♭ D♭ G	D F C F♯	A A♭ C♭ B♭	⇐ RI
	[R3],[RI3]	[R2],[RI2]	[R1],[RI1]	⇐

Graph.1. Op. 25 [O], [R], [I], [IR]

which are going to be labeled as [O1] through [O3] ([I (1-3)]) in respect to the tetrachord part of the row.

The complementary aspect of the row can be traced if we consider notes three and four of the first tetrachord in both [O] and [I] rows which represent Db and G, and a greater degree of complementary form will be demonstrated further in this analyses .

Having the series defined now let us look at the actual score and try to get a notion of its rows.

2.2.Series.

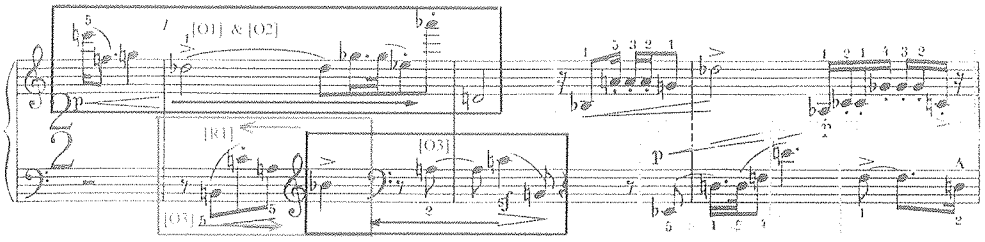

Fig.1. Line1

Here in the anacrusis and until the first note of bar two we can see first eight partials of [O] in the right hand, followed by H2 in bass clef and thereafter going backwards to B4 in the first bar. The first three notes in the left hand in bar one so far represent either an inversion of the previous tetrachord (reading the score right to left) , or a last group of original in left to right reading, which can be regarded as a retrograde counterpoint of [O3], which makes an impression of a completeness of the phrase in a sense.

Now let us continue starting from B3 in bar two followed by repeated A4 and G4, which does not fit any of previously defined pitch rows, though if we take an intervallic pitch classes relations onto account it is obvious that the following row would represent a 6 semitones transposed inversion [*I*], and the rows are defined as:

0-6 ➡	B♭ C♭ D♭ G	C A D A♭	F G♭ E♭ E	⬅ R-6
I-6 ➡	B♭ A G D♭	A♭ C♭ G♭ C	E♭ D F E	⬅ RI-6

Graph.2. Transposed rows (6 semitones)

And getting back to the question of complementary forms discussed earlier, the rows structure fully justifies Schoenberg's principles as we can see that the notes three and four of these transposed tetrachords represent the same notes (Db and G) of the initial [O] and [I], what gives us a definite notion Schoenberg's logic.

Now we can clearly see that [*I-6*] goes in the right hand again until its note eight (C4), which is a last note in bar 3, and continues in the left hand from E♭ to E, followed by first tetrachord of [*RI-6*], finishing on repeated E♭ in bar four.

It is also obvious that there is extinctive use of motive means if we consider the change of direction of the series starting with third tetrachord in both phrases as well as rhythmical similarities of [O2] in bar 1 and [I63] in bar 3 and retrograde tetrachord relations of the phrases in the left hand in the first line, what can be regarded as polyphonic imitation or counterpoint.

Then we have the next row consisting of three arpeggiated chords starting at B and finishing with repeated E, what tells us about its complicity and its structure is represented in figure 4.

The lower row of the graph represents [O62] and the middle one - [O63], but in the upper row only three first notes can be described by [O61] as D♭ should be followed by G♮. Moreover, if we look at the row [O6] as whole, we encounter F♯/G♭

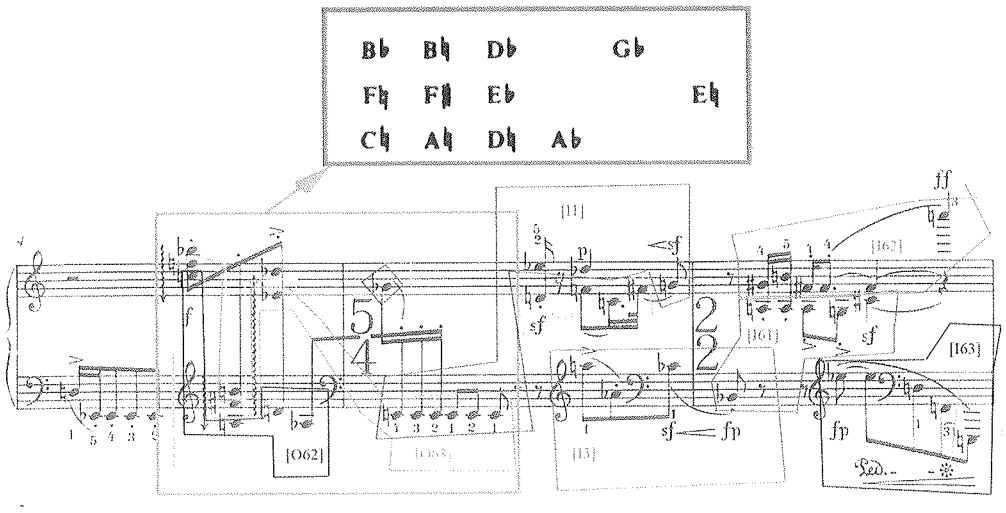

Fig.2. Line 2

enharmonic , which contradicts with the main principle of composition with twelve tones, therefore a possibility of misprint or inaccurate transcription is possible. (Klumpenhouwer, 1994, p. 220)

Regarding arrangement the chord progression in bar 4 can be perceived as a point of harmonic density increase in time, which is also underlined by its high dynamics, and due to its harmony richness its rhythmical structure is simplified to equal duration.

The row taking place after cesura in bar five and starting with the repeated E in bass represents [I] and has terachords spaced logically according to the pitches of the voices, starting from the highest voice with E♭ (second tone of the row) and finishing with bass clef B in bar 6 , similarly the next tetrachord structure [I-6] goes through middle then high and finally low voices, and the way of tetrachord spacing there confirms harmonic density increase by the means of simultaneous tetrachord co-existance in time, what presumably influenced the author's decision to use less sophisticated motive structures in contrast with the beginning of the piece, and as a result we can observe third terachords of the row in bass clef playing supporting accompaniment part, while tetrachords one and two of [I] and [I6] start to build up harmonically rich motive progression as their relation can be descrbed as rhythmical retrograde .

It is also obvious that after the chord progression in bar 4 the effect of the division of the row in three tetrachords (Frisch, 1999, p.177) becomes more noticeable, as, due harmonic density increase in time, it leads to division of the musical texture into three distinct voices in the contrast with the beginning of the

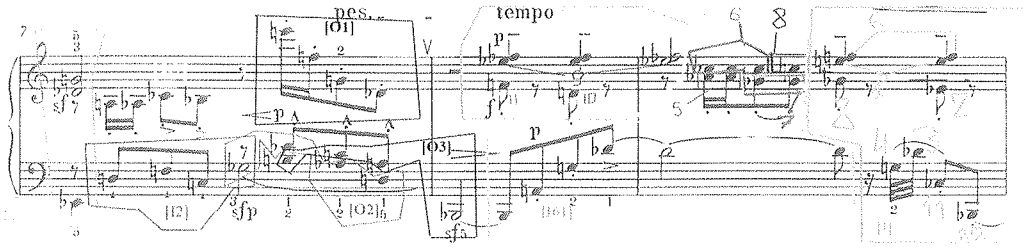

Fig.3. Line 3

piece, which can be characterized as two voice polyphonic structure.

Bar 7 represents the ending of the phrase started in bar 5 after the pause, having second tetrachords of [I] and [O] in the left hand, third tetrachords in the middle voice and first tetrachords in the highest voice, and the phrasing is characterized by rhythmical imitations of preceding half bar phrases: [I3] is imitated by [O1] and the last tone of [I1/I2] is imitated by [O2], whereas [O2] coincides with its rhythmical retrograde of [O3].

If we look at the phrase as a whole we can notice that rhythmically it is divided by two parts, and each part is divided again where each of them imitated pre-coming or forth-coming, and the phrase itself forms a rhythmic fractal structure, what proves Schoenberg's motive principles by grouping several motives into a single gesture, arranging them in a such a way that the are small enough to group with other motives into themes and large enough to be fragmented for the sake of development of its constituent motive (Dudeque, 2005, p.140).

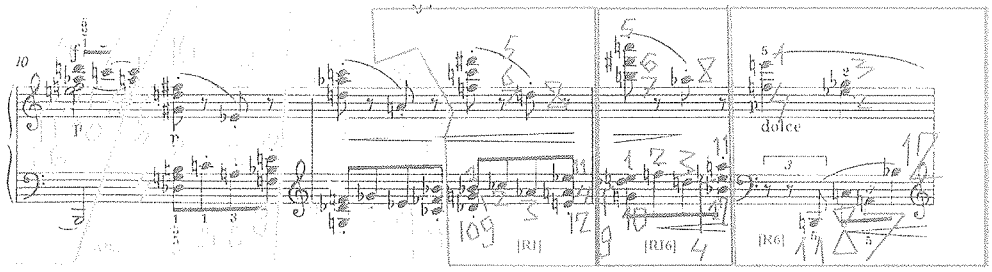

Fig.4. Line 4

The next phrase starting in the middle of bar 8 has a duration of two bars and described by [I6], [I] and [O6], and rhythmical imitations occur here in the beginning (upbeat bar 8) and upbeat bar nine and only in the left hand, so it can be characterized as less stable than the pre-coming, what can be justified by the means of contrast between loose and stable, as the phrase coming after consists of two bars of acceding voice leading with not only rhythmical but serial counterpoints in all voices, so Schoenberg's basic shape forming principle is fulfilled (Schoenberg, 1995, p . 49).

If we consider the chords in high register for example, we would see that first two consist of row segments 8,7 and 10 and the second ones of 5,6 and 7, so basically we encounter a phrase consisting of two serial successions described by a continuous sequence of [O6], [O],[RI] and [RI6], which have a symmetrical structure and increase a motive meaning of the phrase.

The use of the registers for the left hand in this phrase is also quite interesting as it is extensive in its pitch range.

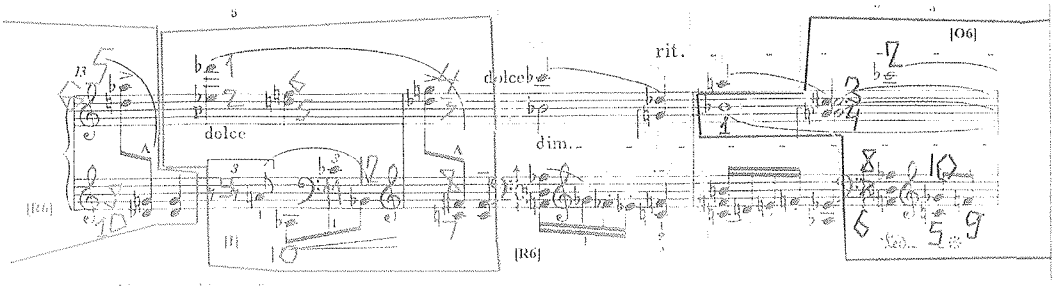

Fig.5. Line 5

The next phrase starting in the middle of bar 12 consists of two identical rhythmical parts but makes much weaker impression than the previous part as it is less powerful dynamically and its voice-leading tends to go down and if we look at its serial voice-leading we would encounter more irregularities in Schoenberg row steps usage for the particular voice, what makes a clear statement of the fact that Schoenberg regards regularity of serializm at the same level as dynamics, voice direction and speed, what basically gives him a completely new tool of expression.

The next phrase, which goes from the middle of bar 14 until bar 16 can be grouped with previous phrase as it has a rarefaction function which increased gradually closer to its end expressing loosening of form and disorder, which becomes possible due to greater degree of randomization of row steps and rhythmical structures of the motives, after what a piece starts to develop toward its culminating point.

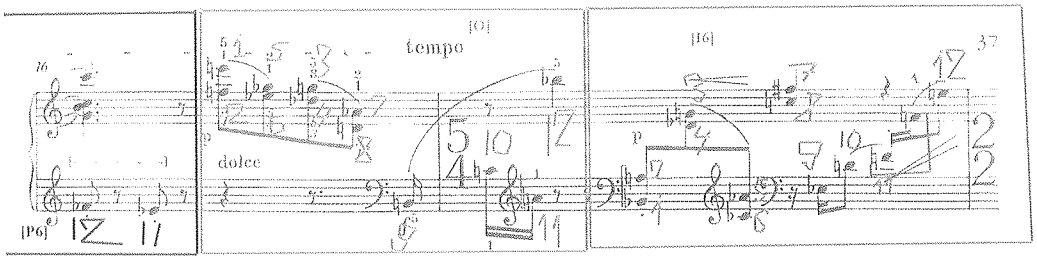

Fig.6. Line 6

Two phrases which range from middle bar 16 until the end of bar 17 use [O] and [I6] and set a starting point to a new development. Here a Schoenberg sets an emphasis on a register shift of series more than on horizontal, giving an impression of a rudiment of stability, which are followed another next phrase (bar 18) which has similar row segments in the left hand and already exact row steps of the two phrases coming afterwards, but still it has an intermediate function. But if we look at the bars 18 to 20 as a whole we would notice their with increasing dynamics, and the factor that adds even more contrast by the means of power inconsistency is a variable meter, which adds a pulsating character before the climax which happens in bar 20 in the end of bar 5 with the half bar breakdown afterwards and a pause, which underline the peak of the piece, which a good point to stop analyzing the particles and try to look at the serial plan of the piece in a linear perspective in order to trace its '*atonal*' plan.

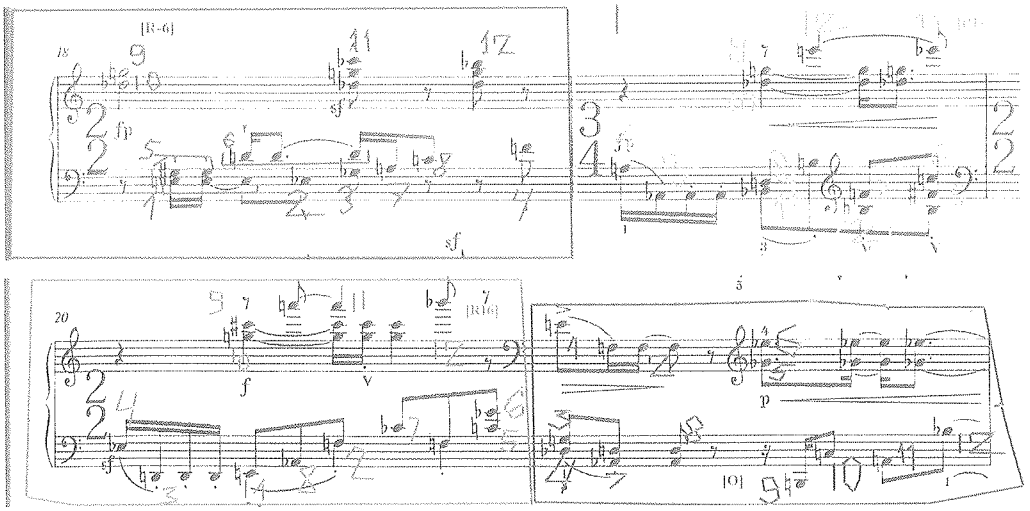

Fig.7. Line 7 & 8

2.3. "Atonal" plan

The total number of rows used in Gavotte is 32 and it is represented by the graph below:

O-RI-O6-I-I6-I-O-I6-I-O6-O-RI-RI6-R6-I-R6-O-O6-O-I6-R6-RI-RI6-O-R6-I6-O-O-I-O-I6-R

Fig.8 Series sequence [4]

[4] The visual representation of the last 7 bars are not included in this work

The first thing, which catches attention is a notion, that the retrograde of original row is used only once in the end of the sequence, what had probably been made intentionally by Schoenberg, as well as sequential asymmetry, what tells us that Schoenberg did not use any serial concepts regarding global row scale of this particular piece.

According to Frisch Schoenberg used 6th transposition as an analogy to dominant tonality in conventional Gavotte (Frisch, 1999, p.176), which can be justified by the fact that the most extensively Schoenberg used original row, which he had used nine times here, the inversion of both original and transposed rows was used equally what resulted in five times during the piece, as well as retrograde inversion and transposed original were used three times each, transposed retrograde was used four times , transposed retrograde inversion – two times and finally retrograde of original was only used in the last bar of the piece .

If we divide all the rows in two categories grouped by original and transposed feature, we would encounter a ratio 7:9, what shows a dominance of original rows, what again can be regarded as a normal Gavotte tonic/dominant ratio.

Conclusion

As we sad earlier, during the first demonstration of twelve-tone technique Schoenberg was talking mostly about philosophical and historical aspects in order to justify his theory as he had faced negative reaction as he was regarded as nihilist, who denied the structure being developing during an extensive period of time, what of course could make a doubtful impression on ones theoretical and philosophical concepts, but there might have been a case of misunderstanding, as from this analyses we can clearly see that his "Method of composition with twelve tones" not only does not deny previous musical experience and knowledge, but on contrary, his music retain significant features of tonal music, as if we take harmonic relations for example, we have confirmed that it is absolutely possible in case of transposition of the rows to maintain harmonic relation of the rows , therefore concepts of pre-coming music can still be found in the musical work of Schoenberg. More than that we have experienced some new means of emphasizing stability and loosening of the phrases, which is a completely new musical artistic tool, which appears to be quite powerful, and basically his theoretical studies were aimed on development of new musical dialects, according to what Schoenberg expressed his thoughts about teaching,

insisting on removing of the identity from music theory in order to make it as objective as possible.

We can confirm that the strongest part of the piece was motive, but this definition involves an enormous amount of partials, which were absolutely geniously were used by Schoenberg in this piece and to sum up I would like to express Schoenberg's idea on *construction,* which expresses a belief , that there are no false doctrines or mistakes in the form of art, what serves the reason why it can not be refuted (Schoenberg,1995,103).

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