

TWELVE-TONE TECHNIQUE AND ITS FORMS:
VARIATION TECHNIQUES OF ARNOLD
SCHOENBERG'S *VARIATIONS FOR ORCHESTRA OP. 31*

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Abstract — Résumé

This paper explores the possibilities of articulating a traditional form, such as a theme and variations, in the twelve-tone technique, as a characteristic determinant of the New Music. It is impossible to give a straightforward explanation of the twelve-tone technique. Each and every twelve-tone composition has to confirm the musical nature of its material and technique all over again. In his *Variations op. 31* Schoenberg used dodecaphony in a specific way. It is a new instance of proving the extent to which dodecaphony can articulate a highly traditional form. The form itself does not guarantee that the material will acquire the quality of the art of music. The form is just a challenge to justify the musical meaning of the material from the proc-

ess of its articulation. Analysis of different elements of structure and their relationships reveals numerous instances that confirm the richness of technique and variational devices available in dodecaphony. At the same time, it also indicates the technique's limitations and weaknesses in Schoenberg's composing theory. That casts doubts on Schoenberg's claim that a structure can become meaningful only by the logic of its »coherence« which is the condition of its »comprehensibility«.

Key words: Twelve-tone technique; Traditional form; Analysis; Schoenberg; Variation; Theme; Developing variation; Counterpoint; Composing theory

This text is a summary of the most important analytical findings from a larger text written in 2004 as an attempt to explore the possibilities of articulating a traditional form, such as a theme and variations, in the twelve-tone technique. Such

exploration requires understanding and explanation of how the twelve-tone technique, as a characteristic determinant of the New Music, can coexist with a traditional form. The analysis must, therefore, discover the meaning of dodecaphony in a concrete piece of music and try to cast light on the ways of realizing the inherently musical nature of a given tonal material by the twelve-tone technique, thus discovering the exact technical devices used in the process of articulating a traditional form.

It is impossible to give a straightforward explanation of the twelve-tone technique. The word *technique* implies a set of methods, but a new set is used in each new piece, assuring its originality. Each and every piece of music has to confirm the musical nature of its material and technique all over again. It is therefore clear that *Variations op. 31* will use dodecaphony in a specific way. It is a new instance of proving the extent to which dodecaphony can articulate a highly traditional form. The form itself does not guarantee that the material will acquire the quality of the art of music. The form is just a challenge to justify the musical meaning of the material from the process of its articulation.

In *Composition with Twelve Tones* (SCHOENBERG 1974), Schoenberg says there is no aim to a twelve-tone piece other than comprehensibility (*ibid.*: 215), the form being the principal element of that comprehensibility. The author is clearly referring to traditional forms that have unquestionable musical meanings. Throughout the rest of the text, however, he does not reveal the elements of dodecaphony that would make sure that a music form would be articulated. This brings one back to the notion of a new work of music, which must attempt to confirm the musicality of the system to which the material belongs.

The piece consists of the Introduction, 9 Variations and the Finale. It does not fit into any of the variation types (FISCHER-GRIFFITHS: 537). Its unity and coherence are achieved only through very complex relations of numerous elements. Only with all the elements interacting can the traditional form be articulated in the twelve-tone technique.

I will discuss some of the most important elements. I have used the same marks for the rows as in the composer's sketches. Row charts from the sketches were published in the critical review (KOKKINIS-THYM 1993: 42) of the critical edition (SCHÖNBERG 1992) of the piece.

The Theme

The Theme is written in the ternary form model: A (meas. 34-45) B (meas. 46-50) A (meas. 51-57). It is structured as a melody and accompaniment. The rows in the Theme material form the twelve-tone complex (Ex. 1) (LEIBOWITZ 1949: 134-135).

Example 1.

Example 1 shows two staves of musical notation. The top staff is labeled 'T' and the bottom staff is labeled 'U-3'. Both staves are in 2/4 time and use a twelve-tone complex. The T staff begins with a half note G2, followed by quarter notes A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, D4, and E4. The U-3 staff begins with a half note G2, followed by quarter notes A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, D4, and E4. The notation is arranged in a way that suggests a specific harmonic and melodic relationship between the two parts.

The A section (Ex. 2) introduces the issue of the articulation of form.

Example 2.

Example 2 shows two staves of musical notation for a Violin part. The top staff contains measures 34 through 39, and the bottom staff contains measures 40 through 45. The music is in 3/4 time and uses a twelve-tone complex. The notation is arranged in a way that suggests a specific harmonic and melodic relationship between the two parts. The measures are numbered 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45.

Its form can be explained as a period, but only if one agrees to compromise with both the composer's theory and the traditional one. It was Schoenberg himself who named the A section sentences *Vordersatz* — antecedent (meas. 34-38) and *Nachsatz* — consequent (meas. 39-45). (SCHÖNBERG 1976: 260) The sentences have several common elements, as they are related by the developing variation technique. Schoenberg thought the periodical model did not allow developing variation, so he preferred sentences. (SCHOENBERG 1977: 58) Tonality being the element that determines a period, the question remains: can two sentences, related to one another by the developing variation technique, form a superordinate category, like a period?

Using the twelve-tone complex (the T and U-3 rows), the composer controls the harmonic progression, articulates the melody and the accompaniment and makes the sentences symmetrical, all without breaking any of the strict dodecaphony rules. The melody employs all the tones of the row, none of which are repeated in the accompaniment at the same time. Thus the A section uses the pitch field in four different ways. The row segmentation, as well as retrograde

rows, also contributes to the symmetry (the second sentence ends with the same tones the first one begins with).

Organized in this way, the Theme acquires its musical meaning, that is, its material ceases to be musically neutral. Naturally, it does not correspond fully to the traditional notion of a period, as it consists of elements that lack an inherent musical quality, that quality remaining to be accomplished in the articulation of a musical form. In that sense, a traditional form needs to have the boundaries as flexible as possible, in order to be able to employ material that demands a special effort to acquire a meaning. But how flexible can the boundaries get? After a certain point, the listener is required to seek understanding in verbal explanation. Is that the case in Schoenberg's *Op. 31*?

The meaning of the Theme should be considered in relation to all the parts of the piece. The Introduction, for instance, shares several important aspects with the Theme: the ternary form, the counterpoint, the developing variation, the twelve-tone complex and the row technique. However, it introduces some of the Variations' elements (like the B A C H motif, and some other motifs that do not exist in the Theme), thus showing that the Theme itself cannot be the sole impetus for a piece as large and complex as *Op. 31*. The Introduction thus unveils the insufficiencies of the Theme and the twelve-tone technique when they need to develop a complex piece from a simple and strictly traditional form.

The Variations provide the Theme with new context and new meanings. In Variations 1, 2, 3, 8 and 9, the Theme is the main melody with counterpoint, rhythmically varied. In Variations 4, 5, 6 and 7, it is a part of the accompaniment. In Variation 4, it becomes primarily rhythmical instead of melodic (Ex. 3), taking over the rhythm structure from the accompaniment motifs in the preceding Variations.

Example 3.

Its accompanying function is even marked in the score by *begleitend* (see meas. 130). In Variations 5, 6 and 7, the Theme is no longer melodically or harmonically independent, nor does it control the vertical structures. It is simply woven into the main material (Ex. 4).

Example 4.
(from Variation 5)

Thus deprived of any independence, the Theme is reduced to nothing more than a tone sequence provided by the row. That means that it is reduced to the level of the material that needs to be combined with other materials to create a new structure and a new form. That is why the Theme in those Variations is symbolic (DAHLHAUS 1968: 17). It is material that acquires a new meaning, merely symbolizing the Theme itself. That is yet another confirmation of the fact that it is impossible for the twelve-tone technique fully to articulate a theme and variations from original thematic material, as already shown in the Introduction. At the same time, these Variations support the Introduction and explain its meaning. The Theme has to cease to exist as a theme in order to allow the piece to be coherent and complete.

The Finale questions the concept of the Theme in a new way. The Theme does not appear until the middle section, the *Grazioso* (meas. 344-419). After a brief exposition (melody in the T row, and the harmony in the U-3 row) lasting only a few measures and sounding more like a reminiscence than an exposition, the Theme is treated like the motifs of the sonata form development. Its segments either create separate vertical structures as accompaniment to the horizontal ones, or they combine linear and vertical sequences, thus creating counterpoint. The melody and rhythm sequences are varied.

The full meaning of the Theme in the Finale is revealed only in its relations to the F.1 motif and B A C H motif (Ex. 5).

Example 5.
Theme:

F.1 motif:**B A C H motif:**

They are equally important, and provide the Theme with a new confirmation. In order to fulfil its new function, the Theme itself needed to lose the character it had in the Variations, where it regulated the form, the technical devices and the relations of the Variations (at least symbolically). In the Finale, such unity of the section is no longer needed, as a different meaning is required. The Finale tests the utmost possibilities of the material and of the Theme and its meaning. The Theme does not determine the form any more, it is merely a part of a structure, the form of which needs to be articulated all over again. The articulation is actualized in the antithesis and synthesis of contrary elements: the Theme, the F.1 motif and the B A C H motif. It is precisely the fact that the Theme no longer needs to regulate the form and the unity of the piece that allows it to change from the variations to the development context. It is put in contrast to the coexisting elements, is connected to them, becomes divided, is given different kinds of counterpoint, and set to articulate complex vertical and horizontal structures. It is also diastematically transformed and cut into small motifs that can be recognized as belonging to the theme structure only by their rhythm.

According to the above explained function and meaning of the Theme, the entire piece can be divided into two contexts: the Variations and the Finale.

In each of the Variations, the Theme is treated differently. Although it is reduced in some of them to the symbolic level, it still retains the character of a basis for articulation of Variations, meaning that it determines the following features:

1. the form, later regulated in all Variations;
2. the developing variation, as the main technical device;
3. the row technique (the twelve-tone complex, the arrangement of the rows within the Theme);
4. the melody-harmony interactions, which provided the synthesis of the vertical and horizontal lines in the Variations;
5. the counterpoint, introduced by the counterpoint line (meas. 52-57).

In the second context, the Finale, the Theme changes its meaning. It does not regulate the form, nor does it have the above-mentioned characteristics, which predetermine other sections. It is treated as a development section, so that it corresponds to a theme in a sonata form. The form is based on contrast, the tension created by the B A C H motif, the F.1 motif, and the theme material from the Variations, which all function like themes in a sonata form.

The Form Articulation According to the Formal Models

According to Haimo, the first 8 Variations are built on the *passacaglia* ideas. The first draft of the piece was even entitled *Passacaglia für Orchester*. (HAIMO 2002: 467) The draft was, however, soon abandoned after only a few bars and the completion of the twelve-tone row.

Richard Hudson explains: »In the 20th century composers and musicologists, using Bach's *passacaglia* as a model, have defined the form as a set of continuous variations on a ground bass, with the ground occasionally appearing also in an upper voice.« (HUDSON: 270) None of the Variations in Schoenberg's piece fit this definition. First of all, the Theme does not appear only in the bass, nor does the instrumentation provide a clear distinction between the bass and upper voices. Besides that, the Theme is always varied and connected with surrounding material by the developing variation technique. Variations 4, 5, 6 and 7 treat the theme/ variations relationship in a very specific way, and understanding them in terms of *passacaglia* would neglect some of their basic determinants.

The form of the Finale is defined by 3 elements: the B A C H motif, the F.1 motif and the Theme of the Variations. The Finale consists of 3 parts: in the first part there is only the B A C H motif (meas. 310-343) but the *Grazioso* (344-419) and the *Presto* (435-520) contain all three elements.

The first section of the Finale is actually an exposition of the B A C H motif, since the motif appears without the other two elements. The entire structure follows the material of the Variations in the technique of developing variation. Therefore, the B A C H motif is no longer neutral in relation to the structure following the Variations. Before the Finale, it appears only in the Introduction and Variation 2, where it cannot be seen as a constituent of the structure, since it has different diastematic and rhythmical features. It has been added »later on« and it brings a meaning acquired from some outer context. In the *Grazioso* and *Presto* it is treated as a theme — by development and connection to the material that carries the importance of a theme. If one accepts the supposition that the B A C H motif has the significance of a theme in the *Grazioso* and *Presto*, it remains to be explained in what way the same is carried out in the first section of the Finale.

The motif (Ex. 6) is treated like a theme from the very beginning: in the instrumentation, form (as a sentence) and in the rhythm.

Example 6.



It is brought into the structure almost without changing at all, in a procedure analogous to the relation of a theme and variations in a *passacaglia*. The theme is unchanged, always in the bass voices, while the variational procedures develop in the contrapuntal voices. So although the first section of the Finale is not in the form of a *passacaglia*, it is written in that technique. The term *passacaglia* can therefore be used for a technique. It enables the synthesis of the two structures (the B A C H motif and the other contrapuntal motifs developed from the Variations), just like the theme and contrapuntal voices in a *passacaglia* form. The B A C H motif retains its rhythmical and formal characteristics almost unchanged (articulated as a sentence), thus being able to acquire the significance of a theme. It is treated in the *passacaglia* technique in the *Grazioso* as well, and it takes over the same developing procedure in the *Presto* as the F.1 motif and the theme material from the Variations.

The relations between the Finale sections do not fit into any of the traditional models. The first section is an exposition of the B A C H motif, based on the *passacaglia* technique. The second one, the *Grazioso*, develops the F.1 motif and the theme material of the Variations. As both elements have the significance of a theme, the second part corresponds to the development of a sonata form. This imaginary sonata form can be actualized and understood retrogradely, that is, its function is that of an implied, invisible context, perceptible only partially, and only if one believes in such interpretation. The third part, the *Presto*, is an attempt to unite all the technical and material contrasts, and, in a way, a justification of the entirely opposite contexts of the first and the second parts.

The first and second parts of the Finale are connected by the montage of sections and they originally belong to different forms, since the material and the twelve-tone technique failed to provide a stronger connection between them. Unlike the parts mentioned above, the last part is connected to the *Grazioso* by a transition (meas. 420-434) in the technique of developing variation. This confirms the *Presto* as synthesis of all the elements and supports the technical devices from the preceding parts of the Finale, fully revealing their meaning.

The form of the Finale explains the function of the Introduction and vice versa: all the elements and technical devices of the Introduction are given full development in the Finale, which confirms their inherently musical nature and fulfils their meaning.

The Twelve-Tone Technique

Variations op. 31 tests the boundaries and possibilities of the twelve-tone technique in a specific way. The piece is strong proof that it is indeed possible to articulate large forms in dodecaphony, the main points in the case being the developing variation technique, counterpoint, and the fact that the technique itself can be seen as a variation device (cf. DAHLHAUS 1968: 11).

The diastematic basis of the Theme and the motifs in the Variations, as well as the basis for the developing variation, is set in the articulation of the basic row. How was the row created? Schoenberg wrote that the first idea of the row always came in the form of the thematic character (cf. DAHLHAUS 1968: 12). He obviously »heard« the melody first, and only then did he articulate the row with all its forms. Such a conclusion can also be made from the logic in terms of the melody, the unity and the coherence of the Theme. Therefore, the very beginning of the creation of the piece is an announcement that the twelve-tone technique will be subordinated to the structural elements (melody, harmony and their interaction) and act as a means of regulating the entire structure.

The diastematic structure of the row is based on a few key intervals, which determine the row and connect different row forms and transpositions: tritone, half-tone and whole tone. The Theme begins with a tritone, which is the core of the theme's diastematic structure. Schoenberg compiled special charts for the rows that share common tones in places of the tritone (tones 1 2 and tones 8 9) in his sketches (KOKKINIS-THYM 1993: 43), thus using that interval as a sign for similarities between certain rows. All the rows are organized in groups of four in the charts. The groups consist of some primary row (e.g. T), its inversion (U8), and the basic form with inversion of the row's transposition by tritone. That was the pattern Schoenberg chose for the selection of the rows which used the first motif in Variation 3 (Ex. 7).

Example 7.



The motif itself consists of a sequence of 3 tritones, made of tones 1 2 4 6 8 9. It first appears in the cello using the tones of the U-3 row, followed by imitations in the oboes in the similar T-3, T+6 and U+6 rows (meas. 106-109). The motif from the U-3 and the U+6 rows employs all the tritones, but retrogradely. That contributes to the strong coherence of the contrapuntal structure.

The half-tone and the whole tone are also very important in the row, as they are the most frequent ones. A half-tone appears between tones 7 and 8, 9 and 10, 11 and 12, 3 and 5, 2 and 4, and 1 and 6 (the first and last tones of the antecedent), and a whole tone between tones 2 and 3, 4 and 5, 7 and 12 (first and last tones of the consequent) and 1 and 12. It is clear that the whole tone and the half-tone are very significant constituents of the row and that various tone combinations allow different imitations and variation devices. Thus, for example, all the vertical and horizontal structures of Variation 5 are based on a half-tone (sometimes on a whole tone, too) and its variants, seventh and ninth.

The interval sequences, regardless of what intervals are in question, are a result of the row technique which allows different motifs to be articulated in the developing variation technique. The motifs are created by the composer's vision of the melody and/or harmony, rather than by the laws of the row, which show the rich scope of the invention possible in the twelve-tone technique.

Dodecaphony regulates the vertical-horizontal correlations in a specific way by the twelve-tone complex. The vertical-horizontal synthesis shows the limitations of the twelve-tone technique, when it needs to control complex structures. The counterpoint of Variation 4 is structured according to this principle, constantly using the different rows that create the twelve-tone complex.

But dodecaphony also controls the vertical-horizontal levels, not only in the twelve-tone complex. It also does it in some separate instances based on common tones in the vertical and horizontal rows, as in the correlation of the Theme with other voices in Variations 5, 6 and 7.

The tones of the Theme in Variation 5 are not independent as accompaniment in melodic or harmonic structure. They are parts of the motifs in the horizontal-vertical structure of the Variation. The rows that articulate the Theme are horizontal, whereas all the others are vertical, each on every beat of the measures right to the end of the Variation. In the first part of the Variation, every tone in the T row (the horizontal one) is at the same time the first tone of the vertical row. Haimo named this device »*multidimensionale Reihenversion*« (HAIMO 2002: 476). In this way, the vertical rows sequence is controlled by the theme row tones, and the structure becomes logical as the rows are organized in a hierarchy. This hierarchy, however, functions only on the level of construction. It cannot be heard. And it also does not create a hierarchical order between the row and the articulation of the melodic and harmonic structures. On the contrary, these structures are independent of the row technique and are controlled entirely by the composer's imagination and the developing variation technique. The articulation of vertical structures is controlled by the vertical rows, but the character of the entire structure is primarily in the counterpoint between the melodic lines made of short, rhythmical motifs.

The interval of half-tone, as well as its variants (ninth and seventh), are the diastematic basis for the structure of all the motifs in Variation 5. Various tone

combinations create the richness of melodic lines, thus revealing the rows' potentials and showing numerous aspects of structuring, which can ascribe different functions to the row tones. The entire content offered in the row consists only of the interval sequence and the intervals' relations, both between subsequent tones and their various combinations. This lack of hierarchy within the row makes it possible to use the tones in different structures' hierarchies. The melody is superordinate to other elements, as it is neither controlled nor limited by the row technique. It is immanent, has its own laws, and it is only within it and its combinations with other elements that the row becomes meaningful.

In the leading voice in Variation 7 (Ex. 8), the row is used in an interesting way. The melody is articulated in the developing variation of the primary motif. The diastematic structure of the motifs is controlled by the row technique so that the motif consists of the same tones from different rows.

Example 8.



For instance, the two motifs of the leading voice in Variation 7 consist of tones 12 11 10 9 of the U-6 row and tones 1 2 3 4 of the T5 row (see meas. 238). The next two motifs consist of tones 1 2 3 4 of the U4 row and tones 12 11 10 9 of T-2 row (meas. 238-239). This motif structure is symmetrical and logical, as it is built on the retrograde relation between different rows and on the equal arrangement of the tones, the only difference being the inverted intervals (e.g. major sixth instead of minor third). So the main melody has been created by developing variation. The row technique explains the logic of this device and its meaning within the structure.

The vertical-horizontal synthesis is quite specific in the Finale. In measures 412-413 it is achieved by the isorhythmical structure of all the voices, and in the vertical level it results in 6-voice structures, sequenced on each sixteenth note. The chords have the same diastematic structure. The first one always consists of the tones of the antecedent, and the second one of the tones of the consequent of the row. The rows change on every half-beat (in the 2/4 measure), therefore there are 7 rows in measures 412 and 413. The isomorphic structures of the vertical serve as the basis for creating various linear sequences. The vertical and the horizontal are treated here with equal importance. They control one another, both being controlled by the row technique. Such isorhythmic structures are often connected with the theme's contrapuntal material.

The B A C H motif is made up of various combinations of a row, or several rows. The last section of the Finale shows that its diastematic structure is related to that of the row: tones 2 3 4 5 of the antecedent, when permuted, create the B A C H motif (or one of its transpositions). It shows the extent to which the developing variation technique can transform the row content, providing it with new meanings and contexts.

Developing Variation

It is the most important technical device of the piece, suitable for making the best use of all the potentials offered by the row technique, showing the large scope of dodecaphony. Unlike the devices that do not leave many options, since tones in a row are not ordered in any hierarchy, the developing variation can articulate the horizontal in countless ways, always controlling it by the vertical and making it a logical part of the structure. Therefore, developing variation is not only the main determinant of the form articulation, but it also unites all the elements and provides each of them with a meaningful position within the form.

In the Variations, the Theme is the variation of the original, and the variation motifs are developing variations of the Theme. All the motifs are correlated by the developing variation, which can be traced to the very beginning of the first Variation. In the Variations that preserve the Theme only on the symbolical level, the coherence of both the traditional form and dodecaphony is broken, and the developing variation technique is the only guarantee of the organic unity, making up for the drawbacks of the twelve-tone technique functioning as its necessary ally. Without this technique, the thematic and motif structures would be significantly smaller, and the piece would have to be much shorter. It is, therefore, the main coherence factor, a factor Leibowitz ascribes to all Schoenberg's pieces. It is the key to the wholeness, the logic, and the character of each and every element and tone in the piece (LEIBOWITZ 1975: 103). Leibowitz says: »Unifying principle makes *perpetual variation* the *conditio sine qua non* of its existence, since it may be said that every twelve-tone piece is nothing but a series of variations on the original row.« (*Ibid.*)

Counterpoint

Schoenberg uses counterpoint in practically everything he composes (*ibid.*: 52). Leibowitz writes: »[...] because of the necessary equilibrium between voice-leading and the vertical aggregations which result from it, counterpoint has *never* had a chance to be realized in its pure form. Arnold Schoenberg decided to obtain entirely different results. He wants counterpoint to *be* counterpoint, he wants to

enable this counterpoint to make strict use of all the thematic superpositions required for the architecture of a piece of music, and he wants this counterpoint to express itself — just like melody and harmony — with all musical means afforded by the chromatic scale.« (*Ibid.*: 73) This kind of independent counterpoint is made possible by the unordered arrangement of the tones in the row, because the linear sequences are not predetermined by the vertical, that is, by the tonal functions. In a twelve-tone composition, the vertical-horizontal correlation is built »from scratch«, confirming the musical nature of the material. The vertical and the horizontal are equal, and can equally control one another.

Besides being the main building technique of the piece, counterpoint also governs a microworld of numerous delicate and complex correlations within the structure. It is the principle source of energy necessary to keep the motif structure and the thematic content alive in all the sections of the piece. Being mostly homophonic, the Theme reduces the possibilities of the twelve-tone material too much in order to retain its sense. But when it appears at the Theme's end, counterpoint gives it new life and makes the developing variation possible. That is why *Op. 31* is written mostly in counterpoint: it allows the composer to be inventive, to build a bigger form, and to actualize all the potentials of the twelve-tone technique.

The row transpositions and the retrograde forms make it easy to use traditional counterpoint techniques: canonical imitation, and imitation in inversion and transposition. The *passacaglia* technique applied in the first part of the Finale also belongs to counterpoint and shows its great possibilities in the articulation of form.

What is especially interesting in counterpoint is the position of the leading voice (*Hauptstimme*). Did the composer have to mark it because the structure itself could not? It is a fact that one sometimes cannot make a distinction between the leading (*Hauptstimme*) and the rest of the voices (*Nebenstimme*). In addition, the leading voice is woven in other places into counterpoint and cannot be separated even by an analytical approach. All this makes it clear that the lack of hierarchical relations in the row created the same lack in counterpoint.

In Variation 4, the Theme is surrounded by 4-voice counterpoint, which makes it difficult to extract a leading voice. The melodic lines are entirely independent and articulated in the developing variation technique. At the vertical level, they are controlled by the twelve-tone complex, two lines consisting of the tones from one row, the other two of tones of the other (e.g. T4 row and U-7 row, meas. 130). This relation of the rows creates a certain cause and effect relationship between the lines, but dodecaphony laws do not suffice to make a clear hierarchy among voices. No hierarchy can, therefore, be seen in the structure itself. It can only be a result of the composer's decision and the interpreter's willingness to trust him.

This is only one of the numerous instances that confirm the richness of the technique and the variational devices available in dodecaphony. At the same time, it is also one of the indicators of the technique's limitations. When the structure is unable to bear any hierarchical arrangements, they are set by the composer him-

self. The analytical results are then unverifiable within the composition's structure. One is then left with two choices: either accept the meaningfulness of the structure and trust the composer, or deny any sense to the piece. This reveals the weaknesses in Schoenberg's composing theory and casts doubts on his claim that a structure can become meaningful only by the logic of its »coherence« (*Stimmigkeit*) (SCHOENBERG 1974: 244) which is the condition of its »comprehensibility« (*Fasslichkeit*) (*ibid.*: 215, *passim*). The two notions, so characteristic of Schoenberg's compositional theory, are proofs of how much he leaned on tradition, in his twelve-tone works as well.

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Sažetak

DVANAESTTONSKA TEHNIKA I NJEZINE FORME: VARIJACIJSKE TEHNIKE U VARIJACIJAMA ZA ORKESTAR OP. 31 ARNOLDA SCHÖNBERGA

Nemoguće je jednoznačno odgovoriti na pitanje što je to dvanaesttonska tehnika. U svakoj skladbi ona pokazuje novo značenje. Podrazumijeva skladanje ispočetka u kojem se uvijek iznova potvrđuje glazbenost materijala i dvanaesttonske tehnike. *Varijacije op. 31* Arnolda Schönberga na poseban način problematiziraju dodekafoniju. Analizom te skladbe otkriva se i tumači kako u jednom djelu zajedno mogu egzistirati dvanaesttonska tehnika kao tipična odrednica Nove glazbe i tradicionalna forma kao što je tema s varijacijama. Ta tradicionalna forma nije jamac glazbenosti materijala. Ona je tek izazov da se njezinim artikuliranjem iz dvanaesttonske tehnike opravda glazbenost materijala.

Analiza Schönbergova *Op. 31* usredotočuje se na istraživanje i interpretiranje različitih elemenata skladbe. To su značenje teme u svakoj od devet varijacija, u *Introdukciji* i u *Finalu* skladbe, različiti formalni modeli na čijoj je pozadini skladatelj ostvario formu skladbe, raznolikost dvanaesttonskih postupaka, razvojno variranje i kontrapunkt. Analiza dokazuje kako tema nije jedini impuls iz kojega se može artikulirati tako kompleksna i opsežna skladba te razotkriva nemoć teme i nemoć dvanaesttonske tehnike da to ostvare. To se osobito pokazuje u *Finalu*, gdje je temi varijacija ravnopravan motiv B A C H.

Materijal iz kojega nastaje skladba nije unaprijed determiniran kao glazbeni, nego to tek mora dokazati artikulacijom glazbene forme. Napor materijala da se značenjski realizira zahtijeva maksimalnu elastičnost tradicionalnog formalnog modela. No u nekim se dijelovima formalni modeli toliko izobličuju, da je odnos materijala i tradicionalne forme na rubu pojmljivosti. Hijerarhijski odnosi koje skladatelj uspostavlja na različitim skladbenim razinama najbolje pokazuju dosege dvanaesttonske tehnike i Schönbergove skladateljske teorije. Odnose se na uspostavljanje odnosa među primarno ravnopravnim tonovima niza, na odnos vertikalnih i horizontalnih struktura te na hijerarhiju kontrapunktnih dionica. Sve se to ostvaruje vrlo složenim skladbeno-tehničkim postupcima, prije svega razvojnim variranjem. Tamo gdje se hijerarhijski odnosi ne mogu iznjedruti iz strukture, skladatelj ih određuje izvana. Rezultat analize u tom slučaju ne može se provjeriti niti potvrditi u strukturi skladbe. Sve to otkriva slabosti Schönbergove skladateljske teorije, a ona se temelji na zahtjevu da struktura može imati smisao samo ako je logična, tj. ako se temelji na »usklađenosti« i »pojmljivosti«.

