

AVANT-GARDE TECHNIQUES IN POLISH MUSIC IN THE 1960–70 S. THE SONORISTIC AND ALEATORY PIANO WORKS BY KAZIMIERZ SEROCKI AND BOGUSŁAW SCHAEFFER

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Annotation. *The interest in new artistic trends and viable means of expression became the distinctive feature of Polish music of the second half of the 20th century. In their aspiration for the creation of an individual style, Kazimierz Serocki and Bogusław Schaeffer enriched their musical language with usage of sonoristic, aleatory and serial techniques. The main direction of Serocki's works was the search for new sound qualities, new means of usage of traditional musical instruments. The quest for stylistic synthesis can be considered to be the distinctive feature of the Polish school of composition of the 1960s and 1970s, since it was along this path, in particular, that the most artistically significant works were created. Particularly in this direction that Serocki brought along extensive changes of sound technique, which justified is fame as one of the most outstanding sonoristic composers. The musical development in Schaeffer's piano works is determined by idea of «decomposition» and contains a multitude of interpretations. Following the aleatory ideas in various forms, during many years Schaeffer also introduced in his works the dodecaphony and serial principles.*

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The Polish school of musical composition is a complex and diverse phenomenon. On the one hand, there were many well-known composers of the older generation, and on the other hand, there were composers searching for new paths remote from both tradition and from radical avant-garde tendencies. Moreover, the avant-garde movement expanded greatly, bringing together composers who were searching for new means of «attracting» audiences. The occurrence of the sharp breakthrough of compositional thinking expressed itself first of all in the brave search for new compositional techniques. The crisis in serialism, about which Xenakis wrote in 1955, directed some of the composers toward the search for new foundations of form-generation that developed in three different directions: «decomposition» of musical works (including the aleatory technique), the application of mathematics to compositional technique (Xenakis' stochastic methods, as well as certain varieties of computer music) and experiments in the domain of obtaining new sounds. The aleatory technique received its subsequent development in the direction of regulation of «chance operations». As a result there appeared a special form, in which the composer regulated the order of arrangement of sound structures. However, a more perspective goal for «mounting»

phenomena was the search for development of new sonoristic forms. Electronic means were also applied in this process, but the main stress was made in the creation of new forms of articulation and new sounds that replaced the melodic and harmonic forms, which had become commonplace.

The term «sonoristics» was introduced by Józef Michał Chomiński in 1956, but only in 1990 the distinguished Polish theorist presented a newly ordered set of means which, in his opinion, assists the creation of the so-called «pure sound»:

- «leveling the primary meaning of the melodic, as well as the mono-chronic factors;
- Extension of sound space by means of inclusion into it of «open» systems, which results in the application of the entire twelve-tone temperation equally throughout the entire vertical plane, in terms of the organization of the content of the sound material;
- Acceptance of polychrony as the main organization of control of time, as the result of which tempo and metre start to operate by mobile temporal characteristic features;
- New characteristics of sound (transformation of echoes and reverberations; equivalence of tones and noises; isolation of sound impulses in various

domains of pitch and on various dynamic levels)» (*my spacing — O.S.*)¹.

However, the main characteristic quality is expressed by the coloristic domain of sound connected with the source of sound or the choice of source material. Rhythm, harmonic structure and articulation can also be conducive to the creation of sonoristic «coloristic» qualities, among other things, due to variative metre' form, invention of new means of articulation, including the incorporation of prepared instruments, as well as electronics, and also usage of clusters and quarter-tone intervals. Form in sonoristic compositions relies on a system of rules that is distinct for each composition and discloses itself in the interaction of certain specific elements. The defining characteristic feature of sonoristic technique has been determined by the form-generating role of sound as color and a heightened attention towards their regulation of dynamics. Among the characteristic features of dynamics, stemming from Chomiński's classification, attention must be drawn to the change of balance in the vertical chord structure.

In the sphere of temporal organization of composition, mention must also be made of a number of characteristic features. Overall, monochrony and polychrony became the distinctive features for regulation of time in sonoristic compositions. Monochrony relies on concisely marked metric units of rhythmic movement frequently subservient distinctness of measure structures. Polychrony, on the other hand, contradicts the traditional rhythmic foundations, relying on free movement of dynamic impulses of sound. Worthy of interest is the process of evolution which discloses the aths of development of polychrony in Polish music. This technique presented a transformation of rhythmical impulses into an indivisible mass of sound, reaching a state of loss of metric regulation. In the most complex pulsating rhythmical structures of the compositions from the late 1950 s rhythmic precision had weakened or totally disappeared. The free, perceivable elementarily temporal boundaries of a musical composition coordinated themselves with the conception of a monolithic temporal continuum analogous to the natural ones.

Simultaneously, such a continuum possessed its inner procedural qualities, expressed in a certain hierarchy of activity of changes of sound complexes. This is what led to the alteration of the approach to the entire capacity of issues of rhythm and the appearance of new foundations of regulation of time. Their reference point was the synthesis of two elements: rhythm and agogics. Some

¹ Chomiński J.M. Historia harmonii i kontrapunktu. T. III. Kraków: PWM, 1990. S. 555.

compositions witnessed the disclosure of obvious phased agogical changes leading to a transformation of rhythmic impulses, especially in the cases when the composers made use of new expressive means. An important factor, which exerted its influence on the appearance of polychrony was the formation of stable sound structures (continuums) that contradicted the fixed character of the rhythm and brought in additional complexity to the metre².

At first, polychrony possessed an aleatory character and was to a greater degree a spontaneous phenomenon. Upon first appearance, it may seem that polychrony endows the performer with great freedom and presumes a spontaneity of sonic events in time. However, in reality regulation of time in this system is subservient to much greater discipline than they had been before, since the motion of seemingly spontaneous sound impulses is accurately determined temporally. The formation of these two types of temporal organization — monochrony and polychrony — finds its expression in the complex rhythmical structure of composition where the temporal type is not revealed at its beginning, but is formed during the process of its unfolding (such as, for instance, in Lutosławski's «Jeux vénitiens»). Of special interest is Lutosławski's commentary about polychrony in his conversations with Irina Nikolskaya, disclosing the process of temporal regulation in a musical composition. «In the early 1960 s I have developed my own compositional technique, which I called «limited or controlled aleatory technique.» The pitches of the notes are notated precisely in the score, but the overall metre is absent. The conductor merely indicates the beginning of each aleatory section, which are indicated with special arrows in the score. <...> When the aleatory fragments of the score are being rehearsed, the conductor acts as a theater producer»³. Polychrony has been widely used by the composers of the avant-garde trend in music — Lutosławski, Serocki, Penderecki, Górecki, Kilar, Schaeffer, Kotoński and Tomasz Sikorski.

The Polish sonoristic style became distinguished very quickly on the European musical scene, in which other analogous quests were noticeable at that time. The music experiments of the Polish composers at first shocked the listeners, but then it turned out that it was they, in particular, that contain immense musical possibilities, which

² Chomiński J.M., Wilkowska-Chomińska K. Historia muzyki polskiej. Cz. II. Kraków: PWM, 1996. S. 164.

³ Витольд Лютославский. Беседы Ирины Никольской с Витольдом Лютославским. Статьи, воспоминания. М.: Тантра, 1995. С. 61. [Witold Lutosławski. Conversations of Irina Nikolskaya with Witold Lutosławski. Articles, Memoirs. Moscow: Tantra, 1995. S. 61.]

has been demonstrated by Kazimierz Serocki by his musical oeuvres.

The main direction of the music of Kazimierz Serocki (1922–1981) was the search for new qualities, new means of usage of traditional musical instruments. It was particularly in this direction that he brought along extensive changes of sound technique, which justified his fame as one of the most outstanding sonoristic composers. Serocki's music remained within the framework of the sonoristic aesthetics for two decades: since the 1960s until the end of his life. In the early 1960s Serocki presented an original conception of avant-garde composition, in which the idea of rejuvenation of contemporary music was realized as the result of tuning to the initial substance of music — sound per se — and the acquisition of its new characteristic features, colors and forms of movement. As a result, Serocki became not only one of the inspirers of sonoristic music (along with Penderecki), but also a composer whose artistic position became distinguished among similar quests. First of all, Serocki did not have the aim of creating a «sensational» renewal of the interpretation of musical instruments or a creation of sound constructions from «extra-musical» sound sources, nor of subtle «rustlings» (it suffices to mention Penderecki's *Threnode*). He utilized a broad palette of sound colors, shaping a new, integral type of sound poetics from it, however, the radical means of «renewal» of sound colors and the special devices for articulation were used by him extremely selectively, with the aim of achieving a certain end result. His most bold discoveries took place during his later years, when the new means of expression were already perceived as a natural means for enrichment of the existent means. Serocki was, likewise, not attracted to types of new, stylistically simple constructions or simple types of sound, such as clusters, tremolandos or changes of density of sound.

As T.A. Zieliński mentions in his book, in Serocki's opinion, new music had to be a game of elements distinct for their rich sound characteristics and expressivity of the selected sound qualities, and, most importantly, was obligated to create no less complex and dramaturgical forms! The composer saw his goal in the usage of established, well-known musical forms, but basing themselves on new sound substance. Stemming from this position, the main characteristics of Serocki's compositions was the radical shift of the structuring accent on sound and on its autonomous features in the realm of color, form and movement. This position is all the more remarkable, because in his early works Serocki demonstrated a rare melodic inventiveness. At the same time, in his «avant-garde» music the main dramaturgical role in

the construction of his system of expressivity and form-generation was taken up by sound as such¹.

Does this mean that Serocki had rejected the expressive potentials of melodic writing, once and for all? He used the latter selectively in his late works, since he was too greatly fascinated by the possibilities of saturating manipulations of sound and the perspective of experiments with new usages of instruments, which in his compositions did not shock the listeners, but demonstrated new valuable colors and served the cause of new expressive effects. Serocki remained the unsurpassed master in this domain; he was more of an innovator, than simply a searching avant-garde artist. In the sphere of temporal organization, Serocki likewise developed his own system. His compositions are organized by a special approach to metre and rhythm, a developed set of impulses determined by changes of color and types of movement, levels of dynamics and qualities of texture. Serocki assembles his musical compositions out of contrasting, sharply characteristic types of movement. The frequency of their changes expresses the dynamics of development, while the intensity of motion, subservient to the imagery of the conception, determines the size and proportions of the compositions. As a rule, Serocki's compositions are distinguished for their remarkably stable character in terms of their durations — his *Swinging Music* is of the shortest duration, approximately 10, while his *Dramatic Story*, a work conditioned by literary inspirations, is of the longest duration, 16 minutes.

According to B. Gawrońska, Serocki's system of form-generation after the early 1960s is subservient to two conceptions: the model and the musical character. Models are the elementary parts of a musical composition that outline the material and regulate the correlations of the rhythm, texture and vertical element (as a rule, based on the twelve-tone temperament). They become the basis for the composite integrity, and form in this case presents itself as a process, which expresses itself in passing the sound material through a number of phases of development. One special feature of the development of the form is frequently presented by linear structures (at times, types of virtuosic cadenzas, such as in *Forte e piano, Fantasmagoria*), determining the beginnings of the phases of development and the concluding fragment. In them the separate parts for the instruments come in one by one and are layered on each other, similarly to a contrapuntal exposition. The dense texture created by them creates in the scores

¹ Zieliński T.A. O twórczości Kazimierza Serockiego/Muzyka polska w dokumentacjach i interpretacjach. Kraków: PWM, 1985. S. 139.

of the compositions a single sound mass, similar to a «magma of sound»¹.

In the notation the models usually present themselves as «segments» of a composition, brought out by special notation, frequently of a highly graphical character for a certain duration of time. The composer separates the material chosen by him into various expressive groups, in which all the parameters for performance are specified by the composer: the performing ensemble, means of the instruments, types of structure, dynamics, time and order of entry, and the pauses between them. As a result, a set of «foreplanned» culminations appears that divide the composition into a set of phases of development and leading to the concluding culmination. Another type of form-generation essential for Serocki turned out to be the technique of music development thanks to short links, differing in their types of motion and colors, which he applied on various stages of the form. Both techniques of form-generation express the basic dialectically connected aspects of the process of composition — the integrity and variability of the process of development, and the interaction of these sides leads to a transformation of elements on the basis of the selected type of temporal organization. Thereby one can note the presence of a certain type of constructivism in Serocki's creative method. At the same time, we must observe that the composer used mostly closed forms, consisting of one or several movements, with expressive culmination zones, while the «open form» is presented only by two of his compositions — *Ad libitum* and *A piacere*.

However, let us return to the sphere of piano music. Notwithstanding the discovery of new «horizons» of timbre, it still remained a laboratory for compositional creativity. And it is important to note that in this domain Serocki was one of the most competent composers and, moreover, the piano had always attracted him! It is not by accident that Serocki preferred to write compositions for chamber ensembles with the inclusion of the piano: in his compositions of his mature period the piano always appears together with other instruments. The first compositions in which Serocki demonstrated his new technique were two works for ensembles — *Episodes* and *Segments*, which were followed by the piano piece *A piacere* (1963). As T.A. Zieliński wrote in his article about the premiere of this composition, «without aspiring towards such effects as preparing the instrument, or using the strings inside the piano, etc., and restricting himself to only the traditional use of the keyboards, the

composer was able to create a rich and varied sound material <...>»².

In the composition the performer is offered thirty motive structures stacked by ten in three segments. Out of these structures, lasting a certain amount of seconds, the pianist creates a form of his own choosing, since the order for performing the structures is not fixed, however, he may not either skip or repeat any of them. An analogous form is contained by the five-movement orchestral composition *Ad libitum* (1977). The conception of these kinds of forms is variable, however, in the structure of *A piacere* one may find many interesting ideas, directed at the creation of a hermetic integrity. Theoretically, the conception of the composition does not exclude the functions of form — everything depends on how the performer and the listener will hear the composition aesthetically and emotionally. Nonetheless, the difference of the structures possessing individual color, they are separated from each other by pauses that indicate, after all, how difficult to achieve some unity in such compositions. The difficulty of performance of such compositions lies not as much in the problem of formation of this unity, as in the organization of the dramaturgy of development during the time of the performance, which lasts from 6 to 8 minutes. It is also not easy for the pianist to arrange the order of the structures in the temporal boundaries determined by the composer. This kind of «open cutting form» (or, to use another terminology, «aleatory cutting») becomes too extraordinary for the performer, since it has an unlimited amount of performing versions for one composition.

However, the situation changes if one is to examine the structures as hermetic unities, since they, regardless of their sizes, contain many interesting ideas. They may even be counterposed to the system of leitmotives, in which each structure is identified with an expressive musical thought (and even a micro-idea). Stemming from this, a musical composition may be examined as a suite comprised of exclusively capacious short aphorisms. Each structure, regardless of its level of difficulty, presents an individual conception and becomes, in a certain sense, an autonomous composition. As was mentioned before, all of Serocki's compositions are marked by structure-generating qualities. However, *A piacere* presents an aleatory form that is extreme for the composer (and not merely a composition that is sonoric in its qualities), an analogy to which may be seen in the previously written *Klavierstück XI* by Stockhausen.

The method of composition demonstrated by Serocki is connected with his personal conception of

¹ Gawrońska B. Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego po roku 1960//Muzyka. 1981, N 2. S. 34–36.

² Zieliński T.A. «A piacere» Kazimierza Serockiego//Ruch muzyczny. 1963, N 22. S. 17.

expressive qualities — namely, «musical characters». The greatest extent of interconnection between the conception of musical characters and the technique of structures, which essentially presents itself as the technique of modeling, may be found in the composition *Dramatic Story*. In *A piacere* each of the three segments presents an individual character, determined through a set of textural or agogical features that is common for all of its structures. The musical material of the first segment is based on separateness of the sounds, which rarely form any groups. The contours of the texture are traced by leaps of broad intervals and contrasts of registers. The sparsity and contrast are stressed by the articulation and dynamics. It is noteworthy that the pedal point in the first segment is used by the composer only twice, and all the terminations of the structures are sharp. The middle segment is significantly more free and more gentle in its character. Here too separate sounds are used, but they aspire more intensively to join into groups of sonorities, whereas the articulation is based on delicate staccatos. All the structures are accompanied by rich using of pedal, and the pauses are filled with reverberations, which presents a totally different type of contrast. The concluding segment is dominated by chordal textures organized by various rhythmical impulses. The energy and dynamicism of the changes of structures is emphasized by their monolithic qualities.

A piacere presents Serocki's experiment in creation of «catalogue» with many contemporary piano sounds and pianistic forms. Limiting himself to traditional means of piano forms, the composer demonstrated various diverse means of articulation and the most refined dynamic nuances, emphasized by the differentiation of pedals' using. All of this testifies of a remarkable knowledge of the specificity of the instrument and its sonoristic possibilities, as well as a special sense of aestheticism demonstrated by the creation of these means.

Towards the 70s there had developed a situation in Polish music where avant-garde experiments ceased to be demonstrations of artistic boldness, and there appeared the realization of the fact that the radical rupture with tradition had surpassed all conceivable boundaries. Many composers started to reconsider their approach towards the ideas of the avant-garde and to search for other means of expression of their individualities. Already in the late 1960s the first signs of a reaction against the avant-garde appear, and a number of well-known composers make attempts to find in traditional means a new, hitherto unknown meaning and expression (it suffices to mention minimalism). In the 1970s there appeared a wave of compositions based on principles that had previously aroused a sense of protest from the com-

posers: romantic melodic-sonic constructions, the simplest consonances, tonal harmonic relationships and simple emotional and structural ideas.

Nevertheless, it was the trend of development of sonoristic techniques which turned out to be the most stable and the most perspective. It is not perchance that Serocki had a negative attitude to the reaction against experimental techniques, since he perceived that a return to the past does not present perspectives of development, whereas the world discovered by him with its unique artistic agenda and its pulsating dramaturgy of emotions continued to be relevant, as it had been before. Serocki's style has proved its own value, and he no longer had to depend on fashionable tendencies; moreover during that period Serocki confirmed the position that the most fundamental element in contemporary music must be the transformation of the sphere of sound, and the sonoristic technique, in particular, presents the possibilities for enriching modern musical language on the basis of its interaction with other means of expression.

In the 1970s Serocki entered a new phase of development of his sonic poetics. Among his large-scale compositions, his *Phantasmagoria for Piano and Percussion* (1971) and *Swinging Music with the participation of the prepared piano* (1970) are the most prominent works. In these compositions each moment strikes the listener by its new and unusual sound colors. It is characteristic that the composer himself aspired to disclose the capabilities of the piano in juxtaposition with various instrumental ensembles. It is not perchance that earlier he had written the *Concerto for Two Pianos and Orchestra*, dedicated to the famous duo from West Germany, Alfons and Alois Kontarski (1967). Serocki's oeuvres in the genres of concertos are distinct for the dynamic and energy of their motion, the contrasting oppositions of intricate impressionistic textures with the effectiveness of percussive motor movement.

Serocki's two last compositions became the best confirmation of his creative convictions. The aforementioned *Ad Libitum* for orchestra and *Pianophonie* demonstrated the further development of the composer's artistic method. The transformations of the sound material performed on stage by means of special technical equipment in the process of the performance were used by Serocki in *Pianophonie* (1976–1978) for piano, orchestra and electronic sound transformation. This is the last work by the composer, in which he summed up his life-long artistic searches. In it the melodic contours are elucidated, especially in the slow episodes (the characteristic motives appear), the texture is traced out in a more relief-like manner due to the selection and the precise correla-

tion of the intervallic content of the structures. The definite turn to thematic and harmony enriched considerably the content of the chord structure, however the partial turn to tradition is combined here with continued experiments in the sphere of sonoristic technique. Only in *Pianophonie* Serocki applied the techniques of the so-called «live electronic music», presuming the direct participation of electronic means in the process of performance. The electronic transformations of the sounds of the piano in combination with the direct sound of the instrument and the use of the diversity of percussion instruments opened up new possibilities of enriching piano sonoristics. As T.A. Zieliński marks, it is possible that this composition may have become the beginning of a new phase in Serocki's musical creativity, since the composer mentioned in his last years that he was nurturing the idea of a «decisively melodic» composition and aspires to a synthesis of «colorful» and «melodic and harmonic» music¹.

It is obvious that Serocki's musical output after 1960 demonstrates a unified individual style, which is practically recognizable after the very first few seconds of the sound of the composition (first of all, by the type of movement of the sound structures). The originality of Serocki's musical thinking consists of a unique timbre fantasy, in the ability to disclose new sounds striking by their unusual beauty in instruments, which endows Serocki's music with greater aesthetical worth. Serocki's compositions are bright and dynamic sound canvases, enrapturing listeners with the impulsive quality of their colors. Nevertheless, the composer must be rightfully considered to be a master not only of color, but also of organization of sonic space and time. It is not perchance that his style is distinguished by a rare dynamicity and originality of texture. The new colorful sound world of Serocki turned out to be a special phenomenon of contemporary music, having set the direction for an entire movement, since it ended up being not as much radically innovative, as saturating and manifesting exclusive innovation and mastery. The new artistic means used by him served as a basis for a new bright emotional expressivity, making it possible to speak of its special type of expression. The immense diversity of Serocki's images is striking — he virtually never repeated himself! Regardless of Serocki's subsequent intentions, his rich experience of the years 1960–1978, connected with a new aesthetics of sound, was conducive to the worldwide recognition of Polish music and be-

came its heritage, which served as an inspiration for other composers.

In general, in Polish sonoristic various forms were developed, which could be united into two directions: the traditional and the technocratic. The first made use of natural musical objects, i.e. of voices, instruments and other sources; while the second applied electronic means. The electronic means have considerably simplified operations with various categories of sound, as they made it possible to carry out various kinds of sound transformations and presented cardinal new possibilities for development of the sound material. Musical compositions appeared the material of which was derived from two sources of sound — natural and electronic (for instance, *Music for Tape No.1* by Andrzej Dobrowolski from 1962). The first examples of use of electronics were presented by *Psalmus* (1961) and *Canon* (1962) by Penderecki, as well as *Muzyka elektroniczna (Electronic Music)* by Schaeffer (1966). The composition in which traditional instruments carried out new functions achieved a much greater degree of popularity. The search for original sounds was expressed, first of all, by percussion instruments, the significance and quantity of which expanded rapidly, as well as the piano.

The music of Bogusław Schaeffer (b. 1929) dominates along this path. In correspondence with the task of transforming the means and enrichment of the musical composition, Schaeffer also actively incorporates electroacoustic instruments and utilizes new possibilities of preparing traditional instruments, for instance, broadens the possibilities of microtonality to 24 tones in the tritone and constructs a violin with 8 strings. However the immense significance in the composer's creative process contains a synthesis of contradictions. For instance, being a convinced experimenter, he does not lose his connections with tradition, appealing to it through genres and forms. Schaeffer writes masses, concertos (including those for organ) and utilizes classical cyclical forms (*Monosonata* for 24 soloistic instruments), but at the same time replaces musical notation with graphics (such as, for instance, in the symphony *Muzyka elektroniczna*).

The main constructive goals the composer sets out before him in the conditions of new compositional techniques were connected with the selection of means and the possibilities of transforming the sound material derived from diverse sound sources. Application of electronic means on the stage in the process of performance made it possible to carry out various types of sound transformations, which provided cardinal new means of development of the sound material. The new techniques changed the very aesthetics of musical creativity, which began to appeal to play as the meaning of art. From here, in

¹ Zieliński T.A. O twórczości Kazimierza Serockiego/Muzyka polska w dokumentacjach i interpretacjach. Kraków: PWM, 1985. S. 143.

particular, stems the directedness towards new technical means connected primarily with the emergence of new forms and genres.

This is how the noteworthy Polish musicologist Bogdan Pocij systematizes the various types of aleatory techniques in his article «The Sources of Aleatory Technique. III. Play»:

- The simplest, most classical examples — in the vein of playing with dice, an example of which may be brought by Serocki's *A piacere*.
- The incomplete indication of selected elementary qualities, such as, for instance, in Schaeffer's piano pieces: «Here we have precisely defined points of referene and indicated rules of the game; we also have a strict differentiation between what has been given and that which may come afterwards. For instance, in *Studium w diagramie* intervals are given in the form of all sorts of structures <...>, rhythm and sound material are also not indicated precisely, but variegated». The Polish scholar's conclusion is of special interest: «In the play of elementary features the chances of the performer — the main partner for expressing the text,— are considerably higher than they are in «segmented» play; his role is considerably more artistic, while the quantity of the possible versions of the composition — «the points of arrival — are incomparably greater»¹. Incidentally, Schaeffer expects from his performers not only authentic but also original interpretations, as well as a departure from «routine» in the sphere of interpretation.
- Instrumental theater — presents a game of pure meaning. «Here the question is that of demonstration, presentation or audio-visualization — of music being born, created by a process directed by a special coordinator».
- The forms of «essential» aleatory technique, i.e. the suggestions and impressions received from familiarization with the graphics or text giving impulse to the performer's imagination (developed by Cage, Bussotti and Schaeffer).
- Total aleatory play, the so-called happening. This is play as such, without any goal, a climax of the idea of aleatory technique.

Bogdan Pocij's conclusion is more than adequate: «The aleatory technique, carried to an extremity, ends up being a sort of «game with eternity»².

In this «game» the aesthetics of «decomposition» became important for Schaeffer, where the idea of the composition is realized by the inversion of a process. This way Schaeffer's music acquires «open

forms,» (*Open music, Negative music* — for any instruments!), «mobile forms» (certain piano pieces), as well as forms not indicated in any special way and graphical scores (among which are the piano compositions *Contours and Model V*). Sometimes in such compositions Schaeffer applies the technique of collages, emphasizing the element of play. It is curious that the aesthetics of decomposition became for Schaeffer a means for creation of a new composition, and not the juxtaposition of avant-garde composition to traditional norms! The respective type of experimental method is frequently stated by the name of the composition.

As far back as 1953 Schaeffer decided to aspire towards independence and freedom in his music. Regularly attending the International Summer Courses for New Music at Darmstadt (and since the 1980 s teaching in Salzburg) Schaeffer more than anyone else had contact with all the «newest» tendencies that appeared in art. In 1955 he came to a conclusion, analogous to the positions of the Western avant-garde composers, that musical development is determined by the given possibilities and contains a multitude of interpretations. A classic example of this was presented by the piano composition *Studium w diagramie* (*Sketch in a Diagram*, 1956), a poly-version composition in abstract notation. Only in the domain of pitch alone the work presumes several million variants of performance! Other compositions by Schaeffer are also worth mentioning: the composition *Tertium datur*, published by PWM in 1958, turned out to be the first Polish graphical score, while the piano work *Non-Stop* (1960) was the first Polish work written in direction of theater pieces (the time set out for its program ranges from 6 minutes to 8 hours)! Compositions of this vein written in the forms of graphical diagrams possess an infinite number of versions of rendition. The term «diagram» denotes a two-planned type of notation: on the top side there is the musical material for performance in which each segment is indicated by the dynamics and character of articulation, while on the bottom side there is a timetable of the sound development. The composer gives the suggestion for the performer to do some experimenting with dynamics, for which he provides the performer with a schematic indication of the movement of time, the development of the dynamics and application of certain definite short segments of sound. The latter are comprised of two, three or four sounds into three types of segments: «cells,» «groups» or «motives». The musical material is regulated by means of specification in the scheme of the specificity of the intervals (!), as well as the time for the performance of the segments, which are measured in the sections from 0.8 to 1.2 seconds.

Although this composition is not dodecaphonic in the traditional sense and may be regarded

¹ Pocij B. Źródła aleatorizmu. III. Gra//Ruch muzyczny. 1966, N 20. S. 2.

² Ibid.S. 3.

to be in the vein of limited aleatory technique, nevertheless it is constructed on the principles of dodecaphony: the diagram establishes the quantity of tones, the direction of the movement of the intervals, rhythm and dynamics. The foundation for this is formed as well by the tritone correlation of the fragments so characteristic of Schaeffer. This way in this avant-garde composition Schaeffer applied the technique of «interval composition»; he himself called this work «the first automatic composition of the pre-computer period.» The obvious simplicity and imaginativeness of thinking, suppleness and readiness of Schaeffer to incorporate new forms made the usage of dodecaphony quite promising in compositions of this type. Essentially, the main consequence of utilization of dodecaphonic technique for Schaeffer was the endowment for intervals of the meaning of the main expression of melodic content of the musical material.

Schaeffer's subsequent works from 1958–1959 are connected with the disclosure of the possibilities of the piano in symbiosis with the sonoristic and aleatory techniques. They are eight compositions with rather extravagant titles: *Sketch for Poly-Version*, *Sketch for Poly-Expression*, *Sketch for Poly-Form*, *Free Composition*, *Articulation*, *Linear Construction*, *Configuration*, *Points of Exit*. In *Sketches* the composer suggests the performer to conceive of the principles of texture-generation and form-generation in a new manner. In *Sketch of Poly-version* there is an experiment of an alternating performance of two of the voices from a three-voiced texture, in which each voice contains additional markings in red or green color. The pianist is given the suggestion to perform four two-voice variants, at the same time the line of the second voiced is always performed by the left hand and forms a resemblance to a theme of a passacaglia. In the subsequent two lines such notes are chosen which are indicated either in red or in green color. This elementary experiment was called to direct attention at the multi-plane quality of the text. *Sketch of Poly-form* consists of a set of segments that form three lines of short compositions in the vein of variations. The development in the composition goes along according to the principle of «from the simple to the complex,» featuring the genres of invention, canon, passacaglietta and three variations.

On the other hand, *Sketch of Poly-Expression* is a partially improvised composition. In it the composer traces out the general picture of the texture, which the pianist performs literally in an approximate manner — without looking at the score and not adhering to definite pitches notated in the score. The performer's goal here is a different one: to concentrate his attention on the problem of precise, momentary changeability of the sound material. Stemming from this, Schaeffer provides in his commentary to *Sketch of Poly-Expression* a new scheme of notation of the unit

of time for each short segment indicated by numbers ($|=$ 1 second, *piano*; etc.).

Aspiring towards bringing out new musical possibilities, Schaeffer in the early 1960s used the aleatory technique most intensively of all. Thus, *Free Composition* is analogous to *Sketch of Poly-Form* in its idea of combining the elements set forth (altogether, twelve!), but now in free ordering and without repetition. The restrictions in this aleatory composition have to do with the proportions of time, dynamics, articulation and pedal. The following example is presented in *Articulation*. Here the form develops concentrically, the composition having the ability of being started and finished in any of the relative points upon the wish of the performer. The process of repetition is validated by the search for various gradations of dynamics, articulation, and, as a result — by manifestation of new sound colors. The main wish of the composer — for dynamic precision — led to the creation of this special type of graphics.

The three compositions from 1960 (*Linear Construction*, *Configuration*, *Points of Exit*) are marked by further search for dynamic possibilities for the instrument and the corresponding notation. Thus, in *Configuration* the relative graphical notation is complemented by a diagram, the keyboard is expressed by 25 lines, and time — by a separate line with a precise computation of the texture that is polychronic in its sound.

Linear Construction and *Points of Exit* were compared by Schaeffer himself to a sculpture. The basic element, out of which the form of these compositions is molded, as has been emphasized earlier, is represented by dynamics. In correspondence to its respective quality, a polychrome graphical system is used, which demonstrates the multilevel aspect of the vertical chord constructions (up to 10 pitches). Nevertheless, the temporal organization of these two compositions is different. In *Linear Construction* Schaeffer adheres to the principle of limited aleatory technique and polychrony, fixating the duration of performance by seconds and stipulating the impossibility of repetition of repetition of sound. Thereby, in *Linear Construction* we have a concentration on the aspect of pitch, the quantity of unrepeated notes, dynamics, the character of expression of the fragments and the overall picture of the composition. In *Points of Exit* Schaeffer proposes a different system — that of monochrony and intervallic symbolism. Here the parametre of rhythm, the quantity and direction of intervals and the pitch fixation at the beginning of each structure.

To generalize the significance of Schaeffer's piano experiments in the 1960s, we must emphasize that they presented to the greatest degree of all the diversity of possibilities of development of the avant-garde style of music for piano. In his music from the 1960s Schaeffer turned to a broad range of issues of contemporary musical techniques and reasserted the viability of the

tradition of the Second Viennese School in the most experimental directions of his music. Notwithstanding the fact that since the 1960s in Polish music dodecaphony and serialism have lost their positions of the most relevant avant-garde techniques of composition, the adherence to the twelve-tone doctrine and serial organization have acquired new forms in connection with the individual strategies and artistic innovations and turned the principles of dodecaphony into elements of new techniques. It suffices to mention that the dodecaphonic technique has «generated» Lutosławski's «dodecachordal system» and Panufnik's technique of «three-sound cells».

Already in the 1970s Schaeffer makes use of multimedia means (for the first time in *Comunicazione audiovisiva*), as well as possibilities of computer-generated sound. It is of interest that he himself considered his *Sketch in a Diagram* to be a precursor to computer music. Each subsequent composition presented for the composer not only a solution of a compositional problem, but also a means of conveying a new means of expression. Schaeffer interprets the means chosen by him each time in a new manner, albeit, frequently emphasizing the thematic similarity between a series of compositions, such as, for instance, in the *Models and Sketches* for piano. Notwithstanding such a stylistic diversity, Schaeffer's musical language presents a factor that unites all of his music; its means is determined by the composer's main idea — «the complementarity of opposition.» According to Barbara Buczek, Schaeffer's style is based on selected means preferred by the composer, which endow his compositions with an original type of color. For example, Schaeffer's harmony operates with over 200 types of sonorities appearing in the majority of his compositions and singularly presented as far back as the early *Mazurkas*. This type of motive thinking likewise operates with a set of formulas, while since 1961 (for the first time in *Codes* for chamber orchestra) the composer actively makes use of letter indications of textural types as the most corresponding to the ideas for his compositions¹. In the 1990s Schaeffer began performing again as a solo performer of his compositions, moreover, written in different genres. A turning point for him was presented by his *Third Piano Concerto* (1990), in which the composer performed the solo piano part. The list of his piano compositions has been complemented already by over 30 *Models*, which ended up becoming an «encyclopedia» of his piano style.

The style of Schaeffer's compositions of the latest decades are distinguished by a combination of the me-

lodical figures created by him, among which the motive *B-eS-C-H* derived from the composer's edition continues to dominate, which has become his «visiting cards.» Six-tones and ten-tones chords continue to prevail in the texture of the compositions; the predominating melodic beginning and the specificity of subtle melodies give a characteristic type of color to Schaeffer's music. Another distinctive feature of Schaeffer's music remains to be presented by the strongly delimited rhythmic sphere, up to the individualization of each tone, which is connected with an indirect interpretation of serial principles. The composer's aspiration towards multifold coloristic effects impels him to utilize sonoristic textural devices in his piano music; while avoiding all hints of traditional functions of textural planes, he continues to embrace the principle of «playing with ten fingers» (i.e. traditional piano playing). This aspiration towards new coloristic effects gives remarkable results: thus, the *Fifth Concerto* (2002) is written for piano and an ensemble of 15 vocalists and consists of 5 movements that are greatly contrasting to each other in terms of form and texture.

Bogusław Schaeffer's musical compositions, particularly the ones from the latest years, demonstrate the most important features of his music: the prevalence of lyrical moods, fanciful play of sound colors, a finesse of sound; as well as a specific «suspension» of proportions between the utilized means based upon the principle of contrast. The composer prefers music of a tranquil character, makes use of transparent sound colors (which emphasizes a parallel with graphics) and tries to write music that is pleasant to both listeners and performers (it must be noted that that notwithstanding all the complexity of the scores, the parts of the separate instruments tend to be comfortable for performance). Despite the immense diversity of his compositions, their language and style, following the tendency of «inimitability», the composer continues up to the present day to adhere to his aesthetical position of integral development along with the usage of variegated technique, stemming from his first compositions. Schaeffer himself continues to aspire towards a renewal of technical and aesthetical means, so it is not perchance that that one of the most intriguing phenomena of Schaeffer's music became the quantity and quality of his discoveries. The penetration into the essence of Schaeffer's artistic world leads to the thought that his music is the music of principally new correlations, demanding new criteria of values. It was not without reason that the famous theorist of new music and the conductor of many of Schaeffer's musical compositions, Erhard Karkoschka stated that Schaeffer's path is one of the few that really leads to the future².

¹ Buczek B. Twórczość Bogusława Schaeffera — tendencje, idee, realizacje//Przemiany techniki dźwiękowej, stylu i estetyki w polskiej muzyce lat 70/ Ed.L. Polony. Kraków: Akademia Muzyczna w Krakowie, 1986. S. 122–123.

² Quot. on.: Buczek B. Twórczość Bogusława Schaeffera — tendencje, idee, realizacje//Przemiany techniki dźwiękowej, stylu i estetyki w polskiej muzyce lat 70/ Ed.L. Polony. Kraków: Akademia Muzyczna w Krakowie, 1986. S. 124.

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