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# Lutosławski and Sonoristics

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The originality of Witold Lutosławski's music, and the strong sense of independence the composer manifested throughout his career, make it difficult to define his relationship to the trends, styles and techniques of his time. If we assume that Lutosławski was regarded, especially by foreign observers, as the informal leader of the formation called the 'Polish School of the 1960s',[1] it seems a particularly interesting challenge to attempt to determine the potential affinities between his compositional solutions and the devices commonly used in this circle.

At the start it should be noted that the discussion of a 'Polish School', a controversial construct that is essentially indefinable in strictly musical terms,[2] usually does not proceed without reference to the concepts of sonorism (*sonoryzm*) and/or sonoristics (*sonorystyka*).[3] The first of these terms is commonly used (especially in Poland), and, because of its stylistic connotations, it is sometimes treated almost as a synonym for the 'Polish School'.[4] On the other hand we have the concept of sonoristics created by

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1 Everett Helm, 'Warschauer Herbst 1961: Die neue polnische Schule', *Neue Zeitschrift für Musik* 11 (1961), pp. 467–8.

2 The most recent discussion of the 'Polish School' concept was accomplished by Ruth Seehaber with the conclusion that it was an ideological construct expressing a certain view on Polish contemporary music. See Ruth Seehaber, 'The Construction of the "Polish School": Self-perception and Foreign Perception of Polish Contemporary Music between 1956 and 1976', in *Polish Music since 1945*, ed. Eva Mantzourani (Kraków: Musica Iagellonica, 2013), p. 54.

3 Zbigniew Granat identifies sonorism as a 'style within Polish music of the 1960s that explored contrasts of instrumentation, texture, timbre, articulation, dynamics, movement, and expression as primary form-building elements'. See Zbigniew Granat, 'Sonoristics, sonorism', *Grove Music Online 2008* (http://www.oxfordmusiconline.com/subscriber/article/grove/music/2061689?q=sonorism&search=quick&pos=1&_start=1#firsthit).

4 See e.g. Maria Anna Harley, 'The Polish School of Sonorism and its European Context', in *Crosscurrents and Counterpoints: Offerings in Honor of Bengt Hambraeus at 70*, ed. Per Broman, Nora A. Engebretsen, and Bo Alphonce (Gothenburg: Gothenburg University, 1998), pp. 62–77.

the Polish music theorist Józef M. Chomiński (1906–1994) during the mid-1950s.[5] According to Zbigniew Granat's dictionary definition, sonoristics is a 'descriptive category for the novel sound qualities of twentieth-century music that … gained structural functions in a composition'.[6] In contrast to the notion of sonorism, which emerged inspired by the writings of Chomiński and is usually used in combination with various qualifiers,[7] *sonorystyka* is a less restrictive and more inclusive term.[8] It designates a specific compositional technique developed by composers considered as belonging to musical modernism. Chomiński traces an evolution of this technique starting with the achievements of Debussy through the work of Stravinsky and Bartók, representatives of the Second Viennese School (especially Webern), the serial works of Boulez and Stockhausen and electronic music.[9] Despite the fact that Witold Lutosławski declared his distance from any common contemporary musical trends, I will try to prove that the idea of sonoristics might be a useful tool in understanding certain aspects of his music – especially from the 1960s – that are marked by significant technical innovations.

Such an approach requires some substantial clarification, starting with the very definition of sonoristics. Chomiński described sonoristics as a 'purely sonorous technique' (*technika czysto brzmieniowa*), the essence of which is to treat 'the purely sonorous values as the main means of expression and thus as a structural factor'.[10] However, attempts to relate Lutosławski's music to

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5 The term was introduced in Chomiński's article 'Z zagadnień techniki kompozytorskiej XX wieku' ['Problems of compositional technique in the twentieth century'], *Muzyka* 20/3 (1956), pp. 23–48.

6 Zbigniew Granat, 'Sonoristics, sonorism'; Ibid.

7 For example, Teresa Malecka recognises 'classic sonorism' (*sonoryzm klasyczny*) and Regina Chłopicka 'dramatised sonorism' (*sonoryzm udramatyzowany*) in Penderecki's works from the beginning of the 1960s. See Regina Chłopicka, *Krzysztof Penderecki między sacrum a profanum* [*Krzysztof Penderecki between Sacrum and Profanum*] (Kraków: Akademia Muzyczna w Krakowie, 2000), p. 183; Teresa Malecka, 'I Symfonia Krzysztofa Pendereckiego' ['Krzysztof Penderecki's First Symphony'], in *Współczesność i tradycja w muzyce Krzysztofa Pendereckiego* [*Modernity and Tradition in the Music of Krzysztof Penderecki*], ed. Regina Chłopicka, Krzysztof Szwajgier (Kraków: Akademia Muzyczna, 1983), p. 176.

8 See Adrian Thomas's considerations in 'Boundaries and Definitions: The Compositional realities of Polish Sonorism', *Muzyka* 53/1 (2008), Special Issue 'Sonoristic Legacies. Towards New Paradigms in Music Theory, Aesthetics and Composition', ed. Zbigniew Granat, pp. 7–16.

9 Chomiński, 'Z zagadnień techniki kompozytorskiej XX wieku', pp. 32–48.

10 Józef M. Chomiński, *Muzyka Polski Ludowej* [*The Music of People's Poland*] (Warsaw: Państwowe Wydawnictwo Naukowe, 1968), p. 127.

this technique seem to be doomed to failure, since Chomiński in his early discussion of the 'essence of musical sonoristics', in the monograph *The Music of People's Poland* (*Muzyka Polski Ludowej*), published in 1968, emphasises the 'levelling out of the melodic and harmonic factors' and 'striving to eliminate the selectivity of sounds' as significant features of the transformation within twentieth-century music.[11] This transformation involved changes of the function of traditional elements that translated, for example, into the dominance of clusters and glissandi, so striking in the context of flagship Polish compositions from the 1960s (such as those by the young Krzysztof Penderecki, Henryk Mikołaj Górecki, and Wojciech Kilar).[12]

Generally speaking, we might have a serious problem if we try to approximate in Lutosławski's music any idea regarded as being characterised above all by the dominance of texture-timbre factors, while questions of pitch or harmony are pushed into the background, if not rejected altogether. As is well known, in Lutosławski's works, pitch and harmony occupy a central position, while he might be said to have 'neglected' percussive sounds and other new forms of articulation. Even after the peak of the 'Polish School' had passed, Lutosławski clearly argued (in 1976) against the approach to music dominated by the operation of tone colour, dynamics and sounds of indefinite pitch:

> … for me as an artist, this is something alien, I am of the opinion that if pitch becomes a matter of no concern, if we limit music to murmurs, colours, rhythms, dynamics and such like, then we impoverish it by taking away an element of fundamental importance.[13]

Nonetheless, Chomiński did not ignore Lutosławski's works in his writings on sonoristics. He worked on his concept for more than twenty years,

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11 Ibid., p. 152.

12 The use of clusters and glissandi were variegated within and beyond the 'Polish School'. Distinctions can be drawn, for instance, between the denser quarter-tone clusters heard in some Penderecki compositions and Lutosławski's use of semitone clusters.

13 See Lutosławski's statements in discussion after a lecture in Polish during the first 'Musical Encounters' in Baranów Sandomierski, on 9 September 1976, published in Polish only. Quoted in Witold Lutosławski, 'O rytmice i organizacji wysokości dźwięków w technice komponowania z zastosowaniem ograniczonego działania przypadku' ['Rhythm and Organization of Pitch in Composing Techniques Employing a Limited Element of Chance'], in *O muzyce. Pisma i wypowiedzi*, ed. Zbigniew Skowron (Gdańsk: Towarzystwo im. Witolda Lutosławskiego and słowo/obraz terytoria, 2011), pp. 115–16.

until finally he presented an analytical theory of sonology (*teoria sonologii muzycznej*).[14] Along this path, Chomiński seems to prefer the adjectival form of the word 'sonoristics', using it in phrases like 'sonoristic technique' (*technika sonorystyczna*) or 'sonoristic regulation' (*regulacja sonorystyczna*). Both terms, treated equivalently, have been lastly defined as 'the use of the purely sonorous properties of a sound material for artistic purposes'.[15] Furthermore, it should be pointed out that the issues of pitch and harmony occupy a more prominent position in Chomiński's theory than might be expected on the basis of his above-quoted statements from 1968. Both pitched and unpitched material may contribute to the emergence of 'sonoristic values' (*wartości sonorystyczne*).

Lutosławski's music was for Chomiński a continual point of reference. In *The Music of People's Poland*, drawing on examples from *Jeux vénitiens* and *Trois poèmes d'Henri Michaux*, he placed Lutosławski's name at the top of a list of composers whose music, 'in spite of references to certain general traditional principles', displays 'new structural dominants', which make the works modern and indicate a 'combined action of sonoristic, harmonic and rhythmic elements which transform the original structure of the work'.[16] Thinking about such twentieth-century musical phenomena as ones that transcend traditional elements of the musical work (e.g. melody and harmony is transformed into 'horizontal and vertical structure'), Chomiński identified these features even in Lutosławski's compositions created prior to 1958. Writing about the *Concerto for Orchestra*, he emphasised that:

> In his work, the sound attributes become a fundamental factor, hence the main compositional activities are aimed at drawing out these attributes. This leads to familiar technical means changing their function, for example, the pedal note becomes a static sound, the figuration is transformed … so far as to acquire the character of murmurs, while the ostinato, because of its appropriate articulation, results in isolated sounds.[17]

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[14] It consists of three volumes of typescript titled 'Podstawy sonologii muzycznej' ['Foundations of music sonology'], Vol. I 'Wiadomości elementarne' ['Basic materials'] (Falenica, 1976), Vol. II 'Systematyka zjawisk dźwiękowych' ['The systematics of sound phenomena'] (Falenica, 1977), Vol. III 'Forma' ['Form'] (Falenica, 1978). Only the first part of this typescript was published as Chapter 4, 'Podstawy sonologii muzycznej' ['Foundations of music sonology'], in the first volume of Józef M. Chomiński and Krystyna Wilkowska-Chomińska, *Formy muzyczne* [*Musical forms*], Vol. 1, *Teoria formy. Małe formy instrumentalne* [*Theory of form. Small instrumental forms*] (Kraków: Polskie Wydawnictwo Muzyczne, 1983), pp. 126–53.

[15] Chomiński, 'Wiadomości elementarne', p. 1.

[16] Chomiński, *Muzyka Polski Ludowej*, pp. 164–5.

[17] Ibid., p. 76.

This observation is accompanied by examples from the first and second movements of the *Concerto*, as well as the conclusion: 'without a willingness to explore the area of musical sonoristics, the turning point which came later in his creative development would have been inexplicable'.[18]

In Chomiński's writings Lutosławski's name often becomes entangled with references to a terminology created by the theorist in order to capture the essence of the changing functions and inter-relationships of the components of musical structure in twentieth-century composition. In the second volume of his book *Musical Forms* (*Formy muzyczne*) Chomiński discussed the Cello Concerto as an example of 'sonoristic regulation' within the framework of classical instrumentation but without using extended techniques.[19] He drew attention to the purposeful use of sound structures, homogeneous and heterogeneous, which allowed the composer to diversify the progress of the form. Further differentiation of these sound structures (into aerophonic, chordophonic, membranophonic and idiophonic) was for Chomiński virtually the key to understanding the course of its musical dramaturgy. He also emphasised that these elementary structures are shaped by 'width and length of the sound band within the framework of a particular gamut' – narrow and wide bands, and their low ('baryphonic'), middle ('mezophonic') and high ('oxyphonic') registers. The co-existence of segments with a defined rhythm and *ad libitum* sections was also observed. However, Chomiński did not describe the latter as aleatoric, restricting the term 'aleatorism' to the phenomenon of 'form indefiniteness, its randomness and constant changeability'.[20] Following his own terminology, he preferred to write about two kinds of time and speed regulation – 'monochrony' (constantly measured sound impulses) or 'polychrony' (variably measured). He explained the impact of polychrony as follows:

> Polychronic treatment of the vertical aggregates of tone was made possible by selecting appropriate intervals among which, for Lutosławski, the semitone and tritone acquire fundamental significance […]. Those segments of the *Concerto*, which are regulated polychronically, are based mainly on the twelve-note chord and its sections, within which the sound substance has a mobile shape, thus representing a dynamic component of the form.[21]

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18 Ibid., p. 77.

19 Józef M. Chomiński and Krystyna Wilkowska-Chomińska, *Formy muzyczne* [*Musical forms*], Vol. 2, *Wielkie formy instrumentalne* [*Grand instrumental forms*] (Kraków: Polskie Wydawnictwo Muzyczne, 1987), p. 771.

20 Ibid., p. 775.

21 Ibid.

Chomiński thus recognised pitch organisation as an integral element of Lutosławski's sonoristic technique. He was aiming to show that, together with polychrony, it made a vital contribution to intensifying those attributes of a work that are 'purely sonorous'.

In a similar way, Chomiński analysed Lutosławski's harmonic approach in the third volume of his *History of Harmony and Counterpoint* (*Historia harmonii i kontrapunktu*). He did not discuss this topic in the chapter devoted to 'sonoristic harmony', which was dominated by examples of cluster-glissandi structures from Penderecki's works, but in the section dealing with 'group systems', i.e., approaches to pitch organisation which emerged as a result of breaking the rules of serial composition, because he was convinced that sonoristic values could be found in all kinds of harmonic systems developed in the second half of the twentieth century.[22] Chomiński studied with special attention examples of sound groups with various harmonic densities. At Fig. 49 in Lutosławski's Symphony No. 2 (the final refrain, three bassoons), for example, he observed significantly rarefied sound revealing 'hemitonic relationships and distant echoes of functional harmony', and he outlined them diagrammatically, as shown in Figure 7.1.[23]

The reverse process (increasing harmonic density) was illustrated by an example from Fig. 104 of the symphony. Chomiński explained that in this passage, scored for the strings, Lutosławski had used quarter-tones as a glissando transition between elements of the twelve-note scale. In the resulting music, clusters – clear sonoristic hallmarks – are created.[24]

While the Polish theorist had no doubt that at least some of the phenomena observed in the composer's craft could be explained from the perspective of 'sonoristic technique/regulation', Lutosławski himself did not refer to Chomiński's theory directly when discussing music. At the beginning of the 1960s the composer favoured the use of the concept of 'sound object' (*objet sonore*), adopted from Pierre Schaeffer. In his lecture on form presented at Tanglewood in 1962 he assigned to it the rank of the key idea of a composition, fulfilling the function of the old theme as an 'independent complex of sounds bounded in time'.[25] This formulation seems close to

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22 Among them he distinguished 'serial', 'group', 'statistical' or 'stochastic', and 'sonoristic' harmony. See Józef M. Chomiński, *Historia harmonii i kontrapunktu* [*A History of Harmony and Counterpoint*], Vol. III (Kraków: Polskie Wydawnictwo Muzyczne, 1990), pp. 495–570.

23 Ibid., p. 549.

24 Ibid., pp. 550–51.

25 Witold Lutosławski, 'Problems of musical form' [third lecture at Tanglewood, 1962], in *Lutosławski on Music*, ed. and trans. Zbigniew Skowron (Lanham: Scarecrow Press, 2007), p. 16. An interesting analysis of the origin of the concept of *object sonore*

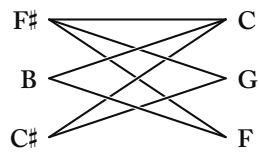


Figure 7.1 Józef Chomiński, diagram of pitch relationships in Witold Lutosławski, Symphony No. 2, Fig. 49.

Schaeffer's original definition, treating the 'object' as a new quality, both 'discrete and complete'.[26] Perhaps in this way Lutosławski customised his language to the demands of an overwhelmingly non-Polish audience most likely acquainted with Schaeffer's ground-breaking idea of *musique concrète*.

On the other hand, if we were to try to create a mini-dictionary of terms used by Lutosławski to describe the phenomena essential in his own work, it appears that some concepts are relevant to certain commonly recognisable markers of the sonoristic technique as defined by Chomiński. As an example, in his conversations with Tadeusz Kaczyński, the composer used the following descriptions given in Table 7.1.[27]

Speaking to Kaczyński in Polish, Lutosławski not only explained the role of timbre, intervals, chords, and quarter-tones in his own works, but also characterised them by terms ('sound magma', 'sound complexes') which, in the language of Polish music critics of that time, signified avant-garde effects of sonorous means.[28] In other words, he used language reminiscent of Chomiński's ideas. If so, an important question arises: did Lutosławski know

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used by Lutosławski was carried out by Adrian Thomas, who noted its presence as early as September and October 1960 in the composer's 'Notebook of Ideas', just two days after a lecture by Józef Patkowski, the head of the Experimental Studio at Polish Radio, on Schaeffer and his *Étude aux objets*. See Witold Lutosławski's entry dated on 23 September 1960 in *Lutosławski on Music*, ed. and trans. Zbigniew Skowron, p. 295 and Adrian Thomas, 'WL100/62: Notebook, 19 October 1960', *On Polish Music … and other Polish topics*, Blog, 19 October 2013 (https://onpolishmusic.com/2013/10/19/•-wl10062-notebook-19-october-1960).

26 Pierre Schaeffer, *A la recherche d'une musique concrète* (Paris, 1952). Quoted in Pierre Schaeffer, *In Search of a Concrete Music*, trans. Christine North and John Dack (Berkeley: University of California Press, 2012), p. 14.

27 Tadeusz Kaczyński, *Conversations with Witold Lutosławski*, trans. Yolanta May and Charles Bodman Rae (London: Chester Music, 1984).

28 In 1961, Bohdan Pociej writing on *Jeux vénitiens* pointed out, for example, Lutosławski's 'own, original forms of organizing timbres, masses and sound fields'.

Table 7.1 Sonoristics-related terms used by Lutosławski.

| Term | Meaning and quotations from Lutosławski's statements |
|---|---|
| Tone colour/ timbre | Expression of interest in using timbral qualities in conjunction with harmony:<br><br>[Example from Symphony No. 2] I've always thought that *timbre* alone, whether of one instrument or of a group of similar instruments, isn't enough to create sufficiently rich tone colour. One can achieve this only by combining the acoustic possibilities of the instruments with the role they are given to perform. The most elaborate combinations of instrumental colour sound almost 'grey' to me if the intervals and chords don't co-operate in creating *tone colour*. |
| Sound magma | Texture with special inner mobility in constant, irregular motion:<br><br>[The instrumental fragment of the first of *Trois poèmes d'Henri Michaux*] was divided by caesurae into short 'interventions', the duration of which […] depends in the main on the performer, but the conductor should give appropriate direction to these individual interpretations during rehearsals. The use of such a technique results in a kind of loosening of temporal links between the sounds which make up a given fragment. This results, among other things, from the fact that because of the different duration of the caesurae and different duration of the interventions themselves, the accented beginnings of the latter fall at irregular intervals. This creates a kind of *sound magma* (*magma dźwiękowa*), which is in constant, irregular motion. |
| Sound complexes | Groups of sounds with no definite meaning but not devoid of expression, which function as an element of 'pure sound':<br><br>*Le grand combat* […] is a composition which employs groups of sounds which consist, admittedly, of written words spoken in various ways. We must not forget, however, that these words are not meant to reach the listener in their entirety; in many places it is their sound that matters, and they reach the ear in the form of various murmurs, noises or battle and clamour, as sound complexes devoid of definite meaning but not devoid of expression. These *sound complexes* (*kompleksy dźwiękowe*) have been used to construct the form of that movement according to a purely musical principle. |
| Quarter-tones | Expression of interest in using sound with continuously changing pitch:<br><br>[Example from *Livre pour orchestra*]. The idea was to achieve a continuous change of pitch in the most precise way possible. It is better therefore to use definite pitch, even if that can only be approximate. […] The majority of these quarter-tone sequences […] are in fact heard as notes which change their pitch in a continuous way. They aren't the same as glissando, especially as one can sometimes hear the individual steps of the *quarter-tone scale*. But not always … |

Chomiński's theories? Considering his involvement in contemporary musical life and immense erudition, it seems impossible that the composer would not have been familiar with at least some aspects of Chomiński's publications. However, there is no evidence that he wanted to engage with them. Perhaps this is because, while he appreciated the role of 'critics, commentators, historians, theorists, etc.', Lutosławski at the same time noted them as a threat. In 1966, he wrote the following in his 'Notebook of Ideas':

> Yet they are also a danger to art: they smother it with words and overwhelm it with their accompanying thoughts. Critical editions of works of art, articles about concerts, anthologies, etc., are blurred, oppressed, stifled by the multitude of words. The commentators do not allow art itself to speak, they force themselves between the work and the listener, they talk him down …[29]

Believing that music stands by itself and requires no commentary, Lutosławski preferred, if necessary, speaking about it in his own way, whereas Chomiński, using highly sophisticated terminology, tried to embed his concept of sonoristics in the evolving context of Polish music of the second half of the twentieth century. To prove that the 'modern face' of Polish music could be located in examples from the leading Polish composer's output would have appeared very appropriate to Chomiński. For the same reason, he referred to other representatives of the older and middle generation of Polish composers who came to prominence in the mid-twentieth century (e.g., Grażyna Bacewicz, Tadeusz Baird, Kazimierz Serocki),[30] even if they never used the label 'sonoristics' themselves to describe their own music.

In the case of a certain aspect of Lutosławski's self-reflections there are, however, some puzzling conceptual, and even terminological, convergences with Chomiński's theoretical findings. As early as 1961, the theorist identified the problem of the 'logical use of sonoristic means' in the creation of new formal categories.[31] He fully developed that concept at the end of the

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See Bohdan Pociej, '*Gry weneckie*. Nowy utwór Witolda Lutosławskiego' ['Venetian Games. A new work of Witold Lutosławski'], *Ruch Muzyczny* 5/10 (1961), p. 4.

29 Witold Lutosławski, 'Notebook of Ideas, 1959–1984' [11 March 1966], in *Lutosławski on Music*, ed. and trans. Zbigniew Skowron (Lanham: Scarecrow Press, 2007), p. 312.

30 Chomiński, *Muzyka Polski Ludowej*, p. 165.

31 Józef M. Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia' ['The sonoristic technique as the subject of a systematic training'], *Muzyka* 25/3 (1961), p. 9.

1970s, presenting a 'systematics of sound phenomena',[32] the purpose of which was to describe the structural systems used to build the modern form of a musical work.[33] In this area, the following elements operate in combination: sound material, dimensions of time and speed, and states of density and rarefaction of sound. On the other hand, the problem of form was no less important for Lutosławski, who commented extensively on its function in the realm of contemporary music texture. Generally, it can be said that the composer was looking for answers to the same question that preoccupied Chomiński as a theorist: the possibility of constructing a satisfactory form in a contemporary musical idiom. 'What possibilities do we have at our disposal in the construction of a large form, when our key ideas consist of individual structures or of sound objects?' asked Lutosławski during the lecture 'Problems of Musical Form' in 1962.[34] For him, musical form was strictly connected with human perception, with the listener's attention being controlled by changes (in direction, progress and speed) taking place within the 'properties of musical material'. The composer enumerated five such 'properties': disposition of sounds in the musical gamut; timbre, tone colour; types of rhythm and the frequency of impulses; intensity; and, last but not least, harmony.[35]

As one can observe (see Table 7.2), Lutosławski's 'properties of musical material', in a sense, form an analogy to Chomiński's 'systematics of sound phenomena'. While changes within the 'properties' serve to structure the progress of the form, the 'systematics' designs the means aimed at the 'sonoristic transformation of the form'. In other words, changes in the 'properties of musical material' correspond to sonoristic transformation, which, according to one of Chomiński's explanations, 'not only influences the shape of the themes and their course but also contributes to changes in the form as a whole'.[36] A comparison of the two approaches allows us to identify the three main areas in which the principle of transformation applies. These are: pitch organisation, tone colour and rhythm.

1. 'Disposition of sounds in the musical gamut', in Lutosławski's view, was understood as the 'width of the band of the sound-structure in a

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32 Józef M. Chomiński, 'Systematyka zjawisk dźwiękowych' ['The systematics of sound phenomena'] (Falenica, 1977).

33 A multiplicity of issues relating to this area appears in the third volume of 'Podstawy sonologii muzycznej' entitled 'Form'.

34 Witold Lutosławski, 'Problems of musical form', pp. 16–17.

35 Ibid., pp. 17–18.

36 Chomiński, *Muzyka Polski Ludowej*, p. 165.

given period of time' and the 'registral position of this band', as well as the 'thickness or thinness of the sound texture'. In turn, harmony was identified with the use of diverse variants of 'vertical sound aggregations'. On the other hand, Chomiński combined all of these issues within the category of 'states of density and rarefaction of sound', which corresponded to 'issues relating to harmony, counterpoint and instrumentation'. He also classified vertical sound aggregations according to the types of intervals and register (low, middle and high) used; moreover, he distinguished dense chords (clusters) and chords consisted of larger intervals, sometimes combining different registers (frequency areas).

2. Lutosławski emphasised timbre's dependence on harmony, register, articulation and dynamics. Although Chomiński did not pay individual attention to the specification of particular timbres or explaining their morphology, he was very much aware of the fundamental role of tone colour in modern music, which is dependent on other elements. It is also worth noting that, thinking historically, he treated the sonoristic element in music as a kind of 'emancipated' tone colour.

3. Lutosławski's division of rhythm into 'modular' or 'non-modular' corresponds roughly to 'monochrony' and 'polychrony' – terms used by Chomiński to describe 'dimensions of time and speed'. Similarly, 'frequency/density of impulses', regarded by Lutosławski 'as a concept of tempo extended into the realm of non-modular rhythm', belongs among the issues discussed within the same category.

Assuming that the arguments presented so far can be considered sufficient to validate viewing Lutosławski's compositions through a sonoristic theoretical lens, I would now like to demonstrate that such an approach may also be a productive analytical tool, using the example of *Jeux vénitiens*, the subject of the composer's self-reflection on a number of occasions. This *modus operandi* reveals *Jeux vénitiens* not only as the first composition in which Lutosławski introduced chance procedures (collective *ad libitum*), or as a showcase for ways of building specific twelve-note chords with a characteristic colour, but also as a form of interaction between the individual elements of a given musical structure. The resulting transformations are in fact the essence of 'sonoristic regulation'.

In his lecture on form Lutosławski demonstrated the main formal principle of the first movement of *Jeux vénitiens* in terms of the relationship between segments A (the first refrain) and B (the first episode). Both of them are of static character, since the 'properties of musical material' remain unchanged for a period, and their sudden change leads to a new segment,

Table 7.2 Lutosławski's and Chomiński's systematics of form-building elements.

| **Lutosławski's 'Properties of Musical Material'** | **Chomiński's 'Sound Phenomena'**[a] |
|---|---|
| 1. Disposition of sounds in the musical gamut | 1. Sound material (includes tone colour) |
| 2. Timbre/tone colour | 2. Dimensions of time and speed (includes types of rhythm and the frequency of impulses) |
| 3. Types of rhythm and the frequency/density of impulses | 3. States of density and rarefaction of sound (includes disposition of sounds in the musical gamut, harmony, intensity, tone colour) |
| 4. Intensity | |
| 5. Harmony | |

[a] The so-called 'sonoristic modulation' is excluded from this table because it deals only with electro-acoustic devices.

whose character is also static.[37] The changes concern: the tempo (fast–slow), dynamics (f–pp), orchestration (winds–strings), texture (seven mobile parts–sustained notes), register (higher–lower), chord size (twelve-note chords–eight-note chords). Lutosławski also explained the characteristics of the four 'strands in the music' (seven woodwind instruments, three brass instruments, three detuned timpani and two pianos) in detail in his lecture 'Rhythm and Organization of Pitch'.[38] Lutosławski's description of the interval profile and registral disposition of the sounds used translates very successfully into the language of Chomiński's sonoristic theory. Thus, one might say that the twelve-note chord from the woodwind part is contained within the mezophonic register (G3–A3–C4–D4–E4–F♯4–B4–C♯5–D♯5–E♯5–G♯5–A♯5) and represents an intervallically dense combination, just as the four-note chord from the brass part (G4–G♯4–A4–A♯4) does. In turn, the eight-note chord of the pianos (B1–D♯2–C3–E3–C♯5–E♯5–D7–F♯7) is almost a model example of intervallically rarefied chord reaching the bottom of the baryphonic register (below 110 Hz – A2) and the top of the

37 Lutosławski, 'Problems of musical form', p. 19.

38 Witold Lutosławski, 'Rhythm and Organization of Pitch in Composing Techniques Employing a Limited Element of Chance', in *Lutosławski on Music*, ed. and trans. Zbigniew Skowron (Lanham: Scarecrow Press, 2007), p. 60.

oxyphonic (above 2093 Hz – C7).[39] Using the language of of Chomiński's theory, all the vertical aggregations of sounds in the first movement of *Jeux vénitiens* can also be classified as 'constructed with the dominance of one kind of interval'.

In Lutosławski's approach, the basic perceptual effect of the procedures employed here was the division into 'local harmonies', resulting not only from the differentiations of interval but also of tone colour (instrumentation) and rhythm (e.g. variations of nine motifs presented in the woodwinds which effectively prevent the simultaneous appearance of one and the same motif in all of the instruments).[40] Instead, sonoristically speaking, it may be observed that this perceptual effect results from the impact of polychrony, the form of time organisation which implies some chance events. The refrains of *Jeux vénitiens* can be also regarded as an excellent example of the phenomenon described by the theorist as 'colouring other elements of the work in a special way which allows one to achieve a compactness of sound in polygenous structures'.[41] The 'release of sonoristic values' involves generating specific sound qualities as a result of an irregular rhythm fluctuation in woodwinds, brass and pianos. As a consequence, each refrain (segments A, C, E, G) leads to an increasingly greater diversity of sound structure or, in other words, to its heterogenisation or polygenisation.[42] The register expands, the intensity of sound increases and, at the climax (in segment G), twenty-four-note harmony (two twelve-note chords having no common pitches) is reached. While Lutosławski emphasised that in such a case the listener perceives the harmonies occurring within particular strands and not between them,[43] in the language of sonoristic analysis it can be said that the emerging heterogeneous structure, because of this lack of interpenetration by the individual components, results in perceptual dissimilation.

The properties of the episodes that contrast with the refrains in the first movement of *Jeux vénitiens* are also the point of departure for releasing the sonoristic qualities. The change in the area of harmony in sections B, D and H translates into the creation of gradually transposed chromatic clusters spanning a perfect fifth. This process, in combination with the change of instrumentation and almost total exclusion of rhythmic mobility, contributes

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39 Chomiński, 'Systematyka zjawisk dźwiękowych', pp. 42–3.

40 Lutosławski, 'Rhythm and Organization of Pitch in Composing Techniques Employing a Limited Element of Chance', pp. 58–9.

41 Chomiński, *Muzyka Polski Ludowej*, p. 151.

42 At different points during the formulation of his theory, Chomiński used these terms interchangeably.

43 Lutosławski, 'Rhythm and Organization of Pitch in Composing Techniques Employing a Limited Element of Chance', p. 60.

to a perception of the episodes as homogenous. In other words, they are constructed from static chordophonic structures and represent monochronic temporal organisation. Nevertheless, the sonic contrast between the shortest of the homogeneous episodes (F) and heterogeneous section G (the refrain) is smoothed by dint of harmony. The episode is based on an eight-note chord (G3–B♭3–D4–F4–G♯4–B4–D♯5–F♯5) structured intervallically as a symbolic anticipation of the 'harmonic physiognomy' of the pianos' strand, which joins the other ones only in the last exposition of the refrain. It may be also be noticed that this stack of interval classes 3 and 4 in the strings fits into the mezophonic register just abandoned by the secundal harmony of the wind instruments, creating a sense of registral continuation. From the sonoristic point of view, it is also worth noting that an important element of form in the first movement of *Jeux vénitiens* is the presence, in all the sections, of the effect of sustained percussive impulses (membranophonic-idiophonic structure): each section begins with a percussive strike. On the one hand, this contributes to increasing a compactness of sound in the polygenous structure of the refrains (woodwinds, timpani, brass, piano); on the other hand, the effect is assimilated by the chordophonic structure of the episodes. This is because the percussive impulse contains, in fact, not only the noise element (tamburi, claves), but also a pitch-interval component (the xylophone plays a three-note chord: G♯5–B5–C6). A summary of the features described above is shown in Figure 7.2.

An exciting example of sonoristic transformation appears in the final movement of *Jeux vénitiens* (from $a_1$ to G). In the lecture on aleatorism presented at Tanglewood in 1962 Lutosławski used this 'construction by means of sound object' – each of which, played *ad libitum*, has been given its own tempo and 'rhythmic physiognomy' – to explain the phenomenon of macro-rhythm. 'A rhythm resulting from the collocation in time of the individual objects, regarded as a whole'[44] arranges itself here into a sequence of increasingly shorter temporal values defined by their beginnings (with the pattern, in seconds: 5, 5, 4, 4, 4, 3, 3, 3, 3, 3, 3, 3, 3, 2, 2, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0.8, 0.8, 0.8, 0.8, 0.8, 0.8, 0.8, 0.8, 0.8, 0.8, 0.6, 0.6, 0.6, 0.4, 0.4, 0.4, 0.4, 0.4, 0.3, 0.3, 0.3, 0.3, 0.3). When the onsets of the 'objects' become almost indistinguishable the music fluctuates in a densely polyrhythmic orchestral tutti. The sonoristic approach to this phenomenon requires a reference to the categories of Chomiński's theory that are concerned with relative degrees of sonic density. Firstly, the individual superimposed structures (chordophonic – piano, chordophonic – strings, aerophonic – brass

[44] Witold Lutosławski, 'Aleatorism' [fifth lecture in Tanglewood, 1962], in *Lutosławski on Music*, ed. and trans. Zbigniew Skowron (Lanham: Scarecrow Press, 2007), p. 47.

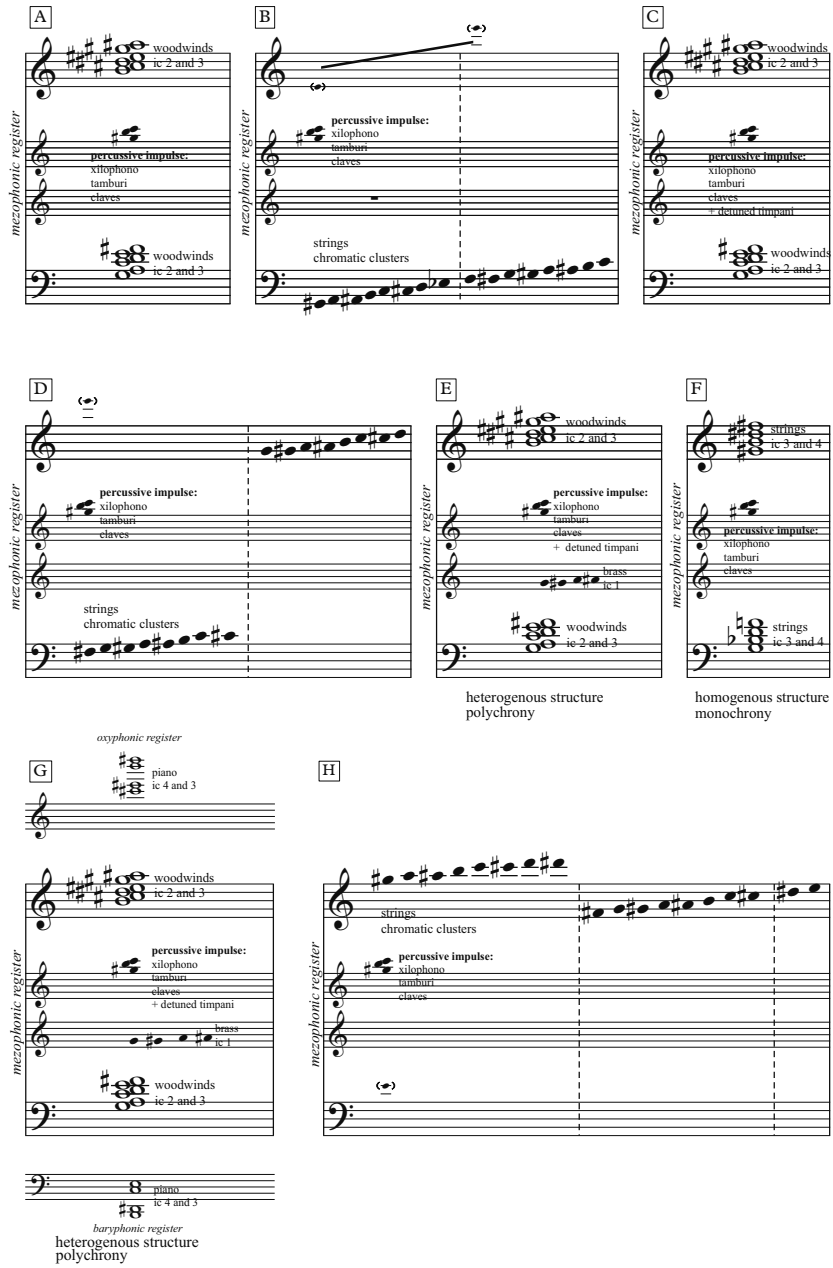


Figure 7.2 Summary of sonoristic features in the first movement of *Jeux vénitiens*.

and aerophonic – winds) have a homogeneous character as independent 'objects'. Secondly, various types of motion, intervals, register and the volume of sound render them dynamic. These same properties also endow them with perceptual distinguishability in an increasingly dense and heterogeneous sound mass. Thus, for example, the woodwind structure ('d') is constituted by a twelve-note chord in tritones fluctuating in equal rhythmic values, while the brass 'object' ('i') is based on quick repetitions of single notes in the trumpets, horns and trombones, creating virtual semitone chords. Only at the point of greatest density of the sound substance, which causes the effect of chaos planned by the composer, are the individual components no longer identifiable. This brings about the transition 'from a set of selective sounds to indivisible sound mass' which, in Chomiński's interpretation, constitutes the 'most essential meaning of polychrony'.[45] This moment in *Jeux vénitiens* provides an almost ideal example of this key theoretical concept.

The above analysis is only a small first step in demonstrating the possibilities of analysing Lutosławski's works from the sonoristic point of view. It refers to purely instrumental examples of his music composed with twelve-tone chords and with 'limited aleatorism'; his vocal materials would provide a number of other problems for the area of sonoristics. However, my discussion here shows that, first, pitch organisation (like texture, tone colour, rhythm and the use of unconventional articulation) may contribute significantly to intensifying the 'pure sound' qualities of music, and, second, its organisation (in conjunction with other 'properties of musical material') exercises a powerful influence on form.

Although Chomiński recognised pitch principles as an important element of his own theory, as well as a significant feature of Lutosławski's sonoristic technique, the composer himself did not identify this phenomenon as 'sonoristic'. It seems that Lutosławski did not use the concept of sonoristics or sonorism in his statements for the same reason he rejected any association with dodecaphony. He did not agree with negating the importance of pitch and interval in music via mechanical subordination to the rules of serial technique or by blurring them into a mass of noises. He was too individual an artist to surrender to any fashion or trend, to be a 'serialist' or a 'sonorist'. Furthermore, Lutosławski seemed to share the view that interest in sonoristic qualities, characteristic of representatives of 'Polish School', was a symptom of seeking novelty at any price that would inevitably lead to facile solutions proving superficially impressive but ephemeral. 'I am prepared to write a symphony in one week if I do not concern myself with pitch, if I operate only with noises, rhythm and dynamics; and I think it would not be such a bad composition' he declared in a discussion during the first of the 'Musical

45 Chomiński, *Muzyka Polski Ludowej*, p. 149.

Encounters' in Baranów Sandomierski. This was the composer's comment after a lecture on his own compositional technique, when he recollected the phenomenon of restricting the role of pitch in Polish music of the 1960s.[46]

Lutosławski's self-declared search for new but permanent values in music may thus have been one of the most important reasons why researchers to date have not considered the possibility of a sonoristic interpretation of sound phenomena characteristic of his musical language.[47] But even if the composer's declarations are accepted as valid, they may only exclude him from the sonorism understood as the mainstream of Polish music in the 1960s. One cannot say that Lutosławski was a 'sonorist', but the assertion that he made use of 'sonoristic technique' seems fully justified. Being a witness to and commentator on the contemporary musical scene, including the one on 'Polish turf', the composer adopted some elements that were 'in the air' at the time and customised them to his own objectives and creative priorities.

In conclusion, it may be said that the affinity between some elements of Lutosławski's compositional concepts and the hallmarks of Polish sonorism seem to be much closer than previously believed. Demonstrating these relationships was possible thanks to Chomiński's analytical apparatus, which is a very precise tool for revealing the subtlety of means used to emancipate 'pure sound' in music. Chomiński's theory proved itself useful for understanding non-standard solutions in this area – those that cannot be considered typical or 'fashionable'. It should be remembered, for example, that Lutosławski did not even like to use the concept of the cluster, because he perceived 'the whole of the vertical to be a chord consisting of a certain numbers of intervals – not a smudge'.[48] He insisted upon pitch distinctions even in quarter-tone textures. Undoubtedly, however, viewing the music of Lutosławski from the perspective of sonoristics is a compelling undertaking that confirms a number of advantages of Chomiński's analytical theory. Moreover, it reveals new ways in which the music and the theory formed extremely original elements of the panorama of responses to the crucial problems of twentieth-century composition.

46 See Lutosławski, 'O rytmice i organizacji wysokości dźwięków w technice komponowania z zastosowaniem ograniczonego działania przypadku', p. 116.

47 See e.g. Witold Lutosławski, 'Notebook of Ideas, 1959–1984' [10 October 1962], in *Lutosławski on Music*, ed. and trans. Zbigniew Skowron (Lanham: Scarecrow Press, 2007), pp. 305–6.

48 Irina Nikolska, *Conversations with Witold Lutosławski*, trans. Valeri Yerokhin (Stockholm: Melos, 1994), pp. 124–5.