Declaration:

I declare that the research presented here is my own original work and has not been
submitted to any other institution for the award of a degree.

Signed: *Anne Uhlherr*

Date: 31. 08. 2009

Sonorism and the Polish Avant-Garde 1958-1966

(Two Volumes)

VOLUME I

Anna Masłowiec

A thesis submitted in fulfilment
of the requirements for the degree of
Doctor of Philosophy

Conservatorium of Music
The University of Sydney
2008

ABSTRACT

Towards the end of 1950s a new trend in Polish music now known as 'sonorism' [*sonorystyka*, from the French *sonore*], pioneered by young composers such as Krzysztof Penderecki and Henryk Mikołaj Górecki, infiltrated the works of both younger and older generations of composers. The prominent Polish musicologist Józef Chomiński responded to this trend in a number of articles and referred to the new technique, in which timbre and texture are used as the principal means of expression and sonorous quality assumed the primary role in shaping a musical structure, as 'sonoristic'.

This study reappraises the sonoristic trend in Polish music and reexamines the core sonoristic repertoire written between 1958 and 1966 by members of the Polish post-war avant-garde, including Krzysztof Penderecki, Henryk Mikołaj Górecki, Bogusław Schaeffer, Kazimierz Serocki, Wojciech Kilar, Witold Szalonek and Tomasz Sikorski. While some of the key sonoristic works such as *Threnody* by Penderecki have received much analytical attention in the musicological literature, many equally important emblematic sonoristic pieces remain neglected or completely forgotten.

The aim of this study is not only to provide a context for the better known works by Penderecki and Górecki but more importantly to critically reassess emblematic sonoristic works according to the typical criteria which help to define a sonoristic work. These criteria are sharp and often rapid contrasts in timbre and texture and particular aspects of articulation and notation. The study examines two complementary aspects of sonorism together: the widely shared sonoristic traits prevalent in all works participating in this style ('footprints') and individual stylistic traits that distinguish different composers ('fingerprints'). The concept of 'footprints' as the characteristics that define the movement is best seen in the broader European context and enables one to distinguish sonoristic works from contemporary textural pieces by other European composers such as Xenakis and Ligeti. The 'fingerprints', however, are equally important and highlight traits that shape the distinct sonoristic profiles of individual composers.

The study also highlights the importance of the unique historical and political circumstances out of which sonorism grew, and reappraises the importance of the Warsaw Autumn Festival in understanding the sonoristic trend. A consideration of the legacy of sonorism and retrospective views of it concludes the study.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

Volume 1

PART I: SONORISM

PART II: THE SONORIST REPERTOIRE

Volume II

List of Figures

(Volume II)

List of Tables

ABBREVIATIONS

AK   Armia Krajowa (Home Army)

ISCM   International Society for Contemporary Music

PZPR   Polish United Worker's Party (Polska Zjednoczona Partia Robotnicza)

PWM   Polskie Wydawnictwo Muzyczne (Polish Music Publishers)

WA   Warsaw Autumn Festival of Contemporary Music (*Warszawska Jesień*)

WOSPR   Wielka Orkiestra Symfoniczna Polskiego Radia (Great Symphony Orchestra of Polish Radio)

ZKP   Związek Kompozytorów Polskich (Polish Composers' Union)

UNESCO   United Nations Educational, Scientific and Cultural Organization.

Introduction

Today out of the Polish sonoristic repertoire written in the 1960s only one piece survives in the majority of studies of 20th century European art music. *Threnody – to the Victims of Hiroshima* by Krzysztof Penderecki is the most frequently mentioned work as an example of 'texture style' music earlier pursued by Xenakis and Ligeti. This thesis aims to critically re-appraise the whole sonoristic trend in Polish music, and re-examine key sonoristic works composed between 1958-1966 which are vital to an understanding of sonorism and which provide the context for the better known pieces by Penderecki and Górecki. Re-examination according to sonoristic criteria of the key works of the period, many of which are unknown or neglected today, will give, for the first time, a comprehensive appraisal of the whole period, leading to an understanding of the distinct and different profiles of individual composers, and the role of sonorism in their artistic development. A comprehensive examination of this core sonoristic period between 1958 – 1966 also allows for clarification of some current misunderstandings about sonorism and for a distinction to be drawn between works for which sonorism was the core of the basic aesthetic and construction basis of the piece and those in which the sonoristic side was secondary and exists alongside serial, neo-tonal or other elements.

Among the features which clearly distinguished the Polish post-war avant-garde from other similar European movements of the late 1950s and early 1960s were an emphasis on timbre and texture and a search for non-traditional instrumental and vocal techniques. In addition to these qualities, a new expression and emotional impact on the listener were observed. As Andrzej Zieliński remarked at the time:

> ...the striking characteristic here is the lack of purely technical experimentation, nothing but technical inventiveness which ignores the esthetic experience - a phenomenon occurring in the creative output of the Western countries. Polish composers are concerned with the aesthetic reaction of the listener (of course an informed listener), his emotionality, sensitivity and taste. [1]

---

[1] Tadeusz Andrzej Zieliński, 'Nowa sytuacja polskiej muzyki współczesnej'[The Situation of Polish Contemporary Music], *Ruch Muzyczny* 5, no. 2 (15-31 January 1961): 3.

Zieliński's statement refers to music created by both the young and old generations of Polish composers – 'the new Polish music is created today by about ten composers at the age between 27 and 64 years old' – and the new state of Polish music in general.[2] This enlivenment in music came after a chain of historical events beginning with Stalin's death in 1953 followed by a political 'thaw' and was crowned by the establishment of the Warsaw Autumn Festival of Contemporary Music in 1956. The history of the Polish post-war avant-garde is almost inseparable from the history of the first Warsaw Autumn Festivals, which served as an invaluable platform of exchange between East and West. In 1959 Wolfgang Steinecke commented after his first visit to Warsaw Autumn:

> Warsaw Autumn has a special place because it reflects in its program all contemporary directions in music of the Western and Eastern World. It informs objectively and neutrally about all the stylistic trends in music of East and West.[3]

The rapidly changing situation of Polish composers was immediately noted by foreigners:

> It does not take a prophet to state that in a short time European music will be strengthened by a strong dose of new blood from Poland.[4]

General excitement with the 'new' and euphoric atmosphere surrounded the festival and its numerous premieres of new Polish works. Part of that climate is reflected on the pages of *Ruch Muzyczny* (Musical Movement) a fortnightly magazine established in 1945 and devoted to musical life in Poland. Apart from the usual reviews and reports on musical events taking place around the country, it provided a forum for serious discussions on contemporary issues in music, interviews with composers, polemics and debates by respected scholars (such as Bohdan Pociej, Tadeusz Andrzej Zieliński, critics and composers (including Stefan Kisielewski, Zygmunt Mycielski). In 1960 *Ruch Muzyczny* was proud to publish the voices of foreign press on the achievements in Polish music:

---

[2] Ibid.
[3] Wolfgang Steinecke (Sueddeutsche Zeitung 30.IX. 1959), quoted in 'Warszawska Jesień na cenzurowanym. Głosy Prasy Zagranicznej' ['Warsaw Autumn' on censorship. Voices of the Foreign Press], *Ruch Muzyczny* 4, no. 2 (15-29 February 1960): 19.
[4] Franz Willnauer (*Deutsche Zeitung*, Köln October 5 1959). Quoted in 'Warszawska Jesień na cenzurowanym. Głosy Prasy Zagranicznej,' 19.

The most attention was devoted to the performance of young Polish composers – *Symphony no. 1* by Górecki or *Confessions* by Szalonek (the reciting voices merge into one another to form one inseparable organism) - which already testify to a certain artistic development of the composers, and later – when there is a discussion of 'new music' – their names will have to be taken into consideration to the same degree as Kotoński, who we already know from Darmstadt.[5]

By 1959 Penderecki, Górecki and Schaeffer were already the leaders of the youngest generation of composers recognized as an avant-garde at the Warsaw Autumn Festival, and were joined in 1960 by Wojciech Kilar. Bogusław Shaeffer, the most prolific and versatile composer of the group, was already well known as an author of *New Music, Almanac of Polish Contemporary Composers* and *A Guide of 20ᵗʰ Century Music*. By 1960, with sixty-six compositions already to his name, Schaeffer was also regarded as a representative of the Polish avant-garde:

Even superficial familiarity with Schaeffer's preceding theoretical and compositional output is enough to realize the impressive creative vitality of this young (in age!) theorist and critic – seen more often as a composer. It is easy to presume, knowing the theoretical assumptions of the author of *New Music*, that his compositional output represents an avant-garde direction.[6]

'An avant-garde direction' in Polish music did not have to mean 'sonorism' or the use of sonoristic technique. Contacts with the West brought overall modernization of musical language and compositional techniques which for some meant only turning away from tonal thinking and neoclassical tendencies, for others definite pitch lost its significance. In 1961 Tadeusz Zieliński listed leading composers such as Szabelski (Górecki's teacher), Lutosławski, Baird, Serocki and Bacewiczówna – as the forefront of the 'pre-revolutionary period'- composers who 'took the side of revolution and expressed solidarity with the "rebels" – hence an uncompromising character of change.'[7] What is more important, however, is the fact that a substantial number of new works presented by younger and older generations were characterized by the predominance of texture,

[5] Diether de la Motte (*Neue Zeitschrift für Musik*, Mainz, November 1959). Ibid.
[6] Rozmowa z Bogusławem Schaefferem Part 1[An Interwiew with Bogusław Schaeffer, Part 1], *Ruch Muzyczny*, 4, no. 18 (15-30 September 1960): 3.
[7] 'Nowa sytuacja polskiej muzyki współczesnej' [The New Situation of Polish Contemporary Music], *Ruch Muzyczny* 5, no. 2 (15-31 January 1961): 3.

increasing sensitivity to colour as a form-building element, and a whole new attitude towards timbre quality, form and innovation. These characteristics - as unifying factors within otherwise diverse compositional profiles - allowed listeners to perceive Polish composers as a group. 'Sonorism' (sonorystyka) and the 'Polish School' used interchangeably became the labels to describe this new trend.[8] The list of significant composers associated with sonorism includes at least thirteen names. The oldest composer associated with the Polish avant-garde is Witold Lutosławski (1913-1994). The generation born between 1920 and 1930 includes names like Andrzej Dobrowolski (1921-1990), Kazimierz Serocki (1922-1981), Zbigniew Wiszniewski (b. 1922), Włodzimierz Kotoński (b. 1925), Witold Szalonek (1927-2000) and Bogusław Schaeffer (b. 1929). The younger generation, born after 1930, includes the most famous of the Polish avant-garde composers such as Henryk Mikołaj Górecki (b. 1933) and Krzysztof Penderecki (b. 1933) as well as Wojciech Kilar (b. 1932), Zbigniew Rudziński (b. 1935) Zygmunt Krauze (b. 1938) and Tomasz Sikorski (1939-1988). Naturally not all of these composers were involved in sonorism to the same degree. The beginning of the sonoristic movement is particularly associated with two names Penderecki and Górecki, often referred to as 'generation '33.'[9]

Certainly the early 1960s, as Droba described it, were the years when sonorism 'was an innocent and fresh occurrence full of impetus to discover and conquer new unknown areas of sound and colour.'[10] By 1962 the majority of the core sonoristic repertoire (including all the sonoristic works by Penderecki, the *Genesis* cycle by Górecki and *Scultura* by Schaeffer) had already been composed and premiered.[11] The mid-1960s mark the phasing out of sonorism. In the works of the avant-garde leaders such as Penderecki and Górecki there is a definite turn away from sonorism, for Górecki beginning with *Refrain* (1965), and for Penderecki with *St Luke Passion* (1963-1966). However, the

---

[8] The development of the use of this term will be discussed in Chapter 2.

[9] Andrzej Chłopecki, 'Polish Music 1958-1966. The Syndrome of the Double Opening,' in *Studies in Penderecki*, vol. 2, ed. Ray Robinson (Princeton: Prestige, 2003), 124.

[10] Krzysztof Droba, 'Sonoristic. The term and range of the notion,' (paper presented at the IMS 16th International Congress. London, 19th August 1997).

[11] The exceptions are *Scultura* premiered in 1965 and *Monodram* from *Genesis* cycle not premiered as this study is written. Naturally there are many works composed after 1962 by Penderecki in which sonoristic elements are present but are not necessarily the driving force behind the piece and do not determine the character of the piece in the same way as in his core sonoristic works composed before 1962.

influence that radical sonoristic works, such as Penderecki's *Threnody* (1960) and Górecki's *Genesis* cycle (1962-1963), exerted on Polish composers lasted beyond the early 1960s. Kazimierz Serocki wrote his large scale sonoristic work *Symphonic frescoes* in 1963-64, Witold Szalonek wrote *Les sons* – regarded as one of the 'sonoristic manifestos'[12] - in 1965, and the younger Tomasz Sikorski responded to 'total sonorism' with his radical piece *Sequenza I* in 1966. While 'the 1960s was a particular sonoristic phenomenon – a decade of sonoristic euphoria,' for each composer the high point of their sonoristic style came at a different time.[13] Naturally the younger generation – including 'generation 33' was the first to experiment and the first to leave. Sonorism passed through the landscape of Polish music of the 1960s like a current at different points of time for different composers. The last years of the 1960s, as Droba described it, 'were more peaceful and silenced (H.M. Górecki's 'Old Polish Music' of 1969 sounded the trumpets for retreat).'[14] The time frame, 1958 – 1966, indicated in the title of this thesis not only embraces the works considered here as emblematic, but more importantly it delineates the fascinating avant-garde period in post-war Polish music. While the 1958 Warsaw Autumn is regarded as the birth of the Polish avant-garde, the 1966 premiere of *St Luke Passion* by Penderecki in the Münster Cathedral in Germany grew to a symbolic event which initiated the notorious accusations that Penderecki betrayed the avant-garde.[15]

Sonorism (sonorystyka) as a concept was introduced into Polish musicology by a distinguished musicologist Józef Chomiński in 1956.[16] Chomiński's writings from 1956 and 1961, created in parallel with the growing sonoristic repertoire, were the first theoretical elaboration of the phenomenon and the first reaction to the changes that were rapidly taking place in Polish music. In Polish musicological writings Chomiński is

---

[12] Droba, 'Sonoristic. The term and range of the notion,' 4.
[13] Ibid.
[14] Ibid., 3.
[15] Mieczysław Tomaszewski, 'Listening to Penderecki,' in *Studies in Penderecki*, vol. 2, ed. by Ray Robinson and Regina Chłopicka (Princeton: Prestige Publications, 2003), 25.
[16] Józef Chomiński, 'Z zagadnien techniki kompozytorskiej XX wieku' [Problems of the 20th century composition technique], *Muzyka* 1, no. 3 (1956): 23-48.

regarded as the founder of the 'theory of sonorism.'[17] Whether his writings amount to a theory is debatable and beyond the scope of this study; however, they certainly demonstrated his ambition to formulate such theory and provided analytical tools which gave rise to a substantial body of literature on sonorism. The responses to Chomiński's notion of sonorism not only sparked an interest in the analysis of contemporary Polish music but also inspired some writers to look for the roots of sonorism in Polish music going back as far as Szymanowski and even Chopin.[18]

It is interesting to note that with his first article on Polish music written in 1956, Chomiński anticipated the development of Polish music for the next decade. He also reacted immediately to the high point of the sonoristic movement in 1961 and subsequently in 1968 published extended, in-depth analytical discussion of Polish repertoire.[19] After 1970, when sonoristic style lost its impetus Chomiński changed terminology and his focus shifted from sonoristics to sonology, an area closer to electronic music.

The contentious issues surrounding sonorism are numerous. These include problems arising from the terminology itself, and an understanding and interpretation of the concept. Other problematic issues come from the association of sonorism with the Polish School: as Adrian Thomas noted 'sonorism and the "Polish School" are the most frequent

---

[17] See, for example, Iwona Lindstedt 'Teoria sonologii muzycznej Józefa Michała Chomińskiego' [Józef Michał Chomiński's Theory of Music Sonology], *Muzyka* 51, no. 1-2 (2006): 33-84 and Maciej Gołąb's 'The Evolution of Józef M. Chomiński's Theory of Sonology: An Assessment,' (paper presented at the 18th Congress of the International Musicological Society, Zürich, July 2007).

[18] See Antoni Prosnak, 'Zagadnienie sonorystyki na przykładzie etiud Chopina' (Sonoristics in the Chopin's Etudes), *Muzyka* 3, no. 1-2 (1958): 14-32 and Władysław Malinowski, 'Problem sonorystyki w *Mitach* Szymanowskiego' [The problem of sonoristics in *Myths* by Szymanowski], *Muzyka* 2, no. 4 (1957): 31-44.

[19] Józef Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia' [Sonoristics as a subject of systematic schooling], *Muzyka* 6, no. 3 (1961): 3-10; Józef Chomiński, 'Wkład kompozytorów polskich do rozwoju języka sonorystycznego' [The contribution of Polish composers to the shaping of a modern language in music] in *Polska współczesna kultura muzyczna 1944-1964*, ed. Elżbieta Dziębowska (Kraków: PWM, 1968), 95-111. The same essay appeared as a chapter 'Udział polskich kompozytorów w kształtowaniu nowoczesnego języka muzycznego' in Józef Chomiński's *Muzyka Polski Ludowej* [The Music of People's Poland] (Warsaw: PWN, 1968), 127-169. This chapter was reprinted in English as 'The Contribution of Polish Composers to the Shaping of a Modern Language in Music' in *Polish Musicological Studies* 1, ed. Zofia Chechlińska and Jan Stęszewski (Kraków: PWM, 1977): 167-215.

and among the most elusive (terms).'[20] The notion of sonorism linked to the 'Polish school' is not surprising. While, under the rubric label 'Polish School', Western critics focused on the similarities of the Polish repertoire presented at the festivals, Polish reviewers were reluctant to use the term 'Polish school' and emphasised the stylistic differences of individual composers.[21] Although both terms were interchangeably used in relation to the core sonoristic repertoire, their application to the fringes of the movement remains debatable. From the outset both terms were neither precisely defined nor did their use indicated the range of repertoire.

The concept of sonorism in Polish musicological literature and even in some musical journalism from the early 1960s includes the whole range of derivative terms: sonorism itself refers to the movement, while sonoristic as an adjective may describe the piece, compositional technique, texture, harmony, notation or articulation. The various analytical attempts to deal with the works written after 1956 confirm the lack of uniformity and understanding of what sonorism was supposed to mean. The loose application of the term introduced by Chomiński is reflected in the range of repertoire often labeled as 'sonoristic' which includes works written even before 1956. Thus what constitutes a sonoristic piece, what are the tenets of sonoristic technique, what are the borders of sonorism and who belongs to the movement or the Polish School are the major problematic issues encountered even in the most recent Polish musicological literature. It is these questions that this thesis seeks to address.

Although the term has been widely used in Poland by composers and musicologists, it has never been fully adopted outside Poland despite the fact that a substantial part of the sonoristic repertoire was known to an international audience. The difficulty in dissemination of Polish musicological writings outside of Poland may have contributed to the reasons for sonorism as a concept never crossing the language barrier. The body of literature in other languages than Polish is rather modest. An early instance of the

---

[20] 'Among the terms and labels attached to Polish music after 1956, those of the 'Polish School' and 'sonorism' are the most frequent and among the most elusive.' Adrian Thomas, *Polish Music since Szymanowski*, (Cambridge: Cambridge University Press, 2005), 159.

[21] See Danuta Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki* (Katowice: Akademia Muzyczna, 1997), 4-5.

introduction of the concept into Italian musicology was an article by Michał Bristiger published in 1970.[22] The first English translation of Chomiński's extended article on sonorism was published in 1977, well after the movement had dissipated. Another article on the trend by Lidia Rappoport-Gelfand, a translation from the Polish, appeared in 1983.[23] Although it presents Chomiński's and other scholars' writings and places the new style in the European context, the analytical discussion is mainly limited to two names: Górecki and Penderecki. Thus a small number of general articles, which were either translations from Polish sources or else written in other languages by musicologists trained in Poland, used the term but most often narrowed its meaning to the sonoristic features. In non-Polish literature - primarily in music history books - scholars referred to sonoristic works under the rubric of 'textural music' (Robert Morgan, Paul Griffifth) and often emphasized the sound quality with focus on extended instrumental technique.[24] For example in a study of Penderecki's instrumental works written between 1960 and 1973 Randolf Foy does not mention sonorism at all and does not differentiate the important turning points in Penderecki's works written during the 1960s.[25] Instead the term 'texture style' is applied to the works across the 1960s to 1973. Only in the most recent English language monograph on Polish music by Adrian Thomas does sonorism appear as a term and together with experimentalism is treated as a period in Polish music. Along with Penderecki and Górecki, the list of composers discussed by Thomas under this heading, also includes Schaeffer, Kilar, Dobrowolski, Kotoński and Szalonek.[26] Sonorism - as Krzysztof Baculewski also observed - adequately reflects the essence of this tendency, even though the term found only limited use outside Poland.[27]

---

[22] Michał Bristiger, ‚Sonorismo e strutturalismo' [Sonorism and Structuralism], *Collage* 9 (Palermo 1970): 72-76.

[23] Lidia Rappoport-Gelfand, 'Sonorism: Problems of style and form in modern Polish music,' *Journal of Musicological Research* 4 (1983): 399-416.

[24] See, for instance, Robert Morgan, *Twentieth-Century Music. A History of Musical Style in Modern Europe and America*, (New York: Norton, 1991), 386-390 and Paul Griffifths, *Modern Music and After. Directions since 1945*, (Oxford: Oxford University Press, 1995), 136.

[25] Randolf Foy, '*Textural Transformations: The Instrumental Music of Krzysztof Penderecki, 1960-1973,*' (D.M.A. diss., Baltimore, Peabody Institute of the Johns Hopkins University, 1994).

[26] Adrian Thomas, *Polish Music since Szymanowski* (Cambridge: Cambridge University Press, 2005), 159-207.

[27] Krzysztof Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974* [History of Polish Music, vol. 7: Contemporary, part 1: 1939-1974] (Warsaw: Sutkowski Edition, 1996), 269.

The present study is divided into two parts. The first (Chapters 1 – 2) gives the historical and theoretical context for sonorism, while the second (Chapters 3 – 9) is primarily devoted to a critical discussion of the core sonoristic repertoire. Chapter 1 outlines the dynamics between the artistic and political events and highlights the importance of Warsaw Autumn underlying the emergence of the Polish avant-garde. As a necessary background to the understanding of the sonoristic trend it draws largely on two major sources: Bylander's study of the Warsaw Autumn Festival[28] and Baculewski's historical introduction to the monograph on Polish music.[29] Chapter 2 discusses the concept of sonorism and its accompanying literature. While Chapter 3, 'Sound as Texture,' provides the European context for Polish fascination with textural music, Chapter 4, 'From Pointillism to Sonorism,' indicates the development of the sonoristic trend and contextualises sonorism within Polish post-war repertoire. It also deals with sonoristic aspects of important works such as Górecki's *Scontri* and Lutosławski's *Venetian Games,* and *Trois poèmes d'Henri Michaux.* Chapter 5, preceding the analytical discussion of the main sonoristic works, deals with the issue of notation in sonoristic music and the notion of the sonoristic score. Chapter 6, 'Total Sonorism 1960-1966,' proceeds piece by piece through the core sonoristic works in chronological order, beginning with *Threnody* (1960) by Penderecki and ending with *Sequenza I* (1966) by Sikorski. The chronological order here intentionally emphasises the time line of the analysed works. Chapter 7, 'From Footprints to Fingerprints' draws on analytical observations and highlights the individual characteristics within a sonoristic repertoire. Chapter 8, 'Legacy of Sonorism,' outlines the boundaries of sonorism for individual composers and points to further research on the influence of sonorism. Chapter 9, 'Epilogue,' features retrospective views of the period and concludes the thesis.

---

[28] Cynthia Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961: Its goals, structures, programs and people,' Ph.D. diss., (Ohio State University, 1989).
[29] Krzysztof Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974* [History of Polish Music, vol. 7: Contemporary, part 1: 1939-1974] (Warsaw: Sutkowski Edition, 1996).

Chapter 1

Historical Context

The emergence of the Polish post-war avant-garde towards the end of 1950s was neither a sudden nor an isolated event. Similar avant-garde movements emerged at around the same time in Japan, Spain, Scandinavian countries, Italy and other Eastern European countries such as Czechoslovakia and East Germany. In the case of the Polish music scene however, the avant-garde grew out of a unique set of historical and political circumstances. The cultural and political situation of the decade following the war (1945-1955) became the preparatory ground for the development of the avant-garde years of the late 1950s and 1960s. Composers had to find the balance between their personal response to new ideological demands imposed upon them, their attitude to the use of prohibited new techniques current in the rest of Europe, and their own individual development. To understand the extraordinary explosion of creativity in Polish music during the sonoristic period after 1958 and the context in which the Polish composers found themselves, it is necessary not only to reappraise the role of the Warsaw Autumn Festival in the development of the Polish avant-garde but to go right back to the musical situation in Poland during World War II and the state of the arts in Poland in the decade after the war.

The six years beginning with the German invasion of Poland on September 1, 1939 until the end of the war in Europe in May 1945 constitute the darkest pages of Polish history. The cultural and material devastation of Poland under Nazi and Russian occupation during the war were incomparable to other countries invaded by Hitler. From the first days of the war the two occupants began a systematic destruction of the nation ranging from confiscation of wealth, closure of schools, libraries and churches, to mass killings of the Polish intelligentsia, deportations to the concentration camps and working camps (*lagrów*) organised by the Germans and the Russians and the genocide of the Jewish population. Poland was divided between the two occupants and experienced, on the one hand, the 'Rusification' process and, on the other, 'Germanisation', both aimed at a

10

complete elimination of the Polish identity. In the regions under Russian occupation, this included forced change to Russian citizenship, change of all names and education under Lenin-Stalinist ideology. Those regions under German occupation, *Wielkopolska, Pomorze, Śląsk,* were immediately merged into the Third Reich, while the rest of the Polish territories, comprising the central part of Poland with Kraków as its Capital were renamed General Government – (*Generalna Gubernia*), and became the labor land (*Arbeitsbereich*) in which two kinds of punishment were implemented: either death penalty or concentration camp.[1] According to Baculewski,

> The level of officially allowed culture (theatres, cinemas, newspapers, books) was purposely lowered. Germans were fully aware that what helped the Polish nation to survive during the previous partitions of the country was the strong attachment to national art and culture. Hence the prohibition of its popularization; for performing the music by Chopin was the death penalty, so it was for possession of a radio.[2]

Yet music did not entirely disappear from the cultural life of Poland under occupation.[3] Up until 1940 Germans prohibited any music performances.[4] After 1940 cafés were the

---

[1] Krzysztof Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974* [History of Polish Music, vol. 7: Contemporary, part 1: 1939-1974] (Warsaw: Sutkowski Edition, 1996), 54, 8n. This edition first published in 1987, substantially supplements the historical background on the political situation of Poland during the war. Baculewski outlines the reality under both German and Russian occupation: 'the problem of social and cultural life of Poland under Russian occupation is still awaiting adequate assessment in Polish literature, the more so as up until 1989 it was a prohibited topic. Russian wardship censored all references made in relation to the Polish provenance of the territories to the east of the river Bug (the post-war border) as well as the Katyń massacre, the problem of deportations and working camps [*łagry*], in short, all matters which could publicly portray the soviet ally and perpetual friend in a negative light and could also be a reminder to the Poles of the time and methods under the Tsar. Therefore not without a reason was the friendship with the Soviet Union officially amended in 1976 Constitution of Polish Peoples Republic. Indeed not before the change of the political system (not only in Poland), after the first post-war free election in 1989 completely lost by the communists, and above all geopolitical changes in the Soviet Union and its disintegration into the independent states "defrosting" of all historical tabu (including the retreat of Soviet military forces continuously stationed in Poland since the Second World War). For the same reason the problem of opposition movement to the Soviet occupant is still awaiting its assessment.'
[2] Ibid., 43.
[3] For more information see Krystyna Kopeczek-Michalska, 'Jawne i tajne życie koncertowe w Warszawie w latach okupacji' [Open and Secret Concert Life in Warsaw], *Muzyka* 15, no. 3 (1970), 47-64 and by the same author 'Music During the Nazi Occupation 1939-1945,' *Polish Music* 14, no. 1-2 (1979): 8-14, 'O życiu muzycznym w latach okupacji' [On Musical Life During Occupation], *Ruch Muzyczny* 19, no. 10 (1975): 4-5; Elżbieta Dziębowska, 'Muzyka w Warszawie podczas okupacji hitlerowskiej' [Music in Warsaw during Hitler occupation] in *Warszawa lat wojny i okupacji,* [Warsaw during the years of war and occupation] vol. 2 (Warsaw: Czytelnik, 1972); Krzysztof Dudin-Wąsowicz, *Warszawa w latach 1939-1945* [Warsaw between 1939-1945] (Warsaw: PWN, 1984).

most important of a few legal venues for performing music. The programs of these concerts were under strict control and performing musicians and composers had to be registered with the German authorities. From 1940, for instance, in the café, *Gastronomia*, pianists such as Jerzy Lefeld, Zbigniew Drzewiecki and Jan Ekier performed, as did the Panufnik-Lutosławski piano duo, the Wiłkomirski trio (Wanda, Maria and Kazimierz), and the Eugenia Umińska String Quartet. The Lutosławski–Panufnik duo alone gave 1300 concerts between 1940 and the Warsaw uprising in 1944.[5] At the *Aria*, another of the cafés at which the Lutosławski – Panufnik duo performed, Lutosławski wrote *Variations on the Theme of Paganini (Wariacje na temat Paganiniego)* for two pianos, one of the best known pieces and the only one from that period which survived the Warsaw Uprising.'[6]

In spite of the strict German censorship, Poles managed also to perform prohibited music. Among the works performed were pieces by Moniuszko, Karłowicz, Chopin and contemporary composers such as Bacewicz, Rudziński, Panufnik, Wojtowicz and Lutosławski. The role of these concerts should not be underestimated:

> ...never in the history of Polish music was the contact of composers and performers with their audience so close, direct, and maintained on such a broad scale as in the years of Hitler's terror and the battle with that terror.[7]

Occasionally with the permission of the authorities, concerts took place at churches. In the Methodist Church in Warsaw, for instance, in spite of the ban on music by Polish composers, performances included fragments of Szymanowski's *Stabat Mater*, Overture by Antoni Szałowski and the premiere of *The Tragic Overture* by Andrzej Panufnik.[8]

---

[4] Cynthia Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961: Its goals, structures, programs and people,' Ph.D. diss., (Ohio State University, 1989), 21.
[5] Danuta Gwizdalanka and Krzysztof Meyer, *Lutosławski. Droga do dojrzałości* (Kraków: PWM, 2003), 115.
[6] Ibid., 130.
[7] Dziębowska, 'Muzyka w Warszawie,' 71, quoted in Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 19-21.
[8] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 47.

Other musical activities during this time, including tertiary music education, had to function underground and The Secret Union of Musicians (*Tajny Związek Muzyków*), formed in 1939, had the function of coordinating and directing many of these. In the Conservatory building, later totally destroyed during the Warsaw uprising, there was only one officially functioning secondary music school, the *Staatliche Musikschule,* in which the Secret Union of Musicians organized tertiary courses in composition, conducting and instrumental training. The staff, under the directorship of composer and theoretician Kazimierz Sikorski, included most of the pre-war professors such as Zbigniew Drzewiecki, Ludwig Kurkiewicz, Bronisław Rutkowski, Irena Dubiska and Kazimierz Śledziński.[9] Amongst the graduates of the underground functioning Conservatorium were Andrzej Dobrowolski and Kazimierz Serocki, both later to become part of the Polish avant-garde in the early 1960s. Kraków also had one music school, but for German citizens; a second school open to Polish citizens, the Żeleński Conservatorium, could only function underground.[10]

Jewish Ghettos in Warsaw, Kraków and Łódź had their own cultural life. In Warsaw and Łódź, in addition to street bands and chamber music groups, there were also symphony orchestras, while the Kraków Ghetto had only a chamber orchestra. From 1942, the liquidation of Jewish Ghettos, mass deportations to the concentration camps and finally the 1943 uprising in the Warsaw Ghetto put a stop to the Jewish performances of music.[11] Not many musicians survived the liquidation of Ghettos and the Warsaw uprising. As Baculewski describes it:

> All musicians from the Warsaw Ghetto symphony orchestra died: so did Marian Neuteich, a composer, conductor and viola player, the pianist Ignacy Rosenbaum, a composer Dawid Laks and many others. On the streets of Warsaw, Nazis executed Henryk Trzonek, a viola player, in the Warsaw uprising the talented young composer Roman Padlewski died, and in the region of Ojców near Kraków the first Polish dodecaphonist, Józef Koffler was murdered.[12]

---

[9] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 47.
[10] Ibid.
[11] Ibid., 48. For more details about the cultural life of Ghettos see Marian Fuks, 'Życie muzyczne w gettach Warszawy, Krakowa i Łodzi' [The musical life in Ghettos of Warsaw, Kraków and Łódź], *Biuletyn Żydowskiego Instytutu Historycznego,* Warszawa 1972.
[12] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 48.

A major part of the creative output of Polish composers during the war, except for the patriotic and resistance songs, remained under neoclassical influence, as expressed in the string quartets by Grazyna Bacewicz, Roman Palester, Artur Malawski, Witold Rudziński or Piano Studies, 1940-41 (*Etiudy fortepianowe*) and Lutosławski's *Variations on the Theme of Paganini.*[13] The older generation of composers such as Ludomir Rożycki (1883-1953), Stanisław Kazuro (1882-1961) and Feliks Nowowiejski (1877-1946) wrote in a more neoromantic style. However, as Baculewski noted, in parallel with the music cultivated and created during the war there were pieces which marked the newer trends. These included *The Tragic Overture* (1942) by Panufnik and Symphony No. 1 (1941-1947) by Witold Lutosławski. Both works point to the new direction: in Panufnik's case, 'harmonic density often based on the triadic constructions. In Lutosławski's music, the prototypes of new texture and sonic transformations appeared.'[14]

By 1944, when the liberation of Poland began with the Red Army and the newly formed Polish Army crossing the pre-war border along the river Wołyń, there was great hope and enthusiasm, as expressed by Jerzy Sulikowski:

> The war has scattered Polish musicians; some of them are in the United States, some in neutral countries, many of them have perished on the war or underground fronts; but the remainder – defying German persecutions – carry on in occupied Poland, creating new works, which will be known one day, and also helping the youngest generation in their studies. All testimonies agree that Poland at present is undergoing a tremendous – though secret – development in all domains of art, out of which a new weapon is being forged to protect the nation's soul and extol its glory when freedom is finally regained.[15]

Although Poles had managed to continue musical education during the war and did what they could to protect 'the nation's soul' by cultivating musical and artistic activities, the long awaited freedom did not come with the end of the War. Poland, with its newly

---

[13] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 49.
[14] Ibid.
[15] Jerzy Sulikowski, a professor at the Łódź Conservatory of Music taught aesthetics and history of music. J. Sulikowski, *Polish Music* (Liverpool: printed by the Northern Publishing Co. Ltd. for the Polish Publications Committee, 1944, 30), quoted in A. Bradley Gene, *De natura sonoris I and II by Krzysztof Penderecki, A Comparative Analysis.* D.M.A. Dissertation (University of Illinois at Urbana-Champaign, 1978), 1.

established borders and newly formed Provisional Government headed by Władysław Gomółka experienced a bitter new reality under the control of the Soviet Union. This new reality would not be changed until 1989.[16]

Poland after the War: between 1945 and 1954

In the first few years after the War the main emphasis was to rebuild and develop musical life. The cultural losses had been immeasurable. When the Germans invaded Warsaw for instance, the Philharmonic building was completely destroyed, as was the *Teatr Wielki* together with all its music collections. After the fall of the Warsaw uprising only a small number of the manuscripts from the Warsaw Music Society Library (*Warszawskie Towarzystwo Muzyczne*), the National Library (*Biblioteka Narodowa*) and the Conservatory collections survived. The systematic destruction of Warsaw by the retreating Germans after the Warsaw uprising left one side of the city virtually destroyed.[17] With the destroyed buildings, gone were the scores and manuscripts of many composers, notably all of Zbigniew Turski's compositions, unpublished manuscripts of Boleslaw Woytowicz, Panufnik's compositions (later reconstructed from memory) and numerous Lutosławski-Panufnik transcriptions. Thus, for many composers, the period after the war was, in Baculewski's words, a time, for a fresh 'compulsory debut.'[18] The process of rebuilding Poland's cultural life began with the reconstruction of towns and the resuscitation of a destroyed economy. While the state's patronage helped to rebuild concert halls, opera houses and introduce reform into music education, Polish composers found themselves under the increasing pressure of socialist realism.

The year 1945 saw the birth of many important cultural institutions still functioning today. The inaugural concert of the Polish Radio Orchestra in Katowice in March 1945 under

---

[16] The lost territories of Eastern Poland include major cultural centers of pre-war Poland such as Lwów and Wilno. In exchange Poland regained in the West Prusy Wschodnie (Mazury), Gdańsk, Dolny Śląsk and Pomorze. With the Eastern border on river Bug moved to the West only 54% of the pre-war Poland remained. In effect together with the re-gained territories Poland's total area constitutes 80% of the pre-war area, that is 312 000m². Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 50.
[17] Ibid. 46.
[18] Ibid., 56.

Witold Rowicki initiated a remarkably fast recovery of cultural life in Poland. Kraków, much less damaged by the war, became home for Poland's important musical institutions. In April the new Polish Music Publishers, (PWM) was founded in Kraków under the directorship of Tadeusz Ochlewski. Also in Kraków, one of the major events of 1945 was the first annual convention of Polish composers organised by the newly formed Polish Composers Union (*Związek Kompozytorów Polskich*) under Piotr Perkowski.[19] A four-day festival of Contemporary Polish Music, which accompanied the convention, presented a diverse compositional output from the war-years. A direct outcome of the festival was the establishment of a fortnightly magazine *Ruch Muzyczny* (Musical Movement) under chief editor Stefan Kisielewski.[20] In 1946 the Polish section of the International Society of Contemporary Music resumed its activities which included performances of Polish works and trips abroad. Between 1945 and 1949 composers frequently visited Western Europe - mainly Paris and London.[21] However, from 1949 to 1955, during the period of socialist realism and deliberate isolation, international contacts were reduced significantly.

In the immediate post-war years, within the wide diversity of styles and aesthetic criteria, folkloristic style and neoclassical styles prevailed. The composers still active in the first decade after the war ranged from the generation born before 1900 (notably Feliks Nowowiejski and Ludomir Różycki) to those born after 1919 (including representatives of the post-war avant-garde such as Serocki, Kotoński and Dobrowolski).[22]

---

[19] Józef Chomiński, *Muzyka Polski Ludowej* [The music of the PRL] (Warsaw: PWM, 1968), 175-176.

[20] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 53.

[21] Bylander lists Witold Lutosławski, Kazimierz Serocki, Grażyna Bacewicz, Zbigniew Turski, Andrzej Panufnik, Roman Palester, Artur Malawski and Stanisław Skrowaczewski (Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 25).

[22] According to Baculewski the oldest generation, born before 1889, was unified and close to the neo-romantic style. The second (born 1889 - 1898) and the third group of composers (born 1899-1908) were stylistically and aesthetically more diversified. The generation of composers born after 1909, however, includes some composers who were part of the Polish post-war avant-garde: Grażyna Bacewicz, Stefan Kisielewski, Witold Rudziński, Witold Lutosławski and Andrzej Panufnik. Finally the fifth and the youngest group (born after 1919-1928) included almost all avant-garde representatives: Andrzej Dobrowolski, Włodzimierz Kotoński, 'Group 49' with Tadeusz Baird, Kazimierz Serocki and Jan Krenz. Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 56-70.

While at first it was perhaps natural to focus on nationalism and turn to folklore, the composers' attitude to the use of folk material changed when discussion of the role of music and folk culture in the state intensified. The increasing intervention from the Soviet Union in the political life of Poland had a direct impact on all walks of life. After the dismissal of Władysław Gomółka as leader of the communist party and the formation of the Polish United Workers party led by Bolesław Bierut, the Stalinist era began in Poland. The role of creative artists was defined by the president of the Polish People's Republic in his speech in November 1947:

> The obligation of the creative artist, who is shaping the spiritual life of the country, is to feel the throb of the work of the common people, their desires and needs, to draw the creative inspiration for his own efforts from their emotions and experiences. His main and basic goal should raise and ennoble the mass's level of living. Creativeness removed from this goal, art for art's sake, comes from anti-social impulses.[23]

The 'dark decade' in Polish music began in 1948. The implementation of the socialist realism aesthetics sprang from the Moscow Conference of Musicians held in January 1948 at the Central Committee of the All-Communist Party (Bolsheviks) in the Soviet Union during which the head of the Soviet Composers Union, Andrei Żdanov, humiliated Shostakovich and Prokofiev. Subsequently, the Second International Congress of Composers and Musicologists in Prague, in 1948, provided the forum for Soviet delegates to voice the tenets of socialist realism. Following the visit of representatives of the Soviet Composers Union to Poland, *Ruch Muzyczny* published the speech of Tikhon Krennikov, the successor of Andrei Żhdanov and Stalin's protégé, in which he contrasted the 'formalistic' music characterized by purposeless abstractionism, atonality and dissonances with the music for the masses.[24] The fundamental idea of socialist realism was the close relationship of the artists with the people. The relevance of music however, was based on the premise of a single state endorsed culture. Thus the art should be accessible, optimistic and should reflect everyday life and revolutionary changes that

---

[23] Bolesław Bierut, Przemówienie wygłoszone w dniu 16 listopada 1947 r, na otwarciu radiostacji we Wrocławiu,' [An Address Delivered on the Opening of the Radio Station in Wrocław], Biuletyn Ministerstwa Kultury i Sztuki, no. 4 (1947), 51-52, quoted in Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 33.

[24] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 36.

were taking place. Mycielski's comment on the accessibility of art was that 'the pieces that are below the level of an art work receive the easiest reception.'[25] Similarly, Stefan Kisielewski, who was never afraid to voice his opposition to the socialist realism dictatorship, wrote in *Ruch Muzyczny* as follows:

> The expectation of a composer to adapt his writing to the current liking of musically retarded mass of listeners could paralyze any creativity and originality in general.[26]

The main conflict, as Baculewski pointed out, lay in the fact that:

> ...music was to reflect contemporary life and problems, thus new situation was to be presented to the new audience using old and out of date means and techniques. Moreover the stylistically 'moderated music' directed to all levels of society couldn't reach sophisticated audience, because it was too primitive, nor could it interest the masses to whom it did not mean anything.[27]

Control over the creativity of composers tightened at the National Convention of Polish Composers in Łagów organised by the Vice-Minister of Arts and Culture, Włodzimierz Sokorski between 5 and 8 of August 1948. The conference had one goal: 'to establish concepts and definitions concerning the totality of today's music problems, and further - to attempt to apply these definitions in practice within the framework of discussions.'[28] The proclaimed definitions of socialist realism and formalism did not help the composers, nor did they provide practical solutions. 'Socialist realism,' as defined in a 1966 edition of a Russian dictionary provided 'the methodological basis for all Russian artists [...] and allowed for richness and variety of artistic means, strong initiative in the fight for communist ideals, patriotism and national character of the arts. Socialist realism demands uncompromising struggle against antinational modern trends which reflect the failure and disintegration of bourgeois arts.'[29] Zofia Lissa, a musicologist, was a central figure in articulating and executing the policies of 'socialist realism' in Poland. As Bylander noted,

---

[25] Witold Rudziński, 'Nowe czasy – nowe zadania,' *Ruch Muzyczny*, no. 1(1945): 7, quoted in Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 78.

[26] Stefan Kisielewski, 'Jaką muzyke upowszechniać,' *Ruch Muzyczny*, no. 3-4 (1947): 1, quoted in Baculewski, ibid.

[27] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 71.

[28] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 37-38.

[29] Quoted in Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 73.

her definition of formalism became *the* definition used in the Soviet Union and Eastern Europe.'[30] Lissa defined 'formalistic music' as follows:

> It is music in which the innovation of technical means results from intellectual speculation rather than from the new essence of this music; it is music that abandons the living elements of folklore and seeks new technical bases speculatively - thus atonality, in the sense of a resignation from permanent relationships and the centralization of pitches; it is music opposed to all substance, and even more so to the realization of substance in programmatic lines. It is music whose abstractness and emotionality cause the neglect of the element of melody and the limitation of itself to more speculative instrumental forms.[31]

The most criticized work at the conference was Zbigniew Turski's *Olympic Symphony* (1948) which in 1948 received a gold medal at the International Olympic Arts Competition in London. For Sokorski, *Olympic Symphony* was:

> ...incompatible with the spirit of our time. True, one can detect an emotional content, but it is the emotion of someone who is lost, in this case in the terrible period of the occupation ... The piece terrifies and confuses the listener... its language is formalistic through and through.[32]

Within a few months of the Łagów conference, in response to the imposition of this new aesthetic direction, two composers Serocki and Tadeusz Baird (1928-1981) (often cited as the founders of Warsaw Autumn Festival) together with composer and conductor Jan Krenz (b. 1926) formed a 'Group 49.' The group aimed 'to create emotional music directed to the wide audience but without relinquishing the contemporary means of expression.'[33] From the perspective of the time, the declared credo is often interpreted as a form of negotiation and the first attempt to find a way out of the complete closure of creative freedom:

---

[30] Zofia Lissa, spent the war years in Moscow; until 1947 she was a cultural attaché at the Polish Embassy. Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 36.
[31] 'Konferencja kompozytorów w Łagowie Lubuskim' [Conference of composers in Łagów Lubuski], quoted in Bylander, Ibid., 38, transl. Bylander.
[32] Włodzimierz Sokorski, 'Ku realizmowi socjalistycznemu w muzyce,' Ruch Muzyczny no, 14 (1949), quoted in Thomas, *Polish Music since Szymanowski*, 47.
[33] Tadeusz Marek, 'Grupa 49' [Group 49], *Muzyka*, no. 5-6 (1953), quoted in Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 66.

> There is method in this madness: in Serocki's and Baird's case the attitude of Shakespeare's Polonius proved to be right, because it greatly reduced the danger of the works being pigeon-holed as 'formalistic' and, thereby, the threat of performances being banned (as had happened to Malawski); this allowed composers to slip the shackles of an imposed aesthetic.[34]

It seemed that in order to be allowed to test the boundaries of creative freedom, composers were also obliged to compromise and no one was spared from the obligation of writing the preferred genre of mass song.[35] Although the list of works written during that period includes Serocki's cantatas *The Bricklayer of Warsaw* (*Murarz Warszawski*) and *Song about Revolution* (*Pieśń o rewolucji*) and Baird's *Ballad of the Iron Cup* (*Ballada o żelazym kubku*) the long term goal of 'Group 49' was eventually achieved. The door to freedom from the socialist aesthetic was eventually to be opened with the first Warsaw Autumn in 1956 with the same composers now officially cited as the founders of the Warsaw Autumn Festival (in the case of Serocki and Baird) and actively involved in programming (Krenz).

Prior to 1956, however, with the pressure from their eastern neighbour, there was very little hope of exchanging ideas with the rest of Europe. Nevertheless, the polemics and lively discussions about formalism and socialist realism were supported principally by *Ruch Muzyczny*, which provided the main forum until severe criticism was expressed in *Sovietskaja Muzyka*. All polemical debates and criticism of the type published on the pages of *Ruch Muzyczny* since 1945 had to end:

> *Ruch Muzyczny* had enough time to print a report from the conference in Łagów and subsequently was liquidated. Socialism realism, transplanted with success in Łagów, an elusive cloud, darkened the artistic horizon for the next few years.[36]

To ensure the composers' compliance with the new aesthetics in 1950 the Polish Composers Union implemented so called educational 'review sessions' (*przesłuchania*)

---

[34] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 66.

[35] See Thomas, *Polish Music since Szymanowski*, 56.

[36] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 73-74.

which could take form of interrogations, discussions or auditions depending on the circumstances.[37]

At this time composers' popularity depended on their 'creative' response to the Stalinist aesthetics. Tadeusz Szeligowski, for instance, was quite popular during the 1950s.[38] His compositional output, characterised by classical form and tonal language, fulfilled Soviet-style requirements. Andrzej Panufnik, meanwhile, was writing in the neoclassical style, and while drawing from folklore, also tried to experiment. His use of quarter tones and serial procedures, however, had to be compensated by some ideologically engaged pieces such as the *United Party's Song* (*Pieśń Zjednoczonej Partii,* 1948) and later the *Symphony of Peace* (*Symfonia Pokoju,* 1951). Kotoński stopped writing music between 1954 and 1957 and turned to folklore research. Artur Malawski and Lutosławski represented the most independent attitude for which there was always a price to pay. Malawski's works ceased to be performed after 1948. Lutosławski turned to folk music and focused mainly on development of his language. However, under increasing pressure from the authorities he too wrote a few mass songs.[39] On the whole, the compositional output between 1950 and 1956 was reduced to a bare minimum. At the 1981 Congress of Polish Culture, Lutosławski recalled the bleak years of repression as follows:

> The return to the simple, open tonal system based on nineteenth-century language [was] the only path to the creation of music [that was] accessible to the broad masses and expressed our times in a realistic manner...

> This treacherous, although primitive operation, which was a characteristic form of attack on the truth of art, had pitiful results. The necessity of concealing one's most important works in the drawer, of excluding from performance one's output to date, the falseness of the general situation in the musical world, the persecution by critics of the least sign of individuality or stylistic or technical searches, everything was the cause of gloom and depression for many of us. This process of devastation of the social good was achieved on a broad scale...

---

[37] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 43.

[38] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 60.

[39] For the most recent research into this area see Adrian Thomas, 'File 750: Composer, Politics, and the Festival of Polish Music (1951), *Polish Music Journal,* 5/1 (Summer 2002), http://www.usc.edu/dept/polish_music/PMJ/issues.html (accessed July 15, 2005).

The gloom, deprivation and lack of hope moreover accompanied the awareness of a complete isolation from the rest of the world, in which, after all, unusually important events for every creative artist were happening. The impossibility of participation in them and the complete ignorance of them became, in particular for the younger generation of composers, the source of complexes.[40]

The Polish 'thaw': between 1954 and 1956[41]

Although the socialist realism implemented in 1949 lasted officially until 1956, the dynamic between political and cultural events from 1954 to 1956 was crucial for the further development of Polish music. The tension created by the last attempts to retain socialist realism policies in 1954 and the intensifying dissatisfaction of composers with restrictions imposed on them led to a more liberal attitude of the government towards the arts in the following year. The constant flux in political life during these two years (preceded by almost a decade of virtual isolation of Polish artists) created a window of opportunity immediately taken up by composers in 1956 – a decisive breakthrough symbolised by the First Warsaw Autumn Festival.

The first signs of the 'thaw' – appeared at the beginning of 1954 – almost a year after Stalin's death in March 1953. Despite Lissa's continuous commitment to Stalinist aesthetics and reassurance that 'we follow the same road as the USSR, the road leading to a socialist society', calls for reassessment of socialist realism in fact came higher up, from Russia's chief propagators of Stalinist ideology.'[42] The key event was the Eleventh Session of the Council of Culture and Art held in April 1954 during which the Minister of Culture and Art, Włodzimierz Sokorski, stated that 'the relinquishing of innovations ...

---

[40] *Kongres kultury polskiej* [Proceedings from the Congress of Polish Culture (Warsaw, December 11-13, 1981), 34-35, quoted in Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 67-68.

[41] 'Thaw' after the title of Ilja Ehrenburg's novel is commonly used particularly in relation to post-Stalinist Poland.

[42] Zofia Lissa, 'Z perspektywy dziesieciolecia' [From the perspective of a decade], *Muzyka* 5, no. 7-8 (July-August 1954): 7, quoted in Thomas, *Polish Music since Szymanowski*, 84. Stefan Kisielewski (1911-1991), a composer and music critic. Well known for his criticism of socialist realism aesthetic; wrote for *Ruch Muzyczny, Muzyka, Twórczość, Znak and Tygodnik Powszechny*.

[was] conducive ... to trivial, unaesthetic works... Socialist realism is neither a definite artistic school, nor a definite style, nor a recipe.'[43] Such a critical assessment of the Stalinist aesthetic was one of the first in the chain of events to come in the following year. Artists, however, remained skeptical. Panufnik, who was at the time regarded as one of the greatest Polish composers and whose works were published and regularly performed, decided to leave Poland in July 1954.[44] Panufnik was subsequently declared a 'betrayer of the Polish nation' and his music was banned in Poland for almost 25 years.[45] In a speech in Paris Panufnik described the reality of life for creative artists fenced by the precepts of socialist realism:

> One of the most dangerous sides of the system is the complete isolation of music – and art in general – in Poland. It seems to me sometimes that the slogans of 'socialist realism' are simply a pretext. Mainly [the government] wants the separation of Poland from Western culture. All of the slogans about an art that is 'national in form, socialist in content,' while not suiting any reality and extracting only a climate of hypocrisy and depression among composers, are precisely a pretense under which this policy of isolation is conducted. It is tragic for Polish composers. They are greatly interested in Western compositions, but the maintenance of any kind of contacts with them is impossible. Already, our young musicians do not even know the problems that they are ordered to reject. Not only are they ignorant of the dodecaphonists aligned with Schoenberg, but they do not even know the music of Stravinsky or the French 'Groupe des Six.' Of course all new Western experiences ... are completely unknown.[46]

The chain of cultural and political events during 1955 was to change this isolation. Gradually scores and recordings began to reach Poland. During private sessions held in Warsaw from 1955 by members of the Polish Composers Union, composers finally began to know the works of Webern and Berg.[47] For Lutosławski, for instance, it was a

[43] *Nowa kultura*, no. 17 (1954), quoted in Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 75.

[44] Roman Palester (1907-1989), a composer, left Poland in 1949 and settled in Paris. The same year Czesław Miłosz (1911-2004), writer and recipient of the Nobel Prize for literature in 1980 also left Poland. After WW II while working in Paris as a cultural attaché for Polish People's Republic he asked for political asylum; in 1960 at the invitation of the University of California, settled in Berkeley. The Nobel Prize Award ended the ban on his works in Poland. Miłosz returned to Poland after the collapse of communism.

[45] Gwizdalanka and Meyer, *Droga do dojrzałości*,' 278.

[46] Andrzej Panufnik, 'Życie muzyczne w dzisiejszej Polsce' [Musical life in Today's Poland], *Kultura* (Paris), nos. 87-88 (January-February, 1955): 7-21, quoted in Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 69-70.

[47] Włodzimierz Kotoński, an interview with author (Warsaw, November 11 2005).

revelation to discover at the time that 'everybody was composing in the style of Webern.'[48] 1955 marked the tenth anniversary of the Polish Peoples Republic and it was an eventful year in the cultural and musical life of Poland. In an effort to maximize opportunities for propaganda, the government supported every artistic event. The greatest in scale was the second Contemporary Polish Music Festival.

> There wasn't any other comparable musical undertaking of equally propagandist nature either before or after. The festival inaugurated on the anniversary of liberation of Warsaw – 17 January 1944 – lasted until 20 May. In the whole country 250 concerts took place; amongst them 163 of symphonic concerts. Over one hundred and fifty thousand people listened to about 450 works which included 320 pieces written by 80 living composers.[49]

The festival ended with a series of concerts under the banner of 'Warsaw Spring' in a reconstructed National Philharmonic building which had been totally destroyed at the beginning of the war. The concluding series of concerts involved six orchestras performing fifty symphonic works written by twenty-four composers. During the festival the Ministry of Culture gave seventy-nine prizes.[50] Most reviewers, however, concluded that 'the Festival was too long, too many compositions of little value had been presented, attendance was low, and in general it had not been an event of major importance.'[51] Notwithstanding these criticisms, in the context of cultural events in Poland in 1955, the fact that the Festival had taken place at all was seen as positive and was, in the end, a stepping stone towards the establishment of the Warsaw Autumn. Symptomatic of irreversible changes towards cultural politics in Poland was a disappearance of ideological rhetoric in the media:

> One of the notable differences between this Festival and the one in 1951 was the lack of references to socialist realism or formalism in either published critiques or in the introductory essay to the concert guide...[52]

---

[48] Bàlint A. Varga, *Lutosławski Profile*, (London: Chester, 1974), 10, quoted in Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961..., 81.
[49] Gwizdalanka and Meyer, *Droga do dojrzałości*, 290.
[50] Ibid., 230.
[51] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 85.
[52] Ibid., 81

Another significant cultural event that followed the second Contemporary Polish Music Festival was the Fifth International Festival of Youth and Students held in Warsaw from July 31 to August 14, 1955. An atmosphere of excitement created by the contact with Western counterparts – finally possible after years of isolation – surrounded sports competitions, exhibitions, concerts, theatre spectacles and poetry evenings. The liberal attitude of the government toward the whole undertaking should not be underestimated. Poland at the time was the only country in the Eastern Block where such events could take place:

> The government assessed it [the festival] very positively. The atmosphere surrounding the event was extraordinary – Jerzy Jasieński recalled. – I think that the essential part was the artistic setting of the festival. It was something totally new. After what we were familiar with from May Day or 22 July and October revolution celebrations, its diversity, colourfulness but above all *its difference* were shocking to us. The Soviet Minister of Culture, Michajłów, who earlier was an ambassador in Poland arrived for the Festival. Sokorski, the then Minister of Culture in Poland, was proudly showing the city of Warsaw to Michajłów who said: 'What are you doing, this is pure formalism!' Sokorski repeated this to Bierut who replied that he likes it, it is pretty, lively and that they should continue. It was a breath of Europe and everybody wanted to do something. It was then that the idea of the Warsaw Autumn was born.[53]

The idea of organising the International Festival of Contemporary Music had been contemplated by composers in the early 1950s but was not designated as an official project by the Composer's Union until June 1955.[54] The presidium of the Composer's Union headed by Sikorski also included Baird, Serocki, Dobrowolski, Kotoński and Stefan Jarociński. Since the state was the only sponsor of the arts in the Communist country, the permission to organise such an undertaking had to be granted by the government. After the initial rejection of the project by the Ministry of Culture and Art, Sikorski approached the First Secretary of PZPR Bolesław Bierut who found the idea interesting: 'such comparison between East and West. They can show what they have,

---

[53] Jerzy Jasieński, 'A chance taken up. Marta Ługowska talks to Jerzy Jasieński' [Wykorzystana szansa. Z Jerzym Jasieńskim rozmawia Marta Ługowska], *Studio* (October, 1992): 9.
[54] For more details on the politics and procedures in relation to Warsaw Autumn see Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 87-100.

and we can show what we have.'[55] The composers were aware that the festival could be seen as yet another propaganda tool but for them it was a chance to gain artistic freedom and access to information. As Jerzy Jasieński remarked:[56]

> First of all we thought - recalls one of the first organizers- that the international Festival of contemporary music would provide a great opportunity to confront compositional output from the East and West. Of course the suggestion was, that we would come out from this competition on top.[57]

Indeed the fact that such an undertaking could eventuate - the approval of the Festival granted in 1955[58] - was a combination of two factors. Gwizdalanka points out a cleverly formulated proposal by the composers and the support of the government. '... Bierut and Cyrankiewicz, who held the two most powerful positions in Poland's government, were the crucial voices in the government's decision to approve the Composer's Union project.'[59] The festival was scheduled for October 1956.

Although the ban on the Polish section of the International Society for Contemporary Music which had previously organized trips abroad was not lifted until 1957, the possibility of travel to Western countries emerged in 1955. Lutosławski was one of the first to take up the offer to travel to Helsinki for the Festival of Sibelius' music in 1955 and in the following year visited Salzburg for the Mozart Festival and Liège as a member of jury in a composers' competition.[60] Symptomatic of the Polish 'thaw' under way was the visit of Bertold Brecht in May 1955 (only months earlier condemned by Sokorski),

---

[55] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 92-93.

[56] It is interesting to note that on the other side of the 'iron curtain', in Paris, similar mechanisms were being used to the same ends, but on behalf of the Western standpoint. In 1951 a Russian émigré and composer Nikolai Nabokov was appointed as a Secretary General to the CIA-funded Congress for Cultural Freedom. To demonstrate the superiority of the Western music Nabokov organised four Festivals beginning with the most ambitious one in 1952. Ian Wellens, *Music on the Frontline. Nicolas Nabokov's Struggle against Communism and Middlebrow Culture* (Aldershot: Ashgate, 2002), 45-62.

[57] Jasieński, 'A chance taken up. Marta Ługowska talks to Jerzy Jasieński,' 9.

[58] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 93.

[59] Ibid., 94.

[60] Gwizdalanka and Meyer, *Lutosławski. Droga do dojrzałości* [The road to maturity], 293. Wanda Wasilewska (1905-1964) was a political activist, member of the Polish Socialist Party (PPS), the deputy chief of the PKWN (*Polish Committee of National Liberation*) sponsored by the Soviet Union played an instrumental role in the formation of communist government in Poland. After the war Wasilewska remained in the Soviet Union and accepted Soviet citizenship.

the Polish publication of a novel by Soviet author Ilja Ehrenburg, *Odwilż* [Thaw], symbolizing post-Stalinist political changes, and a publication of Adam Ważyk's poem, *Poem for Adults (Poemat dla dorosłych)* after which Wanda Wasilewska denounced and warned Khrushchev about the radical changes that were taking place in Poland.[61] The liberal attitude of authorities was also evident in the 1955-56 concert season in Poland. The programs of the Warsaw Philharmonic for instance, included works by previously banned composers such as Honegger, Hindemith, Messiaen, Bartók, Berg and Stravinsky. It was becoming clear that the changes that had taken place since 1954 were irreversible.

1955 is also considered a turning point in the visual arts. A symbol of the breakthrough was the National Exhibition of Young Artists held in the *Arsenal* building in July 1955 in Warsaw. The exhibition under the banner, *Against War, Against Fascism*, organised as a part of the previously mentioned Fifth International Festival of Youth and Students, represented 'the symbolic end of socialist realism.'[62] This art exhibition, as with the Second International Festival of Music, was seen as 'placing our painting in the first ranks of international art:' however to the artists it was proof of 'provincialism and shallow imitation with a lack of the symptoms of progressive thinking.'[63] Before the explosion of the avant-garde could happen, artists had to demand the right to be able to express what they felt and the exhibition fulfilled that purpose. Anti-Soviet sentiments were manifest in the depiction of tragedy and pessimism. It documented the protest against the shallowness of themes and the imposition of limits in terms of subjects explored. What is more important is the fact that in a sense the exhibition even though not a controlled 'protest,' was fully accepted by the authorities. It appeared as a result of '1954 self-examination' - as Sokorski stated – 'a year of the Second Communist Party Congress and XI session of the Council of Culture and Art.'[64] The results of this 'self-examination' were far reaching. It is important to note that in spite of the government's

---

[61] Gwizdalanka and Meyer, *Lutosławski. Droga do mistrzowstwa* [Lutosławski. The road to maturity] (Warsaw: PWM, 2003), 294.

[62] Andrzej Szczerski, 'The Boundaries of Freedom,' in *Studies in Penderecki*, vol. 2, 157.

[63] Ibid., 67.

[64] Bożena Kowalska, *Polska Avangarda Malarska* 1945-1970 [Polish Avant-garde in Painting 1945-1970], Warsaw: PWN, 1975, 66.

reassessment of socialist realism policies in the Soviet Union, the liberalisation towards arts did not follow either in the Soviet Union or in the other Eastern European countries.[65]

As with the Second Festival of Contemporary Music, the success of the *Arsenal* exhibition lay not in the level of individualism or in the new artistic concepts and methods presented in the works but the extent of lively discussions it initiated. After the exhibition, many groups were formed in other Polish cities. Every group had a different program, and even within one group each artist had his own outlook. The 'Group 55' was one of the first groups that initiated the Warsaw avant-garde centre.[66] Its collaboration with the Club 'Crooked Wheel' resulted in formation of the Crooked Wheel Gallery, the first experimental gallery in Poland which, until its closure in 1965, played an important role in fostering the newest trends in Polish art. Under its influence Andrzej Matuszewski created 'Group R-55' in Poznań; Katowice had already had 'St-53' since 1953 (St from Strzemiński's name and Stalinogrod, the name for Katowice used between 1953-1956), while the 'Castle Group' (*Zamek*) was formed in Lublin. From this phenomenon of forming artistic groups in almost every large city in Poland by 1955, came so called 'special events' in the 1960s.

> The avant-garde was attempting at this time to embark upon a political game that, on the one hand guaranteed the development of a degree of freedom while, on the other hand, exploiting artists as an element in a propagandistic demonstration of the liberty that prevailed in Poland. [67]

A preoccupation for these artists and composers was the relationship of Polish art to the European avant-garde. Painters and composers were fully aware of the consequences stemming from a period of long isolation. The Polish avant-garde in painting has been described as the movement in which 'the rebellious passion for the new and creative immaturity was not just typical of young groups of painters. This was *signum* of the time, marking the beginning of a great adventure into the new.'[68] One of the important and

---

[65] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 87.

[66] The 'Group 55' membership list included Marian Bogusz, Zbigniew Dłubak, Kajetan Sosnowski, Barbara Zbożyna, Andrzej Szlagier and Andrzej Zaborowski. Bogucki, *Sztuka Polski Ludowej*, Warsaw: Wydawnictwa Artystyczne i Filmowe, 1983, 11-112.

[67] Szczerski, 'The Boundaries of Freedom,' 159.

[68] Kowalska, *Polska Avangarda Malarska 1945-1970*, 74.

charismatic figures in the Polish avant-garde was the painter and theatre director Tadeusz Kantor (1915-1990). His creative output ranges from matter painting, the art of the object, and happenings to paratheatre. The explosion of new trends in Poland came upon his return from Paris in 1955. After being fascinated with the extreme form of *informel* painting, *tachism*, Kantor started traveling around major cities and organising exhibitions as an enthusiastic protagonist of the new trend.[69] The main tenets of tachist paintings invoke the metaphors often used to describe the music of the Polish avant-garde:

> Tachism rejected any association with anything familiar from the visual world. It only recalled the aggression of timbres, form and a drawing of torn lines, determined only by chance constrained by artist's intervention.[70]

As painters retained some sort of control over an element of chance, so composers in their sonoristic pieces carefully designated boundaries of freedom and chance. The parallels can also be drawn on the aesthetic plane. In 1957 Kantor wrote:

> Matter – element and explosion, continuity and boundlessness, lightness and transitoriness. Matter – glowing, explosive, fluorescent, full of light, dead and quiet. Only the control over chance creates a new reality...[which is not a goal of discussed painting]. It is a moment of collision of human intervention with matter's element.[71]

Kantor's artistic credo draws one to Górecki's own comment about the *Genesis* cycle. He said, 'the fundamental element linking [the works] into a whole is constantly evolving Energy existing through Movement: a symbol of Manifestation of Life.'[72] In an interview with Markiewicz, Górecki also explains the title:

> ...'genesis' describes conditions which contribute to the beginnings of events, from an embryo to fully developed form. I treated this word [genesis] as a symbol of individual stages of beginning, realisation and development of the three basic elements of music, which I consider to be agogics,

---

[69] *Informel* art represented by Tobey, Mathieu, Michaux and Pollock was shown on the exhibition '*L'art informel*' in Paris in 1954. It was then, according to Kowalska, that the term *tachism* coined by Pierre Guéguen was used for the first time. Kowalska, *Polska Avangarda Malarska 1945-1970*, 76.
[70] Ibid., 76-77.
[71] Kowalska, *Polska Avangarda Malarska 1945-1970*, 77.
[72] 'Conversation with Henryk Górecki: Leon Markiewicz, July 1962,' *Context* 14 (1997): 36.

dynamics and colour. This is where the title of the first piece in the cycle comes from, *Elementi*, in which these elements appear in an embryonic form.[73]

In analysis and written commentary on sonoristic works, analogies with the visual arts, particularly painting, are also often in evidence. Zieliński's 'sound shapes' used in relation to sonoristic pieces is one of the earliest examples.[74] Thomas frequently borrows from vocabulary used in relation to painting. When discussing the formal outlines of Penderecki's sonoristic works, for example, he says: 'It is of interest how the sound shapes are gathered together in what, to borrow another artistic term, might be called 'panels.'[75] While textures and overall sonority attract words such as "broad-brush" sound shapes' to describe aural images within Penderecki's sonoristic pieces, the structure and its perception in time in Górecki's pieces is compared to 'non-narrative abstract painting.'[76] Another example of terminology from painting being employed captures the essence between the constructional details and perception is Thomas' comment on *Elementi*:

> If the textural feel of *Elementi* is comparable to that of an oil on canvas much worked over and scraped down with a palette-knife, it follows that the intervallic ramifications of the series on its construction are also likely to be inaudible.[77]

---

[73] Ibid.

[74] Tadeusz Zieliński, 'Neue Klangästhetik,' *Melos* 7/8 (1966): 212, quoted in Thomas, *Polish Music Since Szymanowski*, 161.

[75] Thomas, *Polish Music Since Szymanowski*, 177-178.

[76] Ibid., 161 and 177.

[77] Adrian Thomas, *Górecki* (Oxford: Clarendon Press, 1997), 43.

After 1956: the Warsaw Autumn Festival of Contemporary Music and the Birth of the Polish Avant-Garde

1956 is often considered a crucial year and the beginning of a new era in Polish music not least because of the establishment of the Warsaw Autumn Festival. Above all, 1956 is the time of the official closure of socialist realism. There was an avalanche of musical events and the formation of many important musical institutions. However, none of these events would have happened without the ideological 'thaw.' The seeds planted between 1954 and 1956 now began to germinate. It is important to note that while music was uniquely treated with the greatest degree of tolerance, literature and the visual arts after a brief period of freedom and relaxation experienced censorship and repression.

The chain of dramatic political events in Poland was initiated by Khrushchev's denouncement of the atrocities committed by Stalin at the 20th Party Congress in the Soviet Union in February 1956.[78] In the following month, the secretary of Polish United Worker's Party (PZPR), Bolesław Bierut died in Moscow.[79] The political crisis deepened in Poland and the first riots referred to as 'Poznanian June' were followed by 'Polish October,' a massive patriotic movement during which demonstrations and general political upheaval swept the whole country.[80] Although the hopes for freedom in Poland were shattered after 'Polish October', the reinstatement of Władyslaw Gomułka, who had been dismissed in 1948 and subsequently jailed, as PZPR leader brought about brief period of hope and freedom.[81] For the arts, the most important development was the shift in cultural politics which now allowed diversity in relation to the styles, substance and

---

[78] Baculewski noted that 'although the report was secret, the highest officials in the Polish party received it and the Party recklessly allowed to published it.' Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 79.

[79] Cynthia Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...', 76-77.

[80] The riots began on 27 June 1956 at the Railway and Cegielski factory and were continued on the streets of Poznań. The time of this upheaval was carefully chosen. In June Poznań hosted the International Fair. Foreign press and journalists could witness the events and report it to the West. Poznanian June was the first significant rebellion on a large scale against the Communist system: 'If the October '56 events are labeled as "Polish Spring in October," then Thursday June in Poznań was its political early spring' (Krzysztof Patek, 'Poznański Czerwiec w programach Rozgłośni Polskiej RWE,' [Poznanian June in the programs of Radio Free Europe] *Przeglad Polski* (June 27, 2003): 3. http://www.dziennik.com (accessed June 18, 2003).

[81] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music...,' 77.

function of music in society.[82] Finally the idea of organising the International Festival of Contemporary music could be realised.

In the political arena, however, the tension was rising. The effects of the Polish 'thaw' alarmed the Soviets. Although the festival was, 'a celebration of the arts' and was not to be tied with politics the possibility of military intervention, such as was to eventuate in Hungary later that year, overshadowed musical events.[83] Gwizdalanka points out, 'even on the steps of the concert hall papers were distributed to inform the public about the latest developments.'[84] Although military intervention was averted in the end, on October 19th the Soviet army stationed in Poland began marching towards Warsaw and unexpectedly Khrushchev arrived in Poland. As Kotoński recalls, 'somehow Gomułka convinced Khrushchev to get back on the aeroplain and sent him back to Russia, so the visit did not eventuate.'[85] At the same time 'at the entrance to Gdańsk gulf, a cruiser named – *nomen omen* – 'Żdanov' was stopped.'[86]

The first Warsaw Autumn (first organized as a biennale), from October 10 to 21, 1956, began the process of making up for years of isolation.[87] The composers and organizers were well aware of the shortcomings in Polish musical life. The majority of non-Polish works performed had been composed during the first half of the 20th century. Fearing that audiences would not be able to cope with contemporary music, the organisers decided to include in each program one work from the traditional repertoire - pieces by Brahms, Tchaikovsky and Strauss. Amongst foreign compositions presented there was only one world premiere: Britten's *Spring Symphony* for solo voices, choirs and orchestra. The list of Polish premieres included Dutilleux's Symphony no. 1 (1951), Bartók's String Quartet no. 5 (1934), Stravinsky's *Ebony Concerto* (1945) and much awaited dodecaphonic pieces: Berg's *Lyric Suite* (1926) and Schoenberg's *Piano Concerto* (1942):[88]

---

[82] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 79.

[83] Danuta Gwizdalanka, *Muzyka i polityka* [Music and Politics] (Kraków: PWM, 1999), 231.

[84] Ibid.

[85] Włodzimierz Kotoński, interview by author (Warsaw, November 11, 2005).

[86] Gwizdalanka, *Muzyka i polityka*, 232.

[87] Bylander 'The Warsaw Autumn International Festival of Contemporary Music...,' 553-555.

[88] For the complete schedule of Warsaw Autumn concerts between 1956 and 1961 see Bylander, *The Warsaw Autumn International Festival of Contemporary Music*, 553-566. Thomas also provides a list of

The expectation to hear [Schoenberg's *Piano Concerto*] was so great that the concert hall was full during the general rehearsal. For musicians born around 1910 dodecaphony was not new. However during the 1940s it did not spark the interest of the Polish composers and it wasn't until communist propaganda – portraying this technique as the embodiment of the bourgeois degeneration in art – wrapped it in a glory of extraordinariness. After Schoenberg's piece, the audiences were disappointed.[89]

In his review after the first Warsaw Autumn, Zygmunt Mycielski, although dissatisfied with the present condition of Polish music, signalled his hope for the future of Polish music:

We haven't heard yet the newest directions in music ... not only concrete or electronic experiments but also pointillism are not known here. ... Poland has not gone through the dodecaphonic stage of constructing works on the basis of serial ordering of notes. We can either skip this stage or we will produce something that is ours, something that to some degree will conform to the needs of our composers.[90]

Indeed, in parallel with the process of rapid assimilation of Western avant-garde achievements, Polish avant-garde composers began to develop a style that by the late 1950s would become a specifically Polish phenomenon labelled sonorism, a concept introduced into Polish musicology by Chomiński in 1956. It is important to note that the initial use of the term was neither familiar to composers nor did it refer specifically to the Polish avant-garde. In retrospect, by describing particular processes and tendencies in 20th century art music in a prophetic way, Chomiński indicated the direction Polish music would develop over the next few years.

In April 1956, the monthly music magazine *Muzyka* became a scholarly journal and the following year the fortnightly magazine *Musical Movement* (*Ruch Muzyczny*) resumed activity after an eight-year gap, reporting on revitalised musical life in Poland.

---

works - divided into Polish and Non-Polish - performed at the Warsaw Autumn 1956 – 1961. Thomas, *Polish Music Since Szymanowski*, 321-331.
[89] Gwizdalanka, *Muzyka i polityka*, 232.
[90] Zygmunt Mycielski, 'Kryteria i gusty' [Criteria and tastes], *Przegląd kulturalny* 5 (8-14 November 1956): 6, also quoted in Thomas, *Polish Music Since Szymanowski*, 89.

The inauguration of the International Jazz Festival in Sopot, later moved to Warsaw and named *Jazz Jamboree* by Leopold Tyrmand, transformed the role of jazz music in the country and became the biggest jazz festival in Europe.[91] Jazz attracted a substantial following after 1956 and was transformed from a form of entertainment in the first years after the war to being suppressed and regarded as yet another bourgeois symbol during the Stalinist era, to being part of the new radicalism.[92] Jarzębska notes:

> The generation of Polish musicians born during the 1930s was interested equally in the musical avant-garde and Jazz. Outstanding Jazz musicians of that generation, leaders of their own ensembles (for instance Komeda, Kurylewicz, Milian, Wróblewski, Namysłowski, Nahorny, Seifert and Stańko) had professional training, played more than one instrument and didn't treat Jazz as an entertainment but rather as a specific form of music making often comparable with actual trends in the avant-garde.[93]

As with the Warsaw Autumn, Jazz Jamboree provided a platform of exchange for Polish and American jazz musicians. From 1958 under the banner 'Jazz in Philharmonia' composers such as Schaeffer, Kilar and Penderecki presented works which combined jazz elements with orchestral music.[94] The equivalent of *Ruch Muzyczny* for jazz fans were the monthly *Jazz* and *Zeszyty jazzowe* (Jazz books).

Another important event at around this time (November 1957) which gave birth to electronic music in Poland was the establishment of the first Eastern European Experimental Studio, the result of the initiative of acoustic engineer and musicologist Józef Patkowski (1929-2005).[95] The first piece realised in the Studio was music by Kotoński for the animated film by Hanna Bielińska and Włodzimierz Haupe, *Or the fish...(Albo rybka...)*, which gave rise to the first music concrete composition by a Polish

---

[91] Alicja Jarzębska, *Spór o piękno muzyki. Wprowadzenie do kultury muzycznej XX wieku* [Dispute about the Beauty of Music. An Introduction to the Musical Culture of the 20th Century] (Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego, 2004), 269.

[92] 'The numerous jazz clubs were affiliated under the Polish Federation of Jazz Clubs, later the Polish Jazz Federation, and in the end as Polish Jazz society.' Ibid.

[93] Ibid., 270-271.

[94] Ibid., 270.

[95] Józef Patkowski was a director of the Experimental studio until 1985. For more details see Włodzimierz Kotoński, *Muzyka Elektroniczna* [Electronic Music] (Krakow: PWM, 2002), 34-43.

34

composer: *Concrete Study on one cymbal stroke*, (*Etiuda konkretna na jedno uderzenie w talerz*) by Kotoński.

As international contacts with the West dramatically increased after 1956, Polish works began to be performed in greater numbers in the West. In October 1956, Poland joined the Music Council of UNESCO International Tribunal of Composers Competition in Paris.[96] It was a major step towards the dissemination abroad of newly composed works and this was further increased by reactivation the following year of the Polish division of the International Society for Contemporary Music (SIMC), suspended in 1950.[97] The advancement of Polish composition was reflected in the list of prizes awarded by the UNESCO competition. In 1959, Lutosławski and Baird shared a prize for *Funeral Music* and *Four Essays*, in 1960 Bacewicz received third prize for *Music for Strings, Trumpets and Percussion* (1958) and in 1961 Penderecki's *Threnody for the Victims of Hiroshima* (1960) was awarded fourth prize.

In 1957, for the first time a group of Polish composers, Kilar, Dobrowolski, Kotoński, Markowski, Schaeffer, Serocki and Patkowski, was able to visit the Darmstadt Summer Courses during which they heard for the first time Boulez's *Le Marteau sans maitre*, Varèse's *Integrales*, Nono's *Il Canto sospeso* and Stockhausen's *Klavierstück XI, Zeitmasse* and *Gesang der Jünglinge*. As Kilar recalls:

> In 1957 I went with my collegues – Kazimierz Serocki, Andrzej Markowski, Jan Krenz, Andrzej Dobrowolski and Włodzimirz Kotoński – to Darmstadt where for the first time we've met Stockhausen, Luigi Nono and the whole Darmstadt society. ... My fascination with this trend was

---

[96] Earlier Panufnik was elected to the UNESCO Music Council but was not granted permission to travel: 'In 1950 I was elected Vice-President of the Music Council of UNESCO together with Arthur Honneger. Though the Ministry of Culture delightedly accepted the honour for Poland, I was never allowed a passport to take up any invitations to attend conferences or visit the headquarters in Paris.' Andrzej Panufnik, *Composing Myself* (London: Methuen, 1987), 194.

[97] During 1951-1958, as Bylander notes, the works performed at the SIMC festivals were of composers who left Poland and were lining in Western Europe: Roman Haubenstock, Roman Palester, Michal Spisak, Antoni Szałowski and Alexander Tansman. Bylander, 'The Warsaw Autumn International Festival of Contemporary Music...,' 42.

very short lived and even before Darmstadt I wrote my only piece under its influence - *Oda 'Bela Bartók in memoriam* [98]

The benefits of participating at Darmstadt courses went beyond simply hearing the Western avant-garde works to taking part in discussions and meeting other composers. Zieliński suggested that perhaps Serocki's compositional output from the late 1950s best reflects the impact of the Darmstadt experiences: *Musica Concertante* (1958, with dodecaphonic and pointillistic technique) and *Epizodes* (1959, with spatial arrangement of three percussion groups) directly point to Stockhausen's *Gruppen.* [99] For Kotoński, hearing Varèse's works for the first time opened a new whole way of thinking. [100]

The results of the shift in the cultural life of Poland, Chomiński's predictions and Mycielski's hopes about the direction of Polish music were evident in the repertoire of Polish composers presented from the second Warsaw Autumn onwards. [101] Indeed, during the 1958 Festival, the focus was on contemporary music and 'that moment later was considered as the birth of the Polish avant-garde.' [102] Amongst the Polish works written between 1956 and 1958 the program included Górecki's *Epitaph* (1958), Baird's String Quartet (1957) and *Four Essays* (1958), and Kotoński's *Chamber Music* (1958), Serocki's *Musica concertante* (1958) and Lutosławski's *Funeral Music* (1958). The highlight of the festival was the concert of electronic music and piano compositions. The electronic music programme (introduced by Stockhausen) consisted entirely of recent works receiving their Polish premier: Stockhausen's *Gesang der Jünglinge* (1958), Maderna's *Continuo* for tape (1958), Berio's *Perspectives for tape* (1957), Pousseur's *Scambi* (1957), and Eimert's *Five pieces for tape,* nos. 4 and 5 (1956). During the same concert David Tudor premiered Cage's *Music of Changes* (1951) and Stockhausen's *Klavierstück XI* (1956). The vital and long awaited exchange between the West and East was taking place with such interest that in 1957 and 1958, contemporary works

---

[98] Klaudia Podobińska and Leszek Polony, *Cieszę się darem zycia. Rozmowy z Wojciechem Kilarem* [I am happy with my gift of life. Conversations with Wojciech Kilar] (Kraków: PWM, 1997), 28.
[99] Ibid., 200
[100] Włodzimierz Kotoński, interview with author (Warsaw November 11, 2005).
[101] From 1958 Warsw Autumn Festival became an annual event.
[102] Gwizdalanka and Meyer, *Lutosławski. Droga do mistrzowstwa,* 9.

constituted almost half of Polish Philharmonic programs.[103] The public interest in contemporary music concerts is best reflected by concert attendance. Andrzej Dobrowolski reported that during 18 concerts of the 1958 Warsaw Autumn the audience reached 9409 listeners. By 1964 this number had doubled.[104] The public's enthusiasm for the 'forbidden fruit' as Dobrowolski remarked, awakened snobbery:

> It was good form to be seen at Warsaw Autumn concerts and to be interested in new music. ... With time snobbery was transformed into real interest, interest into knowledge and then knowledge turned into connoisseurship. During the first years anything new and foreign was applauded; with time, however, the public became choosy. The works were listened to with concentration and attention, later on, at certain concerts the reaction was laughter and whistling.[105]

At the 1959 Warsaw Autumn, the younger generation of composers was represented by Penderecki, with *Strophes*, and Górecki, with the premiere of Symphony no. 1, '1959'. The list of Polish premieres shifted towards the most recently written pieces: for instance Szabelski's *Improvisations*, Szalonek's *Wyznania* (Confessions) and Baird's *Espressioni varianti*, all composed in 1959. During the next three festivals, the Warsaw Autumn audiences became familiar with the key members of the Polish avant-garde and would have heard some of the core sonoristic repertoire. In the 1960 Warsaw Autumn, an emblematic sonoristic work was presented: Penderecki's *Dimensiones of Time and Silence* (1960-61). The same year Górecki premiered his colourful but still serial *Scontri* (1960). The following year, 1961, upon his return from Paris, Kilar joined the avant-garde with the premiere of a serial piece, *Herbsttag* (1960), influenced by Webern and Kilar's most radical composition up to that point, though he later dismissed it.[106] At the same festival Penderecki's *Threnody for the Victims of Hiroshima* (1960) and Lutosławski's revised version of *Jeux vénitiens* (1961) received their premieres. Chomiński's response to the emerging Polish repertoire was immediate. In an article

---

[103] Gwizdalanka, *Muzyka i polityka*, 233.

[104] Andrzej Dobrowolski, 'Wpływ festivali 'Warszawska Jesień' na rozwój życia muzycznego w Polsce,' *Muzyka* 20, no. 3 (1975): 58-63.

[105] Ibid., 23.

[106] Leszek Polony, *Kilar. Żywioł i modlitwa* (Kraków: PWM, 2005), 83. Kilar regards *Herbsttag* as the worst piece he wrote: 'to the marvelous poem by Herbsttag I wrote some dodecaphonic-pointillistic nonsense piece.' Podobińska and Polony, *Cieszę się darem życia. Rozmowy z Wojciechem Kilarem*, 64.

published in 1961, he outlined the theoretical background to sonoristics and the main areas associated with it. By 1962 the majority of the core sonoristic repertoire had already been composed and premiered, and Warsaw Autumn continued to provide the first platform on which a substantial number of works could be played for the first time. The central role of the Warsaw Autumn Festival has often been emphasised in relation to the achievements of the Polish avant-garde:

> In fact it is difficult to imagine that the shift in compositional styles apparent in the output of many of these composers between 1956-1961 would have occurred without the existence of the Warsaw Autumn Festival.[107]

After October 1956 freedom spread across all branches of arts. In Polish literature, poetry in particular flourished. Amongst the poets who established themselves at this time were Tadeusz Rożewicz (b. 1921) and the two Nobel Prize winners: Czesław Miłosz (1911-2004, Nobel Prize 1980) and Wisława Szymborska (b.1923, Nobel Prize 1996). The generation labeled after the magazine *Współczesność* (The Contemporary) came to the surface and brought together the new comers as well as the writers who had made their debuts before the Second World War but could not publish during the period of socialist realism (Stanisław Grochowiak, 1934-1976; Ernest Bryll, b. 1935; Miron Białoszewski, 1922-1983; Zbigniew Herbert, 1924-1998). The new relationship with the West seemed so promising that some writers such as S. Cat-Mackiewicz, Melhior Wańkowicz, Zofia Kossak-Szczucka, and Tadeusz Parnicki returned from exile. The work of novelist and playwright, Witold Gombrowicz (1904-1969), who emigrated in 1939 and is regarded as one of the finest and most influential Polish writers of the 20th century, became available in Poland between 1956 and 1957.[108] The plays of Stanisław Witkiewicz - 'Witkacy' (1885-1939) - and Sławomir Mrożek (b. 1930) began to appear in the programs of avant-garde theatres.

However, the liberal attitude towards the arts that Polish October had seemed to initiate was not to last for long. While the second Warsaw Autumn in 1958 marks the birth of the

---

[107] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music...,' 548.
[108] Głowiński, 'Polish Literature after 1956,' in *Studies in Penderecki*, 162.

Polish avant-garde, literature and other areas of public life experienced the return of censorship as early as 1957. Symptomatic of upcoming repression was the closure of the liberal periodical *Po Prostu* in October 1957 followed by the repression of outspoken journalists in the newspapers. The government also imposed a tighter control on the film industry by banning films that were not seen as appropriate.[109] At the peak of the musical avant-garde, in 1961, novels by Hłasko, Iwaszkiewicz and Gombrowicz were no longer available. The relative autonomy that universities had enjoyed since 1956 ended, along with religious education in schools.[110]

Of all the arts, only the new experiments in music were treated with any great measure of tolerance by the government. By 1961 Warsaw Autumn was a highly successful event that fulfilled an important function in communist propaganda:

> ...the Polish government must have believed that because music was primarily a non-verbal and non-visual art, it could not express anti-Communist ideas or any other views that could be construed as affecting the political stability of the country.[111]

The continuation of the Warsaw Autumn Festival in presenting new experiments in music appears to have been tolerated by the authorities not least because it demonstrated to the West that artistic freedom was allowed behind the Iron Curtain. To a large degree it was also proof of a sensible and flexible foreign policy. In his recollection of this period, Kotoński stressed the leniency of the government and its selective approach in implementing the Soviet's directives: 'for the good of the culture our political leaders were more relaxed in implementing Soviet's policies; they did not take everything so seriously as was done in the Czech Republic, East Germany or Hungary.'[112] After all, as Kilar also remarked, 'everybody knew that Poland was the most jolly barrack in the Eastern European block.'[113]

---

[109] For instance the film *The Eight Day of the Week* based on Hłasko's book of the same name was withdrawn from the Cannes Festival and subsequently banned until 1973. Bylander, 'The Warsaw Autumn International Festival of Contemporary Music...,' 193-194.

[110] Ibid., 194.

[111] Ibid., 542.

[112] Włodzimierz Kotoński, interview by author (Warsaw, November 11, 2005).

[113] Wojciech Kilar, interview by author (Dzierżoniów, October, 29, 2005).

Many writers had already noted that the festival acted in its first few years as a barometer for the state of Polish music in comparison with Western achievements, and demonstrated the continuous advancement of Polish composition. In the early 1960s the Warsaw Autumn was often the first platform on which compositional trends were noticed. Then the excitement with the 'new' appeared gradually to fade. In 1964 Tadeusz Zieliński in his review of the Festival wrote:

> We got used to the fact that every Warsaw Autumn is a terrain for a significant event. An event that excites, even shocks and is commented upon, widely discussed and is in the centre of attention for all listeners at the festival. Determining its rank there are two (naturally intersecting) factors: the degree of novelty (shock) and the degree of artistic value (dazzlement). In 1960, even for the public, this came from Górecki's *Scontri*, a year after from *Torso* by Bussotti and *Threnody* by Penderecki, in 1962 *Canon* and *String Quartet* by Penderecki and *Pithoprakta* by Xenakis, then finally Lutosławski's *Trois poèmes d'Henri Michaux* and Berio's *Circles*, and to a degree Donatoni's *Per Orchestra*. And this year? I have an impression that the festival lacked a work which would shock and dazzle at the same time. .... There lacked a work which would shake the audience and force us to revise our own previous aesthetic notions, as was the case in previous years.[114]

Towards the end of the 1960s the sonoristic technique started to lose its impetus. This coincided with a tendency towards vocal-instrumental composition and the use of religious subjects as a source of inspiration. This is certainly evident with the leaders of the avant-garde. In 1966 Penderecki 'was accused of betraying the avant-garde' with his *St Luke Passion*, a turning point in his composing career.[115] Górecki's break from the sonoristic phase is marked by *Refrain* (1965), followed by *Ad Matrem* (1971). This move from secular to sacred in music was paralleled by an increasing conflict between church and state, and may be seen as a new phase in Polish music. At the same time, commentators were emphasising the individualism of members of the avant-garde. For example, after the 1966 Warsaw Autumn Kaczyński reflected that Górecki (whose *Refrain* was performed) 'represented not the avant-garde but himself', and concluded with a rhetorical question: 'perhaps the Polish avant-garde gave the impression of not

---

[114] Tadeusz A. Zieliński, 'Odkrycia i wydarzenia' (Discoveries and events), *Ruch Muzyczny* 8, no. 22 (15 - 30 November 1964): 6.

[115] Mieczysław Tomaszewski, 'Listening to Penderecki,' in *Studies in Penderecki* vol. 2, 25.

being there because though reaching a higher degree of individualism it has ceased to exist as a group?'[116] Indeed the issue of the individual and stylistic characteristics, 'fingerprints,' versus general sonoristic traits, 'footprints' within Polish avant-garde works of the early 1960s (explored further in chapter 7) has often been a point of contention. In 1975 Detlef Gojowy wrote:

> Composers such as Witold Lutosławski, Tadeusz Baird, Kazimierz Serocki, and Krzysztof Penderecki were perceived as a group right from the beginning. This perception was in part due to historical and cultural-political preconditions, which remain to be investigated. In 1956 Poland, which until then had been cut off from world recognition, came to the fore suddenly and unexpectedly, with evidence of its rich intellectual life, of which one had no inkling before that point of time. In the wake of this sudden appearance, even areas of diversity may have taken on the appearance of belonging together.[117]

Consideration of the historical background serves here to unfold the canvas on which cultural life was inscribed. The catastrophic destruction of the war years, the repression of the early 1950s, followed by periods of freedom of expression after 1956 form the backdrop for the remarkable resurgence of innovation and creativity during the sonoristic years. Emphasizing the dynamics between the political and cultural events (including the vital role of the Warsaw Autumn festival in the rise of the Polish avant-garde) which provide a background to the emergence of the Polish avant-garde does not justify regarding the sonorist style as a purely political phenomenon, but it helps to explain why such a movement could happen in Poland at that particular time. The next chapter focuses on the term itself and surveys the literature on sonorism.

---

[116] Kaczyński, 'Jesień '66. Pierwsze rozpoznanie,' 11.
[117] Detlef Gojowy, 'Avantgarde in Polen,' *Music und Bildung* 12 (1975): 618-621, quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 4.

Chapter 2

The Concept of Sonorism and Sonoristics

Józef Chomiński and the Notion of Sonorism

Chomiński's initial use of the term *sonoristic* in 1956 predated the sonoristic repertoire of the Polish avant-garde.[1] Taking a purely historical standpoint, Chomiński elaborated on the transformation processes in musical language of the late 19th and early 20th centuries. He emphasised 'the points of connection between music of our century and the past epochs, in which new sound qualities for the later 20th century sound structures appeared. The new element of sound structure was the 'sonoristic quality of sound.'[2] The term was mainly used to describe particular processes and tendencies in 20th century western art music in which colour gained a dominating role within the work. The article did not aim to address broadly the problems of 20th century compositional techniques but to trace 'only this line of the development of music, which opens new perspectives for the future.'[3] In fact, with this article Chomiński foresaw the development of Polish music for the next decade.

Referring to the impressionistic repertoire as well as the music of Bartók and Stravinsky, his main focus was on the enrichment of sound and the search for new sound qualities, which Chomiński saw as the major preoccupation of the early 20th century music, subsequently continued by the Second Viennese School through Schoenberg and later Berg and Webern. Further discussion on the *sonoristic means* and their part in shaping the musical form independent of 'earlier architectural foundations' are signs of sonoristic theory in embryo. Chomiński cites the beginning of Stravinsky's *Petrushka* as an example of the elaboration and enrichment of sound by building up the essential two-

---

[1] Chomiński, 'Z zagadnień techniki kompozytorskiej XX wieku,' 23-48.
[2] Ibid., 26
[3] Ibid., 48

layered structures: 'So called polyharmonic, bitonal, and polytonal structures are formed and function on the same principle.'[4] In relation to the structural role of dynamics in the music of Stockhausen and Boulez, Chomiński distinguishes three kinds of juxtaposition of dynamic planes, which create the following sonoristic structures:

1) Series which are dynamically unified horizontally, but varied when juxtaposed vertically (as in Boulez's *Structures I a*)

2) Structures based on the dynamically varied sound groups extracted from series (as in Boulez's *Structures* 1b, bars 20 to 25)

3) Series in which single sounds constitute separate dynamic levels (as in Boulez's *Structures* 1c, bars 36 to 41).[5]

Particular attention is given to the functions of dynamics and articulation, and their new roles in the enrichment of sound qualities. In this context Chomiński indicates the limitations of the terms coloristics and pointillism and their application to new music:

The term *coloristics* is not very adequate: firstly, it has been adopted from another branch of art, which is perceived by different senses; secondly, today it can no longer stand for all the sonoristic means...'Pointillism' - is a non-musical term which suggests the visual image of the score and not the actual sonic/real shape of the work.[6]

The point of departure for Chomiński's notion of sonoristics in the early 1950s was the premise that the real shape of musical composition depends on the actual sound and, as Dziębowska noted, a new 'non *a priori* methodological approach to the composition ... a way "from music to theory" and not other way around, as it has a place in didactic practice. The subject of the investigation is the aural shape of the work.'[7]

---

[4] Chomiński, 'Z zagadnień techniki kompozytorskiej XX wieku,' 32
[5] Ibid., 42
[6] Ibid., 36.
[7] Elżbieta Dziębowska, 'Koncepcja realnego kształtu dzieła muzycznego' [The concept of the real shape of the musical work], *Muzyka* 24, no. 4 (1979): 14.

Early responses to Chomiński's article

The historical aspect of this article along with its critical approach to the existing analytical methods and terminology had enormous significance in terms of later writings on the subject and impact on the musicological awareness in Poland. The sonoristic aspect of 20th century music immediately sparked an interest from other Polish musicologists. One of the immediate responses was Malinowski's article on Szymanowski's *Myths* published in 1957 in which the author derives the noun form - *sonoristics* [sonorystyka].[8] The problem of terminology and the use of the term *coloristics* are addressed at the outset; the historical aspect of Chomiński's writings and the separation of the two dialectically bound terms are strongly manifested in Malinowski's whole theoretical introduction to the study:

> The term sonoristics is widely used to substitute 'sound coloristics.' Coloristics describes such musical processes, which operate on the sound color. This is realised through the use of various instrumental and vocal timbres and is a point of departure for a specific compositional discipline: orchestration/instrumentation ... . The term has also been used in relation to other elements, especially harmony. Here we are talking about 'coloristic significance' of certain harmonic progressions. This is stepping into a sphere of an element with terminology, which does not belong to it. The problem lies in the investigation of new music using old terminology ...

> If we agree that, according to the tradition that 'coloristics' refers to the means of using the instrumental timbres, the division between 'coloristics' and 'sonoristics' (which takes into account overall sound phenomena) is necessary and imposed by the actual (*realny*) compositional technique of the last ten years.[9]

Malinowski argues that while in Szymanowski's *Myths* harmony is a factor regulating the form, there are new vertical structures which operate on different principles from those of functional harmony and are closer to the whole sphere of purely sound quality. Sonoristics is defined by Malinowski as a compound element of a musical work which

---

[8] Władysław Malinowski, 'Problem sonorystyki w *Mitach* Szymanowskiego' [The problem of sonoristics in *Myths* by Szymanowski], *Muzyka* 2, no. 4 (1957): 31-44.
[9] Ibid., 31-32.

operates on three elements: selection of sounds, instrumental timbre and aspects of the realisation of sonorities by sound generators (including articulation).

Prosnak's response in 1958 to Chomiński's writings develops a sonoristic analysis of two-dimensional sound structure in Chopin's Studies.[10] In his theoretical introduction to the analysis, Prosnak also adopted the noun form - *sonoristics* - being 'an aspect of a musical structure freely developed horizontally as well as vertically, and formed by all elements relating to timbre.'[11] According to Prosnak, timbre is conditioned by pitch, volume (dynamics), density (relating to vertical structure and the mass of sounds), spatial disposition (spatial aspects of vertical and horizontal structures), colour (instrumentation) and saturation (number of sounds in vertical structures).[12] In his theoretical background to the analysis of Chopin's *Studies,* Prosnak introduces new terminology related to sonoristics. First, in his systematization of timbre according to their kinetic criteria Prosnak discusses a number of categories of timbre in both horizontal and vertical planes. These two planes form the two dimensional sound structure which can be qualified as 'constantly homogeneous (*stale jednorodna*), variably homogeneous (*zmiennie jednorodna*), constantly combinatorial (*stale kombinatorial*) and variably combinatorial (*zmiennie kombinowana*).' [13] Secondly, the timbre already determined according to kinetic criteria can be examined according to the dynamics as active, passive or indifferent. Under the heading 'dynamics of sound timbre' Prosnak divides sonoristic means which are dynamically strong, weak and indifferent. Finally the last part of the article deals with the form which, according to Prosnak, falls into one of the three categories: 'sonoristic stagnation, sonoristic periodical development and free sonoristic formation.'[14]

Prosnak's attempt to apply and extend Chomiński's initial ideas to much earlier repertoire did not develop into a theory, nor did it have much resonance in the musicological

---

[10] Antoni Prosnak, 'Zagadnienie sonorystyki na przykładzie etiud Chopina' [The notion of sonoristics on the example of Chopin's Studies], *Muzyka* 3, no. 1-2 (1958): 14 -32. Although Malinowski used 'sonoristics' earlier, in 1957, Chomiński acknowledged Prosnak's use of the term.
[11] Prosnak, 'Zagadnienie sonorystyki na przykładzie etiud Chopina,' 14.
[12] Ibid.
[13] Ibid., 15-20.
[14] Ibid., 29-32.

literature, except for the fact that Chominski in his later writings acknowledged Prosnak when he used the term 'sonoristics.'

Towards the Theory of sonoristics: Chomiński's subsequent writings

Chomiński's notion of sonorism starts to crystallize in his subsequent writings. In an article from 1961 Chomiński draws attention to the distinction already drawn between colorism and sonorism: [15]

> ...the line of the development of 20th century music follows in the direction of pure sound technique, even though this does not always mean enrichment of coloristic aspect of a piece. It is essential that the point of departure for creative work is not in abstract structures suggested by harmony, counterpoint even by authors of works on the 12-tone technique, but in the actual sound [realne brzmienia], associated with specific sound sources. [16]

There are six areas which Chomiński considered crucial in the concept of sonoristics: technology of sound, rationalization of time, horizontal structures, vertical structures, sound transformation and continuum of form. Using sonoristic technique, which may be defined as a technique based on the 'real' sound of the work, priority is given to the mode of generation or origin of a sound source (overall technology of sound). [17] In later writings, Chomiński expanded on each of these areas. However, even by this point (1961) the initial theoretical background together with its analytical implications had already been laid out.

In relation to the rationalisation of time, which includes rhythmic/metric issues and *agogics*, [18] Chomiński divides the structures into monochronic (structures which maintain the same time unit) and polychronic (structures characterised by changes in time unit). Amongst the horizontal structures there are unified structures (for example melodies) and

---

[15] Józef Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia' [Sonoristics as a subject of systematic schooling], *Muzyka* 6, no. 3 (1961): 3-10.

[16] Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia,' 3-4.

[17] Sound source [*Zródło brzmienia*] in German *klangquelle/klangkouroe* and in French corps *sonore* does not have a natural equivalent in English.

[18] *Agogics* used in Polish musicology relates to all issues relating to time (tempo).

selective structures (for example pointillist structures); the former are governed by melodic rules, while the latter are constructed using a selective process of single sounds or sound complexes. In this context Chomiński again criticizes the term 'pointillism,' which 'apart from the purely superficial characteristics, does not reflect the essence of the horizontal structures.'[19] Therefore horizontal structures should be viewed in terms of the complexity of elements such as *agogics*, rhythm and widely diversified articulation, all of which influence the formal development.[20] Chomiński divides vertical structures into homogenic (forming one plane) and heterogenic (comprising two or more planes). Taking an historical standpoint, the change in the role of harmony is emphasised. Harmony in sonoristic music becomes only one of the elements influencing the structure. Finally the form, 'being a manifestation of logic, based on economical disposition of expressive means' is seen by Chomiński, as the weakest side of 20th century music. In the context of new music he discussed two kinds of form: one that has no justification in its historical continuation (for example sonata form) and other forms that allow for new sound techniques (for example rondo, variations). It is the latter that allows for sonoristic shaping of the work (*sonorystyczne ukształtowanie dzieła*) and attempts to create possibilities for 'logical disposition of sonoristic means.'[21] The spatial element of performing forces also becomes an important element in sonoristic technique. The multidirectional (stereo) use of performing forces in particular allows for 'a segmentation of the work that opens the whole range of possibilities for sonoristic shaping of the work.'[22] Apart from serial and rhythmic means to shape the form Chomiński also mentions experiments with aleatory techniques. Although the formal considerations here are not fully explored, they point to new elements and new techniques that play a structural role.

---

[19] Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia,' 7.

[20] 'Quite often not only an average listener, but musicians, and more amazingly, theoreticians taking up analysis of the 20th century works, apart from superficial characteristics of series (....inversion, crab [rak]) cannot cope with its essential musical characteristics, with processes of tension, consequential form development conditioned by agogics, rhythm and widely diversified articulation.' Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia,' 7.

[21] Chomiński, 'Technika sonorystyczna jako przedmiot systematycznego szkolenia,' 9.

[22] Ibid., 10

In this preliminary discussion on sonoristic technique Chomiński referred to early 20th century works by Varèse, Stravinsky, Schönberg, Webern and Messiaen. These works not only provided a departure point in the context of intensifying the search for new sonorities and new treatment of timbre, but also provided significant and tangible points of connection with the past.

In subsequent writings published in 1968, however, Chomiński dealt with sonoristic technique in terms of works written in the late 1950s and early 1960s exclusively by Polish composers.[23] He pointed to changes in Polish music between 1958 and 1960:

> The essence of such changes lies in the fact that an interest in sonorous qualities as the main means of expression came to predominate as an important structural device at the time.[24]

The previously introduced term 'sonoristic' used to describe the new trend is interchangeable with the adopted derivative noun form, 'sonoristics,' to describe a sound technique. At the outset Chomiński justifies the use of this term:

> ...although the term has been accepted, its origin is not coincidental. It comes from French (*sonore*) and is justified by the fact that the French have already for some time been exceptionally sensitive to sound qualities of a musical composition.[25]

The focus on the structural function of sonorous means brought a major shift in the approach to the structure of a musical work and became the key element in the definition of a sonoristic work. The six areas related to sonoristic technique that Chomiński elaborated in his 1961 article are here expanded and further developed. The term 'structure' dominates Chomiński's discussion on sonoristic technique. The horizontal and vertical are further subdivided into cohesive (continuous - melodic) and non-cohesive (isolated sounds as in pointillistic textures), and vertical structures are subdivided into traditional (using 'principles of shaping melody') and modern (eg. static sounds). Some

---

[23] See note 18 (Introduction).
[24] Chomiński, 'Udział polskich kompozytorów w kształtowaniu nowoczesnego języka muzycznego,' transl. Maria Paczyńska [The Contribution of Polish Composers to the Shaping of a Modern Language in Music] in *Polish Musicological Studies* 1, ed. by Zofia Chechlinska and Jan Stęszewski eds.,), 167.
[25] Chomiński, 'Udział polskich kompozytorów w kształtowaniu nowoczesnego języka muzycznego,' 127.

of these categories were adopted by many writers who were subsequently to discuss the post-war avant-garde repertoire. The fact that Chomiński in the 1968 article based his theoretical elaborations exclusively on the Polish repertoire of the 1960s resulted in sonoristics being seen as a 'Polish phenomenon.'

Chomiński's writings on sonoristic technique gave rise to many interpretations. Only a year after Chomiński's extended writings on the sonoristic technique were published (1968), Zofia Lissa summarised the mis/uses and misunderstandings of the term:

> Sonoristics embrace such diverse kinds of music such as Varèse, Pousseur, Berio, Nono, some works of Boulez, amongst Polish composers - Górecki, Penderecki, Kilar, - and from the youngest T. Sikorski, Z Rudziński and others. This term from its first use became a carry bag for everything in contemporary trends that cannot be labeled otherwise.[26]

The variety of music referred to by Chomiński, especially in relation to the search for new sound, may be the cause of 'sonoristic(s)' being often loosely used as a convenient label for a variety of works. However, in this context it is important to note Chomiński's comment that 'many Polish compositions, therefore, are not distinguished by a pure sonoristic technique.'[27] Chomiński also clearly emphasised the distinction between the purely sonoristic pieces and the ones which mixed sonoristic elements with traditional structures, for example those that used harmonic and melodic foundation.

> In such cases, it is not even advisable to make use of the latest terminology, which should apply to a new type of musical form. This undoubtedly makes more difficult an analysis of the composition, since its various passages are to differing degrees connected with traditional and more modern technical means (for example, Grażyna Bacewicz's 'Concerto No. 2 for Violoncello and Orchestra).[28]

Parallel to the development of Polish music is the transformation in the terminology in Chomiński's writings related to sonoristics. Beginning with the introduction of the

---

[26] Zofia Lissa, 'Analiza repertuaru "Warszawskich Jesieni"' [The analysis of the Warsaw Autumn Repertoire], *Muzyka* 14, no. 3 (1969): 52.
[27] Chomiński, 'Wkład kompozytorów polskich do rozwoju języka sonorystycznego,' 205.
[28] Ibid.

adjectival form, 'sonoristic,' followed by the use of the noun form, 'sonoristics,' Chomiński in 1983 eventually arrived at the new branch of knowledge, 'sonology,' defined as 'a branch of experimental musicology in which sonoristic technique as its essential part uses purely colouristic qualities of sound material as means of artistic creation.'[29] The terminology is bound up with the compositional processes: sonoristic technique, sonoristic regulation of the creative process, sonologically regulated music. This modification of terminology eventually excluded 'sonoristics' entirely from Chomiński's vocabulary in his late writings. One of the possible reasons may be the fact that Chomiński was responding to the changes in contemporary music. When sonoristic technique began to lose its appeal, Chomiński's focus needed to be redirected. In replacing 'sonoristic technique' with 'sonoristic regulation' Chomiński shifts the emphasis to the technological side of structural processes. The elements of 'sonoristic regulation' are:

1. The use of new ways of creating sounds and articulation on traditional instruments
2. Generating sound material by using electroacoustic and electronic instruments
3. Transformation of already existing material by using electroacoustic and electronic instruments
4. Combining traditional with electroacoustic and electronic instruments
5. Combining material generated on traditional and other means with material from electroacoustic and electronic instruments

The formation processes are conditioned by the choice of sound material. Thus there are three basic kinds of composition regulated sonoristically:

1. works using the possibilities of traditional instrumentation
2. works formed by using electroacoustic and electronic instruments
3. traditional instruments combined with electronic instrumentation

In his chapter 'Basis of Music Sonology,' written in 1983, Chomiński concentrates on the sound source with electronics as a major focus. The sonoristic repertoire from the 1960s

---

[29] Józef Chomiński and Krystyna Wilkowska-Chomińska, 'Podstawy sonologii muzycznej,' in *Formy Muzyczne*, vol. 1 (Krakow: PWM, 1983), 126-153, quoted in Lindstedt, 'Teoria sonologii muzycznej Józefa Michała Chomińskiego,' 37.

is not a major focus and is discussed in the wider context of pieces by other 20th century composers such as Stockhausen and Varèse.[30]

Resonance: Writings from 1970s and 1980s

Chomiński's concept of sonoristics was welcomed in musicological circles and announced as 'one of the most radical music theories.'[31] Bristiger summed up Chomiński's writings on sonoristics and its impact as follows:

> Chomiński's sonoristics came to dominate musicological literature and significantly influenced the whole musical scene including theorists and music historians. It has not only become a tool for argumentation and exorcisms of music criticism but also has made its impact in the field of compositional invention.[32]

Dziębowska, elaborating on Chomiński's concept of sonoristics and the analytical methods leading to it, pointed out an important aspect of Chomiński's methodological approach that is an approach 'from music to theory.' Thus the basis for musicological investigations is the 'real shape' of the work based on what is heard rather than what is seen. By referring to Lutosławski's comment that 'in [his] works a defined sound image is always a primary intent' she stressed the role of notation being not more than 'a projection of creative intent of a composer.'[33] This aspect of 'seen' versus 'heard,' is often explored and commented upon in analyses of sonoristic pieces, as will be demonstrated in the present study. Despite the fact that some terms Chomiński introduced are not precisely defined, Diębowska regards Chomiński's notion of sonoristics as a

---

[30] For detailed summary of Chominski's later writings see Iwona Lindtsted, 'Teoria sonologii muzycznej Józefa Michała Chomińskiego' [Józef Michał Chomiński's Theory of Music Sonology], *Muzyka* 51, no.1-2 (2006): 33-84.

[31] Michał Bristiger 'Reflections on the article by J. Vinton *Change of opinions*' [Zmiana pogladów], *Res Facta,* no. 8 (1977): 187. Quoted in Elżbieta Dziębowska, 'Koncepcja realnego kształtu dzieła muzycznego' [The concept of the real shape of the musical work], *Muzyka* 24, no.4 (1979): 7.

[32] Ibid., 187, quoted in Dziębowska, 'Koncepcja realnego kształtu dzieła muzycznego,' 15.

[33] Lutosławski said: 'In my works the sonic vision is of primary importance.' Witold Lutosławski, 'O rytmice i organizacji wysokości dzwięków w technice komponowania z zastosowaniem ograniczonego działania przypadku,' *Spotkania muzyczne w Baranowie, zesz. 1: Muzyka w kontekście kultury,* ed. Leszek Polony, (Kraków, 1978), quoted in Dziębowska, ibid., 'Koncepcja realnego kształtu dzieła muzycznego,' 14.

theory which 'does not imply a closed system but inspires a search for new analytical methods.'[34] Indeed various responses to Chomiński's sonoristics clearly demonstrate this.

Many of the subsequent significant contributions to the sonoristic period in Polish music depend on Chomiński's theoretical and analytical investigations. The early writings of Antoni Poszowski capture the main points.[35] Sonoristics for Poszowski is a tendency which above all influences the structure of the work. According for Poszowski sonoristics stands for 'sound characteristics and purely "sonoristic" technique.' Sonoristics 'includes all aspects of timbre and its realisation, and constitutes a primary structural element in a work in which timbral qualities are the source of technical rules.'[36]

Poszowski's understanding of sonoristics implies a new way of composers' thinking in which timbral aspects govern the creative process. Although this article predates Chomiński's extended work on sonoristic technique from 1968, Poszkowski's view is firmly grounded in Chomiński's earlier writings.

In his monograph, *Polish Composition 1945-1984* [*Polska twórczość kompozytorska 1945-1984*], composer and writer, Krzysztof Baculewski, offers, for the first time since Chomiński's analytical writings, a comprehensive view of the period in Polish music between 1956 and 1976.[37] The chapter, 'Towards sonoristics,' provides not only an historical perspective, and a wider European context for Polish music, but also a discussion on the role of serialism and pointillism as precursors of sonoristic technique. Both of these aspects of the pre-sonoristic period are essential in terms of the borders of the sonoristic period and understanding of the line of development that Polish music took after 1956. In his examination of the period, Baculewski also offers an answer to an

---

[34] Dziębowska, ibid., 15.
[35] Antoni Poszowski, 'Zagadnienie sonorystycznej techniki harmonicznej,' *Zeszyty Naukowe* PWSM in Sopot, Z. III, Sopot, 1967, quoted in Kostrzewska, *Sonorystyka,* (Poznań: Ars Nova, 1994), 14-15.
[36] Ibid.
[37] Krzysztof Baculewski, *Polska twórczość kompozytorska 1945-1984* [Polish Composition 1945-1984] (Kraków: PWM, 1984), 159-279. The revised edition of this book appeared in 1996 as the first of the two volumes devoted to contemporary music which constitutes a part of the larger series on the history of Polish music published in Polish and English: Krzysztof Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974* [History of Polish Music, vol. 7: Contemporary, part 1: 1939-1974] (Warsaw: Sutkowski Edition, 1996).

often-posed question in relation to Polish music, namely why it was that Polish composers retreated from dodecaphony and serialism:

> First of all Polish composers lacked the understanding of the essence of dodecaphony which reduced it to only an episode in the post war history of Polish music. When they did achieve a level of understanding reflected by the technical achievements, dodecaphony and serialism were already out of date. Later, when aleatorism was being discovered in European music, Polish composers had little time to adopt the language proposed by serialism, the more so as aleatorism and sonoristic technique opened new and more striking directions than complicated pre-compositional procedures used in constructing and elaborating serial material. Therefore instead of being preoccupied with opening the doors for a dated serialism, Poles reached for compositional means that were hitherto unexplored and creative. Only between 1955-57, were dodecaphony and serialism new and symptomatic of modern language in Poland. Later their roles were fulfilled by search in sonorism and aleatorism.[38]

Baculewski's main preoccupations in his analytical discussion are the sonoristic technique and other experimental devices used in Polish music between 1956 and 1976, hence the large number of works written in this period referred to. These include the core sonoristic repertoire as well as works that are outside of sonorism but contain some sonoristic means or effects and technical devices, for instance Penderecki's *St Luke Passion* (1966), Marek Stachowski's *Neusis II* (1968) and Serocki's *Swinging Music* (1970). To deal with Polish repertoire written after 1956, Baculewski borrowed substantially from Chomiński's terminology and elaborated further on Chomiński's analytical categories, for example, polygeneous and homogeneous sounds, transformation processes, and monochronic and polychronic time regulation. The experimental attitude of Polish composers is discussed in an extended section on new types of articulation. The roles of melody, polyphony, instrumental texture, the use and types of clusters, aleatoric techniques and spatial aspects complete his discussion. According to Baculewski, the term 'sonoristics' adequately reflects the essence of the trend. Straight away, taking Chomiński's writings as a base, Baculewski captures and emphasises the main characteristics of a typical sonoristic piece:

---

[38] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 265.

[sonoristics] was adopted in the theory of music and refers to a compositional technique in which sonorous means take the lead. Their hegemony is reflected in the aesthetic, expressive as well as structural planes. In sonoristic technique the point of departure – in contrast to dodecaphony and even pointillism – is fundamentally shifted and the musical elements are in a different relation to each other. (...) Rules of Harmony and counterpoint cease to function and thus the role of melodic (and harmonic) elements is weakened.[39]

Sonorism revisited: after 1990

The early 1990s saw a major revival of interest in sonorism in Polish musicological literature, ranging from short articles and book chapters to public debates and doctoral dissertations. Sonorism as a period in Polish music and as an aesthetic category was taken up by the younger generation of scholars, composers and senior scholars.[40]

Among English-language publications, sonorism, together with serialism and aleatorism, is discussed by Lidia Rappoport-Gelfand in her book *Musical life in Poland. The Postwar Years 1945-1977*, published in 1991.[41] Her analytical commentary always invokes a cultural context which also reflects an understanding of the Polish culture:

At the beginning of the 1960s, Polish musical art was already developing under the banner of sonorism. Dodecaphony was to some degree an alien phenomenon. Sonorism, on the other hand, was much more compatible with certain deeply rooted features of Polish musical culture. The stability of sonorism, its all-inclusive character, its omnipresence and various manifestations can all be attributed to that fact.[42]

Rappoport-Gelfand views sonorism as 'one of the wide-spread stable phenomena that influenced the national school of Polish composers of the post-war period' and encompasses a wide range of styles.[43] Following Malinowski's view, Rappoport-Gelfand sees the roots of sonorism in the music of Szymanowski ('Polish colorism') and points to

---

[39] Ibid., 269.

[40] *Opcje* [Options] devoted a number of articles in 1993 and 1994 to Witold Szalonek including an interview with the composer 'Wokół sonoryzmu' [Around Sonorism].

[41] This book, as her previous article from 1983, is a translation from Russian: Lidia Rappoport-Gelfand, *Musical life in Poland. The Postwar Years 1945-1977* (New York: Gordon and Breach, 1991).

[42] Ibid., 68

[43] Lidia Rappoport-Gelfand, *Musical life in Poland. The Postwar Years 1945-1977*, 68.

early influences such as Varèse. Sonorism, according to Rappoport-Gelfand, 'is a special system of musical expression in which the colour of sound acquires an all encompassing meaning: it becomes the sum-total of timbre, coloristic, textural and rhythmic-harmonic sides of musical language.'[44] She asserts that when not only confined to Polish composers and a narrow time frame, sonorism, understood as a means to gain 'specific imagery,' may also be found in the works of Messiaen, Denisov and Kancheli. Another facet of sonorism includes the works of Penherski and Sikorski in which sonorism 'acquires neo-constructionist traits, when the phonic-acoustical system is invented and arrived at through calculation.'[45] She also points out that many sonoristic traits were used alongside equally with other expressive means. From an historical point of view, sonorism, according to Rappoport-Gelfand, was not only a reaction against the strict rules of serialism, but also 'a specific form of protest against all manner of limitations.'[46] This observation certainly confirms Penderecki's statement in relation to form in sonoristic works:

> I was not interested in using mathematical formulas for my music because I didn't think it was the way for music. In pieces like *Threnody*, *Polymorphia*, *Fluorescences*, the form became free, it was an evolutional form. Maybe it was a reaction to another form of political dictatorship and totalitarian domination, which my colleagues and I disagreed with in post-war Poland.[47]

After introducing the term and relating it to Chomiński's writings, most attention is given to the works of Penderecki and Górecki; however, Rappoport-Gelfand also mentions Serocki, Kilar, Szalonek, Rudziński, Bujarski, Penherski and Krauze. While early signs of coloristic and expressionistic quality are found in Penderecki's *Emanations* for two string orchestras (1958), her list of Penderecki's 'sonoristic expressionism' is by no means comprehensive. Significant and widely discussed pieces such as *Dimensions of Time and Silence* for chorus and orchestra (1960-61) and the *String Quartet* (1960) are not listed alongside other works from the early 1960s such as *Anaklasis* for percussion

---

[44] Lidia Rappoport-Gelfand, *Musical life in Poland. The Postwar Years 1945-1977*, 68.
[45] Ibid., 69.
[46] Ibid.
[47] Richard Dufallo, *Trackings. Composers Speak with Richard Dufallo* (New York: Oxford University Press, 1989), 344.

ensemble and string orchestra (1960), *To the Victims of Hiroshima — Threnody* for 52 strings (1960), *Polymorphia* for 48 strings (1961), *Fluorescences* for large orchestra (1961) and the *Canon* for two string orchestras and two tapes (1962).[48]

An historical perspective is also observed in relation to Górecki's music, but much less so than in relation to Penderecki's sonoristic output: '[Górecki's] sonoristic aesthetic grew out of resistance to post-Webernism, an influence he did not escape in his early works.'[49] In underlining the particular features of Górecki's sonorism as exemplified in the *Genesis* cycle (1963), the author refers to the terminology introduced earlier by the critic Krzysztof Droba, who defined this kind of sonorism as 'limited' or 'reduced'. She also makes a valid point that is often made about Górecki's association with minimal music:

> Górecki's method differs from that of minimal music for it is connected to the large scope of the symphonic form, and is usually comprised of a row of sections.[50]

The fact that sonorism as a concept and as a term did not cross the language barrier is exemplified in Randolf Foy's study on Penderecki's works written between 1960 and 1973. Nowhere in his dissertation is sonorism used as a term alongside other terms, both German and English, in relation to Penderecki's music:

> A number of terms have been loosely employed to describe Penderecki's more experimental style: 'timbre music,' '*Farbenmusik*,' 'cluster style,' 'sound-search approach,' and 'music of changing color and density.'[51]

In his discussion of Penderecki's works, Foy chose to use the term 'texture style.' Within the indicated timeframe, he placed all sonoristic works beginning with *Anaklasis* (regarded by some writers as an early sonoristic work) and ending on *Fluorescences* as Period 1. Period 2 begins with *Stabat Mater* (1963) and ends with Symphony no. 1 (1973). The primary focus is on texture which Foy defines as follows:

---

[48] Many erroneous dates of composition cited in her book have been corrected here.
[49] Rappoport-Gelfand, *Musical life in Poland The Postwar Years 1945-1977*, 76.
[50] Ibid., 77.
[51] Randolf Foy, 'Textural Transformations: The Instrumental Music of Krzysztof Penderecki, 1960-1973,' 11.

> A texture may be a distinctive combination of timbre, dynamics, articulation, and figuration in which global characteristics take precedence over detail. Textures may be used motivically and developmentally such that transformations of a texture may be heard as related to the original presentation.[52]

This broad definition encompasses five types of texture he discusses in Penderecki's music: sustained sound, repetition, moving line, glissando and single short sounds, all of which may undergo 'transformations such as augmentation or diminution, registral or timbral variations or changes in dynamics.'[53] A number of general characteristics observed in relation to Penderecki's works written in the early 1960s are also present in sonoristic pieces by other Polish composers. Foy's remark about the use of serial principles supports the view that serial devices in sonoristic repertoire, particularly on the structural level, are subordinate to sonoristic technique.

> As an organizational principle, serial techniques applied to pitch are significant in Penderecki's pieces only on the local level.[54]

With regard to the characteristics of Penderecki's first period works (1960-1962), Foy makes some important remarks in relation to texture. Firstly, in Penderecki's 'texture style pieces' the emphasis is on the overall sound of the texture. What this means to the listener is that 'the ear is directed to the perception of the overall shape and character of the texture rather than individual sounds.'[55] Secondly, Foy points out that 'textures are fashioned in ways that promote their clarity and individuality.'[56] This certainly helps to distinguish one piece from another. Indeed, analysis of both the individuality and distinctiveness of textures not only within Penderecki's works, but also across the sonoristic repertoire in general, point to specific fingerprints of individual composers.

---

[52] Foy, 'Textural Transformations: The Instrumental Music of Krzysztof Penderecki, 1960-1973,' 22.
[53] Ibid., 23.
[54] Ibid., 27.
[55] Ibid., 22-23.
[56] Ibid.

Kostrzewska, in her PhD dissertation, tackles sonorism from a theoretical, historical and compositional practice point of view.[57] The ultimate goal of her discourse is to consider sonorism as an aesthetic category and 'evaluate the usefulness of sonoristic structures in constituting the value of the work.'[58] While sonorism as a contemporary compositional practice is discussed in the context of Polish repertoire, sonorism as an aesthetic category is also discussed on the basis of works by Debussy such as the Etude No. 10 *Pour les sonorities opposées* (1896-1901), *Jeux* (1912) and even the early work *Printemps* (1887).

In practical terms, Kostrzewska's analytical discussion revolves around compositional methods typical of the sonoristic trend and focuses on structures 'intuitively regarded as sonoristic' and defined as 'a fragment or more often as a system of relations within the structures of the work.'[59] The range of Polish repertoire that she regards as sonoristic extends to works written up to 1980.[60] Curiously, the list of music examples does not include works widely regarded as typically sonoristic, such as Penderecki's *Fluorescences* and *Threnody*, or Serocki's *Symphonic frescoes*, and no date of composition is given for any of the works cited. Her analytical approach is based on the previous theoretical elaborations of sonoristics, namely those of Chomiński, Prosnak, Malinowski and Baculewski. These include:

a) The appropriate choice of the musical material, articulation, harmony and dynamics (from Chomiński).

b) Frequency, intensity and coloristics (from Prosnak).

c) Harmony, instrumental timbre, articulation and frequency (from Malinowski).

d) The contrast of homogenic and polygenic sounds, transformational processes (from Baculewski).[61]

---

[57] Hanna Kostrzewska, *Sonorystyka* [Sonoristics], Poznan: Ars Nova, 1994. The first chapter on terminology 'Pojęcie sonorystyki w polskiej myśli muzykologicznej' [The notion of sonoristics in Polish Musicological Thought] appeared earlier in *Muzyka* 35, no. 1 (1990): 53-59.

[58] Kostrzewska, *Sonorystyka*, 7.

[59] Ibid., 20.

[60] Amongst the later works Kostrzewska mentions pieces as diverse as, for example, Serocki's *Fantasia Elegiaca* (1972), *Ad libitum* (1973-1977), *Pianophonie* (1976-78), Szalonek's *Aarhus music* (1970), Schaeffer's *Missa electronica* (1976) and *S'alto* (1963). Curiously Schaeffer's 'sonorstic treatease' *Scultura* is not featured in the list of examples accompanying the discussion on Sonorism in the Polish compositional practice. Ibid.

[61] Kostrzewska, *Sonorystyka*, 19.

The main question Kostrzewska attempts to answer is what compositional devices constitute a 'sonoristic structure.' Priority is given to the coloristic aspects of the structure; other elements such as 'rhythm, harmony, dynamics, articulation and coloristics though to a different degree all contribute to the formation of various sonoristic structures; all elements however are equal in forming sonoristic value.'[62] In tracing the use and various interpretations of the term 'sonorism' in the Polish literature, Kostrzewska certainly makes some valid observations and concludes that:

> The notion of sonorism in Polish musicological thought is not unequivocal nor is it clearly
> defined. Most composers and music critics use it almost casually and identify it with colorism or
> timbre. The context in which 'sonoristics' appears allows for some interpretations. However,
> these interpretations are usually free and diverse. A wider look at all the aspects of sonorism is
> only touched upon by musicologists; so far there is no comprehensive theory of sonorism.[63]

Kostrzewska regards sonorism as a trend symptomatic of 20th century music rather than a compositional technique tied down to a particular period in Polish music, hence the list of sonoristic works includes compositions written not only well beyond 1970 but remains open.[64] The range of repertoire referred to supports her own conclusion about a well-aired problem surrounding the literature on sonorism:

> ...the exact point at which sonoristics begins to exist as an independent direction remains elusive.
> The difficulty of clear definition is magnified by the fluid, often subjective boundaries between
> works considered to be 'strictly' sonoristic and works merely containing sonoristic fragments. [65]

Some of these issues, however, have indeed been addressed by the Polish musicologist Krzysztof Droba in his paper 'Sonoristics: the Term, and the Range of the Notion.'[66] Droba's contribution is less technical. It emphasises the importance of Chomiński's

---

[62] Kostrzewska, *Sonorystyka*, 19.
[63] Ibid., 18.
[64] Ibid., 29.
[65] Ibid., 54.
[66] Krzysztof Droba, *Sonoristics. The term and range of the notion.* IMS 16th International Congress. (London, August 19, 1997).

notion of sonoristics and clearly delineates the time frame and phases of the sonoristic period in Polish music:

> The 1960s was a particular sonoristic phenomenon – a decade of sonoristic euphoria. The beginning of the decade was violent and full of manifestos (the most famous being K. Penderecki's *Threnody – For the Victims of Hiroshima* 1960) whereas the end of the decade was considerably more peaceful and restrained (H.M. Górecki's *Old Polish Music*, 1969, sounded the retreat signal).[67]

Droba also lists works within the sonoristic repertoire which constitute a separate category that he usefully labels as 'total sonorism' or 'sonoristic manifestos.' These terms refer to works composed in the first half of the 1960s 'when sonorism was an innocent and fresh occurrence full of the impetus to discover and conquer new unknown areas of sound and colour.'[68] The radical nature of these pieces, the lack of melodic and harmonic elements and new textures are the salient features of a typical sonoristic piece from the early 1960s. His list of 'sonoristic manifestos' includes the key works also considered in the present study: Penderecki's *Threnody – to the Victims of Hiroshima* (1960), *1st String Quartet* (1960), *Polymorphia* (1961) and *Fluorescences* (1962); Schaeffer's *Little Symphony – Scultura* (1960); Górecki's *Genesis I* and *II* (1962-63) and *Choros I* (1964), Kilar's *Riff 62* (1962), *Générique* (1963) and *Diphtongos* (1964), Serocki's *Symphonic Frescoes* (1964) and Szalonek's *Les sons* (1965).

A number of articles published in the 1990s reflect, on the one hand, a renewed interest in sonorism, and, on the other, perpetuate the same problematic issues and limitations referred to above. In an inaugural issue of *Dysonanse* (Dissonances), a quarterly journal devoted to 20th century music and other arts, sonorism is featured as a central subject.[69] The contributions include a debate between Iwona Szafranska (the journal's editor), composers Paweł Szymański and Stanisław Krupowicz, and critic Andrzej Chłopecki, an extended article by Maria Anna Harley on 'Sonorism and its European context,' and

---

[67] Droba, *Sonoristic. The term and range of the notion*, 3.

[68] Ibid., 4.

[69] *Dysonanse Pismo Muzyki Współczesnej* [Dissonances, The Journal of Contemporary Music], based in Katowice was first published in 1997 to celebrate the 40th Warsaw Autumn Festival. Regrettably the life of *Dysonanse* was short and ended within a couple of years.

Chłopecki's reflections on concepts and terms relevant to 20th century music (including sonorism, eclecticism, epigonism, dodecaphony, atonality, avant-garde).

The main question of the debate is whether a Polish school really existed, and if so, who were its leaders. All the participants in the debate use the term of the Polish school interchangeably with 'sonorism.' For example, Chłopecki reduces the sonoristic repertoire to just a few pieces:

> ...the alleged Polish school, that is sonorism, appears as a minority against the background of the musical landscape of those times. Indeed these two or three works of the first Warsaw Autumns...[70]

Indeed, determining who belongs to the 'Polish school' has always been a notorious point of disagreement. Here Chłopecki excludes from the 'Polish syndrome' composers such as Baird, Lutosławski, Bacewicz and Szabelski and highlights some of the salient characteristics of a sonoristic piece:

> ...this Polish syndrome is very specific. As a matter of fact, there are only a dozen or so works in which the pitch and interval become of secondary importance; the priority is given to timbre as an important element within texture and structure. Thus the unpitched and percussion textures dominate... Neither Baird, nor Lutosławski, nor Bacewicz, nor Szabelski did this. Therefore they do not fit into what we call the Polish compositional school.[71]

In his reflections on sonorism Chłopecki underlines the achievements of a limited range of works and composers (Penderecki, Serocki and Szalonek). Two insightful comments here relate to general form and electroacoustic music:

> [Sonorism] - the notion introduced by Józef Chomiński in relation to a few early scores by Penderecki, Serocki and Szalonek became a cliché through which almost every manifestation of

---

[70] 'Czy istnieje polska szkoła kompozytorska? Z Pawłem Szymańskim, Stanisławem Krupowiczem, Andrzejem Chłopeckim – rozmawia Iwona Szafrańska' [Polish Compositional School – Does it exist? Iwona Szafranska talks to Paweł Szymański, Stanisław Krupowicz and Andrzej Chłopecki], *Dysonanse*, Special Issue, (1997): 42.
[71] Ibid.

sound colorism is meant to be explicable. It is symptomatic that in the popular understanding (if there actually is popular discourse about sonorism...) it reaches back to Impressionists (read Debussy), but it does not dare to encroach on the territory of *klangfarbenmelodie* of the Viennese School. It is also symptomatic that the term was applied inherently to the idea of non-traditional ways of articulation on traditional instruments but it remained foreign to electroacoustic music, which was the only one to substantially develop ideas of sonorism. The attempts to point out that sonorism developed a particular form (segmental form, catalogue form) limits the notion in the same way as does that of orthodox dodecaphony. Just as dodecaphony very quickly began to serve various aesthetics (not excluding neoclassicism), so did sonorism serve a variety of forms (without excluding a form of permanent variation, characteristic of dodecaphonists). The existence of sonorism, which in practical terms can be identified with the Polish School of the early 1960s, is perhaps as uncertain as that of the Polish School itself. Moreover, it is not very helpful that Germans are not quite sure what to do with their equivalent of sonorism, that is, *Klangkomposition.*[72]

This view is supported by Szymański who adds to the short list 'the emblematic works – [Kilar's] *Riff*, [Górecki's] *Scontri*, the first scores of *Górecki.*'[73]

To those who were outside Poland, the Polish school was not a myth nor was it an artificial construct. This perspective on the issue is brought out by Roman Berger in the second issue of *Dysonanse*:

> For me, as a participant in the process of New Music living outside of Poland, the Polish School phenomenon of the late 50s and 60s is not only a fact but a significant fact, which played an important role in my life. Musicology describes the Polish school of sonorism [PCS] using terms such as sonoristics, or limited aleatory. The question arises whether phenomena of this kind resulted in the fact that, for example, Warsaw Autumn, inseparable from the Polish school, became a 'Mecca' for musicians from all over the world, and that Poland grew in the Eastern-block to the rank of 'Promised Land' - to the rank of myth? What was this power, forcing one to overcome what were at times not trivial difficulties in getting to Poland?
>
> The answer is freedom: the idea of freedom was emanating from Polish New Art, from the compositions of that period, there was an idea of spirit...

---

[72] Andrzej Chłopecki, 'Zabobony gasnącego stulecia' [Superstitions of the fading century], *Dissonances* [Dissonances] Special Issue (1997): 14.
[73] Ibid.

> PCS [Polish Compositional School] was not an isolated fact. In Poland one could not only obtain scores and recordings which in 'the dead world' of neighbouring countries were tabu, there were art galleries presenting 'forbidden fruit'. All these formed an integral part of the metasystem of the Polish school. The source of this phenomenon was in the particular culture and tradition.[74]

This debate was taken up in 2000 by Małgorzata Gąsiorowska in her polemical contribution entitled 'The Polish School – the End of History'?[75] Although her discussion gravitates towards the question of a direction for young composers in the new millennium, her remarks about the 1960s provide yet another example of the broad understanding of sonorism and its identification with the Polish School. Once again the idea of the 'School' implying a particular group of composers, and the sonorist trend implying a list of their works seems to be the point at issue, and Gąsiorowska feels the list is too restricted. Her critical response to the discussion between Chłopecki, Szymański and Krupowicz once again raises key problematic points surrounding sonorism:

> Indeed the reduction of the list of works of sonoristic origin to a dozen or so without naming them, and a superficial characteristisation of the trend which, through lack of knowledge of the scores, leads certain phenomena to be wrongly overlooked (for example excluding Bacewicz as a participant in sonoristic experiments, even though it was quite apposite from the time of her IV Symphony from 1953!), stands the main problem of discussion on its head. Belonging to the school is not to be judged by the intensity of the use of clusters. Indeed, on this basis names such as Lutosławski, Baird, Bacewicz, and Szabelski disappear – and this is absurd.[76]

The above statement once again confirms the continuing need for a clear definition of sonoristic works together with a delineation of the borders of sonorism and sonoristic techniques. Such clarity appears all too often to be absent from analytical writings dealing with sonoristic repertoire and its terminology.

---

[74] Roman Berger, 'Polska Szkoła Kompozytorska: Fakt, Mit? Wizja? Projekt? [Polish Compositional School: Fact? Myth? Vision? Project?], *Dysonanse* 2 (1998): 24.

[75] The debate by Malgorzata Gąsiorowska took place during a symposium organised by the Academy of Music in Kraków held between 24 and 27 October 2000. The papers from the symposium were published in 2004 as a book entitled *Duchowość Europy Środkowej i Wschodniej w muzyce końca XX wieku* [Spirituality of the Middle and Eastern Europe in Music towards the end of the XX century] (Kraków: Akademia Muzyczna w Krakowie, 2004), 129-136.

[76] Małgorzata Gąsiorowska, 'The Polish School – the End of History,' 132.

Maria Harley[77] looks at sonorism from a historical and political perspective with particular focus on its European context, in order to show direct Western European influences on Polish works. According to Harley, Stockhausen's influence on Polish composers in Polish musicological literature was either not acknowledged or not emphasised enough (except for Baculewski's monograph on Polish music).[78] Harley cites Stockhausen's *Klavierstück XI* (1956) and *Gruppen für drei Orchester* (1955-1957) as models for Serocki's *A piacere* for solo piano (1963) and *Episodes* for three percussion groups and strings (1959) respectively. Despite the differences in the aesthetic end result, Harley makes connections between spatial layout in Dobrowolski's *Music for strings and four groups of wind instruments* (1964) and Stockhausen's *Carré* (1959-1960), and notes the influence of Xenakis and Varèse on Lutosławski as well as also mentioning John Cage's influence (the last mentioned was openly acknowledged by Lutosławski). The stochastic music of Xenakis, according to Harley, seemed to exert an influence even on the titles of Penderecki's works. She remarks:

> It is easy to notice that the early titles of Krzysztof Penderecki's works mimic those of Xenakis: the Polish composer's *Anaklasis* (1960) reflects the Greek's *Achorripsis* (1957), while *Polymorphia* (1961) follows *Pithoprakta* (1956) not only by beginning with the same letter.[79]

---

[77] Anna Maria Harley (from 1987 to 2000 'Maria Anna Harley,' before 1987 and since 2000 Maja Trochimczyk), 'Polski sonoryzm i jego europejski kontekst' [Polish sonorism and its European context], *Dissonances - Pismo muzyki współczesnej* [Dysonances. Journal of Contemporary Music], Special Issue (1997): 34-40. Reprinted in English as '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: University of Gothenburg, Sweden, 1998), 62-77.

[78] According to Harley 'initially, neither Chomiński nor other scholars, such as Zofia Lissa, referred to any Western precedents of Polish musical experiments' (Harley, 'The Polish School of Sonorism and its European Context,' 62). In fact Harley overlooks numerous comments in which Chomiński referred to Western composers such as Stockhausen, Boulez, Xenakis and Cage. For instance in the chapter on sonoristics in the monograph on Polish music Chomiński writes: 'Significant here are the west European examples, in which one can also observe the old as well as new means of performance, as in Stockhausen's *'Gruppen'* for three orchestras and *'Kontakte.'* (Chomiński, *Muzyka Polski Ludowej*, 167). On the aleatoric technique and its influence on the form Chomiński writes: 'Aleatoric compositions in Polish music represent the latest experiments to move beyond the traditional form. They came about not without the influence of some American and Western European composers, particularly K. Stockhausen, P. Boulez and J. Cage' (Chomiński, *Muzyka Polski Ludowej*, 170). Chomiński also acknowledges Varèse and Stockhausen in providing the models for introducing percussion instruments of non-European descent (Chomiński, *Muzyka Polski Ludowej*, 132 and 138).

[79] Harley, 'Polski sonoryzm i jego europejski kontekst,' 34.

Harley emphasises the role of Witold Lutosławski in introducing 'a Polish variant of 'chance music' to his compositional technique of 'controlled aleatoricism.'[80] In the context of sonorism and its link to visual arts, Harley's brief description of Lutosławski's sketches is valuable:

> ...the sketch material for *Trois poèmes d'Henri Michaux* and *Paroles tissées*, both of 1963, contains many drawings of geometric patterns, for example, lines points, squares, and triangles, as well as irregular shapes, all representing different textures and various directions of sound motion in time-and-pitch space. The composer drafted the overall sequence of musical events on graph paper and worked out details, such as the exact spacing and beginning/ending points of pitches in a sustained chord, the envelope of which would create a clearly marked "sound plane" [powierzchnia dzwiękowa].[81]

To this list of Western influences, Harley adds Bruno Bartolozzi's experiments with multiphonics. Taking publication dates into account, Harley concludes that Szalonek's research into multiphonics 'clearly postdate[s] and follow[s] those of Bruno Bartolozzi.'[82] However, in an interview published in *Opcje* (1993) with Iwona Szafrańska, Szalonek defends his position as an inventor of multiphonics.[83] Despite many Western influences Harley stresses that 'the Polish school of sonorism may be seen as a creative and original historical development primarily in that it brought texture, dissonance and sonority to the forefront of compositional interest.'[84]

---

[80] Harley, 'The Polish School of Sonorism and its European Context,' 66.

[81] Ibid., 66. Harley also included a page for *Trois poèmes d'Henri Michaux* as well as a page from a sketch for Dobrowolski's *Music for strings and four groups of wind instruments* (1964) and a fragment of Stockhausen's sketch for *Carré*, part II (pp. 64 and 65 respectively).

[82] Ibid., 63.

[83] 'Wokół sonoryzmu. Z Witoldem Szalonkiem rozmawia Iwona Szafrańska' [Around sonorism. Witold Szalonek talks to Iwona Szafranska], *Opcje* [Options] no.2 (1994): 76. Szalonek said: 'yes, I remember, I worked on this problem for a few years. I had already written a few compositions when in 1968 during the Warsaw Autumn I met Otto Tomek (chief of the music WD in Cologne) who said "notate this otherwise somebody will knock it off from you," so I wrote this article. And then in 1969 Konstanty Ragamey in Hamburg on the SIMC festival after the premiere of my *Mutazioni*, informed me that there is an Italian who published a book on that subject. I received it later. Bartolozzi however, uses different notation. My notation is a lot simpler. It operates with a smaller number of signs needed to notate unusual positions on the given wind instrument. Besides, he made an error resulting from the notation obtained from oscilloscope and oscillograph (all constituents of sounds) notated as sound phenomenon of the same intensity. It is an obvious error, a non-tolerable fact. Without presumptuousness: my notation one day will pass into history as Polish notation.' In my interview with Szalonek in 1998 Szalonek also recounted this story.

[84] Harley, 'The Polish School of Sonorism and its European Context,' 72.

In her brief summary of the main sonoristic traits, Harley proposes her own definition of a sonoristic piece:

> ...we shall define sonoristic compositions as those that do not contain recognizable rhythmic patterns and melodies, but instead, consist of a series of textures with varied durations, registers, density, timbres, and dynamics. ... Works in this style often feature an unusual choice of instruments and their unconventional combinations, as if the variety of timbres were to compensate for the loss of precise pitch organization. Some sonoristic works are, in fact, nothing but a series of unusual sound effects: Penderecki's *Fluorescences* (1962) is often cited as an instance of this so-called 'catalogue sonorism.'[85]

In her discussion of the sonoristic repertoire, Harley seems to support Droba's list of sonoristic works, including the pieces of extreme nature labelled as 'total sonorism' but speculates about Bacewicz's works from the early 1960s:

> Bacewicz's *Pensieri Notturni* (1961) and *Musica sinfonica in tre movimenti* (1964) are absent from this list, perhaps because these works are not as simple formally or as limited in their sonoristic means as the typical 'sonoristic manifestos.'[86]

For those who simply associate sonorism with sound colorism, the works of Bacewicz and Baird from the 1950s and 1960s may also seem to be part of the sonoristic trend.[87] Apart from the well known names such as Lutosławski, Penderecki and Górecki, Harley's list of composers 'who declared allegiance to the school of sonorism' comprises the following: Serocki, Dobrowolski, Grażyna Bacewicz (1909-1969), Krystyna Moszumańska-Nazar (b. 1924), Schaeffer, Kotoński, Szalonek, Bernadetta Matuszczak (b. 1937), Kilar, Zygmunt Krauze (b. 1938) and Marta Ptaszyńska (b. 1943).[88] Harley considers that 'since the sonoristic school had never been declared a fixed "compositional group," the list of its members was fluid,' and concludes that 'an all-

---

[85] Harley, 'The Polish School of Sonorism and its European Context,' 71.

[86] Ibid., 69.

[87] *Variation without a Theme* (1962) by Baird and *Contradizione* (1966) by Bacewicz are the closest pieces to sonorism.

[88] Harley, 'The Polish School of Sonorism and its European Context,'68. The opinions about sonorism of some composers listed above are discussed in the chapter 'Composers' and musicologists' retrospective view of the sonoristic period.'

inclusive list of 'sonoristic' composers does not exist."[89] But as indicated earlier, if one considers sonorism as a trend rather than a school, this arguably becomes a non-issue. On the notion of the Polish School, Harley is in support of Kaczyński's stance that 'the Western perception of Polish composers forming a unified "school" arose mainly because this music was presented as a package, in the context of one yearly event: the *Warsaw Autumn* International Festival of Contemporary Music.'[90] As indicated in the Introduction, the perception of the new Polish repertoire by foreigners as 'unified,' as opposed to the stylistic differences expressed by most critics from within Poland, is not surprising. Danuta Mirka, has noted that 'when foreign observers concentrated on the aesthetic unity of Polish music as an integral phenomenon in musical life, Polish critics reacted by turning their own attention to the variety and wealth of its stylistic resources.'[91] While Mirka remains sceptical about indicating 'any definite set of properties constituting the touchstone of the 'Polish school' - which in this context is a substitute for sonorism - the approach taken in this study takes both views into consideration and both views are treated as complementary and useful. While the perception of sonorism from the outside brings to the surface the common procedures, that is the 'footprints' within sonoristic repertoire, the view from the inside expressed mostly by the Polish writers points to the stylistic differences between composers, or the 'fingerprints.' This is developed further in Chapter 7.

Mirka's own contribution to the literature on sonorism lies in the areas of music theory and analysis. Her PhD dissertation, *The Sonoristic Structuralism of Krzysztof Penderecki* (1997), presents a systematic approach to the analysis of sonoristic works by Penderecki.

---

[89] Ibid., 68.

[90] Harley, 'The Polish School of Sonorism and its European Context,' 72. Harley footnotes this view with Tadeusz Kaczyński (Warszawska Jesien [WarsawAutumn] Kraków: PWM, 1983). In her introduction to *The Sonoristic Structuralism of Krzysztof Penderecki* Mirka also discusses the issue of perception of a Polish School by foreigners and quotes Detlef Gojowy: 'Composers such as Witold Lutosławski, Tadeusz Baird, Kazimierz Serocki, and Krzysztof Penderecki were perceived as a group right from the beginning. This perception was in part due to historical and cultural-political preconditions, which remain to be investigated. In 1956 Poland, which until then had been cut off from world-recognition, came to the fore suddenly and unexpectedly, with evidence of its rich intellectual life, of which one had had no inkling before that point in time. In the wake of this sudden appearance, even areas of diversity may have taken on the appearance of belonging together.' Detlef Gojowy, 'Avantgarde in Polen,' *Music und Bildung* 12 (1975): 618-621, quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 4.

[91] Ibid., 4-5.

Following earlier analysts' steps (mainly Zieliński, Bilica and Droba), Mirka outlines what she perceives as a coherent and rigorous system which governs Penderecki's sonoristic output. By analogy with systems in linguistics theory and fuzzy logic, she developes an analytical method which she sees as appropriate exclusively to Penderecki's works written between 1959 and 1962: *Anaklasis* (1959-60), *Dimensions of Time and Silence* (1960-61), *Threnody – to the Victims of Hiroshima* (1960), *String Quartet No. 1* (1960), *Polymorphia* (1960), *Fluorescences* (1962) and *Canon* (1962). The sonoristic system is composed of two subsystems: the basic system and the timbre system which, according to Mirka, inform the inner structure of Penderecki's above listed works. The basic system involves 'three of the four parameters of auditory perception: pitch, loudness, and time'.[92] On the basis of those parameters the binary opposites are founded 'as elementary structures of the system.'[93] Thus in relation to pitch, the perceptual binary opposites are: spatial continuity/discontinuity, spatial mobility/immobility, high/low register and middle/extreme register. In relation to volume the opposition involves loud/soft dynamics, and in relation to time, the three binary opposites are temporal continuity/discontinuity, temporal mobility/immobility and maximal/minimal time-span.[94]

A timbre segment, as a part of a timbre system, is defined as follows:

> ... a 'timbre segment' [is] defined as a set of sounds resulting from several sound-generating processes.[95]
>
> ... [timbre segment] as an elementary syntactical unit of Penderecki's timbre system, requires both the specification of all materials involved in the generation of its component sounds, and the identification of those which function as main materials.[96]

Furthermore the timbre system's main characteristic, as Mirka points out, is that 'its categories are defined not on the acoustic level, but on the preceding, motor level of

---

[92] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 31.
[93] Ibid.
[94] Ibid.
[95] Ibid., 67.
[96] Ibid., 70.

sound generation.'[97] The graphic representation of both subsystems on a summary chart first separately and then together, is provided with every piece listed above. Those who are expecting to 'see' a formal outline of a piece in a diagram will be disappointed. As the main focus of Mirka's study is on each segment as a syntactical unit of both systems, the graphic diagram of a 'system at work' does not reflect the structure of a piece, nor do they explain their dramatic textural narration. The absence of the overall form in her sonoristic system has already been noted by Zbigniew Skowron:

> ...it is to be regretted that the author left her 'summarizing' diagrams with no comments on the overall structural peculiarities of the analysed works, especially as far as the nature of their unfolding (or their internal dramaturgy) is concerned. The fact that each of these works displays a different 'dramatic' trajectory (with its different ways of growing, culminating and fading away), certainly gives an opportunity to pinpoint the expressive effects of a given structural scheme.[98]

As the sound generation processes are at the heart of sonorism and are integral to the timbre system, two works written in the early 1960s draw immediate attention. The analysis of *Canon* (1962) for string orchestra and tape only involves the orchestral parts. *Psalmus* (1961) for tape is excluded from the list of analysed works. The explanation, according to Mirka, lies in the fact that her categories are defined for traditional instruments and cannot be applied to electronically produced sounds.

However, in the case of *Dimensions of Time and Silence* (1960-61), which is also considered in my study, what seems to be questionable is the absence of vocal parts as a category in a full list of sound generation processes. As a result, the vocal layer, which greatly influences the overall sonority of the piece and underlies the formal plan is not represented in either the graphic diagram of the timbre system or the summary chart. Mirka explains this oddity as follows:

> Material categories chosen for the timbre system are exclusively solid bodies. Thus air does not appear in the table, even though it functions as inciter and vibrator of the human vocal organ, and

---

[97] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 63.

[98] Zbigniew Skowron, 'Danuta Mirka, The Sonoristic Structuralism of Krzysztof Penderecki (Katowice: Akademia Muzyczna, 1997, pp.363), book review in *Studies in Penderecki*, vol. 2, eds. Ray Robinson and Regina Chłopicka (Princeton NJ: Prestige Publications, 2003): 305-311.

in traditionally played winds. Consequently, from the point of view of the timbre system in Penderecki's sonoristic style, both singing and blowing are considered as neutral, 'transparent' sounds, without any impact on the timbre of individual segments. [99]

The purpose of this study is to provide a different perspective. The main areas in which the two analytical approaches diverge are firstly the consideration of formal outline articulated by timbre and texture, and the perceptual aspect of 'sound as texture,' which are typical sonoristic traits of the repertoire in question.[100] Both aspects are a crucial part of my definition of a sonoristic piece provided in an introduction to the analytical part of this study.

In a monograph *Minimalism in Polish Music* by Joanna Miklaszewska, the influence of the sonoristic trend is discussed in relation to music by Tomasz Sikorski.[101] The author deals with the works written after 1970. Both trends, minimalism and sonorism, according to Miklaszewska, are present in Sikorski's works since the 1960s. However, the author does not regard Sikorski's pieces as typically sonoristic as they 'do not constitute the main idea of the piece.'[102] This view is also supported by Andrzej Chłopecki:

> Sikorski was not a sonorist and almost nothing connects him with the greatest sonorist Kazimierz Serocki. His voice in the 1960s sounded - as we can say today – a polemical note. It sounded amongst an orgy of clusters and shrill effects, sound cascades and eruptions of energy. Sikorski then undertook a polemic with Polish sonorism on its side, as it seemed - the side of the sensitivity to sound, timbre, nuance. However, listening to music from those days it is not difficult to come to the conclusion that (except for Serocki) sonorism was not about sensitivity to sound but sound discovery; not only this – paradoxically, the latter [sound discovery] simply contradicted the former [sound sensitivity].[103]

---

[99] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 83.

[100] Thomas, *Polish Music since Szymanowski*, 190.

[101] Alicja Miklaszewska, *Minimalizm w muzyce polskiej* [Minimalism in Polish Music] (Kraków: Musica Iagiellonica, 2003).

[102] Ibid., 59.

[103] Andrzej Chłopecki, 'Cztery dominanty' [The Four Dominants], *Ruch Muzyczny* 24 (1989): 6, quoted in Miklaszewska, *Minimalizm w muzyce polskiej*, 59.

This statement may be true in relation to works written during the 1970s. However, it can be argued that Sikorski's works from the 1960s are based on the main characteristics of the sonoristic trend. It was inevitable that sonorism was assimilated inherently with the search of new sonorities and articulations, and these aspects were most emphasised in the early 1960s. However, perception of the avant-garde was already changing by the mid-1960s. Of course this did not necessarily mean the end of sonorism; composers continued to write sonoristic works, but the aspect of novelty was no longer the principal asset of a good piece, as Leon Markiewicz wrote in 1965 about Serocki's *Frescoes* (1963-1964):

> After all it is possible to write a good piece without the ambition of showing something new at any cost, on the assumption that some compositional devices first used by somebody else must be consolidated in a number of pieces... [104]

Although the issue of who is and who is not a sonorist is the source of much discussion, Chłopecki's earlier comment indicates one important aspect of Sikorski's and Serocki's works and that is the sensitivity to sound with a premium placed on the discovery of new sounds. Indeed, if all the works widely regarded as 'sonoristic manifestos' were scaled according to the degree of radicalism and ardent expression, Sikorski's and Serocki's works stand on the softer end of the scale. By the time Serocki and Sikorski wrote their 'sonoristic manifestos' the initial sound discovery and fascination with the new had been gradually transformed into sensitivity and refinement, as pointed out by numerous analysts.

In examining Sikorski's connections with sonorism, Miklaszewska discusses sound quality, the use of clusters, the variety of articulation and sound structures as the main formal elements in *Antyphony, Sonant and Holzwege*. Miklaszewska generally emphasises the influence of minimalism and aleatorism in Sikorski's works. However, the study would benefit greatly by enlarging the context for Sikorski's minimalism by the inclusion and analysis of the main sonoristic devices in his earlier works.

---

[104] Leon Markiewicz, 'Serocki's *Symphonic Frescoes*,' *Ruch Muzyczny*, no. 21 (1964): 9.

Further instances of associating sonorism primarily with new sound effects appear in two recent studies by Alicja Jarzębska, 'Innovative sound effects and its notation: the term "sonoristics" of Józef Chomiński' (2002)[105] and 'Innovative sound effects – sonorism' (2004).[106] Her main focus is on non-traditional ways of playing and the new notation of the avant-garde scores of the 1960s. Jarzębska explains both 'sonoristics' and 'sonoristic regulation' as follows:

> The term sonoristics [sonorystyka] generally refers to the above-mentioned innovative, non-conventional acoustic effects and the associated symbols used in avant-garde scores.

> The term 'sonoristic regulation' [regulacja sonorystyczna] generally refers to such compositional technique as seek – both from traditional, vocal-instrumental sound sources (Szalonek, 1973, Dziębowska 1979, Kotoński 1981) and from the new, electroacoustic media – to produce innovative, non-conventional sound effects including those with percussive-whispering characteristics. In particular, the idea of so-called electronic music, composed by assembling various 'clean sounds' ['czyste brzmienie'] on tape, required from composers new skills also referred to as 'sonoristic regulation.[107]

For Jarzębska, sonoristics is not necessarily tied merely down to the Polish school and 1960s. In her explanation of the above terms, Jarzębska quotes Chomiński's terminology and definitions from 1983, when Chomiński had already shifted his main focus away from the works written in the 1960s. In her discussion of coloristic and temporal aspects of twelve-tone chords Jarzębska refers to Stravinsky (*The Flood*, 1962) and the works of Penderecki written after 1970 such as Symphony no. 1 (1972-73), *The Dream of Jacob* (1974), *Te Deum* (1979/80), and the Symphony no. 5 (1992). In relation to Lutosławski, Jarzębska emphasises that the formal structure of the pieces is influenced by the specific coloristic quality of the twelve-tone chords and their intervallic structures. The author

---

[105] Alicja Jarzębska, 'Nowe efekty dzwiękowo-szmerowe i ich notacja: pojecie 'sonorystyka' Józefa Chomińskiego [Innovative sound effects and their Notation: Józef Chomiński's term 'sonoristics'], in *Z dziejów mysli o muzyce* [From History of Ideas about Music], (Kraków: Musica Jagiellonica, 2002), 247-251.

[106] Alicja Jarzębska, 'Nowatorskie efekty brzmieniowe – sonorystyka' [Innovative sound effects] in *Spór o piękno muzyki. Wprowadzenie do kultury muzycznej XX wieku* [Dispute about the Beauty of Music. An Introduction to the Musical Culture of the 20th Century], (Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego, 2004), 233-242.

[107] Jarzębska, 'Nowe efekty dzwiękowo-szmerowe i ich notacja: pojecie 'sonorystyka' Józefa Chomińskiego, 249-250.

refers to diverse works such as *Five Songs* (1957) and *Livre pour Orchestre* (1968) to discuss the coloristic aspect of 'carefully selected sound fields.' The range of works and composers, the sonoristic characteristics of the pieces Jarzębska discusses, once again supports the already voiced view by Kostrzewska about the vagueness of the term sonorism and its close association with innovation and the coloristic aspect of works belonging to the diverse trends of the 20th century.

More recently, Adrian Thomas's *Polish Music since Szymanowski* presents the most complete picture of the period from both historical and theoretical points of view. The chapter devoted to Sonorism and experimentalism deals extensively with the avant-garde repertoire of Penderecki and Górecki, as well as Schaeffer and Szalonek. The problematic issues of the terms 'sonorism' and 'Polish School' and their interchangeable use open Thomas's discussion:

> Among the terms and labels attached to Polish music after 1956, those of the 'Polish School' and 'sonorism' are the most frequent and among the most elusive.[108]

If one were to construct a definition of a typical sonoristic piece, Thomas' chapter on sonoristics provides a wealth of analytical insight grounded in an extensive knowledge of the Polish repertoire. While the focus is on the most representative figures such as Penderecki and Górecki, lesser known composers including Serocki, Szalonek, Kotoński and Sikorski are also included although to a much lesser extent. In relation to Penderecki, Thomas' five main areas of consideration include 'exploration of single pitch class, clusters, heterogeneous sound shapes, homogeneous or canonic inventions and percussion.'[109] Even though the extent to which the discussion on sonorism can be undertaken is limited by the scope of the book, Thomas manages to include the first reviews of the pieces, the intricate compositional details of selected works, and he points to stylistic differences between composers that for a short period of time were grouped together by the common traits and characteristics of the wider trend:

---

[108] Thomas, *Polish Music since Szymanowski*, 160.
[109] Ibid., 168.

As later consideration of other composers will show, there were different Polish takes on sound as texture. The crucial difference between the Pendereckian brand and Górecki's angle on the issue is that for the latter, despite the vigour of *Genesis*, it was a short-term solution to serialism. His mid-1960s 'crisis' was eventually resolved by incorporating and even adopting anew some of the broader features of sonorism – textural blocks, repetition of motifs, homogeneous textures and slow rates of change – into an environment conditioned by harmonic and modal considerations. The catalyst was twofold: the seemingly modest and innocuous *Three Pieces in Old Style* for strings (1963) and *Refrain* (*Refren* for orchestra, 1965), his first foreign commission and premiere.[110]

Finally, Iwona Lindstedt's article, 'Józef Michał Chomiński's Theory of Sonology,' is paramount in the examination of Chomiński's writings by Polish writers.[111] For researchers without primary access to Chomiński's writings, published in Polish musicological periodicals and books for over twenty years, this comprehensive survey will be an invaluable resource and a starting point for further investigations. The article surveys Chomiński's theoretical writings in great detail and concludes with a brief criticism and reception history. According to Lindstedt, Chomiński's sonoristics developed into a cohesive theory of sonology, which she describes as follows:

> ... a unique theoretical system, unprecedented in musical thought of the twentieth century. On the one hand, the theory was a sensitive barometer of changes taking place in contemporary compositional techniques; on the other hand, the theory itself directed composers towards new perspectives for creating innovative sound systems, regulators of sound quality and new structural systems.[112]

Although there may be a consensus among most Polish writers over the treatment of Chomiński's notion of sonoristics as a theory or a theoretical system, the degree to which they have inspired and influenced Polish composers remains to be investigated.[113] It needs to be emphasised that in 1961, at the hight of sonorism, when Chominski published

---

[110] Thomas, *Polish Music since Szymanowski*, 190.
[111] Lindstedt, 'Teoria sonologii muzycznej Józefa Michała Chomińskiego' [Józef Michał Chominski's Theory of Sonology],' *Muzyka* 51, no. 1-2 (2006): 33-84.
[112] Ibid., 69. Transl. Zofia Weaver.
[113] For instance, Kotoński said 'back then I did not know Chomiński's theory' (Letter to author, October 27, 1999); in the 'Epilogue: Composers' Views of Sonorism' I include comments by various composers on this subject. Most composers would acknowledge the importance of sonoristics as a trend in Polish music. However, this does not mean that the 'theory' itself influenced them to compose in a certain way.

the article with first theoretical foundation for sonorism, most composers probably were not familiar with it. What is often overlooked in the literature is that by 1968, when Chomiński's expanded article on sonoristics appeared, most of the Polish 'avant-garde' had already moved away from sonoristic technique. It was the actual repertoire of the Polish post-war avant-garde presented during the Warsaw Autumn festivals that provided the most influential stimulus amongst composers of both the older and younger generations. The extent to which composers knew Chomiński's articles in the early 1960s and were influenced by Chomiński's writings need further research.

In her examination of Chomiński's writings, Lindstedt emphasised what Dziębowska earlier had selected from Chomiński's key ideas, namely that the analytical focus should be on the actual and perceptible 'shape of sound' (kształt brzemienia), whose notation is to be treated as a projection of the composer's creative intent.'[114] By focusing on the actual sound and following up from Chomiński's observations about the increasing role of electronic devices in both composition and musicological research, Lindstedt proposes a path for further development and continuation of the 'theory of sonology' with the aid of sonograms:

> Analysis supported by spectromorphological image of 'sound objects' seems the most effective option for further research into musical sonoristics. So far, the musical literature has not taken into account the need for extending the analysis of timbral phenomena to issues of their acoustic shape and psychologically conditioned perception. This would undoubtedly demand empirical studies on the basis of actual performances.[115]

While the term 'sonoristics' is reaching wider recognition and use, and Chomiński's writings in turn are gaining the interest and attention of a wider community of scholars, the sonoristic repertoire itself remains largely unexplored (with exception of certain well known works by Penderecki and Górecki). With en exception of Penderecki's *Threnody*, other key sonoristic works feature rarely in concert hall programs, if at all. For instance Górecki's early works from the early 1960s are now largely eclipsed by the success of the

---

[114] Lindstedt, 'Teoria sonologii muzycznej Józefa Michała Chomińskiego,' 69.
[115] Ibid., 65.

Symphony no 3. For a great number of pieces, including those studied in this thesis such as *Diphtongos* by Kilar, *Scultura* by Schaeffer, and *Sequenza I* by Sikorski their premieres, documented on the Warsaw Autumn LPs, are the only existing recordings.[116] Although this chapter has dealt with Chomiński's writings on sonoristics and their reception, the focus of the thesis is on the sonoristic repertoire itself.

I hope that my discussion of emblematic sonoristic pieces will provide a broader context for the better-known sonoristic works, and will encourage other scholars to revisit the sonoristic repertoire and examine both the scores and their existing sonic documentation. This in turn may result in new performances and recordings of the repertoire from one of the most exciting and important periods in Polish music. With all due respect, Chomiński's path 'from music to theory' now needs to be reversed. For musicological investigation in this area to proceed further, there is an urgent need to return to immersion in the repertoire itself: in its scores (far more than the few works examined here), and the way they sound. After that, one can return to the 'sonorist' theories, and see what basis there is for endorsing, relativising and, perhaps, expanding them.

---

[116] However, in 1999 Szalonek's *Les sons* was one of the works featured on one of the Warsaw Autumn 'chronicle' CDs, and recent Warsaw Autumn Festival programmes are starting to 'revive' works from the sonorist era.

PART 2.

Introduction

Part II of this thesis is a critical/analytical study of the sonoristic repertoire. The central focus of this is contained in the analytical discussion in Chapter 6. This is preceded by preliminary chapters discussing texture in a wider context, the path to sonorism in specifically musical terms, and specific aspects of notation in sonoristic pieces. Before doing this, clarification of terminology used in this section is needed.

In his consideration of Sonorism, Droba delineated a category of works which he called 'total sonorism' or 'sonoristic manifestos.'[1] Droba pointed out that 'in total sonorism' as the result of eliminating the pitch-related material, we deal with *aharmony* and *amelody*.'[2] The other elements that are common to a large number of sonoristic works are preference for large clear-cut textures, strong expression, sharp contrast, sensitivity to timbre and the exploration of extended instrumental techniques. Indeed these were the unifying features – amongst other individual stylistic differences - that led commentators to perceive Polish composers as 'a school,' which had little in common with most compositional schools, as Roman Berger explained:

> The phenomenon described ad hoc as Polish compositional school, was not in a strict sense anything comparable with, for example, the Second Viennese school, with Darmstadt, with Ircam etc. It was not a parallel to the Paris Six or The Mighty Five. It was a spontaneous movement, a new wave in the context of a current 'megatrend.'[3]

The term 'sonoristic manifesto' as a label to describe sonoristic pieces had been used and continues to be used to describe certain works within the sonoristic repertoire in which

---

[1] Droba, 'Sonoristic. The term and range of the notion,' 4.
[2] Ibid.
[3] Berger, 'Polska Szkoła Kompozytorska: Fakt, Mit? Wizja? Projekt?,' 29.

the use of sonoristic techniques was extreme.[4] The sonoristic trend passed through Polish music spontaneously. Mirka has alluded to the fact that composers did not form any group under the banner of sonorism nor was there any written manifesto setting out the aesthetic goals or theories.[5] In fact, as outlined in Chapter 2, the only theoretical writings, produced almost in parallel with the repertoire, were those by Chomiński. Szalonek's unpublished article 'Sonority and its Form Shaping Powers' written in 1976 is the only written document by a composer and contains a number of principles in relation to sonorism.[6]

Although many writers refer to Chomiński's analytical investigations and his broad definition of sonorism, not many scholars have attempted to define a sonoristic piece.[7] With clear pointers from Chomiński's writings and repertoire composed between 1958 and 1966, I define a sonoristic piece as a primarily textural composition, in which timbre whether of a single instrument or the overall sonority of an entire texture, plays a primary role in formal design. There are minimal functional motivic traces (except when used to create certain effects within a texture), and extended instrumental techniques and sharp contrast play an important role, especially in the juxtaposition of textures. The more extreme works are also characterised by particularly clear-cut textures and a fast rate of change between textures.

The concept of timbre and texture lie at the roots of sonorism. Firstly, the timbre or tone colour embraces the aural information needed to identify a sound source. The quality of tone colour depends on the harmonics and the intensity of some harmonics over others, or, as defined in the Harvard Dictionary of Music, 'more precisely the greater or lesser prominence of one or another harmonic.'[8] Secondly, texture is understood here as a sum of individual parts and the interaction of the aural events contained in these parts. While

---

[4] See Tomaszewski, *Krzysztof Penderecki and His Music* (Kraków: Akademia Muzyczna, 2003), 84, Droba, 'Sonoristic. The term and range of the notion,' 4, Harley, 'The Polish School of Sonorism and its European Context,' 69, Iwona Szafrańska, 'Czy istnieje polska szkoła kompozytorska,' 41-42.
[5] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki,*6.
[6] The entire text is included in the last chapter, 'Epilogue: Composers' and Musicologists' Retrospective View of Sonorism and the Sonoristic Period.'
[7] For example Harley's definition of a sonoristic piece, quoted in Chapter 2.
[8] Willi Apel, 'Tone colour,' *Harvard Dictionary of Music* 2nd ed., (London: Heinemann Educational, 1971), 856.

78

various articulations, dynamics and pitch content may define the single part, the sum of these parts, in turn creates a variety of textures. Other terms related to texture include textural layer (textural unit) and textural block. A textural layer is applied to a homogeneous textural constituent of a larger texture or textural block. The quality of a textural block may be determined by individual textural layers and be perceived as either homogeneous (if the individual layers are perceived as unified despite their differences) or polygeneous (if the differences in articulation, pitch, rhythm, dynamics and/or timbre between layers are perceived as pronounced).

As discussed in Chapter 2, Chomiński introduced a number of concepts and terms to deal with the new repertoire. In relation to the sonoristic works considered in this study, only Chomiński's writings up to 1968 are directly relevant, since they deal with the repertoire from the same period. In relation to temporal regulation Chomiński introduced two terms: monochrony and polychrony.

> The monochromic principle consists in the stabilization of the time unit, permitting the use of a variety of rhythmic and metric norms. Therefore, starting with mensural rhythm and ending with the most complicated polymetric simultaneous structures, everywhere the real foundation is monochrony. However, acceptance of a constantly variable time unit is the very essence of the principle of polychrony.'[9]

The latter category (polychrony) is, in Chomiński's view, typical of sonoristic works in which bars are usually replaced by sections measured in seconds. However, it is not a matter of the presence or absence of a bar line and metre, but the stability of a metrical unit that defines these two categories. While on the whole both terms seem to be clearly defined, their application in the analysis can be problematic. The issue arises as to whether to apply these terms on the basis of the score and a choice about instructions to the performers or whether the distinction between the two categories is made purely on a perceptual level. The effect of passages with a stable time unit (monochronic according to Chomiński) is, in many cases, similar if not identical to passages with polychromic time regulation. For these reasons these terms have not been adopted here, despite their wide usage by other writers in relation to this repertoire (primarily in the Polish musicological

---

[9] Chomiński, 'The Contribution of Polish Composers to the Shaping of a Modern Language,' 187.

literature).[10] Instead, general terms such as temporal regulation or regulation of time are applied in this study to encompass a variety of procedures related to meter and agogics.

In contrast, from Chomiński's wide range of terminology, certain expressions related to textures, such as the two broad categories of homogeneous and polygeneous sonorites are relevant and useful to indicate how textures are constructed. Chomiński also stressed that, in relation to textures, the general tendency, as observed in the new Polish repertoire, is to move towards building homogeneous textures. This is achieved by applying the same articulation to instruments varying in timbre which share musical material. In this way some instrumental groups assimilate characteristics of other instrumental groups. A typical example is the use of percussive sounds played by strings, or rustling/whispering sounds in vocal parts. 'Thus, assimilation becomes a source of rendering sound homogeneous, despite diametrically different sound generators.' [11] While these procedures are implemented essentially to reduce contrast between parts, the aim here is also to produce larger textures. This is one of the most important procedures in sonoristic technique and the source of contrast between textures used as a structural device on both the micro-level (within a movement or section) and the macro-level (between movements or sections).

However, the same articulation applied to the same musical material may not always result in the perception of texture as homogeneous in timbre, especially if such a texture is composed of different instrumental groups such as strings and winds. This aspect of sound perception was clearly emphasised by Chomiński and placed the overall sonority of texture shaped by articulation at the centre of analytical investigations.[12] Therefore, the

---

[10] See for example Baculewski, 'Historia Muzyki Polskiej, tom VII: Współczesność I: 1939-1974,' 297 or Bożena Gawrońska, 'Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego 1960-70' [The organization of musical fabric in the oeuvre of Kazimierz Serocki], Muzyka no. 2 (1981): 33.

[11] Chomiński, 'The Contribution of Polish Composers to the Shaping of a Modern Language,' 206.

[12] '...the division into groups (woodwind, brass, percussion, strings) even today frequently leads to superficial descriptions in analysis of a musical work, descriptions which do not reflect the essential properties of sound. During our technological considerations, we found that the enrichment of the means of articulation frequently changes fundamentally the very nature of the sound of a given instrument, or, more accurately makes it possible to emphasize various sound categories. This becomes a means of giving sound polygeneous and homogeneous effects... .' Chomiński, 'The Contribution of Polish Composers to the Shaping of a Modern Language,' 201.

extent to which a homogeneous texture (a texture in which all the parts share the same musical material and are unified by articulation and dynamics) will sound homogeneous and be perceived as one mass of indiscernible individual parts will vary from texture to texture. Thus the distinction of the overall sound effect of a texture whether homogeneous or polygeneous to its visual representation in the score should always be made.

'Sound impulses' is a general term which Chomiński used in relation to the temporal organization of short sound events in a section measured in seconds.[13] Gawrońska adopted the term in connection with her discussion of Serocki's sonoristic works. She describes several models for the succession of short sounds: for example, aperiodic succession of short notes, gradual acceleration and slowing down, repetition of the same note or group of notes, playing as fast as possible and rapidly, and aperiodic reiteration of a note.[14] This study uses the term in the same sense as Gawrońska and also, since the term itself implies a succession of short events, it is used to describe discontinuity of sounds and series of short sound attacks.

More specific words are used to describe textures in relation to specific works or composers, in order to emphasize their 'fingerprints' and the individual characteristics. For instance, in relation to Serocki's works, the term 'glittering texture' introduced by Grzegorz Michalski well reflects the connection between 'seen and heard,' and 'segments' instead of sections or measures, the latter specifically applying to *Segmenti*.[15] In relation to *Scultura* by Schaeffer, the term 'marker texture' is applied to a characteristic texture integrating the movements. These are specific 'sound ideas' which are very distinctive in their aural effect and are typical of individual composers.

---

[13] Chomiński, 'The Contribution of Polish Composers to the Shaping of a Modern Language,' 187.

[14] Gawrońska, Bożena. 'Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego 1960-70' [The organization of musical fabric in the oeuvre of Kazimierz Serocki], *Muzyka* no. 2 (1981): 41.

[15] Grzegorz Michalski, 'The Glittering Music of Kazimierz Serocki,' *Music in Poland*, 1-2 (1983): 15.

Clusters are the core technical device of sonoristic technique. Thomas has already noted the fundamental importance of clusters within the sonoristic trend.[16] Indeed clusters are one of the most frequently discussed sonoristic devices. The range of clusters used in the sonoristic repertoire also leads to the need to clarify the definition of this fairly loose and imprecise term. Initially, in 1930, Henry Cowell defined clusters as 'chords built from major and minor seconds, which in turn may be derived from the upper reaches of the overtone series and have, therefore, a sound foundation.'[17] In the late fifties, Kagel in his response to Cowell's writings defines clusters as 'only those sounds which are at least a major third broad and filled out with major and/or minor seconds' and elaborates further on the types of clusters.[18] In sonoristic works, clusters can also be formed from smaller intervals, such as quarter-tones or microtones. Cluster-like sonorities are also achieved with imprecisely specified instructions such as 'the highest note on the instrument' as in the opening of *Threnody* by Penderecki. In this case the resulting sonority may be denser, with intervals smaller than a quarter-tone between individual component pitches. Equally, cluster-like sonorities may be built from intervals greater than a semitone, such as sustained chords on open strings or textures built from sustained chords based on widely-spaced intervals wider than semitone or a tone. Chomiński discusses the density of clusters and two particular types of clusters: 'steady pitch' and 'variable, changing pitch'[19]. This categorization, based on the movement of pitch, corresponds to stationary and non-stationary clusters. Within the variety of clusters, the individual pitches may be either static, or constantly changing creating internal movement, with changes of dynamics or articulation. The boundaries of a cluster may also change, either moving in parallel through changing registers, or expanding and contracting. In this study stationary clusters are referred to as static, and non-stationary clusters as mobile.

The notation of this emblematic device creates a distrinctive characteristic of the score which can be seen as an important aspect of the sonoristic movement. Within the

---

[16] Thomas, *Polish Music since Szymanowski*, 168-173.

[17] Henry Cowell, *New Musical Resources* (New York: Something Else Press, 1969), 117. For detailed critical investigation of Cowell's writings on the concept of a cluster, its origin and the development of the terminology and definitions of a cluster see Michael Hicks, 'Cowell's Clusters,' *The Musical Quarterly* 77, no. 3 (1993): 428-458.

[18] Maurizio Kagel, 'Tone, Clusters, Attacks, Transitions,' *Die Reihe* 5 (1957): 43.

[19] Chomiński, 'The Contribution of Polish Composers to the Shaping of a Modern Language,' 196.

sonoristic repertoire the visual representation of clusters as thick black lines is striking, and carries some expressive weight as well as indicating a way of playing. It is also worth noting that many emblematic sonoristic scores exist only as full scores. For example, for Górecki's *Elementi*, Kilar's *Diphthongos* and Sikorski's *Sequenza I* there are no individual instrumental parts and instrumentalists play from the full score. The fact that individual players see the full score means that the expressive elements of the graphic notation are communicated to the individual players and therefore might exert an influence on their interpretation in a way that individual parts would not.

Chapter 3

'Sound as Texture': Sonorism within its European Context[1]

From the very first pieces that signaled the new and distinctive path Polish composers took around 1960, one could discern two aspects: one that allowed the listener to treat them as a group of works with similar, or to a certain degree, shared characteristics and another side of individual features that allowed one not only to delineate individual composer's personalities through memorable sonorities and textures but also in some cases to trace the development of these stylistic characteristics within a composer's sonoristic path. The two complementary sides of the sonoristic repertoire can be described metaphorically as its *footprints* and *fingerprints*. The 'footprints' refer to general, widely shared sonoristic features and characteristics such as operating with large textures, treating texture and timbre as primary structural elements, sharp textural contrast, fast rate of change, and particular aspects of articulation and notation. The concept of the main footprints of sonorism as defining a movement can be best seen by discussing them in the broader European context and examining the features which differentiate Polish sonorism from other European textural composition.

The key representative works of the sonoristic period are often associated in music history books together with the works of György Ligeti (1923-2005) from the early 1960s and are often compared to those of Iannis Xenakis (1922-2001) of the 1950s.[2] As Paul Griffith writes, in the early 1960s '"texture music" was in vogue–as witness (sic) the

---

[1] 'Sound as texture' used by Thomas in *Polish Music since Szymanowski*, 190.

[2] In his *Introduction to Contemporary Music* Machlis contrasts 'pointillism' to a texture oriented approach, mentioning Penderecki together with Xenakis and focusing on common aspects of both composers' music: 'later came the idea of 'clouds' of pitches – a great many notes in the same general pitch area played very close together, so quickly that the individual sounds could not easily be distinguished. The effect could be likened to a large blurry mass, quite different from the precise, distinct notes of yesteryear. The Greek-French composer Iannis Xenakis and the Pole Krzysztof Penderecki, whose works made much use of this and related devices, also revived the tone clusters of Henry Cowell, now produced by an entire orchestra instead of by the arms of one pianist.' Joseph Machlis, *Introduction to Contemporary Music* (New York: Norton, 1979), 465.

works that suddenly established Penderecki, such as his *Threnody—to the Victims of Hiroshima* for string orchestra (1960), in which Xenakisian cluster glissandos are given a searing affect.'[3] Indeed Polish sonorism may be seen as a distinctive facet of textural composition inaugurated by Xenakis and Ligeti. Robert Morgan in *Twentieth Century Music* introduces the chapter on 'textural music' as follows:

> The trend of the later 1950s, toward shaping music through its larger sonic attributes rather than as an accumulation of individual details, was evident in an especially emphatic form in the works of two Eastern Europeans, the Pole Krzysztof Penderecki (b. 1933) and the Hungarian György Ligeti (b. 1923).[4]

Less often, if at all, does one find a substantial discussion on similarities and differences between Polish sonoristic works and those of Xenakis and Ligeti from the 1950s and the early 1960s.[5] Xenakis's two orchestral pieces, *Metastaseis* (1953-54) and *Pithoprakta* (1956) are the earliest textural works that made an impact on many composers. Stockhausen's works such as *Grüppen* (1955-57) for three orchestras, *Kontakte* (Contacts, 1959-1960) for piano, percussion and electronic sounds and *Punkte* for orchestra (1962 version) have some relevance to sonorism while *Apparitions* (1959) for orchestra and *Atmosphères* (1961) for large orchestra by Ligeti can be seen as taking a comparable

---

[3] Paul Griffith, *Modern Music and After. Directions since 1945* (Oxford: Oxford University Press, 1995), 136.

[4] Robert P. Morgan, *Twentieth Century Music. A history of Musical Style in Modern Europe and America* (New York: Norton, 1991), 386-387.

[5] Foy's chapter on the European context for Penderecki's 'texture-based' pieces and the works of Xenakis, Ligeti and Lutosławski from the 1960s is centered on the influences of these composers on each other rather than on the issue of similarities and differences between them. The discussion is limited to listing general traits that these works have in common ('large, homogeneous, often static blocks of sound; pitch clusters; new instrumental techniques; prominent percussion writing; absence of rhythmic pulse; and an overall emphasis on the exploration of sonic events) and Ligeti's and Xenakis's own comments on their approach to composition ('micropolyphony' and 'stochastic music') which confirm the 'strongly independent compositional voices.' However, in relation to Lutosławski, Foy clearly emphasised one important aspect of his approach to texture: 'the primary difference between the compositional approaches of Lutosławski and Penderecki during this period is that Lutosławski retains the element of pitch in the forefront of his compositional concerns' (Foy, *Textural Transformations: The Instrumental Music of Krzysztof Penderecki, 1960-1973*, 13-19). Adrian Thomas also mentions Xenakis and Ligeti together with Penderecki but emphasises the differences: 'There are some superficial similarities between them but the working methods are quite different. There is no equivalent in Penderecki to Xenakis's stochastic theories or Ligeti's micropolyphony. Penderecki's strength lies not in the preparatory or inner detail but in the immediate drama of extreme contrasts, in an almost visceral expressivity' (Thomas, *Polish Music since Szymanowski*, 180).

approach to texture as seen in sonoristic works though with important differences. To a certain degree works composed since 1959 such as *Spiegel II* (1961-63) for 55 string soloists by Friedrich Cerha (b. 1926), though rarely mentioned in connection with sonorism, add substance to the theory that texture and timbre were among the primary concerns for many composers at this time.[6] The aim of this chapter is not to demonstrate specific influences but to place sonorism within its European context and to address the following questions: what are the common traits that allow us to group these works together, to what extent are they part of the wider trend of dealing with textures and timbres, and on what level do they differ?

Before dealing with the above questions, however, the common ground for Polish composers, and Xenakis and Ligeti, is the attitude to serialism. In Poland, as indicated in the previous chapters, the interest in dodecaphony and serialism was brief. Although both compositional techniques were influential and embraced at least momentarily by most Polish composers, the serial output in particular is rather modest. After a brief period of trying the new techniques Poles seemed to be much more attracted to the music of Xenakis and Ligeti, as Kotoński recalls:

> It seems to me than that serialism and its possibilities have been exhausted and that over-thickening of the serial structures blurred the main musical ideas. I was much more attracted towards aleatoric structures, used to create the so-called 'sound masses' (clouds) used by Xenakis and Ligeti. Those structures, instead of using sequences of numbers, employed sequences of specific characteristics.[7]

Neither Xenakis nor Ligeti were a part of the serialist movement that influenced most of the Western European avant-garde despite the fact that Ligeti found both Boulez and Stockhausen most influential at the time.[8]

---

[6] Friedrich Cerha, an Austrian composer and conductor, well known for completing the orchestration of the third Act of Berg's *Lulu*. Marcus Grassl: 'Friedrich Cerha', *Grove Music Online* ed. Laura Macy, http://www.grovemusic.com (accessed September, 2, 2007).

[7] Kotoński, letter to author (October, 27 1999).

[8] In an interview with Lobanova, Ligeti said that Boulez was 'so important that I've analyzed *Structures Ia* before I met him. I don't think anyone apart from Stockhausen influenced me at that time as much as Boulez. I would say that for me *Le marteau sans maître* is the most important piece to come out of the 50s epoch' (Lobanova, *György Ligeti: Style, Ideas, Poetics*, 384). In an interview with Peter Várnai, Ligeti said:

I quickly realized that serial music entailed an indifference to harmony and a leveling of the characters of different intervals, and instead of going back to composing with specific intervals I attempted to take the more radical way: intervals and rhythm were to be completely eliminated, not simply for the sake of destruction in which the form-creating function is transformed first and foremost to the type of weaving used. This does not mean that intervals and rhythmic structures do not exist at all in this type of music, just that they cannot be heard. It is not that they are decisive for the form but a more complex category, which is the product of interweaving numerous intervallic and rhythmic voices. In other words the musical events are no longer played out on the level of harmony or rhythm, but on that of sound networks. In this way I ventured into a realm of subtle sonorities which form a no-man's-land between sound and noise, where sounds were blurred and concealed by the complex interweaving of voices.[9]

In an article 'The Crisis in Serial Music' published in 1955, Xenakis stated in relation to Boulez's *Structures* that 'the linear polyphony destroys itself by its very complexity; what one hears is in reality nothing but a mass of notes in different registers.'[10] Xenakis's objections to serialism however, did not mean he embraced Cage's indeterminacy. In fact Xenakis was completely against it: 'this attitude is an abuse of language and is an abrogation of a composer's function. Complete freedom of choice, as in the case of Cage, says in effect "do what you like, at any moment, no matter how."'[11]

Just as Xenakis commented on the disintegration of serialism, so arguments against serialism were also advanced by Ligeti in his analysis of Boulez's *Structures Ia* (1951) written in 1958[12] which was both a critique of the serial principles and a way of working out his own ideas which materialized later in *Apparitions* (1959) and *Atmosphères* (1961), both pieces often associated with the sonoristic works. Ligeti raised a number of

---

'Although I have never composed serial music, in 1957 I was greatly influenced by the prevailing mood among musicians in Cologne and Darmstadt.' Várnai, *Ligeti in Conversation*, 43.

[9] György Ligeti, 'Anla lich *Lontano,*' in *Begegnung* (Programmheft fur Donaueschinger Musiktage fur zeitgenossiche Tonkust, 1967), quoted in Lobanova, 53.

[10] Iannis Xenakis, 'La Crise de la musique sérielle,' *Gravesaner Blätter* 1 (1955), 2, quoted in Griffith, *Modern Music and After. Directions since 1945,* 91.

[11] Mario Bois, *Iannis Xenakis. The Man and His Music* (London: Boosey & Hawkes, 1967), 12.

[12] György Ligeti, 'Pierre Boulez. Entscheidung und Automatik in der Structure Ia, in *Die Reihe,* 4 (1958): 38-43.'Wandlungen der musikalishen Form' in *Die Reihe* 7 (1960). See also Friedemann Sallis, *An Introduction to early works of György Ligeti* (Köln: Studio, 1996), 212-217 and Lobanova, *György Ligeti: Style, Ideas, Poetics,* 33-35.

arguments against integral serialism.[13] Firstly, while it was possible to realise exactly notated pitch and duration for example, various levels of dynamics or timbre could only be approximated. Moreover, within a serial paradigm pitch, duration, dynamics and articulation are treated as equal structural parameters and the precision expected in the realisation of these elements proved unachievable. Secondly, the more predetermined elements were, the more indeterminate they seemed to sound in a piece. Ligeti's attention was directed towards larger structures and the global effect of the serial procedures evident in his responses to *Structure Ia* by Boulez:

> On hearing this composition a complex *network* of thicker and finer fabric unfolds. This complex structure, which is of varying discernibility, consists of a meaningfully ordered multitude of *points of sound* which are strung together in thicker and *thinner threads*, some of which are *plastically* delineated, while others are less distinct. These threads for their part are more of less densely interwoven. On hearing the piece, *knots*, *correlations* and *interrelations* of many different kinds emerge, and the result is an *organism* which is as ramified as it is *elastic*.[14]

Unlike Ligeti and Xenakis, Stockhausen was the key figure of the early Darmstadt avant-garde circle and in the early 1950s he composed important serial pieces such as *Kreuzspiel* (1951) and *Kontra-Punkte* (1953). However, by the mid 1950s he too gradually began to shift his attention towards the global characteristics of overall textures. In the early 1950s Stockhausen's mind was preoccupied with 'point composition:' 'all forms should evolve from the point, the individual tone' he wrote in 1952. By the mid-1950s, however, the notion of 'group composition' was well under way as exemplified in certain sections of *Grüppen* (Groups, 1955-1957) for three orchestras and most of *Zeitmasse* (Time-measures, 1955-1956) for wind quintet.

In this context, one should also mention Friedrich Cerha (b.1926). He too attended the Darmstadt summer courses (1956, 1958, 1959) and although serialism made an initial impression on him - pieces such as *Formation et solution* (1956), *Espressioni fondamentali* (1957), and *Relazioni fragili* (1957) utilise post-Webernian serial

---

[13] See Lobanova, *György Ligeti: Style, Ideas, Poetics*, 33-35.

[14] Ligeti, 'Pierre Boulez. Entscheidung und Automatik in der Structure Ia,' in *Die Reihe*, 4 (1958): 38-43, quoted in Lobanova, *György Ligeti: Style, Ideas, Poetics*, 35.

procedures - by 1959 he became more interested in the 'planes of sound' (Klangflächenkomposition) featured in *Mouvement I-III* (1959) and in *Spiegel I-VII* (1960-1961).[15] Although the focus in these works is on the evolution of a single fundamental sonority, textural blocks play a primary role in musical development.[16]

Most of the pieces that are regarded as relevant to sonorism operate with dense textures (Ligeti's score for *Apparitions* reached 64 staves which in the view of the *New York Times* critic 'set a record', subsequently broken in his next piece *Atmosphères*)[17] and masses of sound which contribute to the formal structure. In all of them the elements of melody, harmony and rhythm are radically transformed and result in the absence of pulse, the neutralization of harmony and lack of motivic relationships. The use of clusters, of enlarged percussion sections, of extended instrumental techniques and an emphasis on timbre constitute the common traits. Although certain passages from, for instance, Xenakis's and Ligeti's works may sound similar to the 'sonoristic manifestos,' the differences between them are perhaps even more significant, both conceptually, and at a perceptual level (for example, clear cut sections and sharp contrasts).

Xenakis and 'Stochastic music'

In searching for means to create new music incorporating the concept of global sonorities and masses of sound, which he liked to describe as 'clouds' or 'galaxies,' Xenakis resorted to mathematics and in particular to the 'law of large numbers' defined in 1713 by the Swiss mathematician, Jacques Bernoulli. Xenakis's 'stochastic music' was derived from Bernoulli. As Xenakis recounted:

> ...he used the term 'stochastic' since the law of large numbers implies that the more numerous the phenomena, the more they tend towards a determinate end: the first rule of determinism, the first time that a straitjacket had been placed around the problems of chance.[18]

---

[15] Marcus Grassl: 'Friedrich Cerha', *Grove Music Online* ed. Laura Macy, http: //www.grovemusic.com (accessed September, 2, 2007).
[16] Ibid.
[17] Richard Toop, *György Ligeti* (London, Phaidon Press, 1999), 67.
[18] Bois, *Iannis Xenakis. The Man and His Music*, 12.

At that time Xenakis was working as an assistant to the French-Swiss architect Le Corbusier and had begun to use mathematical procedures in architectural designs.[19] The two major architectural projects Xenakis was involved in were the Monastery of La Tourette (1954-1960) and the Philips Pavillion (1956-1958) built for the 1958 Brussels Exposition Universelle.[20] The first of two early musical works in which Xenakis applied mathematical concepts to shape the musical structures was *Metastaseis* (1954) which Xenakis translated as 'transformations:' 'in 1954 I introduced the "mass" concept of sounds, with many glissandi, in *Metastaseis*, long before other composers were taken by it.'[21] In Xenakis's next piece, *Pithoprakta,* meaning 'actions through probability,' also written for orchestra (consisting of forty-six strings, two trombones, xylophone and woodblock), large-scale features were determined by probability theories and the kinetic theory of gases. The mathematically based compositional procedures which are used to generate large textures set Xenakis apart from Ligeti and composers involved in sonorism. Although Ligeti was fascinated with mathematics, he did not use mathematical procedures in composition. Lobanova writes:

> Mathematicality is also reflected in the intellectualism of Ligeti's music, which places the composer in the mainstream of twentieth century analytic art. By constantly turning his attention to the 'basic elements' of music – fabric, melody rhythm, and sound as such – Ligeti is performing the same objective analysis of art and its resources as did the classic writers of the philosophical avant-garde, who were searching after universal laws of line and plane, form and colour, rhythm and movement, space and time, sound and meaning.[22]

The extent to which mathematical procedures play a part in the compositional process was also explored in the already mentioned study by Danuta Mirka, who deploys the mathematical theory of 'fuzzy sets' to explain Penderecki's sonoristic output. However,

---

[19] Xenakis worked in Le Corbusier's studio between 1948 and 1959.
[20] James Harley, *Xenakis. His Life in Music* (New York: Routledge, 2004), 9.
[21] Richard Duffalo, *Trackings. Composers Speak with Richard Dufallo* (New York: Oxford University Press, 1989), 178.
[22] Lobanova, *György Ligeti: Style, Ideas, Poetics,* 7.

in Penderecki's case this does not reflect the composer's interest in mathematics as language. [23]

On the perceptual level, an element which places Xenakis closer to Ligeti is the transformation of continuous textures. In contrast, most sonoristic works are characterised by sharp textural changes. Peter Hoffmann emphasises the role of textural 'transformation' in Xenakis's works:

> ...in a strictly mathematical sense the interrelations between musical structures (where structure is to be understood as a set of relationships between musical parameters) – is central to Xenakis's thought. Its manifestations include transformations of geometrical figures (group theory), scales (sieve theory), melodic outlines (random paths), polyphonic structures (arborescences), spectral screens (granular synthesis) and wave forms (stochastic synthesis). [24]

---

[23] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki* 32. Mirka's discovery and reconstruction of Penderecki's compositional method asserts 'a rigorous system of interrelated rules that display high logical precision and rigidity that govern thoroughly the entirety of the composer's sonoristic output', which almost immediately implies the existence of sketch material which would further support the claim that a sonoristic system was used as a compositional method 'by means of which Penderecki consciously shaped his sonoristic pieces' (Mirka, ibid., 26). Although mathematical theory may be an appropriate model to explain the underlying sonoristic system of Penderecki's works, the question that arises is whether the existence of the system equals the procedures that were actually employed in the process of composition. In this regard an analogy can be found in Schenkerian musical analysis which explains the organic structure of music (mainly from Bach to Brahms) but does not necessarily represent the actually applied compositional process. If Penderecki's system is to be compared with serialism, as Mirka asserts - 'one may say that K. Penderecki's sonorism vies with serialism in bringing its own, competitively rigorous system' – then direct evidence of the actual compositional process employed to create these works becomes even more significant. But in the context of mathematical procedures used in composition Mirka remarks only that 'rather it seems that he [Penderecki] took for granted the natural logical properties of individual categories.' (Mirka, ibid., 32). The study would greatly benefit from examination of compositional sketches to demonstrate such processes in Penderecki's sonoristic output. Peggy Monastra has provided a brief description of sketches for *Polymorphia* (thirty-three pages) and *Fluorescences* (eighty pages); two examples of sketch pages are included. In the context of compositional process, some of her comments are of particular interest, for instance: 'In the compositional method employed during this experimental period, Penderecki begins a composition by translating his aural concepts into abstract graphic drawings. Through the transformation and manipulation of the drawings, he formulates the pitch material and formal structure of the composition.' Another comment refers to the visual aspect of the sketches: 'These sketches are quite impressive visually, both for the aggressive use of colour and for the dominating presence of Penderecki's innovative graphic notation.' Peggy Monastra, 'Krzysztof Penderecki's Polymorphia and Fluorescences', The Moldenhauer Archives – The Rosaleen Meldenhauer Memorial, http://hdl.loc.gov/loc.music/molden.2428143 (accessed February 7, 2007). However, there is no indication here of any mathematical concept.

[24] Peter Hoffmann, 'Xenakis, Iannis,' *Grove Music Online* ed. L. Macy, http://www.grovemusic.com (accessed July 2, 2007).

Ligeti's understanding of texture and structure has some similarities: 'a structure can be analysed in terms of its components; a texture is better described in terms of its global, statistical features.'[25]

Xenakis's involvement in the designs of architectural projects had an impact on his compositions and vice versa. The shape of Philips Pavilion, with its continuously flowing lines, is mirrored by contracting and expanding glissandi in *Metastaseis* first worked out through mathematical calculations presented on graph paper and then translated into musical notation. In relation to a passage of glissandi (at bars 309 and 317), Robert Morgan states 'typical of Xenakis, however, the process is not entirely "determined" in that not every part contributes to this pattern, which is the result of the total motion but not of any individual element. (...) The passage thus only 'tends' toward its definite, determinate goal.'[26] In this process which to a degree involves some indeterminacy, the overall shape of these sonic events is highly predictable. Although individual pitches are determined through complex mathematical procedures and are a part of an indivisible sound mass they are, as James Harley comments in relation to *Pithoprakta*, 'important only in the global sense of conveying registral boundaries (e.g., high versus low register, wide versus narrow range, fixed versus evolving placement).'[27] Xenakis, for similar reasons to Ligeti, that is to retain the control over the large scale sonic events such as glissandi, did not use graphics but instead employed conventional notation in which each instrumental part was precisely notated.

At precisely the time Xenakis was introducing 'stochastic music' (1954-56), Stockhausen's compositional reorientation from 'points via groups to statistical sound complexes' brought texture and timbre to the forefront of his compositional concerns.[28] In 1956 Stockhausen wrote: 'it is now a matter of degrees of density in the groups of notes, of direction of the motion, of speed, of the speed of transformations, of the average

---

[25] György Ligeti, '1960. Metamorphoses of Musical Form,' *Die Reihe* No. 7 (English translation, 1965): 14, quoted in Foy, *Textural Transformations: The Instrumental Music of Krzysztof Penderecki, 1960-1973*, 15.
[26] Morgan, *Twentieth Century Music. A history of Musical Style in Modern Europe and America*, 394.
[27] James Harley, *Xenakis. His Life in Music*, 9.
[28] Michael Kurtz, *Stockhausen* (London: Faber and Faber, 1994), 112.

dynamic level, of changes in dynamics, of timbre, and of timbral mutation.'[29] In *Grüppen*, which involves 109 instrumentalists grouped in three orchestras spatially arranged on the stage (actually, the 1st and 3rd orchestras are to the left and right of the audience, on specially built stages) and led by three conductors, the sound layers of each orchestra can move in space at different speeds and varying dynamics. At times the layers blend into one complex texture and timbre, at times massively dense textures are projected into space as three independent textural layers which proceed at their own tempo. This spatial arrangement of the performing forces on the stage was to become one of the features of some sonoristic works (for example Górecki's *Genesis* and Serocki's *Segmenti*). The opening of *Grüppen* in particular (approximately the first two minutes of the piece) is suggestive of sonoristic technique: a short, sequence of sharp, contrasting textures with emphasis on timbre in each textural block.

As with the Poles, the experience of working in electronic studios opened a whole range of new possibilities for Stockhausen to experiment with timbres. In *Kontakte* the boundaries between percussion instruments (metal, wood and skin) and electronically generated sounds are blurred: 'the nature of percussion sounds made it impossible to tell whether they were coming from the loudspeakers or being played by a percussionist.'[30] *Kontakte* is also notable for more spectacular spatial projection of sound and the introduction of so called 'moment form' which resulted from a rethinking of the passing of time and experiments with the slow/fast rate of change which is particularly relevant to sonorism.

Aurally, the 1962 re-composition of Stockhausen's *Punkte*'s is as close as he would get to the sound and textures of sonoristic pieces.[31] Whereas the first version of the piece - written in 1952 but subsequently withheld - was very abstractly pointillistic, the second version of the piece clearly reflects the general inclination towards texture at the time:

---

[29] Karlhainz Stockhausen, *Texte 1* (Cologne, 1963), 190, quoted in Morgan, *Twentieth Century Music. A history of Musical Style in Modern Europe and America*, 382.
[30] Kurtz, *Stockhausen*, 102.
[31] *Punkte* was revised three more times: in 1964, 1966 and 1993.

> The fragmentary textures of the early fifties were a thing of the past: now the fascination was with dense textures (such as had already formed a part – but only a part - of *Grüppen*). It's in the spirit of these new times that Stockhausen reworked his old score: the isolated sounds of the original piece become 'hinges' on which he now hangs whole new webs of sound. Sometimes these webs move up or down from the original note, and sometimes they converge on them from above or below.[32]

The inspiration for *Punkte* came from studying the book *Organismen, Strukturen, Maschinen* by the biologist and cyberneticist Wolfgang Wieser who demonstrated how the shapes of some animals relate to others by changing certain parameters.[33] This idea of shrinking and expanding shapes translated into musical language was bound together with layers of sound and textures from the start:

> In the new version 'points' are only seldom simple tone points: they become the *centres* of groups, formations, swarms, vibrating masses, the nuclei of *micro*musical *organisms* ... As I was composing, sometimes so many sound layers piled up on top of one another that the result was more sound volumes than empty space.[34]

Ligeti's 'micropolyphony'

For Ligeti's approach to composition a key concept is 'micropolyphony' which was germinating in his mind from the early 1950s. As Lobanova points out, the essential idea of 'micropolyphony' rests on two qualities: '"a prodigality" with compositional features and the "imperceptibility" of individual components of the fabric which this engenders. Micropolyphony is thus a kind of super-polyphony in which the separate inaudible voices are dissolved.'[35] The result is a dense 'sound field', with a sense of inner movement. This may seem similar to some of the sonoristic works. However, Ligeti himself spells out the main difference:

> I am not a 'tone-colour composer,' which means that for me tone colours provide just one of manypossible ways of producing a musical form. When I think about what is typical of above

---

[32] Richard Toop, liner note to *Eötvös Conducts Stockhausen Grüppen, Punkte*, BMC CD 117 (2006).
[33] Kurtz, *Stockhausen*, 124.
[34] Stockhausen, *Texte III*, 12n, quoted in Kurtz, ibid.
[35] Lobanova, *György Ligeti: Style, Ideas, Poetics*, 49.

pieces, it is not only the stationary tone colours but also the way of thinking musically in terms of branching tworks and in terms of the subtle changes, movements, dilations, compressions, currents, and so forth which occur within these net structures. Of primary importance for the creation of a form is the way in which the musical nets are woven – that is, 'micropolyphony' – and in addition the various new types of tone colour, in particular 'motion colour' ("Bewegungsfarbe"), as products of this weaving.[36]

Whereas for Ligeti timbre was one of many possibilities to shape the structure of a piece, for sonorists it seems to be the only option and this is where one of the major differences lies. In sonoristic music the range of textures and their disposition within a piece are governed by the contrast of either single timbres (as often is the case in Szalonek's pieces) or timbres *en masse*. Another major difference is noticeable at the perceptual level of the overall design. In sonoristic works the point at issue is the fast rate of change of contrasting textures (in some works large textures last just a few seconds) and clear cut textures are quite often separated by general pauses. The formal design arises from the disposition of overlapping and/or juxtaposed contrasting textural blocks. For Ligeti the transformation of the same musical elements such as melody, harmony and rhythm produced music in which time is 'frozen.'[37] The music, as Ligeti explained, 'gives an impression that it could stream on continuously, as if it had no beginning and no end; what we hear is actually a section of something that has eternally begun and that will continue for ever. It is typical for these pieces that there are hardly any caesuras and the music really does flow on. The formal characteristic of this music is that it seems static.'[38] However, within the seemingly static sound masses the timbre is constantly changing. Whereas for sonoristic composers timbre is a primary form building element, for Ligeti it functions in a vast time-frame, often transforming the entire texture over considerable periods:

It is a rather superficial view to lay too much emphasis on timbre. The misunderstanding may have arisen from a sentence in the programme notes I wrote for the first performance in

---

[36] Lobanova, *György Ligeti: Style, Ideas, Poetics*, 47.

[37] Ligeti said: '...Music as frozen time, as an object in the imaginary space evoked in our imagination, as an object which in a real sense unfolds over time and yet in an imaginary way is simultaneously present in all its moments. The exorcism of time, the abolition of its passing, and its inclusion in the present moment is my main intention as a composer...' (Quoted in Lobanova, ibid, 55).

[38] Várnai, *Ligeti in Conversation*, 84.

It is a rather superficial view to lay too much emphasis on timbre. The misunderstanding may have arisen from a sentence in the programme notes I wrote for the first performance in Donaueschingen, 'Die Klangfarben haben formidable [?] Funktion' – timbre has a structural role in giving form to music. Critics who do not know enough about music often comment on the programme notes instead of on the music they hear. That is how *Atmosphères* came to be considered 'timbre music' and I was put into the same pigeon-hole with Penderecki. ...[39]

The formal structure of Ligeti's works - particularly *Apparitions* and *Atmosphères* – operates on two levels 'internal structure and audible form' and these two levels also define both common ground and also differences with sonoristic works.[40] Ligeti, like the Polish avant-garde composers, was greatly influenced by the Darmstadt school and this influence is manifested in the precision he took when constructing his works. To generate some textures Ligeti used strict canonic procedures which are very difficult to hear. Similarly, in the sonoristic works of Penderecki, Górecki and Schaeffer the constructional detail of certain sections is almost impossible to discern. Thus Ligeti and the sonoristic composers used similar techniques at the micro level. The main difference lies in the approach to form and the overall structure. Lobanova noted that 'starting with *Apparitions* and *Atmosphères,* Ligeti's poetics is distinguished by the principles of isomorphism: the structural similarity between the part and the whole is a central theme in the composer's work, and has to a large extent even determined his sphere of interests, from Ockeghem's polyphony to fractal geometry.'[41]

By the end of the 1950s, as clusters became a major technical device for Polish composers, Ligeti too began to use clusters on a systematic basis but to achieve a different effect. For Penderecki and other Polish composers clusters often provided the means to create 'static' layers or blocks of sound notated as a thick, black line with an indication of the density and the width. The new way of notating clusters whether they were static (stationary), mobile or so called 'wedge clusters' corresponds to their sound. Ligeti used clusters to create 'stationary' textures composed of individual parts which undergo subtle, continuous changes. In notating them he rejected the new notation.

---

[39] Várnai, *Ligeti in Conversation*, 39.
[40] Ibid., 43.
[41] Lobanova, *György Ligeti: Style, Ideas, Poetics,* 50.

Ligeti's stance is that new music does not always need an invention of new notation; for him notation was purely 'a means of communication.'[42]

> On the whole I take a good look at innovations and if I do not find any need for them I leave them well alone. In the case of *Atmosphères* the conductor had to have a score fully written out and the members of the orchestra also needed precise notation. Graphic notation or some other new way of writing down music, such as adopted by Penderecki for instance (thick black lines) does not provide enough detail.[43]

However, whereas for *Apparitions* and *Atmosphères* Ligeti needed to notate individual parts exactly to achieve the gradual transformation of pitch, rhythmic shifts, transformation of density and timbres, in *Volumina* (1961-62) for organ Ligeti did employ graphic notation. In his approach to notation Ligeti shares some common ground with composers involved in sonorism, which is: the sound determines the notational language. This is confirmed in *Volumina* in which 'an exact indication of pitch is of no importance as the texture consists of clusters, therefore all I needed to do was to define the limits of clusters and indicate how the limits change both in space and in time.'[44]

The connection to visual art present in sonoristic pieces on many levels also exists in Ligeti's works but on a much more subtle level. Interestingly Ligeti himself used a visual analogy to explain the form of *Apparitions*. Arguably this image, as in Penderecki's *Threnody*, played a part in the conception of the formal structure:

> The general idea of its overall form was a dark block surface followed, through a sudden explosion of light, by a high register block surface followed, through a sudden explosion of light, by a high register block, with the dark block containing elements of the following light one and vice versa. The underlying idea is very visual.[45]

Synaesthesia appears to have played an important part in Ligeti's composition:

[42] Lobanova, *György Ligeti: Style, Ideas, Poetics*, 84. See also Ligeti's article 'Neue Notation – Kommunikationsmittel oder Selbstzweck?' in *Darmstädter Beiträge zur Neue Musik* 9 (1965): 35-38.
[43] Várnai, *Ligeti in Conversation*, 40.
[44] Ibid.
[45] Ibid., 43.

> ...sounds and musical contexts have always evoked in me sensations of colour, consistency and visible and tangible form. And also the other way round: I voluntarily associate colour, form, material qualities and indeed even abstract concepts with tonal images. ...[46]

However, the visual image of notation corresponding to the sound – an interesting characteristic of most sonoristic scores – does not apply to Ligeti's *Apparitions* and *Atmosphères*: as Lobanova noted, both scores 'did not sound as they were written.'[47] Lobanova has also found visual analogy helpful on another level. Taking Ligeti's concepts and music as an example, Lobanova draws parallels between the developments in music of the 20th century and Kazimir 'Malevich's Suprematism which completed the line of progression 'realism – Impressionism – Neo-impressionism – Cubism – abstract art.' [48] The idea of 'zero form' as represented in Malevich's *Black Square* (1915), according to Lobanova, has its parallel with the *neutralization* and *elimination* of harmony and rhythm which Schoenberg had began by his 'emancipation of the dissonance' and 'liquidation of tonality.'[49] However, in the context of Ligeti's interest in the concept of time-space, perhaps more interesting is Malevich's vision of 'the music of the future:'

> More and more frequently I see these masses, lumps and strata of music formed from some twenty chords cast into space, and the coagulated mass of a musical cube.

> ...contemporary music must be able to express musical strata and must have the length and thickness of a mass moving through time, with dynamism of the musical masses being replaced by statism, i.e., by the lingering of the musical sound mass in time.[50]

Friedrich Cerha's interest in textures and timbres runs almost in parallel with sonorism in Poland. However, Warsaw Autumn audiences did not have a chance to hear his work until 1961 when his *Relazioni Fragili* (1957) for harpsichord and chamber orchestra

---

[46] György Ligeti, 'Zustände, Ereignisse, Wandlungen,' *Melos* no. 5 (1975): 14-15, quoted in Lobanova, *György Ligeti: Style, Ideas, Poetics*, 8.

[47] Lobanova, *György Ligeti: Style, Ideas, Poetics*, 85.

[48] Ibid., 53.

[49] Ibid., 54.

[50] Quoted in Lobanova, Ibid., 56- 57.

received its Polish premiere.[51] This is a piece in which the post-Webern fragmentation provides a close link to works like Serocki's *Musica concertante*. A piece that has more affinity with Polish sonorism is *Spiegel II* (1961-1963) for 55 string soloists. It was clearly impossible for it to have influenced Polish sonorism in a significant way: *Spiegel II* was premiered by Ernest Bour only in the 1964 Donaueschingen Music festival. However, the overall sound of certain sections and the use of large textures are close to Polish sonorism.[52] For instance the homogeneous textural block (bars 175-195) of mobile cluster *glissandi* are reminiscent of the string textural layers from *Scultura* by Schaeffer and *Sequenza I* by Sikorski.[53] However, such textures are not typical of *Spiegel II*. Unlike the sonoristic works in which the textural contrast is of primary importance, in *Spiegel II* the linearity of the formal processes and continuous textural transformation play a major role. In this regard Cerha is closer to Xenakis's sound world. While in sonoristic works the spatial positioning of the performing forces reinforces the timbral contrast of instrumental groups, in *Spiegel II* the spatial arrangement of the instruments serves to eliminate a possibility for any group or instrument to lead or stand out.[54] Cerha, attracted to the homogeneity of the string ensemble, aims at smooth transition of sound as it travels from one instrumental section to another. This 'equalisation' of tone and timbre is also expected within the instrumental groups. The imperceptible entries, endings of sound and bowing are part of the 'shaping' of the textures. The overlapping of expanding and contracting layers seem to depict aurally almost three dimensional notation within which the action of sound shaping takes place. Clusters are of course a primary device of sonoristic works and are also frequent in *Spiegel II*. However, Cerha generally treats them more like *glissandi* than static sound blocks. This is particularly noticeable at the 'edges' of the textures which bring to mind, as Morgan described it in relation to

---

[51] Bylander, 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961...,' 564.

[52] For most of the piece all 55 parts are involved.

[53] Compare for instance bars 221-259 in Schaeffer's *Scultura* and Sikorski's *Sequenza I*, section F in string parts.

[54] In the preface to the score Cerha instructs ' The seating order is so arranged that the listener is presented with the entire tonal spectrum, from the first desk of the 1st violins at the far left (corresponding to the highest frequencies) to the fourth desk of the double basses at the far right (corresponding to the lowest frequencies). Only this arrangement ensures a smooth transition from the 14th violin I to the 1st violin II, from the 13th violin II to the 1st viola, etc. (It is incorrect to object that the concertmaster cannot lead the 1st violins if posted at the extreme left; this is a work for 55 soloistic strings and there is thus no string group to lead. Technical instructions may also be given from the extreme left).' Cerha, *Spiegel II* (Vienna: Universal Edition, 1964).

Metastaseis, 'the "flowing" straight lines of the building and the converging and the diverging glissandos of the music.' Thus, beyond the superficial similarities of Cerha's works from the same period the differences seem more significant. As Gertraud Cerha noted:

> With such works as *Mouvements, Fasce* and his *Spiegel* cycle (1960-61) he created his own language of sound free from traditional schemata. Despite apparent similarities with works written at the same time by Ligeti or Penderecki, it differs in so far as clearly recognizable processes of development play a major role, and in combination with non-linear processes major formal relationships are created, providing the work with a coherent system, a sort of cosmos. [55]

As indicated in this chapter, within the overall tendency to deal with texture and timbre, there was a variety of highly individual approaches which often cannot be easily categorised. To what extent these works influenced each other is debatable and not a simple or even a possible question to resolve. However, it is worth considering some of the composers' opinions. In an interview between Xenakis and Varga we find out how Xenakis learnt about Penderecki and other Poles writing in a similar manner:

> Then, in 1960, I was informed that the Poles were writing music like mine. People came from Donaueschingen with the news that I had a Polish disciple, by the name of Penderecki, and that he was writing music with many glissandos like mine. And there were other composers on a musical path similar to mine.[56]

It is unlikely that Polish composers would have heard the premiere of *Metastaseis* at Donaueschingen in 1955. But when, as Xenakis has recounted, *Metastaseis* was performed in Sweden in 1958, it is certainly possible if not probable that the Poles 'heard it on the radio.'[57] However, Penderecki denies that he was influenced by him. In the interview with Richard Duffalo, Penderecki stated that he did not know Xenakis's pieces at the time of writing his sonoristic works. He also adds that 'there were many composers discovering a very similar kind of music at the same time. Ligeti was one of them, with

---

[55] Gertraud Cerha, *Friedrich Cerha, Universaledition*, http://www.universaledition.com/bilder/176 cerha.pdf (accessed July 2, 2007)

[56] Varga, Bàlint Andràs, *Lutoslawski Profile* (London: Chester, 1974), 37.

[57] Ibid.

Atmosphères, or my *Threnody*, for example. It's a different music, but it has a similar approach.'[58]

Ligeti in an interview with Péter Várnai lists the works which potentially could have had an impact on his compositions:

> There was also 'Penderecki's *Anaklasis*, Kagel's *Anagramma*, Stockhausen's *Carré*; all of them composed at about the same time. *Atmospheres* was still in rough draft, so *Anaklasis* and *Carré* may have left their mark on it.'[59]

Of course Xenakis's *Metastaseis* was already premiered, but Lobanova insists that Ligeti developed the concept of micropolyphony without any knowledge of Xenakis's music: 'in 1958, when he was working on *Apparitions*, he was not familiar with the music of Xenakis, who was considered a "non-person" by the Cologne circle.'[60] To a certain degree the stylistic differences between Xenakis, Ligeti, Cerha and the Polish avant-garde composers reflect individual paths along which they arrived at 'sound as texture.' In the following chapter the focus narrows down to the Polish compositional scene and the path from pointillism to sonoristic works.

---

[58] Duffalo, *Trackings. Composers Speak with Richard Dufallo*, 342-343.
[59] Várnai, *Ligeti in Conversation*, 37.
[60] Lobanova, *György Ligeti: Style, Ideas, Poetics*, 54. Lobanova lists further references in relation to this statement: 'György Ligeti über eigene Werke,' and 'György Ligeti. Personalstil – Avantgardismus – Popularität.'

Chapter 4

From Pointillism to Sonorism

As outlined in the historical overview, the political and cultural events of the 1950s had strong resonances in the arts particularly in Poland. From the historical point of view this decade was characterized by extremes and lack of stability which are reflected in the styles in music. Almost within a decade Polish music was transformed from the dark years of socialist realism in the early 1950s and the neoclassical style which dominated post-war Poland to an apparent breaking down the 'iron curtain' on the stage of 'Warsaw Autumn' at least artistically bringing a definite stylistic turn symbolized by sonorism and experimentalism. The sudden political change in 1956 brought dodecaphony, serialism and aleatory techniques into the vocabulary of Polish composers almost at once. As Baculewski noted:

> The wider interest in this technique [dodecaphony] appears after 1956, when a dozen or so composers tried to experiment in this field. Historical development of compositional techniques such as dodecaphony, serialism - aleatory and sonoristic techniques in Poland is not reflected in a linear sequential development. All of these techniques appeared almost simultaneously. [1]

Even in the inter-war period not many composers explored dodecaphony. Józef Koffler (1896-1944) was the first composer in Poland to take up Schoenberg's ideas.[2] However, at the end of 1940s Koffler left Poland and settled in Israel.[3] The Swiss composer Constantine Regamey (1907-1982) who resided in Poland since 1944 and experimented with twelve-note techniques in his *Seven Persian Songs* for baritone and piano (1940-

---

[1]Baculewski , *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 87 and 240.

[2] Ewa Kowalska-Zając, Oblicza Avangardy. Roman Haubenstock-Ramati [Faces of the Avant-Garde. Roman Haubenstock-Ramati] (Łódź: Akademia Muzyczna im. Grażyny i Kiejstuta Bacewiczów, 2000), 14. See also the Table 7.2 in Lindstedt, 'The Development of Twelve-Note and Serial Techniques in the Music of Polish Twentieth-Century Composers,' in *Musicology Today* (Warsaw: Institute of Musicology, University of Warsaw, 2005), 120.

[3] Ibid., 14-15.

1942) and in the *Quintet* for clarinet, bassoon, violin, cello and piano (1942-1944).[4] Lindstedt also lists Tadeusz Majerski who together with Józef Koffler was a part of 'Lvov school of dodecaphony.'[5]

In the first decade of post-war Poland dodecaphonic works appeared sporadically. Roman Haubenstock-Ramati (1919-1994), while studying with Koffler in Lvov (between 1938 and 1941) became interested in 12-tone technique and in the music of Anton Webern. His *Ricercari* for string trio (1948) is listed by Lindstedt as the first post-war dodecaphonic piece composed in post-war Poland.[6] Other composers who contributed to the post-war Polish dodecaphonic writing included Karol Rathaus (1895-1954), Roman Palester (1907-1989), Bogusław Schaeffer (b. 1929), Kazimierz Serocki and Tadeusz Baird.[7]

While Polish composers during the 1950s were beginning to test the Western techniques previously unacceptable in Poland, John Cage was already bringing indeterminacy to Europe which moved the Darmstadt circle from the total control of serialism, towards its opposite, indeterminacy. In 1954 Xenakis wrote *Metastasis* (1954) and three years later Boulez in his *Sonata* no. 3 for piano (1957) embarked on his own particular type of indeterminacy and aleatorism.[8] As mentioned earlier, after 1956 when the loosening of the regime allowed for exchange of information with the Western avant-garde, interest in twelve-note techniques and serialism embraced a much wider circle of Polish composers. However, in many cases, Polish composers explored twelve-note writing and serialism

---

[4] Lindstedt, 'The Development of Twelve-Note and Serial Techniques in the Music of Polish Twentieth-Century Composers,' 120.

[5] Ibid., 108. For more information on the repertoire of twelve-note and serial music in Polish music see Lindstedt, *Dodekafonia i serializm w tworczosci kompozytorow polskich XX wieku* [Dodecaphony and Serialism in the Output of Polish Twentieth-Century Composers] (Lublin: Polihymnia, 2001).

[6] Lindstedt, 'The Development of Twelve-Note and Serial Techniques in the Music of Polish Twentieth-Century Composers,' 121.

[7] Lindstedt lists sixteen twelve-note pieces in total by these composers (see Table 7.3, ibid.). Baculewski regards *Suita preludiów* (1952) by Kazimierz Serocki, *Muzyka na smyczki – Nokturn* (1953) [Music for Strings – Nocturne] by Bogusław Schaeffer as the first dodecaphonic pieces composed in post-war Poland, and Baird's *Cassazione* (1955) as 'the first orchestral piece in Polish music since Koffler. Ibid., 238. In relation to Schaeffer's compositional output see also Stawowy and Zając, *Bogusław Schaeffer*, 35).

[8] The term *aleatorism* comes from Latin, *alea* meaning dice. The term itself was introduced by Pierre Boulez in his article from 1957 entitled 'Alea.' Pierre Boulez: 'Alea', Nouvelle revue française (1957), no. 59; repr. in *Relevés d'apprenti* (Paris, 1966): 41; Ger. trans. in *Darmstädter Beiträge zur neuen Musik*, i (1958): 44; Eng. trans. in *Stocktakings from an Apprenticeship* (Oxford, 1991), 26–38.

more out of the urge to taste 'the forbidden fruit' than out of an aesthetic conviction.[9] It came as a surprise that Boleslaw Szabelski (1896-1979), then in his 60s, quite unexpectedly joined the avant-garde and the generation of his pupils, such as Górecki. For Szabelski the modernist tendencies were exemplified by a new attitude to formal structure built on so called 'mottos' (*hasła*), the use of pointillist textures, increased role of coloristics and the use of twelve-note procedures.[10] His *Sonnets* for orchestra (1958), *Improvisations* for choir and orchestra (1959), *Verses* (Wiersze) for piano and orchestra (1961) and *Aphorisms* for chamber ensemble (1962) testify to his fascination with the 12-note technique. However, in the context of the post-war developments in Polish music more significant are the signs of pointillist tendencies resulting from the way Szabelski operated on 12-tone series. As Baculewski notes: 'the segmentation of the series and as a consequence the segmentation of motifs lead the composer to pointillistic style... .'[11]

Although the younger generation of Polish composers was much more taken by serialism than the older composers, their interest in serialism was only a brief episode: there are not many serial compositions in the Polish repertoire of the late 1950s and early 1960s. Górecki's Symphony No. 1 '1959' is often cited as one of the a few examples of

---

[9] Kotoński's comment about serialism supports this claim. See also the last chapter 'Epilogue - Composers' and musicologists' retrospective view of sonorism and the sonoristic period.' Kilar describes his Darmstadt experience as follows: 'I didn't really gain any experience in Darmstadt. It was a time of fictions, a time when very simple things were described in very erudite words. (...) There is an extraordinarily dramatic book - memoirs of Pierre Boulez's secretary, who writes about this drama, this huge delusion about serialism and dodecaphony. Of course certain works, because of their sound world, stood the test of time – for example Boulez's *Le marteau sans maître*.' Podobińska and Polony, *Cieszę się darem życia. Rozmowy z Wojciechem Kilarem* [I enjoy the gift of life. Conversations with Wojciech Kilar] (Kraków: PWM, 1997), 28. Lutosławski's attitude to Schoenber's dodecaphony and the use of 'system' is also relevant here. Lutosławski said 'What is alien to me in Schoenberg is the pre-eminence of the system over ear control. The latter is of course also present in his music, after all Schoenberg was an outstanding musician. However, the system is his art assumes universal significance, and determines the composition of not just work but a whole series of works. That never occurs in my case. I always work out new elements of a system for every new work which serves my musical imagination.' Varga, *Lutosławski Profile* (London: Chester Music, 1976), 17. With the attitude that perception is always above the constructional detail Lutosławski shares the same ground with the younger generation of the Polish avant-garde: 'It seems to me quite extraneous to discern in numbers and their arrangement some factor of equal importance to the actual perception, and which might be supposed to have some value in itself even when it has no perceptible influence on the sound progress of the work... .' Ove Nordwall, ed., *The Composer and the Listener* (Stockholm: Edition Wilhelm Hansen, 1968), 121-122. Both statements are quoted in Stucky, *Lutosławski and his Music*, 108.

[10] Leon Markiewicz, 'Stare i nowe w muzyce B. Szabelskiego' [Old and New in the Music of B. Szabelski], *Ruch Muzyczny* 6, no. 18 (15-31 September 1962): 9-10.

[11] Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974*, 243.

'constructivist' approach in which the 'magic square' provides the pitch content for the work. Baculewski remarked: 'there is no other piece in Polish music that would match this piece in terms of the element of pre-compositional process involved in preparation of the serially organized musical material.'[12]

One way of turning away from constructivist approach was to take on board only the effect of serially derived music textures while ignoring their methods. *Musica Concertante* for orchestra from 1958 by Kazimierz Serocki - the most frequently mentioned piece in this context – is regarded as the stepping stone into pointillism, and, as Baculewski described, 'the apparent outward acceptance of modernity without its technical and material consequences.'[13] Earlier, Chominski in his survey of Polish Music emphasized the role of pointillism in the development of Polish music in the late 1950s:

> Even composers were not always conscious of the fact that [pointillism] constitutes a transitional phase, a preparatory ground for pure sonoristic technique. It is true that pointillism allowed one in a sense to get familiar with the pure sonoristic function of harmony, but it could not contribute in regulating harmonic structures.[14]

All seven movements of *Musica Concertante* make use of twelve transpositions of a series in four versions creating a symmetrical overall design centered around the fourth movement with other movements paired by employing the series in reverse order (see Fig. 4.1).[15] Although *Musica concertante* is a dodecaphonic piece, its significance lies in the use of instrumentation and the timbral effects of pointillistic textures. The instrumental colour is even more emphasized across movements – Serocki changes the ensemble and

---

[12] For detailed analysis which also includes the twelve-note matrix see Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność I: 1939-1974*, 256-260.
[13] Ibid., 261.
[14] Chomiński, *Muzyka Polski Ludowej*, 121.
[15] Baculewski outlines the series used in *Musica Concertante* as follows: 'Movement 1: 12 transpositions O from consecutive pitches of O^1, followed by 12 transpositions R from consecutive pitches R^1.
Movement 2: RI^1, $RI^{12} \div RI^2$, I^1, $I^{12} \div I^2$. $R^{12} \div R^1$, $O^{12} \div O^1$.
Movement 3: 12 transpositions RI from the consecutive pitches RI^1.
Movement 4: 12 repetitions I^1 and 12 repetitions RI^1.
Movement 5: 12 transpositions I from consecutive pitches I^1.
Movement 6: $O^1 \div O^{12}$, $R^1 \div R^{12}$, $I^2 \div I^{12}$, I^1, $RI^2 \div RI^{12}$, RI^1.
Movement 7: 12 transpositions R from consecutive pitches R^1 followed by 12 transpositions O from consecutive pitches O^1.' Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność I: 1939-1974*, 262.

thus the overall colouristic effect from movement to movement (see Fig. 4.2 and Fig. 4.3).[16]

Scontri (1960), described by Thomas as 'the last Polish hurrah for the orchestral block-buster,' is also the last of his large scale works in which Górecki applied serial procedures to pitch, dynamics and durations.[17] At last Polish composers caught up with Western European avant-garde. But, as Schaeffer remarked, it was also time to move on:

> The end of 1950s and early 1960 was the time to end the fascination with Webern, his aphorism and pointillism. It was also the time to move away from the narrow-minded program of constructivist approach to music based on series which control all parameters (Messiaen, Boulez, Stockhausen, Nono) and finally look at composition through our own eyes.'[18]

Although sonorism is commonly seen as a reaction against serialism, the two techniques coexisted in many works written around 1960.[19] As already mentioned, *Scontri* by Górecki is one of the best examples to illustrate this point. While serialism provides the constructional basis for the piece, sonoristic 'surface' seems to be not an outcome of the serial procedures but an integral part of the compositional idea and an aesthetic goal in itself. For this reason, it is worth examining the piece in some detail, even though it has, regrettably, had only a few performances. As Thomas has noted 'the technical means are directly related to the expressive ends, giving the composition a transparency absent in some of its immediate predecessors.'[20] The serial procedures that underpin the structure

---

[16] Movement 1 (ca 1' 45") includes saxophone, clarinet, marimba, bass cymbals, gong, tam-tam, triangle, violin, viola, cello and double bass. Movement 2 (ca 1' 35") is scored bot flute piccolo, vibraphone, 5 drums and 2 harps. Movement 3 (ca 2' 30") is written entirely for strings: violin, viola, cello and double bass. Movement 4 (ca 1' 55") features the most expanded ensemble: flute piccolo, saxsophone, clarinet, trumpet, marimba, bells, 3 trombones (picc, gr, rull.), bass cymbals, gong, 2 harps and string quartet: violin viola, cello and double bass. Movement 5 (ca 3') includes vibraphone, triangle, 3 cymbals and strings: violin, viola and cello. Movement 6 (ca 1' 30 ") includes flute piccolo, saxophone, clarinet, marimba, 2 bongos, 2 tom-toms and 3 double basses. Movement 7 (ca 2 ') trumpet, bells, 2 harps and strings: violin, viola, cello and double bass.

[17] Thomas, *Polish Music Since Szymanowski*, 188. The main series and number matrix of *Scontri* is included in Thomas's monograph: *Górecki*, 29-38.

[18] Bogusław Schaffer, letter to author (November 16, 2001).

[19] For example Monika Pasiecznik writes 'Sonorism was both a direct reaction for the cold and intellectual side of serialism and a practical, consequential result of drawing from concrete sonic effects.' Monika Pasiecznik, 'Szalonek z czyśca historii' [Szalonek from the purgatory of History] *Odra*, 6, 2006: 83.

[20] Thomas, *Górecki*, 30.

of the piece naturally provide the point of departure for existing analyses of the piece. In his monograph on Górecki, Thomas presented the details of the large scale structure, elaborated on the use of serial techniques and more importantly pointed to two possible readings of the score: one as an intended design and another pointing intuitively towards a sonoristic aural experience:

> On a technical level far from being incoherent, the work is planned meticulously and realized intuitively. Its pitch organization – one principal twelve-note series and three mirror ones – also furnishes number series used to create dynamic and durational sequences. And these are integrated with a structural template consisting of six sections, subdivided into twenty-eight 'sheets' more or less corresponding to the double-page spread of the printed score. In turn, each sheet was originally intended to unfold a rotationally variant order of the four orchestral families. In sum, Górecki designed a kaleidoscopic patchwork to operate at different levels; in reality, as the work progresses, he frees himself from his original plan and proceeds by instinct.[21]

In the context of sonorism and 'transitional' works, it is the sonoristic side of *Scontri* that is of particular interest, and one could argue that a part of that instinct that was pulling Górecki from realizing a strict plan was an intensifying sonoristic aesthetic. The experimental and new aspects of the piece begin with the disposition of instruments on the stage (see Fig. 4.4, *Scontri*, layout of the orchestra). The spatial arrangement of the instruments and the way the sound is directed to connect one point of the stage with another is an important aspect of the piece.[22] Instead of grouping the instruments close together to emphasize homogeneity of timbres within the instrumental families, Górecki spaces them far apart to maximize the spatial effect of sound. The strings are positioned in a semicircle enclosing the woodwinds, trombones and a percussion player in the centre. The other brass positioned outside of the string semicircle forms another semicircle; the remaining percussion players are also scattered around in a circle. The two pianos and two harps are separated and placed far apart on the opposite sides of the stage.

---

[21] Thomas, *Polish Music since Szymanowski*, 187. For details of serial procedures see also Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność I: 1939-1974*, 260.

[22] *Scontri* was premiered during the 4th Warsaw Autumn Festival on 20 September 1960 under Jan Krenz and Polish Radio SO. Thomas also provided details on the recordings of the piece: PN W-680, Polish Radio SO, Katowice, Jan Krenz, conductor; PN Muza XL 0391 = Olympia OCD 385, Polish Radio SO, Katowice, Jan Krenz conductor. Thomas, *Górecki*, 156.

Although there are many sonoristic notational devices such as durational lines, dotted barlines, clusters notated as thick, black lines, and time-space notation for *accellerandi* and *ritardandi*, and tempo line running at the top of the score, the flow of music is entirely regulated by meter. The score itself is divided into twenty-eight 'sheets.' As Thomas already described, the 'sheets' take up two pages of the score and are numbered at the top left hand corner of the verso side of the page.[23]

Scontri could reasonably be described as a 'cluster piece.' The variety of clusters and their frequent occurrence in every section of the piece draws immediate attention to this most fundamental sonoristic device. As in many sonoristic works, the clusters in *Scontri* are used to emphasize the timbre of individual instruments or instrumental groups, to build textures and may play a structural role in a piece. Already in the first of the six sections of the piece there are clusters used as static bands of sounds with a variety of articulation to vary the overall colour (sheet 7, bars 1-2, 7-8, 11-12, 13-14 and 20), clusters as sound impulses (for instance sheet 2, bars 6-9 in strings, sheet 5, bars 11 and 19 and in piano part, sheet 8 bars 1-2 in harps), and mobile cluster glissandi. The strings, harp and piano parts are particularly dominated by clusters. Clusters may be used as the predominant textural layer (sheet 2 bar 9-10) or to create a background for the other instrumental colours and superimposed textural layers. One of the most striking examples can be found in the string section (sheets 6 to 8), where the strings feature over a three octave mobile, semitone cluster notated as a thick black line (see Fig. 4.5).[24] Like a wide brush stroke, this band of sound gradually migrates to a higher register (over an octave higher) through up-and-down *glissandi* and vibrates – the players are instructed to play *sul ponticello* and *rapid tremolo* - to end as a static pitch cluster. The dynamics, as in many sonoristic works, are integrated with the textural layers. In this instance the dynamic level is synchronized with the pitch movement of the cluster: the upwards movement in pitch is matched by the dynamic rise; in turn downwards movement in pitch

---

[23] Thomas, *Górecki*, 31.

[24] In the preface to *Scontri* Górecki indicates 'all the notes within the indicated range' which, according to a common-sense interpretation of 'all the notes', would suggest a semitone cluster. In some cases, as with *Scontri*, where parts are available, the individual instrumental parts indicate the exact realization of the graphic notation.

is matched by a *diminuendo*. When pitch is constant the dynamic level also remains fixed. In contrast to clusters of wide pitch range (represented by a black thick line), Górecki also uses very narrow clusters, as at the end of sheet 10 where strings play *sul ponticello* on the highest note on the instrument. As in the opening of Penderecki's *Threnody*, the result is a dense microtonal cluster in the high register (see Fig. 4.6). An effect of a cluster sonority (as a sonic band) is also achieved by sustained chords in strings built on all the open strings (superimposing fourths in double basses and fifths in the other strings, see Fig. 4.7). From 'sheet' 21, towards the end of the piece, clusters almost continuously dominate the string parts, underpinning the other instrumental layers. However, it is not just the variety and frequency of clusters that constitute the sonoristic side of *Scontri* but also their relationship to other elements and their structural role in the piece. For instance, on a smaller scale (i.e. within a section of the piece) clusters often function as dense sound bands separating contrasting textures, as towards the end of 'sheet' two (see Fig. 4.8). The same example features clusters as an integral part of the entire textural block, which comprises an *ad libitum*-like textural layer in the winds superimposed with synchronized cluster impulses in the string parts. The wind texture is created by superimposing orderings of twelve notes and their retrograde versions in each of the individual twelve parts. Both the row and its retrograde are partitioned into groups of four, three and five notes separated by quaver rests. The clusters as sound impulses are intertwined with the wind texture by filling in the quaver rests. This is another instance in which serial procedures are subordinated to the overall textural effect.

Although the search for new timbres and non-standard ways of playing on instruments was well under way in earlier scores by Penderecki[25] such as *Anaklasis*, Górecki's instructions such as 'play near the soundboard, play on the strings between bridge and tailpiece' and *glissandi* played with a hard wire brush or with the upper side of the finger-nail' indicate the further expansion and enrichment of instrumental colour that Górecki will continue in the *Genesis* cycle.

---

[25] *Anaklasis* (1959-1960) already used, for instance, 'highest note of instrument (no definite pitch)', 'play between bridge and tailpiece,' and notes raised or lowered by microtones.

In conjunction with other sonoristic features such as sharp textural/dynamic contrast and a fast rate of change in timbre and texture, a general tendency throughout the piece is to build larger textural blocks (defined by articulation) through the increase of parts in superimposed, timbrally contrasted textural layers. For instance, 'sheet' twenty-two Górecki composes from three superimposed different ideas as three distinct textural layers: percussion with rapid trills, harps playing mobile clusters and string texture composed of individual parts sliding upwards and downwards in rapid tremolo *sul ponticello* (see Fig. 4.9).

A similarly sonoristic feature of *Scontri* is the juxtaposition of extreme dynamic levels to suddenly cut through and influence the overall color of a texture. This procedure is applied both to textures with exact pitch, and textures for percussion instruments in which register is indicated but pitch is approximate. In the first instance in *Scontri* (see Fig. 4.10), the sudden drop of dynamic level from *ffff* to *pppp* in the string texture of twelve sustained pitch classes is the only element that changes in the texture yet it creates an abrupt impact. In the second instance (see Fig. 4.11) the dynamics change from *fff* to *pppp* and back to *fff* is linked to articulation (fast *tremolo* to slow *tremolo*) and register change (for instance a change involves soprano bongos to alto bongos) but the change is comparable in impact.

As the piece proceeds, textures generated by serial procedures are less frequent. Instead there is more emphasis on superimposing homogeneous textural layers in which the importance of exact pitch, as generated by the serial system, is greatly undermined through the use of clusters and unpitched percussion instruments. The concluding sheet twenty-eight presents a high concentration of features typical of many sonoristic pieces: juxtaposition of clear cut contrasting textural layers in wind, percussion and strings. The final gesture once again epitomizes the role of clusters in this piece: a series of cluster glissandi moving upwards in the manner of thick brush strokes to the highest register (see Fig. 4.12). Typically the five dynamic levels descending from *mp* to *pppp* are integrated with the five mobile cluster glissandi ascending to the 'highest' pitch. Thus within this single piece one can trace a progression from a preoccupation with serial pointillism

towards sonoristic thinking. Ultimately, the serial side of *Scontri* will be entirely overtaken by a sonorist aesthetic in the following *Genesis* cycle.

Lutosławski: *Jeux vénitiens* and *Trois poèmes d'Henri Michaux*.

While pointillism is seen as a stepping stone on the path to sonorism, the chance elements introduced by Witold Lutosławski in *Jeux vénitiens* (Venetian Games) for chamber orchestra (29 soloists) composed in 1961 left a permanent imprint on the repertoire of the younger generation of the Polish avant-garde.[26] In this context it is worth noting that there is no real post-Webern, pointillist phase in Lutosławski's work; he arrives at textural composition via Bartok rather than Webern. The influence of Lutosławski's 'limited aleatorism,' 'collective ad libitum' or 'controlled aleatorism' – all three terms used by Lutosławski referring to the same technique - has been widely acknowledged.[27] Danuta Gwizdalanka and Krzysztof Meyer in their monograph on Lutosławski write as follows:

> The composers of the younger generation and even their contemporaries commonly began to use such limited aleatorism. The characteristic 'snakes' (wavy lines) placed after the notes to indicate their repetition appeared in hundreds of scores. Soon this would become a convention, just as the motoric semiquaver rhythms in the neoclassical pieces did a few decades earlier.[28]

Steven Stucky also highlights Lutosławski's distinctive position amongst other composers who were experimenting with chance elements in their compositions before or around the same time:

---

[26] *Jeux vénitiens* was premiered in 1961 at the Teatro la Fenice during the Venice Biennale, hence the name, by the Crakow Chamber Orchestra under Andrzej Markowski. For the premiere Lutosławski completed only three movements: first, second and fourth (see Stucky, 84). A review of the first version of the piece written by Bohdan Pociej appeared in *Ruch Muzyczny*: 'Gry Weneckie. Nowy Utwór Witolda Lutosławskiego,' no. 10 (15-31 May 1961): 4. After the performance Lutosławski revised the piece and completed the third movement. The revised version of the piece was premiered on September 16, 1961 at the Warsaw Autumn under Witold Rowicki.

[27] Danuta Gwizdalanka and Krzysztof Meyer, *Lutosławski. Droga do mistrzostwa* [The road to mastery] vol. 2 (Kraków: PWM, 2004), 35

[28] Ibid.

György Ligeti credits Lutosławski with originating the technique. To Ove Nordwall's suggestion that it stems instead from the first version of *Apparitions* (1957), Ligeti replied that the appearance of aleatorism in his score is crude and primitive by comparison with the already refined and individual conception Lutosławski presented in 1961 in *Jeux Vénitiens*. Penderecki claims that in some of his very early pieces (presumably before 1960) he experimented with controlled aleatorism, and other composer – Stockhausen and Berio, for example – had introduced limited degrees of alearorism before 1960. It hardly matters who first used the technique, however. It is Lutosławski who first produced distinguished artistic results with it and whose example in this respect had exerted a powerful influence in Europe and especially in Poland. All his works since 1961 have involved the technique to some extent, and Lutosławski's name has become so closely linked with it that he once complained about being labeled 'controlled aleatorist', as if singling out this one aspect of his work could suffice to describe it.[29]

Jeux vénitiens, arguably Lutosławski's most significant work of this period and the one which inaugurates his mature period as a composer,[30] was followed by *Trois poèmes d'Henri Michaux* [Three Poems by Henri Michaux, 1961-63] for mixed chorus and orchestra of winds and percussion. The overtly sonoristic aspect of these works largely disappears in his subsequent String Quartet (1964), an important turning point[31] in which motivic relationships resurface pointing to post-Bartokian expressiveness and greater exploration of clearly identifiable harmonic fields (as in the subsequent *Paroles tissés*, 1965). The mentality of the cluster pieces is also not a part of *Livre pour Orchestra* (1968), despite its rich timbral and coloristic side, or of the Second Symphony (1965-67) in which the sonoristic traits are part of the language but the emphasis is shifted towards other elements. As Chłopecki put it: 'at this exact time the part played in his scores by aleatory counterpoint definitely diminishes and that the role of melody increases noticeably and binary form, revealed in such spectacular manner in the Second Symphony.'[32]

The significance of *Jeux vénitiens* within Lutosławski's oeuvre has already been discussed by many writers. Stucky concluded his analytical chapter on the piece by

[29] Steven Stucky, *Lutosławski and His Music* (Cambridge: Cambridge University Press, 1981), 109-110.
[30] Ibid.,133.
[31] Thomas, *Polish Music since Szymanowski*, 139.
[32] Witold Lutosławski, *Orchestral Works Vol. 2*, Naxos, 8.553169 (1996). Sleeve notes by Andrzej Chłopecki, p. 6.

calling it 'an imperfectly executed experiment.'[33] Thomas broadly agrees with Stucky's assertion about this work's place within Lutosławski's oeuvre:

> Measured against surrounding works such as *Musique funèbre* or the String Quartet (1964), this is probably true. Yet its appeal continues to this day and lies in its raw vitality as a 'work-in progress' composition, the wildness of its multifarious motivic ideas refreshingly apparent, rightly giving *Jeux vénitiens* its place in the pantheon of the post-war experimental canon. What we have is a work small in time-span but huge in invention and in portents for Lutosławski's future.[34]

The most significant innovation in this piece was the introduction of chance elements into his music, for which Lutosławski credits John Cage. Hearing a broadcast of his *Concert for Piano and Orchestra* in 1960 suddenly opened a whole range of possibilities and consequently provided a major breakthrough for Lutosławski, who at the time was experiencing something of a crisis. Lutosławski later recalled this experience as follows:

> While listening to it, I suddenly realized that I could compose music differently from that of my past. That I could progress toward the whole not from the little detail but the other way round – I could start out from the chaos and create order in it, gradually.[35]

However, what is the place of this work within the sonoristic repertoire? The influence of Lutosławski's limited aleatorism, as already mentioned, is a significant part of the sonoristic legacy. In turn, the piece also reflects the impact the sonoristic trend exerted on the older generation of Polish composers (i.e. those born before 1914).[36] The extent to which the sonoristic trend infiltrated the thinking and compositional procedures of Lutosławski is evident in the sketches for the piece.[37] The sketch for the overall form of

---

[33] 'Despite its many strengths, chief among them the magical third movement, *Jeux Vénitiens* retains the air of a brilliantly conceived but imperfectly executed experiment.' Stucky, *Lutosławski and his Music*, 141.

[34] Adrian Thomas, '*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period' in *Lutosławski Studies*, (Oxford: Oxford University Press, 2001), 243.

[35] Goodwin, 'Commentary: Zagreb', *Music and Musicians* 11 (July 1963): 17, quoted in Stucky, ibid., 84.

[36] In Baculewski's generational divisions Lutosławski (1913-1994) belongs to the fourth generation active in post-war Poland, together with Grażyna Bacewicz (1909-1969), Stefan Kisielewski (1911-1991), Witold Rudziński (1913-2004), and Andrzej Panufnik (1914-1991). Baculewski, *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 63.

[37] Sketches for *Jeux vénitiens* are in possession of Paul Sacher Foundation in Basel. The final version of the score and the first version of the first movement donated to John Cage are now in the possession of the

the first movement of *Jeux vénitiens* supports the claim that sonoristic thinking underlies the initial conceptual process. Comparing the sketches for the first movement with the published score, Thomas writes:

> Not for the last time, Lutosławski appears to have started his compositional process with a diagrammatic impression of the movement's structure (he seems to have used such visual representations either as an initial stimulus or as a more detailed aide-mémoire).[38]

The contrasting sections of the movement are represented by textural blocks drawn as rectangles with the indication of instrumentation, duration and expression markings (see Fig. 4.13). In the context of sonoristic works, such a document is of great importance for two reasons. Firstly, as already mentioned, it provides evidence of essential sonoristic features right at the initial stages of the compositional process, suggesting that a sonoristic aesthetic is not an outcome but an aesthetic goal. Secondly, such visual representation of the form is in line with various visual aspects of the emblematic scores in sonoristic repertoire. (This aspect of individual sonoristic works is discussed in more detail in Chapter 5.) Even if Lutosławski was in the habit of sketching the overall form for his works in such a way, comparison of sketches for *Jeux vénitiens* and works written much later, such as *Chain 1* (1983), further strengthens the argument that in *Jeux vénitiens* sonorism was an aesthetic basis and a part of the conception of the first movement.

As evidenced in the sketch of the overall form for the first movement, the sharp contrast between the sections conceived as textural blocks comes from the two sources. First of all, from the instrumentation – a primary basis for timbral contrast notably emphasized by Chomiński – and the texture. Thus the sections labeled A, C, E and G are written for

---

Northwestern University Library at Evanston, Illinois (Thomas, '*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period' 234-235). Several pages of the sketches for Venetian Games and other works are reproduced in the articles by Homma (Lutosławski's Studies in Twelve-Tone Rows,' 194-210), Thomas ('*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period,' 211-243) and Irina Nikolska ('On the Types of Chain Connections in the Late Music of Lutosławski: Some Remarks on *Chain 1* for Chamber Ensemble and *Chain 3* for Orchestra', pp. 305-323) published in *Lutosławski Studies*.

[38] Thomas, '*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period,' 212.

woodwind, brass, timpani and piano duet; while the alternate sections B, D, F and H are assigned to strings. The order of performance is fixed from A to H.

Table 4.1   Lutosławski, *Jeux vénitiens*: Formal scheme of the contrasting sections.

ad libitum	*a battuta*
A: ! woodwinds, 12" (7 parts)	
	B: ! strings, [ca 27"] (8 parts +solo violin)
C: ! Woodwinds, Timpani, 18" (8 parts)	
	D: ! strings [ca 21"] (9 parts + solo violin)
E: ! woodwinds, timpani, brass, 6" (11 parts)	
	F: ! strings [ca 2"], (8 parts)
G: ! woodwinds, timpani, brass, Piano (2 players), 24" (13 parts)	
	H: ! strings [ca 39], (9 parts) !!!!

(Using a symbol first introduced by Thomas, I also use the ! sign to indicate the percussion attack coordinated with the entry of each section. Thomas, '*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period,' 222.

The contrast arising from alternating two different types of texture involves additional elements: fast moving material at *mezzo forte* juxtaposed with slow and static chords at mostly *piano pianissimo* dynamic level. While *ad libitum* sections incorporate a variety of articulation, the *a battuta* sections are unified to form a homogeneous kind of texture. Both types of textures are also differentiated by the use of register. While *ad libitum* sections are registrally static, *a battuta* sections ascend to the higher register (with exception of the last section H, where static chords are moved down). The notation of the two types of sections also differs. Although in the *a battuta* sections, as Lutosławski instructs in the score, 'the bar lines rhythmical values and metre are intended merely for

115

orientation; the music should be played with the greatest freedom,' the individual instrumental parts are coordinated. The *ad libitum* type sections are completely devoid of bar lines, thus each part proceeds in its own tempo (see Fig. 4.14). The textural contrast also lies in the number of parts. As in many sonoristic pieces, the tendency is to gradually build up larger textures as the piece progresses. In *ad libitum* type sections the number of parts grow systematically from seven to thirteen parts. In contrast, in *a battuta* sections, the main textural layer varies only slightly in the number of parts. While the length of entire *ad libitum* type sections is given by the composer on the first page of the score, the *a battuta* sections are measured in bars of circa 3 seconds. The contrast between both types of sections also lies in their harmony. Steven Stucky draws attention to the symmetrical twelve-note chords of the *ad libitum* sections and chromatic clusters of the *a battuta* sections.[39] Thomas also emphasized the role of pitch in the first movement:

> Where the foundation for the B D F H sections was a concertina pattern created from eight lines, that for the A C E G sections is one of Lutoslawsk's favored twelve-note chords, with additions. This pitch material was fundamental to the design of A C E G from the outset.[40]

The contrast between the alternating sections of the first movement is also projected on to the remaining movements. The exactly notated second movement in a form of a scherzo is the least sonoristic. However, it features two of the most familiar sonoristic devices: two piano clusters (b. 83-112) and sections in which a certain degree of freedom in rhythmic realization is allowed (b. 93-103). In contrast, the slow third movement brings back *ad libitum* type textures, also featuring an expressive solo flute part which gradually moves from the lowest to the highest register. Written last, it is considered to be 'both the simplest and the most successful of the entire work.'[41] The emphasis is not to build large textures, although there are distinct layers in terms of material (winds, strings, piano and harp, and flute) and occasional block like textures in strings (section P). In fact, the strings' role throughout the movement is transformed from a gradual increase (then decrease) in frequency and continuity, from punctuating the sections (letter D, G, J, L) to

---

[39] Stucky, *Lutosławski and His Music*, 134-135.

[40] For more detailed discussion on the sketches for this movement see Thomas, '*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period,' 222.

[41] Stucky, *Lutosławski and His Music*, 137.

forming one of the main textural layers (letters M to, Q), and finally back to the vertical chords of the beginning.

The final movement combines both types of writing: *ad libitum* and *a battuta*. There is a much greater emphasis on building clear cut blocks of textures which are juxtaposed, superimposed and overlapping. The contrast between alternating these two types of textures also articulates the movement's structure. Thus as in the first movement, *ad libitum* sections alternate with *a battuta* sections. [42] The opening of the movement presents the two contrasting textural blocks contained within instrumental groups: one in strings with sustained 12-note chord overlapping with another textural block featuring polyrhythm in winds. With the introduction of the piano layer (b. 54) the collective *ad libitum* begins. As the movement progresses towards the climax (letter G, see Fig. 4.15), the rate of change increases, textures are shortened but the number of overlapping contrasting textural layers grow resulting in so-called 'multilayeredness' (*wielowarstwowość*).[43] The contrasting textural timbres are woodwinds, brass, piano and strings. It is not so much the growing number of parts but the increasingly short individual overlapping layers that intensify the effect of the changes and impression of textural build up. In contrast to the beginning of the movement where the textural contrast is clear, the middle of the movement - towards the climax - melts the individual layers into one large texture. Once again the emblematic sonoristic device, the cluster, is at the centre of the climax. A series of cluster attacks over the entire registral range of the piano are juxtaposed with textures in stings, winds and percussion (see Fig. 4.16). Thus in this influential but experimental work, Lutosławski introduced chance into the repertoire of techniques of sonoristic thinking.

If the *Jeux vénitiens* was 'an imperfectly executed experiment', the next composition, the *Trois poèmes d'Henri Michaux* commissioned by the director of Radio Choir in Zagreb, Slavko Zlatic for the Music Biennale in Zagreb in 1963, was, according to Stucky, an

---

[42] For more detail see Stucky, *Lutoslawski and His Music*, 141.
[43] Ibid., 140.

'unequivocal artistic success.'[44] The *Trois poèmes d'Henri Michaux* in Lutosławski's mature phase, for the first time, incorporate choir of 20 soloists; the orchestra consists of woodwinds, brass and percussion.[45] The two ensembles are independent, each requiring a separate score, and its own conductor. This aspect of performance takes Lutosławski's limited aleatorism to a new height not least because of the two independently directed ensembles. Stucky remarked: 'indeed in this work and the next, the String Quartet, is to be found the highest proportion of *ad libitum* playing in any of the composer's scores- and it is done more subtly and with a surer hand than in *Jeux vénitiens*.'[46]

The piece consists of three contrasting in mood movements: *Pensées*, *Le grand combat* and *Repos dans le Malheur*. Although the poems were chosen (as Lutosławski himself noted) after he had made the outline of the piece, a lot of the textural detail is drawn from the poetry, with which Lutosławski was fascinated with from the moment he discovered it:[47]

> The verse, its sense and construction, and even particular words had to exert an influence on the music of my composition. This was, moreover, as I had intended. If I had proceeded otherwise, if the words of the text were to be merely one more sound-element of the music, this would be a misuse of the poetry and artistically false, and at any rate it would be wrong approach.[48]

While in the first movement, there is a mixture of both *ad libitum* and *a battuta* sections, the second and third movements are dominated by an *ad libitum* style of playing. It is clear that in parallel with the growing sonoristic repertoire of the younger generation of Polish composers, Lutosławski proceeded in his own direction and further developed his own particular 12-note technique. However, there is a clear sonoristic side to *Trois poèmes d'Henri Michaux*. What then are the points of connection with sonorism? Charles

---

[44] Ibid., 142. The Polish premiere took place during Warsaw Autumn Festival on 22 September the same year (Rae, *Muzyka Lutosławskiego*, 101).
[45] The size of the choir - depending on the performance space - can be doubled or even tripled to total of 60 singers. In such cases the composer instructs that 'in the ad libitum' sections, singers having the same part should not sing strictly together (Lutosławski, *Trois poemes d'Henri Michaux* Preface to the Vocal score, Kraków: PWM, 1969).
[46] Stucky, *Lutosławski and His Music*,142-143.
[47] Ove Nordwall, ed., *Lutosławski* (Stockholm: Wilhelm Hanses, 1968), 75.
[48] Ibid.

Bodman Rae in his monograph on the music of Lutosławski already noted the emphasis on textures:

> Lutosławski's methods of organizing pitch in this work are quite simple compared with some of those he was later to evolve. His continual use of twelve-note chords (as opposed to chord-aggregates), particularly those with clustered semitones, leads to a kind of harmony that is heard in terms of general textures, with little opportunity for the projection of melodic lines. The question of melody does not seem to have been confronted in this work, so the problems and limitations of texturalism remain. [49]

Indeed in the central movement, *Le grand combat*, the notation of the vocal parts indicates only a register: high, middle and low (see Fig. 4.17). Lutosławski also uses extended vocal techniques here, common to sonoristic scores such as shouting, speaking, reciting, reciting in undertones and whispering. The sonoristic aspects however, are not limited to the mode of vocal production. The overall textural effects of the second movement are also much closer to sonoristic works. Within the vocal textures, the two styles, *a battuta* and *ad libitum* form the foundation of a textural contrast between the sections to create one glittering sound mass. The juxtaposition of a large textural vocal block with a single part is common to many sonoristic pieces. For instance, at score no. 33 to 48 the sopranos and altos are superimposed in eight-syllable *glissandi* in a high shout. This clear cut sound block in a high register is juxtaposed with one layer of male voices in a low register *a battuta* (see Fig. 4.17). There are also textures in which *ad libitum* and *a batutta* styles of performance are superimposed. Towards the end of the movement (see Fig. 4.18) the sopranos and altos against tenors and basses create two distinct textural layers: the former with a colorful sound mass with incomprehensible text, and the latter with a single layer and clearly audible text. There are also larger textural blocks of all voices performing *ad libitum*. In such case all the individual parts are intertwined and melded into one sound mass in which the audibility of text is lost. Lutosławski was not satisfied with this aspect of the piece. However, it seems that at the time, the sonoristic side of textures was more important and in effect prevailed over the composer's approach to the text in general:

---

[49] Charles Bodman Rae, *The Music of Lutosławski*, (London, Omnibus Press, 1999), 87.

I always strive to make the text audible and intelligible. Unfortunately, here I have not always succeeded and I deplore that ... I could even say that if I were to compose the *Trois poèmes* by Michaux again, I would profit from all the experience I have had as listener, and as conductor of the chorus, and I would certainly do some retouching, aiming to render the text more completely audible.[50]

Although the vocal parts explore the sonoristic effects to a greater degree, there is also an emphasis on the overall sound in the orchestral parts *en masse*. The opening of the piece provides such an example. The woodwind texture, composed of individual lines based on 12-note chords, is introduced by a symmetrical 12-note chord on two pianos. None of the individual lines is more important than the other and all blend in to create one texture to foreshadow the mood of the poem.

One of the typical sonoristic textures exploring the timbre contrast and dynamics being integrated into the instrumental parts is in the second movement (bars 52-53). The series of fast *crescendi* from *p* to *ff* of sustained chords in winds are alternated with sustained chords in the brass section. The fast rate of change is emphasized by the percussion section (tom-toms and timpani) synchronized with the winds (see Fig. 4.19). Thus while, in many ways, *Trois poèmes d'Henri Michaux* continues some of the ideas discussed in *Jeux vénitiens*, it introduces some new elements which are relevant to the discussion here about the development of sonorism. It introduces a choir and applies some of the aleatoric instrumental techniques of *Jeux vénitiens* to vocal textures. Moreover, the sonoristic element appears to have taken precedence over textual clarity, despite the importance that Lutosławski placed on audibility of the text.

***

In the development of sonorism, the opening of electronic music in Poland, as already mentioned in the historical chapter, played a vital role. The first tape pieces were composed even before the establishment of the Experimental Studio in Warsaw in November 1957: Andrzej Markowski's (1924-1986) music for the Goldoni's play *Sługa*

---

[50] Charles B. Rae, *The Music of Lutosławski*, 86.

dwóch panów and Kotoński's music for Richard Golec's documentary film *Barwy radości i smutku.*[51] Subsequent works, such as music for the films *Życie jest piękne*, *Był sobie raz* and *Dom*, Markowski used tape manipulations, montage, reverberation and electronically generated sounds.[52] Zbigniew Wiszniewski's first autonomous tape piece and the first electronic piece composed in 1962 (i.e. using sound electronically generated) in Poland was *dB, Hz, s.*[53] As already mentioned, the first piece composed in the electronic studio was Kotoński's *Etiuda konkretna (na jedno uderzenie w talerz)* [Concrete Study (on one cymbal stroke)], which was also the first *musique concrète* piece by a Polish composer:

> *The Concrete Study* lasted only 2 minutes and 41 seconds. But it became an important point of departure for the development of electronic music in Poland. Premiered in the 1960s Warsaw Autumn, it was played in festivals and concerts of new music in many countries. Its score, published by PWM in 1963 under the short title *Study on One Cymbal Stroke*, contributed to its popularity.[54]

From its inception, the Studio conducted courses and training sessions which attracted great interest among composers. Franco Evangelisti and Roland Kayn (b. 1933) were amongst the first foreign composers invited to the Studio in 1959 and 1961 respectively. The main figures in the first years the Studio operated included Włodzimierz Kotoński (b. 1929), Zbigniew Wiszniewski (1922-2000), Andrzej Dobrowolski (1921-1990) and Bogusław Schaeffer (b. 1929).[55] For some composers the Experimental Studio was a brief albeit an important and very influential experience. Krzysztof Penderecki (b. 1933) frequently visited the Studio to work on his film scores. In Penderecki's only electronic piece realised there, 'coloristic element and search for new sonoristic values had become the main interest.'[56] The vocal material is subjected to a variety of *musique concrète* operations such as montage, transposition, filtering and reverberation.[57] In an interview

---

[51] Włodzimierz Kotoński, *Muzyka elektroniczna* [Electronic Music] (Kraków: PWM, 2002), 34-35.
[52] Ibid.
[53] Tthe title stands for decibel, Herz and second. Ibid., 38.
[54] Ibid., 37-38.
[55] Kotoński, *Muzyka elektroniczna*, 37.
[56] Ibid., 38.
[57] Ibid.

121

with Richard Duffalo, Penderecki emphasized the value of these experiences — particularly in relation to sonorism - at the experimental studio:

> I was a student at that time and used to go every month for a couple of days at a time. Eventually, I worked at the studio for two or three years, writing music for short films and theatre. I think I learned a lot from that electronic studio. I think that what I mostly learned was discovering something absolutely new and, I thought at the time, with unlimited possibilities in music. In the late '50s and beginning '60s, I was the first to introduce a new way of playing the string instrument. And I think my ideas, using the cluster, using 'noise,' discovering new ways of playing an instrument, came from working in that studio, not from studying others.[58]

Although Górecki never composed an electronic piece, in 1962 he also acknowledged influence from electronic music: 'I think that electronic music attracted the attention of all composers and directed it towards the value of vertical sonorities, as well as horizontal ones.'[59] In looking at the relationship between electronic music and *musique concrète* in Poland at this time and sonorism, it is impossible to say which influenced the other. However, it is clear that both were manifestations of a new interest in sound itself and its musical potential.

Discussions of sonorism, particularly in Poland, have tended not to focus on the sonoristic side of the works discussed in this chapter. However, they are clearly relevant to sonorism and its development. There is a part of these works which can also be seen to be part of the trend. Moreover the works themselves, particularly those by Lutosławski, were strongly influential on composers who wrote some of the emblematic sonoristic works to be discussed in Chapter 6.

---

[58] Richard Dufallo, *Trackings. Composer Speak with Richard Dufallo* (New York: Oxford University Press, 1989), 343.

[59] Leon Markiewicz, 'Conversation with Henryk Górecki: Leon Markiewicz, July 1962,' transl. Anna Masłowiec, *Context* no. 14 (Summer 1997): 39.

Chapter 5

Sonoristic Notation

> ... good notation is what works.
>
> –Earle Brown, *Notations*[1]

The connection between sounds and signs constitutes an important dimension in sonoristic music. This chapter examines the explosion of new notational signs for new sounds and techniques within Polish sonorism, within the context of the wider avant garde preoccupation with notation and graphics. More detailed notational issues will also be discussed in some of the analytical discussions in Chapter 6. The emphasis in sonoristic pieces on timbre, its intensity and its expressive power was combined with the search for new sound effects for which the conventional method of notation became inadequate and limiting. Just as the overall sound of the sonoristic pieces often drew the attention of critics, so too did the new notational devices and the overall look of the scores; critics not only commented on the 'catalogue of effects' but also on their visual image. Marian Wallek-Walewski and Penderecki embarked on a study of contemporary notation in a proposed book, *The Contemporary Score*, and an excerpt of this dealing with extended techniques on traditional instruments and their notation was published by Wallek-Walewski in 1960.[2] Tadeusz Zieliński often referred to the visual aspects of notation in the new Polish works. In 1961 Zieliński remarked: 'with Penderecki's sound innovation comes a new way of notation invented by him which, it seems, is the only simple and logical way of writing this music. Its usefulness is proven by the fact that other composers have since adopted it.'[3]

---

[1] John Cage, *Notations* (New York: Something Else Press, 1969), unpaginated.

[2] The author based his article on the following works by Penderecki: *Strophes, Anaklasis, Emanations, Fluctuations, Psalms, 8'37"* and *Dimensions of Time and Silence*. Marian Wallek-Walewski. 'W kręgu poszukiwań materiałowych – Krzysztof Penderecki,' *Ruch Muzyczny* 4, no. 17 (1-15 September 1960): 1-2.

[3] Tadeusz A. Zieliński, 'Nowe utwory Krzysztofa Pendereckiego' [The New Works of Krzysztof Penderecki], *Ruch Muzyczny* 5, no. 12 (15-30 June 1961): 17. In the discussion on Penderecki's instrumental technique Zieliński wrote: 'The manifestation of such a "plastic" conception of music is also the notation used by the composer, in which a sound shape is reproduced not by means of conventional

Foreign critics, particularly in Germany, were equally fascinated by new notational solutions and their realization. In relation to Penderecki's *Anaklasis* Josef Häusler comments on the relationship of new signs and sounds:

> It thus appears that this new score, with its peculiar graphics, with its flexures and wavy lines, with signs of clusters of various widths, with arrows and a multitude of other symbols, builds up a precise equivalent of the sound imagination of the composer, and explores the limits of the domain of sound with relish and resource.[4]

If, as Karkoschka stated, 'the aural image of a musical piece in every epoch is characteristically related to its visual configuration,'[5] the sonorists' tactic at the time seems to have been not only to shock the ear but also to shock the eye. The initial mixture of conventional notation with a few new articulation signs gradually became outweighed by graphics, unusual symbols and verbal instructions. This tendency towards graphic notation produced some scores in which the only familiar element of conventional notation was a five-line stave. The notation acquired a new meaning and manifested a whole new way of thinking. This mentality produced two outcomes. On the one hand, the notation was greatly simplified, so the score not only enabled one to imagine approximately how it would sound but, because the textural aspect was elevated to the forefront, it also indicated the overall structure of the pieces. On the other hand the same emphasis on timbre directed some composers to develop their own notational systems, as in Szalonek's case.

---

symbols, but by a direct deflection accomplished through its transposition onto correlates of the two-dimensional space of the score. There exists thus the similarity of a sound shape received auditively to an analogous visual shape. A single short sound-e.g., *pizzicato* – has in our auditive imagination the meaning of a point. Long-lasting sound takes the shape of a line. The simplest example of such a line is a straight horizontal line, obtained by a longer duration of a sound that does not change its pitch, i.e., its place in the vertical space .... Apart from sounds taking the shape of different lines, there occur also broad sound phenomena, which form sound bands, i.e., clusters (Zieliński, 'Technika operowania instrumentami smyczkowymi w utworach Krzysztofa Pendereckiego,' *Muzyka* 48, no.1, 1968: 74-92), quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 315.

[4] Josef Häusler, *Musik im 20.Jahrhundert. Von Schönberg zu Penderecki* (Bremen: Carl Schunemann Verlag, 1969). Quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 12.

[5] Karkoschka, *Notation in New Music. A Critical Guide to Interpretation and Realisation* (London: Universal Edition, 1972), 1.

The new approach towards notation in Poland was in line with the wider trend brought into play much earlier, at the beginning of the 1950s, by indeterminacy and the so-called New York School which included not only John Cage (1912-1992) but also Morton Feldman (1926-1987) Earle Brown (1926-2002), Christian Wolf (b. 1934) and the pianist and composer David Tudor (1926-1996).[6] The visual aesthetic of the scores by these composers was one of the distinguishing elements that also linked them to the visual artists of New York. Some graphic scores were supplemented with detailed explanation of the graphic symbols; others were improvisational and designed to stimulate performer's imagination. The famous piece *December 1952* from the *Folio* collection of seven works (1952-53) by Earle Brown is one of the first musical graphics.[7] The indeterminate aspect of the piece begins with the performing forces: the works are written 'for one or more instruments and/or sound-producing media.'[8] The score, an abstract design, consists of thirty one black rectangles, varied in size. As there are no instructions how these shapes could be realized, the performer can interpret the 'score' in any way he or she wishes. The instruction states the work may be performed 'in any direction from any point in the defined space for any length of time and may be performed from any of the four rotational positions in any sequence' and this eliminates any degree of predictability as to how the piece might sound. In his earlier piece, *November 1952*, Brown alludes to traditional music notation by placing the notes with indicated dynamic and duration on the stave. However the five-line staff is extended to fifty lines, there is no clef, tempo marking, articulation and the order of playing the notes is left up to the performer. In *Music for Cello and Piano* (1954-1955) Brown for the first time implemented time-notation which was later widely adopted by other composers including the Polish avant-garde composers.[9] While the pitch and dynamics are written exactly, the duration is indicated by horizontal lines attached to the notes.

---

[6] David Nicholls, 'Getting Rid of the Glue. The Music of the New York School,' in *The New York Schools of Music and Visual Arts*, ed. Steven Johnson (New York: Routlege, 2002), 18.
[7] Karkoschka, *Notation in New Music*, 90.
[8] Morgan, *Twentieth Century Music*, 367.
[9] David Nicholls, 'Brown, Earle,' *Grove Music Online* ed. Laura Macy, http://www.grovemusic.com (accessed January 5, 2007),

Within the realm of graphic scores Cage's *Concert for Piano and Orchestra* (1957-58) is particularly significant in the Polish context: the piece would prove to be very influential, particularly on Lutosławski. The score for the pianist demonstrates a new approach to composition and also displays Cage's talent as a graphic artist. Its sixty-three distinct types of notation combine graphics and distortions of conventional musical symbols which demand a new approach to interpretation from the performer.

Other composers with graphic talents such as, Sylvano Bussotti (b. 1931) and Cornelius Cardew (1936-1981) while exploring different degrees of indeterminacy produced scores in which the visual image of the score is a part of the provocative nature of the work.
Bussotti's *Due voci* for soprano, martenot solo and orchestra (1958) combines standard notation, time-notation and graphics. Bussotti'continued his notational experiments in the collection of graphic scores *Sette fogli* (1959) in which, as the composer explained, 'in this collection make-up and symbols present a great variety of highly developed experiments; these begin with markings that have a definite musical meaning in terms of more or less recent tradition, and end with freely invented marking whose musical meaning is as yet unknown, that is, real and genuine drawings.'[10]

By the mid-1950s Stockhausen, who was already aware of the Cage school, began to introduce indeterminate elements in a number of works, notably in the wind quintet *Zeitmasse* (1955-1956) and *Klavierstück XI* (1956).[11] When the Polish composers visited Darmstadt summer courses in 1957 these were the newly composed pieces that Stockhausen presented in his seminars.[12] Stockhausen continued his exploration with 'open form' in *Zyklus* for one percussionist (1959). The unconventional spirally bound score can be read either way up or down and the piece can begin at the start of any page and follow through all remaining pages in the given order to the point of the start. Each page of the score combines the elements of the traditional notation such as staves, clefs

---

[10] Sylvano Bussotti, Preface to the score *Sette fogli* (London: Universal Edition, 1963).
[11] In *Gesang der Jünglinge* (1955–6) there are also indeterminate elements in the actual production process but they are derived from Information Theory rather than inspired by the Cage school. Stockhausen would do the same in relation to *Zeitmaße* and *Klavierstück XI.*
[12] Stockhausen, *Karlheinz. Karlheinz Stockhausen bei den Internationalen Ferienkursen Für Neue Musik in Darmstadt 1951-1996. Documente und Briefe* (Kürten: Stockhausen Verlag, 2001), 140-182.

and accidentals and graphics for which Stockhausen provides detailed explanation. Although the score of *Zyklus* is dominated by graphics and it is designed to look beautiful, the notation here follows Brown's motto quoted at the head of this chapter: it 'works,' and is very practical and functional.

Most of these composers were published by Universal Edition in Vienna, as was Roman Haubsnstock-Ramati (1919-1994), another early pioneer of open forms and graphic notation in Europe. Towards the end of 1950s, he became interested in 'mobile forms' which required a new approach to notation.[13] His attitude towards notation is often close to that of the Polish composers involved in sonorism. Haubenstock-Ramati was, in fact, Polish-born, though he only lived in Poland up until the end of the 1940s, and subsequently moved to Israel. For Haubenstock-Ramati it was the idea for a piece, and the changes towards formal structure that stimulated the search for new notational solutions:

> ...at the beginning of composing a piece there is an idea which exists beyond time and initially doesn't have anything to do with familiar notation and its graphic representation.....[14]

For example the scores of *Mobile for Shakespeare* (1958) and, in part, *Credentials* (1960) are in the form of diagrams which contain a large number of traditional music notation elements to indicate pitch, duration and dynamics. In *Mobile for Shakespeare*, with its indeterminate beginning and direction of reading the score, the individual sections can be repeated and combined with other sections of the piece at will to create a complex texture. Haubenstock-Ramati was attracted to the idea of many possible formal outcomes and many versions of the piece:

> If we write one version of a mobile piece, it will be a version which could never eventuate: the fixed version is a completely different work. How good that such works – even if performed, can always await their premiere.[15]

---

[13] *Interpolation* (1958) for one, two or three flutes was the first mobile piece by Haubestock-Ramati. Earlier Stockhausen wrote *Klavierstucke XI* (1957) and Pierre Boulez wrote piano sonata no. 3 (1956-7).
[14] Roman Haubenstock-Ramati, *Musik-Grafik. Pre-texte* (Vienna: Ariadne, 1980), 5.
[15] Ibid., 6.

In 1959 in Donaueschingen, Haubenstock-Ramati organized the first exhibition of musical graphics.[16] A few years later, in his discussion on the notion of notation in variable form, Haubenstock-Ramati emphasized the role of graphics and its impact on music:

> Musical graphics in its most varied forms, from complete graphic representations to brief graphic structures which are interjected into a conventionally notated composition, has influenced the whole of new music with respect to sonorous material, and has obviously enriched it. For that reason one can even excuse much of the totally graphic music, if it is refined, sensitive, and attractive. [17]

By the end of the 1950s the graphic scores were in circulation in many Western European countries. Universal Edition in Vienna also organized an exhibition of graphic scores in 1959. John Evarts noted:[18]

> [the exhibition] moved from festival to festival of contemporary music and was shown at a Congress of the International Music Council, Unesco House, in Paris in 1960. Some observers were outraged, some regarded the 'pretty pictures' as a passing mode; few were indifferent.'[19]

The notational experiments in the Polish post-war repertoire began during the second half of the 1950s. The first to make such experiments was the most prolific and versatile of all Polish avant-garde composers, Bogusław Schaeffer, who started his notational explorations with the unconventional score for *Study in Diagram* for piano (Studium w diagramie, 1956). The score, in the form of a diagram, indicates intervals, their direction, articulation and dynamics. Schaeffer's direct response to the Cage school is his first score without notes: *Extreme* for 10 instruments (1957), which follows the general model of Feldman's graph notation as applied in pieces such as *Projection 4* for violin and piano (1951). Instead of notating exact pitches Schaeffer indicates a number of notes and intervals for each instrument, register, articulation and dynamics, all in individual

---

[16] Roman Haubenstock-Ramati, 'Forum: Notation. Notation – Material and Form,' *Perspective of New Music* 4, no. 1 (Autumn-Winter, 1965): 41.
[17] Ibid.
[18] John Evarts, 'The New Musical Notation – a Graphic Art?,' *Leonardo* 1, no. 4 (October, 1968): 410.
[19] Ibid.

rectangles whose relative length is an indication of time. He carried out further notational explorations in *Tertium Datur* (1958) subtitled 'A Composer's Treatise for Harpsichord and Instruments' and written in three scores. The conductor uses the score in the form of a diagram in eight sections which show only the entries of the instruments. The auxiliary scores contain written out parts for instruments and harpsichord part which combines traditional notation and graphics. There are striking parallels in the piano part to Cage's *Concert* for piano and orchestra (1957-58), even though it is not clear if the piece had a direct influence on Schaeffer. In *Topofonica* for 40 solo instruments (1959 - February 1960) Schaeffer introduced so called 'frame notation' which Karkoschka regarded as a step away from exact notation towards musical graphics.[20] In sonoristic music it has limited uses, mainly in relation to tempo and pitch (Schaeffer, Sikorski). The main characteristic of this type of notation is the relative freedom of choice within exactly fixed limits. Its most common use in the sonoristic repertoire is frame-like tempo indications or the choice of pitch within the indicated range. Other aspects of 'frame notation' include the choice of musical material literally notated within a normally rectangular frame.[21]

Although the notion of a sonoristic score first emerged in 1960 with works such as Górecki's *Scontri* and Penderecki's *Anaklasis, Quartet for strings* (Quartetto per archi) (1960), *Threnody*, and Schaeffer's *Scultura*, in 1959 there were signs of change to come and introduction of at least some new elements within conventionally notated pieces. One of the first composers to introduce time-space or proportionate notation into Polish music was Penderecki.[22] In his *Minatures* for violin and piano (1959) he combined traditional notation with duration lines and proportionate notation applied to groups of short notes. Similarly, in *Strophes* for soprano, speaker and 10 instruments (1959) he replaced

---

[20] Karkoschka, *Notation in New Music*, 55.

[21] Karkoschka devoted a whole chapter to frame notation in his book. Amongst other works cited there are pieces by Berio, Kagel, Lachenmann, Evangelisti and Stockhausen (Karkoschka, *Notation in New Music*, 55-61).

[22] Kurt Stone defines proportionate notation as follows: 'Proportionate notation (also called time notation) is a system in which durations are "translated" into horizontal distances so that if the duration of a half note is made equal to one inch of horizontal space, a quarter note equals half an inch, and so forth. If a different spatial unit is chosen, for instance, 1 ½ inches for a half note, the quarter will be half of that (i.e., ¾ of an inch). In short, all durations must be noted in spatial *proportion* to each other.' Kurt Stone, 'New Notation for New Music, Part 2,' *Music Educators Journal* 63, no. 3 (November, 1976): 56.

traditional bar lines with dotted lines and introduced a new way of indicating tempo fluctuations. Below the staves at the bottom of the pages there are three continuous dotted 'tempo-lines' to indicate the three levels of tempi.[23] The thicker black line running along and between the dotted lines indicates gradual or sudden tempo changes. Whether by coincidence or not, Penderecki's tempo-line was actually anticipated by Haubenstock Ramati in his earlier pieces such as *Petite pour orchestre* (1958), premiered in Donaueschingen in 1959 and *Séquences* for violin and orchestra (1958). In *Séquences* the line running below the time signature indicated in the middle of the score rises for *accellerando* and descends for *rallentando*; in the Petite pour orchestre's last movement, *Sérénade,* the *accellerando-ritardando* line runs mostly below the stave. Another notational innovation is the time-space notation for a repeated note in cymbals, tam-tam and flute parts. The shortening or widening distance between the notes corresponds to *accelerando* and *rallentando* respectively. This type of notation can also be found in slightly earlier scores by Haubenstock-Ramati already mentioned (*Petite pour orchestre* and *Séquences*). In both works there are also instances of combining the tempo line with proportionate notation (the opening of *Sérénade*, claves part).[24]

In the pre-sonoristic piece *Episodes* (1959) for strings and three percussion groups, Serocki also uses the tempo line, expands the list of abbreviation for the string section[25] and uses graphic symbols for percussion section to indicate the kind of stick and the mode of tone production.[26] It is possible this may have been influenced by the solo violin part of Nono's *Varianti* (1957, published in the same year).

In the same year Górecki wrote a post-Webern mobile piece *Three Diagrams* for solo flute. The score of one folded page consists of five frames which comprise an

---

[23] See Wolfram Schwinger, *Krzysztof Penderecki. His Life and Work* (London, Schott, 1989), 26 and 137. Ludwik Erhardt also commented on the notational innovations in *Minatures* and *Strophes* in his book *Spotkania z Krzysztofem Pendereckim* (Krakow: PWM, 1975), 18 and 21.

[24] At the same time Pierre Boulez in *Improvisation sur Mallarmé* (1958) for soprano and nine instruments also used in a few places a rising line for accelerando and descending line for *ritardando.*

[25] AN for arco normale, ANM for arco normale misto, AP for arco al ponticello, APM for arco al ponticello misto, AT for arco sul tasto, AL for arco col legno, AFL arco flautando, PzN for pizzicato normale, PzP for pizzicato al ponticello, PzB for pizzicato battuto, LB for col legno battuto, c. s. for con sordino and s. s. for senza sordino; for *tremolando regolare* and *irregolare* Serocki uses graphic symbols.

[26] Serocki introduced some abbreviations in the string section and harps already in *Musica concertante.*

130

introduction, ending (fine) and three diagrams. The order of performance of the three diagrams framed by introduction and ending is left to the performer. The same ideas and notational advances are developed in *Diagram IV* (1961) for solo flute. Thomas has noted that 'it develops new notational devices governing duration, types of repetition, order of events, and rhythmic and performance indications.'[27]

As mentioned earlier, the notion of a sonoristic score emerges around 1960. It needs to be emphasised here that what amounts to a typical sonoristic score is both a visual notion - that is, the overall look of the score - and a practical one providing instructions on what has to be played. In *Anaklasis* for strings and percussion groups and *Threnody* for 52 strings Penderecki introduces a whole range of what rapidly become sonoristic notational traits, above all cluster notation.[28] Amongst *Threnody*'s variety of clusters, the opening microtonal cluster and the concluding the piece thick band of sound proceeding from *fff* to *pppp* are memorable fingerprints of his style, but also of his notation.

In Górecki's *Scontri* for orchestra, the thick, black lines are also visually and aurally striking (see Fig. 4.5).[29] Górecki would continue to use them in *Canti strumentali* (1962). However, the scale of sound volume and pitch span is reduced by the smaller performing forces and the width of the notated 'thick lines' also reduces accordingly. Although there are differences between Penderecki's and Górecki's use of clusters - for Penderecki clusters are initially the preferred and fundamental sonoristic device, whereas for Górecki they are one among many sonoristic devices - both composers established them as the sonoristic hallmark, even at times a cliché, of the Polish school. Kilar would use them as a predominant sonoristic notational device in *Riff 62* and *Diphthongos* (1964). Albeit to a much lesser extent, Serocki also makes use of clusters in *Segmenti* (1960-61), *Symphonic Frescoes* (1963-64) and would continue to use them in *Continuum* (1965-1966) and in *Forte e piano* (1967). In *Symphonic Frescoes* Serocki introduces additional graphic

---

[27] For more analytical details see Thomas, *Górecki*, 26-27 and 39-42.

[28] The notational aspects of Penderecki's works are discussed in detail by Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 311-321.

[29] The notation of clusters as black thick lines is also anticipated in the scores of Haubenstock-Ramati. In already mentioned *Petite musique de nuit pour orchestre*, the piano and harp parts features two cluster glissandi indicated as black thick rising and descending lines.

symbols for two specific kinds of clusters on keyboard instruments such as strike the white or black keys with the forearm which may have been influenced by Haubenstock-Ramati, or by purely graphic scores such as Ligeti's *Volumina* (1962). Although for Lutosławski clusters are marginal, *Jeux vénitiens* (in addition to smaller clusters) features some spectacular clusters which can be executed by 'means of two strips or cylinders of stiff cardboard.'[30] The width of clusters is indicated in the notation; the length of the strips or cylinders is also precisely indicated (see Fig. 4.16).[31]

From the start, the temporal regulation of sonoristic works rarely involves conventional time signatures. Instead, composers usually replace conventional bars with sections measured in seconds. Penderecki, in his 1960 String Quartet used time-scale notation in which one centimetre (indicated by lines in the score) equals one second - a practice that goes back to Cage's *Music of Changes* (1951).[32] In relation to tempi, there is sometimes a tempo-line running either above the staves, as in Górecki's *Scontri,* or below the staves as in Penderecki's *Anaklasis,* but before long this was abandoned. Lutosławski's *Trois poèmes d'Henri Michaux* is archetypal in its use of a variety of means to control the flow of *ad libitum* sections. He uses both time-space notation, and polymetre in the sections divided into one-second 'bars.'[33] This score also reflects the fact that by 1963, time-space notation and the use of duration lines has become a norm in this repertoire. The second movement of *Trois poèmes d'Henri Michaux* is also an archetypical example of sonoristic, aleatoric textures which use repetitions of patterns in the superimposed instrumental parts.

Of the early sonoristic scores, *Threnody* is a particularly striking instance of how the notation can be directly linked to the compositional process. Penderecki has claimed: '...
Threnody is conceived in such a notation, that it simply cannot be written in another,

---

[30] Lutosławski, *Jeux vénitiens* (Celle: Moeck, 1962), 13.

[31] For example, for the white keys it must be 60cm and for the black keys 59.5cm.

[32] The second String Quartet - written in 1968 and revised in 1970 – combines more precise notation with some sonoristic traits, for example, the highest note on the instrument, playing between bridge and tailpiece and quartertones *glissandi.*

[33] For example in the first movement, *Pensées,* (bb. 109-112) within a one-second downbeat there are superimposed parts in winds in 1/2, 9/16, 7/8, 5/8 and 3/4.

because it would be no longer the same piece.'[34] This piece exemplifies how notation in some cases became not only a tool for instructing the performers but also a means of conceptualising the music for the composer. Yet, however unconventional, it is also pragmatic: from the first page of the score the notation of microtonal clusters and articulation markings such as slow and fast vibrato is both simple and practical. Moreover, the so-called 'wedge clusters' effectively reflect the sound image. An even more striking example of the notation being an integral part of the sound idea is found in the passage featuring overlapping, clusters, expanding in range (score no. 18, see Fig. 6.4). Although they could be conventionally notated, Penderecki chose to use a graphic shorthand which also effectively reflects the structure of this section. Yet when the material changes, as in the section with the three-part canon (page 11 to 15 in the score), Penderecki returns to a conventional score layout. Similarly, for Lutosławski the type of textural material dictated not only the notation but the unconventional score layout as in the first movement of *Jeux vénitiens*. As already mentioned, the ad libitum textures for wind, brass and percussion are notated in frames on one page while the precisely notated string textures are on the other two pages.

Whereas, for Penderecki, clusters are amongst the main sonoristic devices whose notation seems to be an integral part in the conception of the sound idea, for Schaeffer in *Scultura*, cluster sonorities or mobile clusters, although used to construct large textures, are just one of many aspects of the piece. Indeed the notation of clusters by both composers reveals the differences in their approach to this common sonoristic device. Penderecki's thick black line, featured in nearly all of his sonoristic works, is not to be found in Schaeffer's *Scultura*. Instead where there are textures composed of clusters each of the constituent parts, whether in conventional notation or graphics, is precisely written out. In this respect Schaeffer is closer to Xenakis' *Metastaseis* and *Pithoprakta*, or Ligeti's *Apparitions* and *Atmosphères*, in which the parts are all notated individually.

---

[34] 'Np. *Tren* wymyślony jest w takiej notacji, że po prostu nie może być napisany w innej, bo przestałby być tym samym utworem,' 'Dyskusja na Seminarium poświęconym Krzysztofowi Pendereckiemu' (Discussion devoted to the Music of Krzysztof Penderecki), *Muzyka* 81, no. 2(1976): 37-38.

The sonoristic aspect of the *Scultura* score is revealed above all through large and clear cut homogeneous textures which strikingly combine a substantial graphic element side by side with conventional notation. The graphic element of the notation explores a range from relatively precise symbols for articulation, and signs with prescribed limits of realization (such as a variety of wavy lines for trills, *glissandi*, *glissandi* with *tremolo*, striking the strings with the palm of the hand, *glissando* by withdrawing the finger from the upper joint of the flute, striking the frame under the instrument, or the effect of breaking a string) to signs and drawings which serve as a basis for improvisation. Both types of graphics are featured (without explanation) in the piano and harp parts of the fifth movement (third and fifth 'actions'). However innovative Schaeffer is in his graphic symbols, they are placed on conventional staves which he retains throughout the score.

For Schaeffer it seems that the notation while being 'a means of communication' also has an element of 'an end in itself.'[35] Schaeffer's graphic talent add to the aesthetic side of the score. Furthermore rather than using short hand, wherever it would seem possible, Schaeffer prefers to write all individual parts of large textures with its intricate details. One of the best examples to illustrate this point is the one-bar texture of short sounds ('marker texture') in the first, third and fifth movements of *Scultura*. Since the instruction in the score is to play any notes, the notation of such an effect could be the same for each part, yet would be realized differently by each player, albeit with a similar aural effect. However, Schaeffer chose to write out each of the fifty-five parts (for example in the third movement), not only to show the maximum number of parts but to specify a different shape for each player.

By the mid-1960s the graphic scores were pursued by many avant-garde European and American composers. In Poland in the 1960s the composers who were particularly

---

[35] In the context of 'an end in itself' in *Azione a due* (1961) Schaeffer goes even further and creates his own notation – what Cornelius Cardew would call 'aesthetic notation' - by redefining the function of the existing musical symbols and introducing new ones. For a critique of the functionality and intent underlining the notation Schaeffer developed for this piece see Richard Toop, 'Notations,' *Collage* 9 (Palermo, 1970): 93-98. The phrase 'New Notation: 'a means of communication or an end in itself?' comes from György Ligeti, 'Neue Notation – Kommunikationsmittel oder Selbstzweck?' *Darmstädter Beiträge zur Neuen Music* 9 (1965): 35-38. The Ligeti's title was exploed by Marina Lobanova in her book *György Ligeti: Style, Ideas, Poetics*, 83.

attracted to graphic notational solutions were Kilar, Schaeffer and Szalonek. Within the sonoristic repertoire the notation of a great number of pieces is dominated by graphic elements, but retains the elements of traditional notation such as continuous staves, notes, clefs, and tempo markings. Among the sonoristic works considered in this study the only purely graphic score is Kilar's *Diphthongos* (1964), which in terms of his own work is an isolated experiment in the use of graphic notation with only traces of conventional notation (such as the notation of clusters for strings, piano and vibraphone at the end of the piece and the fermata sign). The score layout of *Diphthongos* also is a case in which there is a relationship between a page and a formal structure of the piece: a page equals one formal section (panel) of the piece.[36] Similar instance of graphic element pushed to the extreme where the page has visual entity and a formal function is already mentioned *Threnody*'s expanding in range 'megaphone' or 'wedge' clusters.

Most of the works discussed above date from a brief but intense period when the conception of works and their notation had an almost competitive aspect. By the time Serocki's *Symphonic Frescoes* received its premiere (1964) the excitement about the new sound effects and new articulation was nearly over. Although the sonoristic scores were supplemented with long pages of explanations, with almost every composer having his own idiosyncratic symbols, even within the vocabulary of highly individual sonoristic effects there are some unified approaches to notation. What became 'common notational practice' (or common notational devices) points to the sonoristic footprints (and shared sonoristic vocabulary), and what was more specific defines sonoristic individual fingerprints. Thus while cluster notation, temporal regulation, time-space notation and graphic symbols dominating aleatory large textures form the common ground for sonoristic pieces, and contribute to the overall look of a sonoristic score, characteristic textures that required a specially developed notation, special effects and their symbols remained an aspect of the fingerprints of individual pieces and composers. Thus Serocki's scores of the 1960s are distinguished by his own sonoristic (and notational) vocabulary: the use of simple graphic signs and practical notational solutions which he began to develop from *Episodes* and *Segmenti*. Serocki is particularly inventive in

---

[36] Although in Penderecki's String Quartet (1960) one page equals one minute this is not the case.

devising symbols for the percussion section; his sonoristic signature although created from the common and widely used symbol for aperiodic repetition becomes his individual sonic and notational trait.

For example, Sikorski, who joined the movement relatively late, also draws from the vocabulary of articulation and notational symbols which by that stage had become a part of the *lingua franca* of a contemporary sonoristic score. Within already established notational devices such as clusters, duration lines, repetition of sounds, rising lines for *glissandi* and the highest note on the instrument Sikorski's scores are distinguished by the notational shorthand for the repetition patterns, clear cut textural layers and textures with fluctuating dynamics (simultaneous use of crescendo and decrescendo) and the notation of specific clusters by depressing silently the lower part of keyboard.

For Szalonek the development of new notational devices is bound to his experiments with multiphonics. In terms of the time-space notation commonly used in sonoristic scores, cluster notation, sections measured by seconds and the highest note on the instrument, his score layout is not particularly unusual. In contrast to slightly later pieces for smaller ensembles, such as *Improvisations sonoristiques* for clarinet, trombone, cello and piano (1968), *Mutanza* for piano (1968) and *1+1+1+1* for 1 to 4 string instruments (1969) which use graphic symbols to much greater extent, the notation of *Les sons* is purely functional.

In summary, although there is a strong tendency towards graphics in the scores of sonoristic pieces, their notation is relatively simple, functional and practical. The function of graphics in these scores is usually not to inspire improvisation, but to simplify the image of the required sound idea, and in some cases this is a part of the aleatory procedures. As Górecki and Penderecki have remarked, Polish composers were attracted to the sound quality produced by aleatoric procedures but were not generally interested in other aspects of the Cageian aesthetic. In particular the traditional roles of composer and interpreter were broadly preserved. The notational innovations clearly delineate the boundaries of freedom, and the role of the performer rarely goes far beyond that of the conventional interpreter. Another important dimension of a majority of sonoristic scores

is the relationship of notational symbols and graphics to its aural outcome. The use of graphics and notational shorthand which contributes to the visual aspect of the sonoristic score is, in some cases, just as important in helping to conceive and manipulate new types of textures. Specific examples will be discussed further in relation to individual pieces. A distinct part of the visual image of these scores also extends to the covers. Many scores published by PWM from the late 1950s and the early 1960s use colourful abstract graphics on their covers.[37] Within the wider context of the notational innovations, sonoristic scores left its own imprint: that of a time when Polish music was in close synergy with visual arts.

---

[37] The apocalyptic and striking cover for the score of *Threnody* is not so typical because of its programmatic angle. Most of the score covers contain abstract designs. Striking examples are the covers for Kilar's *Diphthongos*, Schaeffer's *Musica ipsa* and *Tertium Datur*, Górecki's *Scontri*, Lutosławski's *Trois poèmes d'Henri Michaux* and Sikorski's *Prologues*, which were designed by Andrzej Darowski. Those for Górecki's *Choros I* and Schaeffer's *Scultura* were designed by Witold Skulicz, who initiated the International Biennale of Graphic Art in Kraków in 1966. The earlier score of *Miniatures* for violin and piano (1959) by Penderecki in addition to the abstract design features poems from the 'Genealogy of Instruments' [Z genealogii instrumentów] by Jerzy Harasymowicz.

Chapter 6

'Total Sonorism' 1960-1966

Krzysztof Penderecki: *Threnody - to the Victims of Hiroshima,* 1960 and *Dimensions of Time and Silence,* 1961.

When compared to other Polish composers who were part of the sonoristic movement in the 1960s, Penderecki's sonoristic output is remarkable, not least because of the number of works composed. Between 1960 and 1962 Penderecki wrote in total thirty nine works, of which ten are for the concert hall, the rest being music for short films and for puppet theatre. The ten concert hall pieces are written for a variety of performance media: *Anaklasis* (1959-60) for 42 strings and percussion, *Dimensions of Time and Silence* (Wymiary czasu i ciszy, 1959-60) for 40-voice mixed choir, percussion and strings, *Threnody – to the Victims of Hiroshima* (Tren – Ofiarom Hiroszimy, 1960) for 52 strings, *Quartet for strings* (Quartetto per archi, 1960), *Fonogrammi* (1961) for flute and chamber orchestra, the electronic piece *Psalmus* (1961), *Polymorphia* (1961) for 48 strings, *Canon* (Kanon, 1962) for 52 strings and two tapes, *Fluorescences* (1962) for orchestra and *Stabat Mater* (1962) for three 16-part a capella choruses.

There has been no general consensus amongst writers on the boundaries of Penderecki's sonorism from the late 1950 and early 1960s.[1] The most frequently mentioned works, each of which opened a new phase, were *Threnody* and *Anaklasis.* However according to some writers, such as Bohdan Pociej, sonoristic elements surfaced in works as early as *Emanations* (Emanacje, 1958) and *Strophes* (Strofy 1959).[2] Schiller similarly regarded *Strophes* and the first version of *Dimensions* as the beginning of Penderecki's sonorism.

---

[1] For detailed account about the borders of Penderecki's sonorism see Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki,* 17-19.

[2] Bohdan Pociej, 'Penderecki, Krzysztof,' *Grove Music Online* ed. Laura Macy, http: //www.grovemusic.com. (accessed January 10, 2008).

Zieliński regarded *Anaklasis* as the 'first piece in the new style.'[3] The ultimate end of sonoristic period in 1973 is marked with *The Awakening of Jakob* (*Przebudzenie Jakuba*, 1973) and a complete turn away from sonoristic elements. This span of more than a decade (1959-1973) is further subdivided by many writers, who delineate Penderecki's sonoristic years more precisely. However, even within the narrower time frame (1960-1966) there are disagreements. Tomaszewski, in his monograph on Penderecki, includes most of Penderecki's works widely regarded as sonoristic within what he calls the 'phase of *Threnody*' which starts in 1960 and extends to 1966. However, for Tomaszewski, *Dimensions of Time and Silence* (1960) belongs to an earlier phase, 'the phase of Psalms of David' (1958-1962).[4] Siegfried Borris described *Fluorescences* (1962) as 'the end-point of his sound colour technique.'[5] Similarly Schwinger and Zieliński regarded *Fluorescences* as ending the sonoristic period.[6] For the majority of writers, however, the two works that undoubtedly mark clear stylistic turns are *Stabat mater* (1962) for unaccompanied choir and *Passio et mors Domini nostri Iesu Christi secundum Lucam* (St. Luke Passion, 1963-66). It is clear that the basis for classification of Penderecki's works differed for individual writers: from the mere presence of sonoristic elements to the range of new effects and intensity of expression. The more recent study of Penderecki's sonoristic works by Mirka puts forward her own classification of Penderecki's sonoristic output. Her basis for periodization is a strict system underlying all Penderecki's sonoristic works. Thus the pre-sonorism period between 1956 and 1959 embraces study pieces, youthful compositions and the three works already mentioned, *Strophes*, *Psalms of David* and *Emanations*, which she sees as influenced by Orff, Stravinsky, Nono and

---

[3] Tadeusz Zieliński, *Dramat Instrumentalny Pendereckiego* (Kraków: PWM, 2003), 15.

[4] Under 'the phase of *Threnody*' Tomaszewski also lists *Anaklasis*, String Quartet No. 1, *Polymorphia*, *Fluorescences* and *De Natura Sonoris 1*. The preceding 'phase of *Psalms of David*' comprises *Emanations*, *Strophes* and *Dimensions* (Tomaszewski, *Krzysztof Penderecki and His Music*, 82-86).

[5] Siegfried Borris, 'Penderecki's Stellung im Synkretismus der 60er Jahre,' in *Musik und Bildung* 12 (1975): 609-614. Quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 18.

[6] Mirka notes that Zieliński's opinion regarding these works over time has also changed: 'Tadeusz A. Zieliński (1961) at first linked *Emanations* and *Strophes* together with *Fonogrammi* to "a neoimpressionistic current" in Penderecki's music, as opposed to the "expressive" current of *Anaklasis*, *Threnody* and *Psalmus*. Yet he subsequently called *Anaklasis* the 'first piece of the 'new' style in which Penderecki 'carved out his own path and became independent of earlier compositional techniques.' Thirteen years later, Zieliński indicated *Threnody* as the beginning of the mature period, in which the composer 'had shaped his original sound-world and discovered in it hitherto unknown sound and expressive values' (Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 18).

Boulez.[7] The sonoristic period proper, according to Mirka, starts in 1960. The extent to which both of the sonoristic systems she identifies (the *basic* and the *timbre* system: see Chapter 2) are present in works provides the basis for further subdivision into two phases: the initial phase and the mature phase. The former includes *Anaklasis, Threnody* and the *String Quartet*; the latter includes *Polymorphia, Fluorescences* and *Canon*. The clear differences between the pieces of the initial and mature phase, according to Mirka, are found in the realm of articulation, notation and textural narration:

> ...in the initial phase of Penderecki's sonorism, articulation is not yet stabilized, and individual pieces bring several new inventions. As a consequence, the sonoristic notation too is still in a state of growth. The composer tries several experimental solutions, mainly concerning temporal organization. Also characteristic of the pieces included in the first phase of the sonoristic period, is the comparatively large scope and the complexity of subsegmental regulations. It is precisely in *Threnody, Anaklasis, Dimensions*, and the String Quartet where one finds the most impressive examples of compositional operations on the level of individual sounds – all of them to be interpreted as relics of optimally pointillist texture constituting a term of the nuclear oppositions.'[8]

On the other hand, according to Mirka, the works of the mature phase demonstrate a 'a fully developed system of elementary categories' – that is the four parameters such as pitch, loudness and time on which eight binary oppositions are founded - and 'a clear-cut formal layout.'[9] On the basis of the system Mirka also explains why after *Polymorphia* and *Fluorescences* in which Penderecki mastered the sonoristic system, he lost interest in writing more sonoristic pieces: 'the subsystems of any subsequent pieces would be identical.'[10] Within a short period of time, for Penderecki, the sonoristic possibilities have been exhausted: as the composer remarked a number of times: 'one cannot write the same piece all one's life.'[11] The last sonoristic piece to be composed, *Canon*, adds two tape recorders to the traditional performing forces – in this case a string orchestra – to construct, as the composer noted in the Warsaw Autumn program notes, 'a three-layer,

---

[7] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 338.
[8] Ibid., 339.
[9] Ibid., 340.
[10] Ibid., 341.
[11] Regina Chłopicka, ed., 'Konwersatorium na temat *Przebudzenie Jakuba* Krzysztofa Pendereckiego,' (1978), 67-75. Quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 341.

stereophonically treated canonic formula, which is the fundamental *novum* in relation to, for instance, *Threnody.*' [12] The Netherlands polyphonic technique, mentioned by Penderecki in relation to *Canon*, does not imply the traditionally understood polyphonic texture but a kind of polyphony applied to layers rather than individual voices. The different interpretations of the boundaries and scope of Penderecki's sonoristic phase reveal a variety of approaches to the concept itself and to its further interpretation. Although there is a common ground between the above listed opinions, the areas where the classification diverges are the fringes of the trend, where the common sonoristic traits gained or lost their structural significance. This is a significant fact often overlooked or not emphasized enough, particularly by those for whom sonorism is reduced purely to sound effects. This is also true in relation to other Polish composers who were involved in the sonoristic movement.

Penderecki's popularity sets him apart from the other Polish composers in that ever since his international successes, first with *Anaklasis* performed at the Donaueschinger Musiktage in 1960 followed by *Threnody*, which was awarded fourth place at the International Tribune of Composers run by UNESCO in Paris in 1961, he was one of the very few Polish composers to establish and maintain a high level of international attention from the early days of his career. Penderecki's contacts with Hermann Moeck since 1959 no doubt played a major role in his popularity. Moeck published his scores through the publishing house *Moeck Verlag* in Celle, which, as Ludwig Erhardt noted, was 'an unprecedented move in the history of post-war Poland.' [13] Analytical interest in his works followed almost immediately after Penderecki won three prizes from the composer's competition organized by the Polish Composers Union in 1959.[14] Among the early studies were Bilica's systematic analysis of sound material with new analytical terminology in relation to *Threnody*, Zieliński 1966 study which introduced the notion of sound shape, Droba's concept of a hierarchy of formal factors and Chiarucci's analysis of

---

[12] Quoted in Erhardt, *Spotkania z Krzysztofem Pendereckim*, 44.

[13] Penderecki was the first Polish composer to have a non-Polish publisher. Later Serocki and Lutosławski followed and also published their scores through Moeck (Erhardt, *Spotkania z Krzysztofem Pendereckim*, 19). See also Przemysław Ćwikliński and Jacek Ziarno, *Pasja* (Warszawa: Polska Oficyna Wydawnicza, 1993), 15.

[14] The three anonymously submitted works were *Psalms of David, Emanations* and *Strophes*.

oppositions in relation to *Fluorescences*.[15] These paved the way for later analytical works such as Mirka's comprehensive study which interpreted Penderecki's sonoristic technique as a system based on binary oppositions and fuzzy logic.[16] Studies of Penderecki's sonoristic music have rightly represented him as pace-setter, often in hagiographic terms. In the context of the present study it is fruitful to reconsider Penderecki's works in terms of the broader sonoristic features of the time and place his pieces within the context of sonorism and emblematic works by other Polish composers. This analysis will, in particular, focus on the elements articulating the structure such as sharp contrast in timbre and texture, articulation, notation, methods of generating textures and rate of change.

For the purpose of the present study, two emblematic works from Penderecki's sonoristic period are selected: *Threnody* and *Dimensions of Time and Silence*. *Threnody's* firm place in the history of 20th century music is unquestionable. In music history books it became 'the Polish piece of the early sixties'[17] and 'an avant-garde calling card.'[18] Within Penderecki's compositional oeuvre *Threnody* remains his most well known composition, and not only because of its title.[19] *Threnody*, with its emotional and expressive power generated through unusual instrumental techniques and dramatic narration of textures, exemplified basic sonoristic features: the principle of clashing contrasts, the use of clusters as a main sonoristic device, and the juxtaposition of textures and extended instrumental techniques. *Dimensions of Time and Silence* - the only one of Penderecki's sonoristic pieces to include choir – constitutes, together with Lutosławski's the *Three Poems by Henri Michaux*, Kilar's *Diphthongos* and Górecki's *Monodram*, a small but significant number of works that utilize the human voice to create sonoristic textures.

---

[15] Tadeusz Zieliński, 'Neue Klangästhetik,' *Melos* 7, no. 8 (1966): 210-212, Henri Chiarucci, 'Essai d'analyse structurale d'oeuvres musicales,' *Musique en jeu* 12 (1973): 11-45.

[16] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*.

[17] Adrian Thomas, 'The Music of Henryk Mikołaj Górecki: The First Decade,' *Contact* 27 (1983): 17.

[18] Bernard Jacobson, *A Polish Renaissance* (London: Phaidon Press, 1996), 152.

[19] In the latest edition of Norton Anthology of Western Music (5th edition) compiling the most representative works and genres *Threnody* – previously not included – is accompanied with extended analytical notes.

The issue of revisions in sonoristic pieces is also interesting in both works, since only a small number of sonoristic works were revised after the first performance.[20] In the case of *Threnody*, the change involved only a title from 8'37" to *Threnody – To the Victims of Hiroshima*; in the case of *Dimensions*, the main change involved cutting out the choral section with the 12-syllable Latin text. The significance of these revisions lies in the fact that any changes made to these scores seem to proceed in one direction: to strengthen the sonoristic aspects of the piece.

Dimensions is also one of those sonoristic pieces discussed earlier that owe their inspiration to the visual arts, in this case to the paintings of Paul Klee and Ives Klein. Together with other sonoristic works bearing such a connection, this raises an important aspect of sonorism: an extra-musical element and the translating into music of some principles from visual arts. The visual aspect of sonoristic scores and the notation which plays a part in the conception of a piece, as in *Threnody*, is also an important facet of sonoristic thinking.

A comment on the titles of sonoristic works is also merited. The titles, whether process driven or purely inspirational, are important in sonoristic works. The use of a title describing a specific compositional procedure was a general feature of new music and particularly characteristic of Polish composers from the Katowice region such as Szalonek, Kilar, Szabelski, Górecki and Penderecki (for example Kilar's *Diphthongos*, Górecki's *Canticum graduum, Scontri*, Szabelski's *Aforisms*, Szalonek's *Les sons*).[21] In relation to Penderecki's works Regina Chłopicka distinguishes two categories of titles among pieces written between 1958 and 1962.[22]

> The first is linked to music and concerns the composition technique employed *(Canon)*, the typical features of sound notation *(Fonogrammi)*, the definition of the forces and the genre

---

[20] Another piece that has been revised after the premiere and the publication of the score is Sikorski's *Sequenza I*.

[21] Leon Markiewicz 'Główne tendencje twórcze w katowickim środowisku kompozytorskim,' *Muzyka* 2 (1974): 25.

[22] Regina Chłopicka, 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki' in *Studies in Penderecki*, ed. Ray Robinson and Regina Chłopicka (Princeton: Prestige Publications, 2003), 257-271.

attribution (*String Quartet no.1*), or the type of expression (*Threnody - To the Victims of Hiroshima*).

The second category of titles comprises the works where the title draws attention to a general extra-musical idea, which significantly influences the shape of the piece and frequently forms the basis of its internal coherence.[23]

Chłopicka notes that *Threnody*'s title was given *post factum*. It could arguably belong to the second category in spite of the fact that it was named after completion. Under the second category, Chłopicka also lists *Emanations, Anaklasis, Polymorphia, Fluorescences,* and *Dimensions of Time and Silence*. No doubt Penderecki passionate interest in ancient literature and languages has its reflection in the choice of titles; the two languages which the main sources for his titles are Latin and Greek. The title of *Emanations* (from Latin *emanatio* – to flow out, to spread out), as Chłopicka noted, refers to both the symmetrical stage arrangement of two orchestras tuned a semitone apart, 'which makes the two formations distinct which with regard to tone-color and allows the audience to follow sound patterns more closely.'[24] Similarly the title of *Fluorescences* comes from Latin (*fluor* meaning flowing or current) and, as with *Anaklasis*, refers to light:

> Fluorescence in physics is the self-induced emission of visible light by certain bodies immediately after the absorption of radiation. The light disappears as soon as the stimulating factor ceases to operate. What we deal with here is then a certain kind of 'de-materializing,' a certain eeriness, which also connotes richness of shades, flickering and glittering.[25]

Harley pointed out the influence of Xenakis in Penderecki's use of Greek titles: *Anaklasis* resembling *Achorripsis* (1957) and *Polymorphia* following *Pithoprakta* (1957).[26] Certainly it is reasonable to assume that, by 1960, Xenakis' music was well known to Penderecki and could have some influence.[27] *Anaklasis,* meaning reflection of light or

---

[23] Ibid., 258.
[24] Chłopicka, 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki,' 259.
[25] Ibid., 260.
[26] Harley, *The Polish School of Sonorism and its European Context*, 63.
[27] In an interview with Richard Dufallo, Penderecki remarked that *Anaklasis* was the first piece in which he developed a new style that was free of the influences of other composers. Penderecki also stated that devices such as *glissando* clusters and new playing techniques for strings were developed by him without

sound is usually translated as transformation or refraction. *Polymorphia* in Greek means 'having multiple shapes' and can be 'compatible with the recognizable unity of sound patterns'.[28] *Dimensions of Time and Silence*, inspired by paintings of Paul Klee and Ives Klein, is among the strongest manifestations of Penderecki's links with visual arts. Because *Dimensions* is considered here as one of the representative sonoristic works, this aspect of the piece will be elaborated in more detail below, together with discussion of sonoristic means.

being aware of similar experiments used at the same time by Xenakis, Ligeti and Stockhausen. Richard Dufallo, *Trackings. Composers Speak with Richard Dufallo* (New York: Oxford University Press, 1989), 340-52.

[28] Ibid., 259.

Threnody - to the Victims of Hiroshima, 1959-61

As in Cage's piece *4'33"* (1952), the original title of *Threnody* refers to the duration of the piece: *8'37"*.[29] However, the expressive power of the work prompted Penderecki to change its title:[30]

> I had written this piece and named it much as in Cage's manner, *8'37"*. But it existed only in my imagination, in a somewhat abstract way. When Jan Krenz recorded it and I could listen to an actual performance, I was struck with the emotional charge of the work. I thought it would be a waste to condemn it to such anonymity, to those 'digits'. I searched for associations and, in the end, I decided to dedicate it to the Hiroshima victims (1994).[31]

Threnody was recorded in April 1961 under Jan Krenz with Polish Radio Orchestra from Katowice. With this recording the director of the Polish Radio, Roman Jasiński, submitted the score under the new title to UNESCO competition in Paris where it was placed fourth. The premiere before an audience took place at the Warsaw Autumn the same year. Before the first public performance of the piece, Tadeusz Zieliński pointed out an emotional aspect and a few crucial sonoristic traits of the piece:

> Looking through the score one can admire the inventiveness and coloristic imagination of the composer. But it is only possible to assess the piece after hearing it. We are realizing one curious fact: that all these effects turned out to be the pretext to create deep, dramatic and even startling work of art.[32]

Wolfram Schwinger further emphasized the dramatic and expressive aspect of the piece:

---

[29] The sum of all sections actually differs from the original title 8'37" and comes to 8 minutes and 26 seconds.

[30] Erhardt attributes the idea of dedicating the piece to the director of Polish Radio Roman Jasinski, who before going to submit the work to the International Tribune of Composers - UNESCO - competition in Paris suggested to Penderecki the change of the title: 'after a short consultation the piece was named *Tren – ofiarom Hiroszimy* [Threnody – to the Victims of Hiroshima], Erhardt, *Spotkania z Krzysztofem Pendereckim*, 32. Ćwikliński and Ziarno in the book *Pasja* also recount the history of the title and the first receptions of the piece (Ćwikliński and Ziarno, *Pasja*, 9-13).

[31] Quoted by Tomaszewski in CD notes to *Penderecki's Orchestral Works* Vol. 1, page 3 (Naxos, 8.554491).

[32] Quoted in Erhardt, *Spotkania z Krzysztofem Pendereckim*, 38.

> This music, with its sharp cutting edge, not excluding effects of enervation from its range of expression, might easily be taken as a naturalistic representation of Chaos; but this densely woven study in sound goes further to embody lament and accusation. That may have given Penderecki the courage to dedicate it subsequently to the victims of the first atom bomb.[33]

The rich timbre palette is created entirely from the string orchestra which includes 24 violins, 10 violas, 10 cellos and 8 double basses. Within the first minutes into the piece the basic sonoristic characteristics are exposed: a fast rate of change, sharp contours, clear-cut and overlapping textures, contrasting sonorities, and an absence of melody, pulse and perceived meter. The durational units are indicated by a vertical dotted line, comparable to barlines but of varying length and measured in seconds with the shortest lasting four seconds and longest 30 seconds. The durational units in the central section are themselves subdivided into traditional bars of defined length as measure by note duration and meter. (The score contains numbers, primarily relating to the broader durational units though sometimes counting individual bars as well.) Furthermore the border between sound and noise has been blurred. The basic sound material, as Zieliński noted in his early analysis of the piece, is composed of (1) the highest possible sounds, (2) bands of sound – clusters, (3) mobile clusters and (4) new articulation.[34] It was the new articulation that often drew attention of commentators. In 1963 Jan Kalużny wrote as follows:

> This work is one of the most interesting and certainly the most revolutionary in contemporary music as far as the utilization of the whole string quintet apparatus is concerned. In these instruments, Penderecki is primarily concerned with their coloristic possibilities which he achieves by means of articulation whose existence has so far not been suspected.[35]

By limiting the performing resources to strings, Penderecki explored unconventional ways of playing which include *arpeggio* on four strings behind the bridge, playing

---

[33] Wolfram Schwinger, *Krzysztof Penderecki. His Life and Work* (London: Schott, 1989), 124.

[34] Tadeusz A. Zieliński, 'Nowe utwory Krzysztofa Pendereckiego' (The New Works of Krzysztof Penderecki), *Ruch Muzyczny* 5, no. 12 (15-30 June 1961): 17.

[35] Jan Kalużny, 'Krzysztof Penderecki and his contribution to modern musical notation,' *Polish Review* 3, no. 8 (1963): 93.

between bridge and tailpiece, playing on tailpiece and playing on bridge. However, the articulation and sound generating processes used in *Threnody* are not entirely new, nor are they exclusively used for the first time in this piece. An extensive list of new articulation accompanies the score of an earlier *Anaklasis*.[36] In *Threnody* however, Penderecki introduces percussive effects on string instruments such as striking the upper sounding board of the violin with the nut or the finger tips.

The dramatic narration of two main types of textures makes the overall ternary structure of *Threnody* coherent and easily perceptible. What primarily defines this ternary structure is the textural contrast between the outer primarily cluster-based sections and the central pointillistic section, a binary opposition reinforced by the dichotomy or continuity and discontinuity. In pointillistic textures every sound event is assigned its articulation, dynamics, frequency and duration, but these details are lost in the overall sonority which achieves homogeneity as a characteristic of the overall texture. The cluster-based sections present a wide variety of clusters which define individual textural blocks. Clusters as one of Penderecki's primary fingerprint is epitomized at the end of the piece to reinforce its expressive effect: the combination of a single dynamic level, common articulation among all parts, common registeral band and synchronized duration serves to unify the entire ensemble.

---

[36] According to Erhardt, Penderecki began to work in December 1959 on several pieces simultaneously during his first stay abroad, in Italy (Erhardt, *Spotkania z Krzysztofem Pendereckim*, 22-23).

Table 6.1   Penderecki, *Threnody*: formal outline.

Section A	Section B	Section A'
Expository section: Score numbers. 1-25;	Middle section: Score numbers. 26-56	Closing section: Score numbers. 56-70
Material types: primarily clusters, sustained sounds, (percussive effects bar 6-9).	Material type: pointilistic- like texture.	Material type: microtonal clusters with slow and rapid vibrato and ending tutti cluster played *sul ponticello-ord.- sul tasto* for 52 strings at *fff-pppp*.
Climax: score no. 19	Culminating point: score no. 62-65	Climax: score no. 70

The much talked about sense of urgency and unsettling effect is present right from the outset. The piece opens with one of *Threnody*'s fingerprints: successive entries of the highest sustained note on every instrument of the string orchestra at *ff* to produce a cluster of microtonal density (see Fig. 6.1). As Niall O'Loughlin noted, 'the highest note on the instrument,' with indefinite pitch, has a purpose:

> In theory, there could be a unison within each group of the four, five or six instruments specified by the composer for each entry, but in practice, however, the resulting sound consists of a group of pitches very close together, producing a strongly discordant cluster.[37]

The first variation of sound from the sustained cluster to superimposed slow and rapid vibrato brings the overall dynamic level from *ff* down to *forte* after 15 seconds. What defines the following texture (see Fig. 6.2, score no. 6) is the gradual textural transformation from continuity in sound into discontinuity based on percussive effects. This is achieved through canonic infiltration of percussive layers into the texture based on clusters. The first layer of percussive effects on unspecified pitch enter in each instrumental part (divisi á 4) by section (first cellos, followed by violas, violins and double basses) and comprise the following ordered ways of playing: highest note

[37] Niall O'Loughlin, 'Threnody and Performance,' in *Studies in Penderecki*, ed. by Ray Robinson and Regina Chłopicka (Princeton: Prestige Publications, 2003), 284.

pizzicato, arpeggio on 4 strings behind the bridge, bow the highest note with a quick arrhythmic tremolo, strike the frame of the instrument with a finger or a frog of the bow, play *tremolando* note between bridge and tailpiece, and a note between the bridge and tailpiece (see Fig. 6.2). These layers are the only ones in the score without specific dynamic level. The percussive sounds are arranged in patterns of four. The players choose one pattern and repeat it as fast as possible. The arrangement of seven specific percussive effects reveals a careful contrapuntal planning derived from serial thinking. If we number the percussive effects from 1 to 7 in the cello parts, the second part (B) is a retrograde of the first (A); the third part (C) is a reordering of A according to even and odd numbers, and the fourth (D) is a retrograde of the third (C). The table below (See Table 2) shows the ordering of parts in violas, violins and double basses and their consecutive entries within texture. The resulting pointillistic-like texture every 15 seconds becomes increasingly discontinuous and dense in pulsating timbres and colors. On the one hand within limits Penderecki introduces an element of random order, on the other hand he applies a strict compositional procedures such as 'a quadruple four-part canon.'[38] However this canon can only be discerned from the score: not only the players are allowed to choose which version to play but in the increasingly dense texture of percussive effects the entries of individual lines are lost. In effect this constructivist quasi-serial approach is only to create a desired overall sound - the strict procedures behind it are not meant to be perceptible even if there was no freedom of choice: 'the ear cannot follow it because the canonic 'voices' are not perceived as quasi-melodic lines, but are blended at once with the other voices into the general field of noise.'[39]

---

[38] Wilfried Gruhn, 'Structuren und Klangmodelle in Penderecki's *Threnody,'* *Melos* 10 (1971): 10, quoted in Schwinger, *Krzysztof Penderecki. His Life and Work,* 126. Many writers elaborated on the subject: among them are Lindstedt ('Between Dodecaphony and Sonoristics: Post-Serial Formulas in Penderecki's Work, 1960-1962,' 227-243), Mirka, (*The Sonoristic Structuralism of Krzysztof Penderecki,* 304-310) and Chłopicka (Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki, 257-271).

[39] Wilfried Gruhn, 'Structuren und Klangmodelle in Penderecki's *Threnody,'* *Melos* 10 (1971): 10. Quoted in Schwinger, *Krzysztof Penderecki. His Life and Work,* 126.

Table 6.2   Penderecki, *Threnody*, score no. 6-9. Ordering of percussive effects.

		24 vn: C: 6427531 A: 1234567 D: 2461357 B: 7654321	
	10 vl: D: 2461357 C: 6427531 B: 7654321 A: 1234567		
10 vc: A: 1234567 B: 7654321 C: 6427531 D: 2461357			
			8 Cb: B: 7654321 D: 2461357 A: 1234567 C: 6427531
15"	15"	15"	15"

The texture ends suddenly in all parts except for cellos which introduce a wedge cluster - a composite unit of the next texture (score no. 10). The variety of clusters as one of the main materials of *Threnody* is rarely matched by other composers at the same time. The whole section from score no. 10-14 lasting only 1 min and 35 seconds is composed entirely by overlapping expanding and contracting wedge clusters (see Fig. 6.3, score no. 13-15). Their clear shape, time span and overlapping ends at various points within the middle to high register are easily perceptible and make the overall texture spatially fragmented. The attention is driven here to the timbral differences between instrumental groups, dynamic variation between the units and overall shape of sound in each unit. The graphic representation of these clusters reflects its aural image. The standard notation of the exact pitches is provided below the graphic black line.

The shape of the next cluster based texture (score no. 19-20) is clearly defined by articulation. The individual layers - sustained clusters - are assigned to the instrumental groups, as in the previous section, but now they are superimposed and unified by one dynamic level – *ppp* – and one type of articulation. For 10 seconds a band of sound is

151

composed by five quartertone clusters occupying the middle register. The contrast between this static textural block and the next texture of overlapping clusters involves dynamics and pitch range: from over two octaves at *ppp* a sudden change to approximately a major third at *ff*. Within this texture the transformation involves a gradual overlapping of clusters and introduction of cluster *glissandi*. The dynamics are integrated to each layer: for static layers it is *ff*; at the point of change to glissandi with harmonics the dynamics drops to *pp*.

The last type of cluster based textures within Section A involves notational shorthand. Once again the notation is economical and visually suggestive: a gradual build up of individual sustained sounds in five groups systematically expand each 'megaphone' pitch range (see Fig. 6.4) each with rising dynamic level: *pp<f, p<ff, mf<ff, mf<ff* and *f<ff*. The five 'megaphone' clusters are spaced to cover pitch range over three octaves within 20 seconds time span. The spatial fragmentation of texture is more visual than aural. The sustained cluster in cellos and double basses, introduced at the end of this section at *fff*, narrows the range of pitch and through *glissandi* reduces the texture and dynamics to a single sound in cellos at *pppp*.

The central part of *Threnody* (Section B), separated from the previous section by a general pause, involves the most structurally complex pointillistic texture (see Fig. 6.5). As described by Schwinger, in its overall sound, it 'is extremely fragmented, atomizing the material into pointillism, mixing the new (and old) methods of playing and hitting, dynamically contrasting and juggling them around in every conceivable combination of sound and noise.'[40] Behind the overall sonority of this texture, which sounds chaotic as a result of seemingly random procedures, there is in fact a very systematic approach. The entire section is constructed as a three-part canon. To realize this Penderecki divided the whole string orchestra into three ensembles of 12 players (4 violins, 3 violas, 3 cellos and 2 double basses). To control the three groups in this section (total number of bars from 47) Penderecki used meter – 2/4 and dotted barlines. Wilfried Gruhn was one of the first to elaborate on the canonic construction of this passage:

---

[40] Schwinger, *Krzysztof Penderecki. His Life and Work*, 126.

Orchestra 2 answers orchestra 1 as a strict canon at a distance of 12 bars, but with the instrumentation altered (quasi-inversion) whereby the parts of the 4 violins are answered by 2 basses and 2 cellos, etc. A symmetrical axis occurs between bars 42 and 43, when all the voices are mirrored, though again with altered instrumentation (like a retrograde version). Bars 16-19 are not included in the mirror. Thus in Orchestra 1 bars 42 and 43 match, likewise 41 and 44 etc., up to 30 and 55. Orchestra 3 follows Orchestra 2 canonically at a distance of two bars, without the first four bars which are also left out of mirroring; the instrumentation here does not change. The canon is sustained rhythmically and, with a few exceptions, dynamically as well, though the pitches may be a fourth or fifth removed. Such structural relationships within the ordering of the material, like the pointillistic refraction of this section clearly show the influence of the Second Viennese School and in particular Webern's principles of symmetrical organization.[41]

The entire texture is phased out into a layer which infiltrates into the next section (A' in Table 6.1 above). This transitional passage is again an example of the infiltration process described above producing a polygenous texture composed of contrasting layers, juxtaposing the previous and the ensuing textures. (see Fig. 6.6, score no. 62-65). The main texture of A' (score no. 62) is based on two components: a microtonal cluster in the violins and two layers in the cellos and double basses. These two cello and double bass layers are constructed as canons based on the same rhythmic pattern and its retrograde version. While the first half of double basses successively enter with the original rhythm played on the tailpiece, the other half (5-8) continues the canonic entry but with the retrograde of the original rhythm played on the bridge. The layer in cellos reverses the articulation and starts with the original pattern on the bridge. Thus the individual parts are related through their canonic technique (however, the strictness is compromised slightly because the number of parts in the two layers differ: eight double basses versus ten cellos). Once again, the overall sonic effect of the two layers is the significant issue and takes precedence over the constructional detail.

The final section of *Threnody* is unified in the type of material used. Dominated by clusters it culminates in a 52 strings microtonal cluster with the widest dynamic range from *fff* to *pppp*, another of Penderecki's fingerprint (see Fig. 6.7).

---

[41] Gruhn, 'Strukturen und Klangmodelle in Pendereckis Threnos,' in *Melos* vol. 10 (1971): 410, quoted in Schwinger, *Krzysztof Penderecki. His Life and Work*, 273-274.

Threnody's new notation was no less surprising than its overall strange, even offensive new sounds. In 2000 Penderecki said:

> I had to invent a special kind of notation which allowed me to write a piece for 52 instruments like *Threnody* on one small piece of paper.'[42]

The prosaic reasons for inventing graphic shorthand is well known from Erhard's book telling of Penderecki's frequent visits to the café, *Jama Michalikowa* in Kraków, on whose small tables most of the sonoristics scores including *Fluorescences* were written.[43] However, the kind of sounds and expression much more than the lack of space dictated the notation: 'When I wrote *Threnody*, I needed a harsh, brutal noise. Then I heard the squeal of a tram and transposed the sound to the strings.'[44] This anecdote supports the experience of many Polish composers that it is the definite sound, with its emotional impact, rather than experiment for its own sake that drew composers to resort to extended techniques which consequently resulted in a new way of notating them.

The final aspect to consider in relation to *Threnody* is the sound document of the piece. For some sonoristic works, discussed later in this chapter, the premieres in comparison with later performances proved to be the most extreme. Thus together with the reviews from the early 1960s they are treated as the most authentic. However, *Threnody* represents a special case here. As the only sonoristic work with such status, *Threnody* now has a number of recordings which could amount almost to a performing tradition. In a study comparing three recordings of *Threnody* (Witold Rowicki: 1963, Krzysztof Penderecki: 1975, and Antoni Wit: 1998), O'Loughlin raises two issues: the question of '"authentic' view of the work,' and the composer's later intentions about performance of the piece.[45] O'Loughlin found that the area in which the three interpretations diverge is mainly the duration. *Threnody* under Rowicki and Wit lasts about nine minutes; under composer's hand it takes almost ten minutes. It is the opening textures of the piece (score

---

[42] Krzysztof Penderecki's comment in the documentary film by Andreas Missler-Morell 'Krzysztof Penderecki' (DVD Arthaus 100 008), Chapter 4. Quoted in O'Loughlin, '*Threnody* and Performance,' 283.

[43] Erhardt, *Spotkania z Krzysztofem Pendereckim*, 24.

[44] O'Loughlin, '*Threnody* and Performance,' 283.

[45] Ibid., 283-289.

no. 1 to 17) where the differences are most noticeable. While Wit's and Rowicki's timings are closer to the score - under Wit the section lasts 4'07" and under Rowicki 4'38"- the composer takes more freedom and extends this section to 5'20":

> Most of the difference is in the first page. Wit reads the score very literally and reduces the volume to *subito f* after 14 seconds (the score fives 11 seconds). Rowicki takes much longer over the initial entries, letting the sound make its full impact, without cutting it off prematurely and reaches the *subito f* at 24 seconds. Penderecki is even more emphatic as he makes the presence of the string sounds overwhelming by sustaining the fortissimo for 47 seconds (36 seconds longer than he indicated in the score) before letting his dynamic level drop. The string players also add to the tension by producing a wider range of "highest" notes to enhance the discordant nature of the opening.[46]

Another place where the interpretations differ is the textural transformation from sustained into discontinuous sounds – a section without indicated dynamics (score no. 6-10). Wit aims at blending the entry of individual contrasting layers within the texture. Rowicki makes these entries very clear, not too quiet but not too invasive. It is under Penderecki that 'the mixture of short attacks is violent in its immediacy, with the contrast being really effective.'[47] Furthermore to ensure the impact of the pointillistic texture, the central section of the piece, Penderecki allows for a longer general pause preceding it. In the context of the sonoristic traits amongst which the sharp contrast and emotional impact are at the forefront, what conclusions can be drawn from the different interpretations of the work? These versions reveal not only the possible interpretations of the score but also point to the original intensions of the composer. Although, as O'Loughlin states, all three versions are effective, it is the composer's interpretation that makes the strongest impact. The kind of changes under Penderecki's hand in contrast to the other two interpretations of the score precisely emphasize the sonoristic qualities of the piece even if the prolongation of the opening textures seems contradictory to the general rule of fast rate of change. Penderecki focused on increasing and intensifying the contrast in every possible way. It is one of the better examples where expression and emotional impact of the music

---

[46] Ibid., 287.
[47] Ibid., 288.

resides above sound experimentation often mentioned in relation to sonorism. Thus it is not surprising that Penderecki took up the idea of changing its title:

> In his hands the opening section no longer sounds like a shock to the ears that should not be prolonged for fear of offending the audience, but one in which the searing discords can be savored. This must be the result of the altered emphasis by the composer indicated to us by his changing the title from a prosaic duration, 8'26" or 8'37", to that of one of the most memorable titles in all of the 20th century string orchestral music, *Threnody to the Victims of Hiroshima for 52 strings*.[48]

---

[48] O'Loughlin, '*Threnody* and Performance,' 289.

Dimensions of Time and Silence dedicated to Józef Patkowski[50] is scored for 40 voices with percussion and strings. The choir consists of 10 sopranos, 10 altos, 10 tenors and 10 basses. In addition to the large percussion section divided into 4 groups (see Table 6.7) and strings comprising 6 violins, 4 violas, 4 cellos and 2 double basses, Penderecki also included celesta, harp and piano. *Dimensions* is not the Penderecki's only work from the late 1950s and early 1960 to include an expanded percussion section. *Anaklasis* (1959) uses even greater range of percussion instruments. The large orchestra in *Fluorescences* (1962) goes still further in the search for sound colour including a large percussion section, sirens, a typewriter and a wood saw. *Dimensions*, however, introduces the human voice to Penderecki's sonoristic works for the first time. Between 1958 and 1962 Penderecki wrote two other non-sonoristic works that include voices: *Psalms of David* (1958) and *Stabat Mater* (1963), the latter of which was ultimately incorporated in *St Luke Passion* (1966). While *Psalms* and *Stabat Mater* are interconnected by setting of the Latin text, *Dimensions*, in its final version, is devoid of text, using only single vowels and consonants.

---

[49] The chronology of works written between 1959 and 1962 is not always clear and there are discrepancies in regards to the composition date of *Dimensions*. For example according to Schwinger it is 1959/60 (Schwinger, *Krzysztof Penderecki. His Life and Work*, 194), Tomaszewski cites 1960 (Tomaszewski, *Krzysztof Penderecki and His Music*, 116) and Mirka relies on Ludwig Erhardt who states that in 1960 Penderecki was working simultaneously on three pieces: '*Dimensions of Time and Silence* for the Warsaw Autumn, *8'37"* (*Threnody*) - written at last within two days for the Grzegorz Fitelberg Composer's Competition, receiving the third prize, and *Anaklasis* at Donaueschingen' (Erhardt, *Spotkania z Krzysztofem Pendereckim*, 25).

[50] Józef Patkowski (1929-2005) was the initiator and the director of the Experimental Studio of the Polish Radio in Warsaw.

Table 6.7   Penderecki, *Dimensions of Time and Silence*: instrumentation.

Chorus: 10 sopranos (S) 10 altos (A) 10 tenors (T) 10 basses (B)	2 bongos (bgs) 6 tom-toms (tomts) 4 drums (tmp)
triangle (trgl) 4 suspended cymbals (ptti s, a, t, b) gong (gng) tam-tam (tmt)	celesta (cel) harp (ar) piano (pfte)
2 claves 3 wood drums (lgn) xilorimba (xilor) vibraphone (vbf)	Strings: 6 violins (vn) 4 violas (vn) 4 cellos (vc) 2 double basses (vb)
4 glass lamellae (vtr) 2 metal lamellae (mtl) 3 cowbells (cwb) glockenspiel (cmpli) tubular bells (cmpne)	

The first performance of the piece took place in Kraków in 1960 and the work was subsequently performed in the fourth Warsaw Autumn under Andrzej Markowski with the Choir and Krakow Philharmonic Chamber Ensemble.[51] For the latter performance Penderecki provided a commentary about inspiration, technical details and performance realization:

> This composition is an attempt to transplant some of the technical assumptions of Paul Klee and Yves Klein to the language of sound. These analogies become apparent in operation on diverse in colour and structure segments, connected through infiltration (Klee), and through introduction of static segments operating on pulsating <<sound space>> or operating on sound's resonance alone. In *Dimensions* I relinquish the use of bar lines (I use them only in three places where metric pulse was necessary) for specified time sections whose realization requires a stop-watch. The conductor indicates the entry of individual sounds and sound complexes in a section from the graphic positioning of the sounds and from a redline especially introduced for this purpose indicating the

[51] Chłopicka, 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki,' 260. The premiere of the first version took place during the Warsaw Autumn in 1960. Erhardt, *Spotkania z Krzysztofem Pendereckim*, 25. A review entitled 'After the Premiere of *Dimensions of Time and Silence*' by Henryk Schiller was published in *Ruch Muzyczny* 6, no. 21 (1960): 5-6.

order of entries. The text which I used in this piece is the Latin 12-syllable pentastich, in the form of a magic square:

S	A	T	O	R
A	R	E	P	O
T	E	N	E	T
O	P	E	R	A
R	O	T	A	S

Apart from this text I introduce rotational transformation of the consonants group – treating the choir *par excellence* as percussion; I also use whispering effects achieved through appropriate hissing consonants and a whistle.[52]

This commentary refers to the original version which Penderecki withdrew after the Warsaw Autumn performance. It includes some details of the original score, also referred to in Schiller's review of the Warsaw Autumn performance in *Ruch Muzyczny*.[53] Ludwik Erhardt also noted that the three places with bar lines mentioned by Penderecki do not appear in the final version which was performed in June 1961 in Vienna during the 35th SIMC Festival under Friedrich Cerha.[54]

As in *Threnody*, Penderecki regulates time in *Dimensions* by means of durational units measured in seconds. Some of these durational units are subdivided into bars measured by meter (score numbers: 4-8, 12-15, 28-45, 70-70B, 75-79, 83-101, and 117-143), others

---

[52] Quoted in Erhardt, *Spotkania z Krzysztofem Pendereckim*, 25-26.

[53] Henryk Schiller, 'Po prawykonaniu *Wymiarów czasu i ciszy* Krzysztofa Pendereckiego' [After the Premiere of Krzysztof Penderecki's *Dimentions of Time and Silence*], *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 5-6. 'The magic square' also referred to as Cirencester word square was found on the Egyptian papyrus dated late fourth century AD. It translates as follows: 'The Sower Arepo holds the wheels carefully' (quoted in Schwinger, *Krzysztof Penderecki. His Life and Work*, 275). The 'magic square' structure and its connection with the principles of 12-note technique was referred to by Webern in his lecture given on 2 March 1932 in Vienna and first published by Willi Reich in 1960. Schwinger reassures that Penderecki at the time of writing *Dimensions* did not come across these lectures (Schwinger, *Krzysztof Penderecki. His Life and Work*, 194). The first Polish translation of these lectures was published in 1972 in *Res Facta* 6 (Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 176). Szwajger suggests that for the final version of *Dimensions* what prompted Penderecki to remove the 'magic square' and its music was to eliminate the possibility of any connection made to other composers. A similar case is argued in relation to *Threnody*'s change of the title. See Krzysztof Szwajger, 'Penderecki and the Avant-Garde' in *Studies in Penderecki* vol. 2, Ray Robinson and Regina Chłopicka, ed. (Princeton: Prestige Publications, 2003), 195.

[54] Erhardt, *Spotkania z Krzysztofem Penderecki*, 26.

are subdivided into one-second bars (vocal textures: score number 144-187). Clearly the type of texture and sound material dictates the notation: in aleatory textures time is regulated by units measured in seconds, while the pointillistic textures use the traditional time signature. This is strictly applied, and, even when these two types of textures overlap, the two ways of time regulation are preserved (score number 11-13 and 70-71).

Only months separated the first performances of *Threnody* and *Dimensions*. The listener already familiar with *Threnody*, would recall two characteristic sonorities of *Threnody*: the static and mobile clusters, and a distinct sonority composed by superimposing a series of sounds played on tail piece and on the bridge (score numbers: 19-20, 64-65). These two already familiar fingerprints, however, are in a new context in *Dimensions*. The string clusters, as one of the three constituent layers of the large texture formed by much more expanded performing forces, lack the tension which accompanies the whole of *Threnody*. The texture created by playing on tail piece and on the bridge is reduced in number of parts and appears twice as a small textural unit in cellos and double bases. The ordering of sound events in the first instance (score number 19-20) is reversed when it comes back (score number 64-65). To these two characteristic textural sonorities of *Threnody*, the large vocal textures with variety of sound colour, created by extended vocal techniques from whisper to whistle, add the vocal fingerprints specific to *Dimensions*. Schiller commented on the vocal part and the role of text in *Dimensions* as follows:

> [the text] constitutes only a phonetic substance in the 'pure form,' which is constantly rotated and transformed backwards or selectively chosen; the 40-voice choir completely looses the 'vocal' character and is turned into a quasi percussive instrument which unfolds before the listener a wide range of sound effects of whispering consistency.[55]

While the highly emotional *Threnody* evokes horrific images associated with its title and boldly carries through one dramatic expression, *Dimensions* explores the subtleties of the sound colour across the spectrum of pitched and unpitched sounds. Although, as Chłopicka noted, the 'magic square' disappeared from the final version of the piece, its

---

[55] Schiller, 'Po prawykonaniu *Wymiarów czasu i ciszy* Krzysztofa Pendereckiego,' 5.

influence is extended to the overall structure as well as the ordering of phonics in some sections of the piece.[56] First, I will consider the 'magic square' procedures applied to the macro structural level. Subsequently I will discuss the 'magic square' procedures to generate the textures and smaller sections of the piece. On both levels I argue that the places where Penderecki deviated from the serial paradigm were the result of sonoristic thinking taking precedence over structuralist approach. I then go on to consider in greater depth Penderecki's comments about the influence of visual artists on the inspiration of the piece.

The overall structure of *Dimensions* falls into three large phases (see Table 6.3).[57] The first phase is an exposition of the four sections from A to D. The second phase reorders each section in retrograde form though with some modifications. A retrograde version of section D uses only two initial textures of original section D: a retrograde of score numbers 39-45 followed by a retrograde of score numbers 28-38. Furthermore the order of sections in Phase 2 is not a complete retrograde of Phase 1 and starts with section C instead of D. The significance of these deviations from a strict retrograde will be discussed later.

The third phase, from score number 103 (see Fig. 6.10), is a series of textural and dynamic culminations, epitomized by a cluster in vocal parts, and combined with percussion and strings to create a large texture reaching its final peak at score number 188 (see Fig. 6.11). This seemingly freely constructed phase, is highly organized and reflects no less compositional planning than in the previous two phases. Its ternary structure is manifested by a return at the end of the homogeneous texture of overlapping static clusters in basses, tenors and altos with diverse vocal articulation: whistling *vibrato* and *senza vibrato*, using *falsetto* voice and humming – *bocca chiusa*. The central section first juxtaposes and superimposes clearly defined textural layers in vocal parts, percussion and strings to create heretogenious texture and finally it combines them as

---

[56] Chłopicka, 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki,' 260.

[57] Compare Chłopicka, ibid., 264 and Schwinger, *Krzysztof Penderecki. His Life and Work,* 194-195. Baculewski's formal plan for *Dimensions* is slightly different: A, B, C, R(A), R(B), and D. See Baculewski *Współczesność, część 1: 1939-1974,* 264 and 267. In my scheme for the piece the internal division of phases into four sections emphasizes the change of instrumental timbre (instrumental groups).

layers penetrating one another's sound fabric. This idea of 'infiltration,' mentioned by Penderecki in his commentary in connection with Klee, is present throughout the piece and it will be explored later in more detail (see Fig. 6.12).

Table 6.3   Penderecki, *Dimensions of Time and Silence*: formal outline.

Phases: Score numbers	PHASE 1				P.G 4"	PHASE 2				P.G 5"
	1-53					54-102				
Sections: Score numbers:	A	B	C	D		rC*	rB	rA	rD - incomplete	
	1-11	12-21	22-28	28-53		54-61	62-70	71-82	83-102	

*'rC' is a retrograde form of section C: similarly 'rA,' rB and 'rD.'

PHASE 3		
Score numbers: 103-190		
Introduction (103-107): dominated by overlapping clusters in vocal parts; cymbals, gong and timpani are featured only once to mark the entry of the cluster in basses.	Central section (108-188): Synthesis of existing and new material; leads to the climax at 188.	Coda (188-190) features overlapping clusters in vocal parts.

Although 'silence' is a part of the work's title, the general pauses, often used to separate textures in sonoristic pieces, are scarce in *Dimensions* but their use is highly structural. They are strategically placed between the phases in the first two instances. The third, placed after the final textural and dynamic peak (score number 188) within the third phase, provides a clear cut-off of all vocal clusters singing *fortissimo*. The sudden reduction of texture to one cluster in double basses and the drop in dynamic level to *ppp* is a clear introduction of a short coda. The less structural use of one more general pause, within the retrograde section A (score number 73), is an addition (not featured in section A), and allows for sound decay of the previous texture. Similarly an earlier cut off of superimposed vocal clusters at *ff* in phase 3 (score number 107), allows for sound decay

and greater contrast with the ensuing texture of percussion, introduced by a single layer in vibraphone at *pp*.

On micro level a highly structured passage appears in section D which combines the choir, percussion and strings (see Fig. 6.7, score number 46). 'Magic square' procedures are applied here not only in relation to pitch but also in the regulation of the vocal material (the order of vowels and consonants). As with Kilar's *Diphtongos*, the vocal parts of *Dimensions* are used purely for coloristic reasons. After discarding the Latin text in the final version of the piece, the vocal parts of *Dimensions* consist only of consonants and vowels. The shades of sound and whisper are explored through a careful selection of particular Polish consonants such as lingual r, ż (as French 'j'), ź (also as French 'j' but very soft), sch, and combination of two consonants: Tsch, Th, Ds. No doubt the choice of some consonants to explore subtle timbral variation comes also from the Polish language.[58] The approach of dismantling text's linguistic and semantic integrity in favour of exploration as pure sound was as much a part of sonoristic paradigm as it was a general trend of the 1960s in European and American music. Serial procedures and pointillistic technique had laid the foundation for the fragmentation of texts into syllables and phonetic components. The first example of phonetically treated language comes from the field of electronic music. *Gesang der Jünglinge* (1955-56) by Stockhausen utilized German biblical text sung by a boy soprano and recorded on tape. The fragments of the text together with the electronic sounds organized according to their timbral characteristics from 'white noise' to pure pitch were then subjected to serial procedures.[59] Luigi Nono's *Choruses of Dido* (Cori di Didone) from 1958 for chorus and non-pitched percussion is not as extreme and the meaning of the text is at least partially preserved.[60] The meaningless text of *Aria* for solo voice from the same year by Cage comprises single words and short phrases - without context - in four languages. Numerous pieces in which text is devoid of syntactical and semantic components which were written about the same time as *Dimensions of Time and Silence* provide a more immediate context for Polish

---

[58] There is a clear distinction in pronunciation of ż and ź in Polish.

[59] Michael Kurtz, *Stockhausen. A Biography*, trans. Richard Toop (London: Faber & Faber, 1994), 82-83.

[60] Morgan, *Twentieth Century Music. A history of Musical Style in Modern Europe and America Twentieth Century Music*, 441.

sonoristic works with vocal parts. Maurizio Kagel's *Anagramma* for four solo vocalists, speaking chorus and chamber ensemble (1960) 'composes' a new text out of a Latin palindrome and focuses on sonic properties of the words with wide range of vocal techniques.[61] Pauline Oliveros' *Sound Patterns* for four-part unaccompanied chorus (1960) explores percussive sound types. Milton Babbit's vocal part of *Sounds and Words* (1960) consists only of phonemes which together with pitches are serially controlled. Berio's *Circles* (1960) for voice, harp and two percussionists set to three poems by e e cummings gradually disintegrates the syntax and uses words as sounds.[62]

In *Dimensions* the vocal layers featured in Phase 1 and 3 constitute the canvas on which Penderecki explores further the boundaries between sound and noise. The clear-cut instrumental-vocal percussive texture (score no. 46, Fig. 6.7) first introduces a series of nine unpitched consonants - 'GTKBDGPKD' which in the next section (score number 47) is reduced to 6 and presented in the following structural order:[63]

	1	2	3	4	5	6
Soprano	D	K	B	T	P	G
	6	3	5	2	4	1
Alto	G	B	P	K	T	D
	4	5	6	3	2	1
Tenor	T	P	G	B	K	D
	1	4	2	5	3	6
Bass	D	T	K	P	B	G

[61] Morgan, *Twentieth Century Music*, 443.

[62] Ibid. Two other works, *Aventures* (1962), for three singers and seven instrumentalists by Ligeti, with phonetic text, and *Sequenza III* for solo voice by Berio, expanding vocal sounds in a wide range of vocal articulation, both postdate the Polish sonoristic works with text.

[63] *Music und Bildung*, vol. 12 (December 1975): 625, quoted in Schwinger, *Krzysztof Penderecki. His Life and Work*, 275n61.

These sequences are systematically organized within the texture (score number 47). The canonical entries create another manifestation of the idea of 'magic square.' Lindstedt presented the successive entries of the vocal parts as follows:[64]

Table 6.4   Penderecki, *Dimensions of Time and Silence,* the successive entries of the vocal parts, score no. 47.

S		DKBTPG 315246				GBPKTD 654123		
A				GBPKTD 654123				GPTBKD 642513
T	KTDPBG 123456				TPGBKD 246513			
B			BTKPDG 521436				D TKPBG 321456	

A similar approach is found in the percussive vocal texture of phase 3, (score numbers 175-187) often omitted from analytical investigations. Here the voices are paired by the prime and retrograde version of the same consonant sequence: sopranos (prime form) with tenors (retrograde form) and altos (prime form) with basses (retrograde form) enter canonically (see Table 6.5 and Fig. 6.8, score no. 175-187):

---

[64] For detailed discussion on the organization of vocal parts see Lindtstedt, 236.

Table 6.5   Penderecki, *Dimensions of Time and Silence*: consonance sequences, score numbers 175 – 187.[65]

	1-5	G D T H B �
S	6-10	S G D Tsch ⸴
	1-5	T Ds K R ⸴
A	6-10	Z K Th B ⸴
	1-4	B H T D G (a retrograde of Soprano 1-5) ⸴
T	5-8	Tsch D Z S (a retrograde of Sopranos 6-10) ⸴
	1-5	R K D T (a retrograde of Altos 1-5) ⸴
B	6-10	D Th K Z; B Th K Z (a retrograde of Altos 6-10) ⸴

The third phase of *Dimensions* is dominated by textures with vocal layers (score no. 103, see Fig. 6.10). Vocal parts are not only treated equally with other instrumental textural layers but constitute a primary textural element which underlies the structure of the phase. As the main textural layer of this phase they present a variety of Penderecki's sonoristic formation of textures: they can blend within percussion in one homogeneous texture (score number 167-184), mirror strings texture for subtle timbre variation within a textural block (score number 110-113), overlap or be juxtaposed with percussion for greater (vertical) contrast. The wide palette of vocal articulation defines individual parts. The vocal tone variation (*fischio, bocca chiusa* and *falsetto*)[66] is combined with pitch specifications which are typical of sonoristic instrumental pieces and articulation such as the highest and the lowest note, *glissandi*, and *molto vibrato* on a sustained unpitched note.

In relation to pitch, the twelve-tone series is employed to order the vocal material of *Dimensions* at score number 48, in a pitched twelve vowel series – 'OYIAEUOIYAEU' - joined in the score by a dotted line (see Fig. 6.9, score no. 48-50). The series, divided into four trichord cells, reveals its own symmetry. Chłopicka noted that 'if the first three-tone

---

[65] In this passage there are small inconsistencies. In the basses an exact retrograde of the Altos starts from the first repetition. The Tenors 5-8 is a retrograde of Sopranos 6-10 but substitutes consonant 'G' with 'Z.'
[66] Whistle (*fischio*), closed mouth (*bocca chiusa*) and singing technique in which, usually tenors, sing notes higher than their normal range (*falsetto*).

cell is taken to be the original sequence, the second is its inversion, transposed down a third, the third, in turn, is its retrograde transposed by a tritone, and the fourths is the retrograde inversion' (see Ex. 1).[67] The same twelve-tone series also provides a basis for texture in section A, phase 1 (score number 10) and its retrograde (score no. 72).[68]

Example 1.   Penderecki, *Dimensions of Time and Silence*, the twelve-tone series at score no. 48:

As one of the main sources of inspiration for the structure of Penderecki's sonoristic works, the 'magic square' has received a lot of analytical attention. In *Dimensions* the 'magic square' procedures are manifest in the symmetry of the 12-tone series, serial orderings of consonants (prime, retrograde and various permutations) and the generation of the detailed components of individual textural blocks.   As well they influence the overall structure of the piece. Lindstedt stressed the importance of the 'magic square' asserting that 'the most salient element of the composer's stylistics in the 1960s is the close relationship between methods drawn from the serial tradition and sonoristic.'[69]

---

[67] One of the first to elaborate on this issue was Müller ('Traditionelles bei Penderecki' in *Music und Bildung*, 1972, vol. 5) and Schwinger (*Krzysztof Penderecki. His life and Work*, 194-197). More recent studies include Lindstedt, ('Between Dodecaphony and Sonoristics: Post-Serial Formulas in Penderecki's Work, 1960-1962, 231), Chłopicka, (260-271) and Mirka's ('Penderecki's Sonorism against Serialism', though the main focus in on Penderecki's sonoristic system, and in *The Sonoristic Structuralism of Krzysztof Penderecki*, 199-209.

[68] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 302-303. Lindstedt elaborated further on the characteristics of this series in xylorimba, vibraphone, glockenspiel, celesta, piano, and harp: 'Series in particular instrumental parts are made up of various interval successions and, in contrast to the rows from paragraph 48, they do not make up palindromes. Only the retrograde of the harp part is situated in a model that is close to being symmetrical. Other trichordal segments also appear alongside the whole tone-semitone ones. The most frequently exhibited cells are 5-1 and 1-4, as well as 1-6; 1-4, 3-3, and 5-2, as well as 3-2 and 2-3 interval arrangements also manifest themselves. If there is any way of explaining the connection of these series with the symmetrical arrangement that is characteristic of Penderecki's work, or, in general, with the composer's beloved 'chromatic series' built of cells, then it is only through the procedure of permutation' (Lindstedt, 'Between Dodecaphony and Sonoristics: Post-Serial Formulas in Penderecki's Work, 1960-1962,' 232).

[69] Ibid., 228.

However, in the integration of both serialism and sonoristics in Penderecki's works, she also points out that:

> ... it is not the series to which the primary formal-structural importance attaches in this work. It attaches rather to the geometrical-spatial thinking. The serial principle is only a starting point for the process of constructing and disassembling the various arrangements of sound phenomena. [These] are the most important issues. [70]

Despite the use of rigorous serial procedures to generate the textures and influence the formal design, it is the sonoristic criteria, such as sharp contrast between adjacent textural blocks, often take precedence over serial procedures in terms of defining the essence of the piece. In addition, as shall be argued below, the construction of a compelling overall narrative towards a climax is also a determining factor and this also sometimes overrides serial principles. The instinct for form and large scale structure, combined with strong exploitation of contrast, can be seen as one of the key factors behind the appeal and success of sonoristic pieces. The importance of contrast is clearly illustrated in the way Penderecki departs from the strictness of serialism to shape the structure of Phase 2, which can be interpreted as a retrograde of Phase 1 that is not fully realized (see Table 6.3). Had Penderecki followed a literal retrograde of Phase 1, Phase 2 would have begun with a retrograde of section D which was the section just heard. This would be in conflict with the sonoristic principle of strong contrast. Therefore to unfold already presented material in retrograde, Penderecki took the next available option: a retrograde of section C, followed by a retrograde of sections B and A, placing a shortened version of the retrograde of D (about half its previous length) at the end. In this way the contrast at the join between the phases is found in the colour of overall sonority of the textures as a result of changes in the sound sources - SATB choir, percussion and piano in section D, Phase 1, versus percussion only in the first texture (a retrograde C section) of the following phase. Additionally the textural shift from the large block to overlapping layers in percussion changes the texture from a continuous to a discontinuous one.

---

[70] Lindstedt, 'Between Dodecaphony and Sonoristics: Post-Serial Formulas in Penderecki's Work, 1960-1962,' 234.

Similarly, between the second and the third phase the sound generators change from percussion to SATB choir. At this junction, contrast is created by the change from discontinuous pointillistic percussion textures at the end of the second phase, to continuous cluster-based textures in the vocal parts which open the third phase. On the micro structural level, contrast governs the order of individual sections and the textural narration within these sections. For instance the sections from A to C alternate the instrumental groups beginning with percussion in section A, strings in section B and again percussion in section C. The following section D does not bring the expected change in the instrumental group: rather the change is brought about by the addition of choir on top of the existing percussion. Thus within Phase 1, there is a sense of dramatic narration of textures from section to section, building up to a climax. This dramatic narration is more than a simple alternation of contrasting sound events and takes a primary role in final shape of this phase.

Thus the serial procedures, although an important part of compositional process in sonoristic works, often are overridden by other means. Jarzębska makes a similar observation about the importance of goal oriented, large scale textural unfolding:

> Even in his first avant-garde works, Penderecki revealed his skill, so characteristic of his craft as a composer, at presenting a process of musical events moving towards a culmination and solution in proportionally differentiated temporality and in a way that was clear, logical, and accessible to the listener. That is why the fundamental question in the analysis of his music is not so much the 'catalogue of innovative tones' as the problem of the clear prominence of the drama of contrasting sound events and the dismemberment of musical time.[71]

Following this remark, it can be seen that the inconsistencies in serial procedures on the structural level result from the priority given to the dramatic narration, the predetermined overall form and the principle of contrast. This can be seen in the different treatment given to section D in Phase 1 and Phase 2. In Phase 1, section D is the climactic point, witnessed in the enlargement of performing forces in that section, notably the addition of

---

[71] Alicja Jarzębska, 'The Aesthetic Background of Penderecki's Avant Garde Works. *Quartetto per Archi* and Wordless Rhetoric,' in *Studies in Penderecki* vol. 2, ed. Ray Robinson (Princeton: Prestige Publications, 2003), 222.

the vocal layer for the first time (score no. 46). The inconsistencies found within the structure of Phase 2 and can also be explained by the dramatic narration of textures leading to the climax of the whole piece which occurs in Phase 3. As the textural and timbral contrast are at the base of ordering of sections in retrograde, the dramatic tension and the transfer of climactic point of the piece into the phase 3 explains the shortening of the retrograde D section which contains only two percussive textures and discards the large texture which combines voices and percussion (see Table 6.6).

Table 6.6   Penderecki, *Dimensions of Time and Silence*: sound generators of individual sections in Phase 1.

PHASE 1			
1-53			
A Score number: 1-12	B Score number: 12-21	C Score number: 22-28	D Score number: 28-53
Percussion only: triangle, glass, metal, glockenspiel, tubular bells, celesta, piano, harp, xilorimba, vibraphone and cymbals.	Strings: violin, viola, cello and double bass.	Harp, piano, cymbals, gong, tam tam.	SATB Choir; Percussion in the last texture: cymbals, gong, tom-toms and piano

As already mentioned, apart from 'magic square,' the other source of inspiration for *Dimensions* comes from painting and this exemplifies another important general characteristic of the sonoristic period. The compositions that bear such link contained in the title are *Scultura* by Schaeffer and *Symphonic frescoes* by Serocki. In other pieces, such as *Diphtohongos* by Kilar and the scores by Szalonek , it is the graphic notation and visual aspects of the score that makes this connection to the visual arts. In Penderecki's case the inspiration from paintings by Paul Klee and Ives Klein is particularly strong. Klee's innovative approach to form and artistic assumptions in particular inspired many composers after 1950. Whether just by the use of titles of individual paintings or use of technical procedures found in Klee's work, composers, including Penderecki, openly

acknowledged Klee as an inspirational source.[72] After completing the original version of *Dimensions*, in 1960 interview Penderecki explained the idea of transplanting some principles of Klee's work into music as follows:

> I am looking for deeper interconnections between painting and music... For me the most important issue is the problem of solving colours, color concentration, as well as operating the texture and time. There are, for instance, paintings in which – through multifariousness – we achieve an impression of space and time. The task of music is to transplant all these elements of time and space, colour, and texture onto music. I have attempted to manage it in *Dimensions of Time and Silence*, taking as my point of departure the painting of Paul Klee. In his paintings there exist mathematical constructions of the interrelations between some sections, closed cells, which form in themselves separate wholes and are juxtaposed on the principle of imposition.[73]

Later the same year, in his commentary to the piece quoted earlier, Penderecki added Yves Klein. Without wanting to imply a too literal comparison of technical means applied to paintings by Klee and Penderecki's sonoristic technique, there are nevertheless close parallels between the techniques of the two artists. There is no reference to a particular painting by either Klee or Klein, but Klee's writings shed light on Penderecki's technical means used in *Dimensions* and illuminate his comments in relation to the piece. In 'Paul Klee on Modern Art,' first published in 1948, the painter presented some of his formal assumptions in his work:

> First, there are the more or less limited, formal factors, such as line, tone value and colour.
> Of these, the line is the most limited, being solely a matter of simple Measure. Its properties are length (long or short), angles (obtuse or acute), length of radius and focal distance. All are quantities subject to measurement.

---

[72] Chłopicka lists several works and cycles of works inspired by Klee's painting; all mention Klee in their titles: G. Klebe, *La machine gazouillante, metamorphose sur la peinture du même nom de P. Klee;* S. Veress, *Hommage á Klee,* H. Heis, *Configurations pour orchestre d'aprés des titres de P. Klee;* G. Schuller, *Seven Studies on Themes of P. Klee.* Chłopicka also noted that as much as Klee's work inspired composers, music was often a source of inspiration for Klee. Having musical background Klee often resorted to music for his titles: 'indeed the titles of many of his paintings referred to forms, technique, sound patterns or musical instruments.' See Chłopicka, 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki,' 264 - 266.

[73] Jerzy Hordyński, 'Kompozytorzy współcześni. Krzysztof Penderecki [Contemporary Composers. Krzysztof Penderecki],' *Życie literackie* 44 (1960): 4 and 8, quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 329.

171

Of a quite different nature is tone value, or as it is also called, chiaroscuro - the many degrees of shading between black and white. This second element can be characterized by Weight.

Thirdly, colour, which clearly has quite different characteristics. For it can be neither weighed nor measured. (...) Colour is primarily Quality. Secondly, it is also Weight, for it has not only colour value but also brilliance. Thirdly, it is Measure, for besides Quality and Weight, it has its limits, its area and its extent, all of which may be measured. Tone value is primarily Weight, but in its extent and its boundaries, it is also Measure. Line, however, is solely Measure.[74]

In the structural hierarchy in Klee's paintings the line, the value (*chiaroscuro*) and the color are of primary importance. Chłopicka aligns these elements with Penderecki's sonoristic means: temporal dimension, density and tone quality respectively.[75] In both Klee and Klein's work the primacy of 'color as quality' (Klee) and a search for color in itself (Klein) find direct translation into sonorism. Infiltration (Klee) mentioned by Penderecki in his commentary to *Dimensions* can be found on two levels: within a texture, and in the juxtaposition of textures. An example of the former can be found in the large textural block leading to the climax of the piece (see Fig. 6.11, score no. 174-188). Here the dominant texture of unpitched percussion is infiltrated by pitched, sustained sounds on gong and voices one by one. The same procedure is used earlier in the piece (score number 48 -52). Thus the two superimposed planes form two structures: one created by single pitch classes of the mentioned earlier twelve-tone row and the other structure composed of unpitched percussive sounds. The two superimposed planes undergo transformation from unpitched mass of sound to increasingly pitched sounds and conclude on a single pitch class C in basses.

Since overlapping textural layers are common in sonoristic pieces, infiltration in the juxtaposition of textures is a common procedure in Penderecki sonoristic pieces. One of the more effective instances is found in the overlapping textural layers, for instance in phase 3 (see Fig. 6.12, score no. 114-116). Here the sonority of one layer of sparse

[74] Paul Klee, *Paul Klee on Modern Art*, Translated by Paul Findlay with an Introduction by Herbert Read (London: Faber, 1966), 21-23. These fragments come from a lecture given by Paul Klee at the opening of an exhibition at the Museum in Jena in 1924.
[75] Paul Klee, *Paul Klee on Modern Art*, 267.

texture for metal percussion (xylorimba, vibraphone and bells) and stringed instruments (cello, harp and piano) blends in with the sound band in strings. This is not only visible in the score but clearly perceptible. The individual textural layers are formed by using simple means. In strings two layers are overlapping: a sustained chromatic cluster with a microtonal cluster. In percussion and stringed instruments the entire layer is constructed from superimposed repetition of single notes; sound decay is an important element on which entire textural layer is constructed. This textural layer which enters at score number 108 begins with gradual increase in succession of notes. The process is reversed (at score number 112) until the sound decay can take place, ultimately infiltrating into the next layer. The important connection to visual arts is also manifest on the level of formal design. Before the details can be worked out the visual perception of the overall form is the starting point for Penderecki:

> I want at first to imagine the whole, before I start to think about the details. I try to catch a shape of the composition, the entirety of the form, setting aside even the sounds. Starting with the composition, I search for the graphical shape, and often what proves correct as purely graphical notation becomes the nucleus of the musical form.[76]

Naturally the examination of sketches for *Dimensions* would be more conclusive and would allow one to recreate more completely the compositional process in this piece.[77] However, from the above examination of formal structure of *Dimensions* it becomes clear that the visually perceived structure underlined by sonoristic means such as change of texture, timbral and dynamic contrast gain priority over serial procedures.

Finally consideration of Klee's writings brings a new perspective to an understanding of Penderecki's title. *Dimensions of Time* can be translated, on a more abstract level, as multiple ways of measuring time represented by the line mentioned by Klee. The 'Dimensions of silence' could literally refer to the lengths of pauses in the piece and the places where resonance is allowed to fill in the silences or blends in with the sonority of

---

[76] Penderecki, 'Muzyki nie można zaczynać od początku,' *Ruch Muzyczny* 22 (1987): 8-9, quoted in Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 327.

[77] According to Mirka the sketches for *Dimensions* are going to be published as a bibliographic edition by Schott. Mirka, ibid., 330n.

the following texture.[78] Chłopicka in relation to the second part of the title 'Dimensions of silence' also referred to the writings of Klein and linked his static and monochromatic paintings with Penderecki's notion of 'on pulsating <<sound space>> or operating on sound's resonance alone.' [79] If Klee's writings on aesthetics played any role in Penderecki's compositional process, one passage in 'Klee on Modern art' is particularly revealing. Klee uses the word 'dimensions' seven times: in relation to the dimensions of a picture, a whole as a sum of parts of different dimensions, a number of dimensions of an image and finally dimensions bound with the notion of time. We do not know whether Penderecki had read Klee's writings but his acknowledgement of Klee's influence and the similarities of concepts and language suggest this as a distinct possibility. It is certainly possible that Penderecki's title has it its origins in the passage below.

It is not easy to arrive at a conception of a whole which is constructed from parts belonging to different Dimensions. ...

This is due to the consecutive nature of the only methods available to us for conveying a clear three-dimensional concept of an image in space, and results from deficiencies of a temporal nature in the spoken word.
For, with such a medium of expression, we lack the means of discussing in its constituent parts, an image which possesses simultaneously a number of dimensions.

...our courage may fail us when we find ourselves faced with a new part leading in a completely different direction, into new dimensions perhaps into a remoteness where the recollection of previously explored Dimensions may easily fade.
To each dimension, as, with the flight of time, it disappears from view, we should say: now you are becoming the Past. But possibly later at a critical – perhaps fortunate – moment we may meet again on a new dimension, and once again you may become the Present.[80]

---

[78] Chłopicka, 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki,' 267-268.
[79] Ibid., 267.
[80] Paul Klee, *Paul Klee on Modern Art*, 15-19.

Bogusław Schaeffer: *Scultura - Little Symphony,* 1960

The title of Schaeffer's *Scultura* (sculpture), along with its graphic notation and distinctive 'sculptural' score layout, places it, with *Dimensions,* as one of those works in the sonoristic repertoire which have a strong association with the visual arts. From the early 1950s Schaeffer was fascinated with abstract painting and sculpture in which the aspect of multidimentionality was of particular interest.[1] Although the inspiration to write *Scultura* may have come from visual arts, hence the title, its sonoristic expression, as Schaeffer remarked, became the main focus: 'if in the other compositions I was fascinated first of all by technical problems, in this one the new expression came to the forefront, not collective expression but a distinct and individual one.'[2] It also illustrates the extreme nature of Schaeffer's approach to composition and his desire to exhaust certain possibilities laid out at the beginning of the piece. The key features of such an extreme approach in relation to a sonoristic piece include large clear cut and well defined textures for up to 64-parts, fast rate of change, a wide variety of time regulation, extensive use of graphic notation, and extreme textural and dynamic contrast. In addition to sonoristic features the visual aspect of the score also seems to be a part of the original concept of the piece. The juxtaposition of sections using exact notation with sections using graphics becomes another means of contrast. As with other emblematic sonoristic pieces, pitch, or at least exact pitch, becomes a secondary parameter in favour of texture. Indications of pitch are often undermined not only by the use graphics and through aleatoric textures, but through instructions such as 'wrong intonation' (the effect of glissandi) and markings such as 'very slow and ugly.'

Scultura was premiered five years after it was written, in Warsaw on September 29, 1965 with the Poznań Philharmonic Orchestra under Andrzej Markowski.[3] A year earlier, in 1964, the work had gained second prize at the Fitelberg Competition for composers.[4]

---

[1] Stawowy Ludomira, and Joanna Zając, *Bogusław Schaeffer* (Salzburg: Collsch, 2001), 85.
[2] Quoted in Stawowy and Zając, ibid.
[3] Stawowy and Zając, *Bogusław Schaeffer,* 85.
[4] Bogusław Schaeffer, preface to the score of *Scultura* (Kraków: PWM, 1967).

Scultura's performing forces include a large orchestra with percussion section, piano, mandolin harpsichord, celesta, harp, and string section. Schaeffer subdivides violins into three groups: A, B, and C with six violins in each group (see Table 6.9).

Table 6.9. *Scultura,* Instrumentation.

Wind section:	Percussion:
3 flutes (fl) 3 oboes (ob) 3 clarinets (cl) 3 bassoons (fg) 6 horns (cor) 3 trumpets (tr) 3 trombones (tn)	cymbals (ptti, medium, large) triangle (trg, medium, large) gong (gng) tambourine (trb, with strings, without strings) bass drum ( ) xylophone ( ) vibraphone ( )
String section: 6 violins A (vn) 6 violins B (vn) 6 violins C (vn) 6 violas (vl) 6 cellos (vc) 6 double basses (cb)	mandolin harpsichord harp celesta piano

Scultura belongs to those very few sonoristic works that are formally divided into separate movements. Other examples include Górecki's *Genesis* cycle and Serocki's *Symphonic frescoes. Scultura* consists of five short movements contrasted in articulation, texture, instrumental timbre and dynamics (see Table 6.8). Indeed dynamics, usually integrated to textural layers and individual instrumental parts, are one of the prominent means to emphasise the textural contrast and assist in the progression of movements as well as textures within the movements. The most extreme change in timbre and dynamics occurs between the inner movements. The contrast between the second and third movements involves texture and dynamics: a large homogeneous texture in the entire orchestra at *fffff* at the end of the second movement juxtaposed with a third movement which starts with a single part in violins at *ppp*. Similarly the sharp changes between the third and fourth movement involve a textural block in strings with continuity of sound at *pppppp* (*decrescendo* 'till extinction of the sound') concluding the third movement,

followed by the texture of short impulses in brass and percussion at *ffff* in the fourth movement (see Fig. 6.21)

Table 6.8   Schaeffer, *Scultura*: formal outline, duration of each movement and the sources of contrast such as dynamics, timbre and performing forces at the beginning and end of each movement.

Movement I 1'35"	Movement II 3'20"		Movement III 1'40"	Movement IV 2'55"	Movement V 3'20"
tutti (56 parts)	horn trumpets trn cymbals (1-3 parts)	*tutti* (68 parts)	Violins (1-36) strings (36 parts)	brass 18 strings 12 parts ! (mandolin, harp, harpsichord celesta piano)	*tutti* (36 parts) *tutti* (60 parts)
pianissimo *mf*	*ppp* 	*fffff*	*ppp - pppppp*	*extreme ffff* - *pppp*	*pp/fff* *(variable) -* *cresc*

Amongst the sonoristic works *Scultura* is one of the longer pieces: the total duration is approximately 12'50." *Scultura* combines a great variety of time regulation, possibly more than any other sonoristic piece. As well as underlining the difficulty that time regulation presented for sonoristic composers, this is another example of Schaeffer's tendency to take an extreme approach to each element. Each movement presents different possibilities. In the first movement, traditional bars are replaced by sections measured by seconds, sections which proceed by the number of beats at a given tempo: crotchet = 54; and single bars which last as long as it takes to play as fast as possible a given number of notes (see Fig. 6.13, movement I, score no. 1-5). The second movement uses conventional metres throughout: bars 4/16 and 2/4 (see Fig. 6.14, movement II, score no. 11b-45). The third movement uses a mixture of metre and sections measured by seconds. There is no sense of pulse throughout the movement and the use of meter seems to assist in coordination of parts during repeated *accelerando* and *ritardando*. The tempo stabilizes in the aleatoric section which are dominated by graphics. The fourth movement offers the greatest variety of time regulation (see Fig. 6.15, score no. 14-53). In this movement Schaeffer uses polymetric subdivisions: the simultaneous use of 5/16, 6/16 and 7/16 (mm. 1-18), one minute bars ('bars to the minute', see mm. 20-45), bars of

177

approximate duration with indications such as 'at least 8 seconds' and conventionally notated metres such as 2/8, 3/8, 5/8, and 6/8 (Fig. 6.16, score no. 46-62).

The fifth movement combines sections dominated by graphics and measured in seconds (six 'actions,' see Fig. 6.17, movement 5, score no. 1-9), and measures with conventional notation and metre: 3/8, 2/8 and 8/8 (mm. 10-25). The movement opens with six 'actions' (18", 12", 24", 10", 28", 22") with controlled use of chance element which includes the pitch, point of entry, duration, improvisation on natural harmonics and realisation of graphics particularly in the piano and harp parts. The overall polygeneous texture of each action is composed by superimposing diverse, not synchronised parts. Except for the time span of each 'action,' Schaeffer's instruction is that the 'points of entry and durations are free.'[5] The series of six actions are followed by three individual 'sounds' which constitute three 'bars' measured by the decay of sounds ('wait until the extinction of each sound').[6] The movement concludes with a 24- bar textural block conventionally notated in brass superimposed with a texture composed of *glissandi* as wavy lines in string section. The entire texture alternates between 2/8, 8/8 and 3/8. On perceptual level the six actions form one 'ad libitum' section of the movement contrasted with a large textural block (woodwind, brass and strings) controlled by metre.

The general tendency is to use bars measured by seconds with graphic notation and to use metre for bars with conventional notation. However, this is only a general rule and there are exceptions. In the second movement, for example, the large texture built up by canonic entries of parts in the string section (score no. 19-45) is notated graphically on the stave and written in 4/16 (see Fig. 6.14, movement 2). Similarly, in the third movement, the texture dominated by graphic signs (the conventional notation is limited here to rests and starting pitches) is written in 2/4 (see Fig. 6.18, movement 3, score no. 37-57. The presence or absence of metre in the score is purely a practical performance matter: the music almost never sounds metric (except perhaps for the brief 'quasi chitara' section in the second movement: see Fig. 6.14). In sections regulated by meter, the

---

[5] Schaeffer, *Scultura*, 22.
[6] Ibid., 24.

control over realisation of individual parts naturally aims for greater precision: a superimposition of such parts creates a large block of an inseparable sound mass. However, one distinctive feature of Schaeffer's textures is the detailed contrapuntal writing, placing him closer to Ligeti's concept of micropolyphony in which individual parts are written out. Conversely, Schaeffer is very sparing in his use of clusters.

As indicated earlier, the graphic element in *Scultura* is very prominent. The whole appearance of the score with an original cover design and laid out as tall and very narrow not only reveals Schaeffer's background as a graphic artist but is also a characteristic of the 1960s and reminds one, for instance, of Ligeti's *Requiem* (1965).[7] Only a few sections within each movement are conventionally notated and juxtaposition of graphics against conventional notation underlies or emphasises the contrast between the textures. As with other sonoristic pieces with extensive use of graphic symbols, the notation used in *Scultura* is very suggestive of the sonic image of the sounds, entire textures, and even the sense of the overall structure. After PWM published the score in 1967, Zygmunt Mycielski wrote that 'now we can get familiar with the graphic system and the structure of the score much better than it is possible from the listening alone, though it is also possible to imagine its graphic notation from the sound itself.'[8] For instance, the wavy line represents the continuity and smooth transition (eg. *glissandi*) in pitch. An angular line represents an angular contour in a series of pitches, for instance, in the piano, harpsichord and strings parts of the first movement (see Fig. 6.13). From this articulation marking Schaeffer creates an entire texture in which the only traditional elements of the notation are the five-line staves and the initial pitch (see movement I, score no. 6-20).

The graphic symbols include the wide variety of *glissandi* particularly for strings. These include quarter to three-quarter *glissandi*, indication of the speed and direction of *glissandi*, a combination of *glissando* and *tremolo*, a variety of trills from minor second to major third, *glissando pizzicato* by turning the peg on the lowest string of the

---

[7] Ligeti's *Requiem* score is only 4cm taller. The cover of *Scultura* (the score is 50cm x22.5cm) – an image of crushed paper with superimposed five circles - was designed by Witold Skulicz.

[8] Zygmunt Mycielski, '*Scultura* Bogusława Schaeffera' [Bogusław Schaeffer's *Scultura*], *Ruch muzyczny* 11, no. 19 (October 1, 1967): 17.

instrument, striking the body of the instrument or the strings with the palm of the hand, and the effect of breaking the string. In relation to flutes, a characteristic sound idea and one of Schaeffer's timbral fingerprints is produced by withdrawing the finger from the upper joint of the instrument to play *glissando* only in the upper part of the instrument. This is represented by an irregular wavy line on the stave that indicates only approximately the range of pitches (see Fig. 6.13).

Another distinct sound idea which is one of Schaeffer's fingerprints is created by a short series of any pitches played as fast as possible and represented by beamed demisemiquavers without note heads (see Fig. 6.13 and Fig. 6.19). By superimposition of this sound idea in the whole instrumental section or/and entire orchestra Schaeffer creates a one-bar texture, which I call a 'marker' texture. Within *Scultura* the 'marker' texture plays a specific role on two levels: firstly, it cuts through larger textural blocks within a movement (see Fig. 6.13 and Fig. 6.19). Secondly, its recurrence acts as a unifying element between movements. Introduced in the first movement, it reappears in the third and the last movement. In the first movement the 'marker' texture suddenly cuts through entire textural blocks several times, changing colour from brass to strings, and it reaches the maximum number of parts towards end the movement. In the third movement its function does not change and it clearly separates the contrasting textures and timbres dividing the movement into two halves, while in the final movement its rigidity is disintegrated: it is displaced horizontally within the 'six musical actions.' While in some parts the 'marker texture' is extended by a number of notes played as fast as possible (see piano, harpsichord, violin A for instance), in other parts it is reduced and fragmented, as in the cello parts of sixth 'action' (see Fig. 6.17) Thus, in the progression of movements its role is transformed from the structural device assisting in the juxtaposition of textures in the first movement to more elastic role as one of the formative textural layers of a larger block in the fifth movement. Thus both fingerprints − the flute glissandi produced by withdrawing the finger from the flute's upper joint, and the 'marker' textures − are introduced in the first movement, repeated later and (in case of marker texture) transformed and gain a structural role and articulate the form of *Scultura*.

In the context of sonoristic works written around 1960, *Scultura* is unique in its use of large textural blocks and dense textures. This is largely contributed to the use of large performing forces and *divisi* strings. The following discussion will focus on the variety of ways Schaeffer creates large textures.

One of the common procedures to build large textures in *Scultura* is to superimpose parts with the same articulation assigned to all individual parts. In the opening of the piece the string section is unified by the same articulation - a minor third trill without bowing indicated by wavy line to create one homogeneous textural block. Individual parts start a semitone apart in a cluster over three octaves, which is immediately 'smudged' as the pitches are varied by the trill. A controlled chance element is the entry of individual parts: 'points of entry and durations are free.' The resulting static texture based on a cluster has an effect of pulsation (see Fig. 6.13). Similarly, later in the first movement, an angular line, applied to all parts, representing the contours of a succession of pitches to be played with plectra, creates a homogeneous texture composed from superimposing the same textural layer in each instrument of the string section, piano and harpsichord (see Fig. 6.19, score no. 6-17). The same principle of textural homogeneity in articulation characterizes textures and textural layers of the second movement. The second textural block of the movement in 4/16 (see Fig. 6.14, score no. 12-16) involves two homogeneous layers one in brass featuring sustained sounds and one in strings with repetition of synchronized semiquavers, in total 48 parts. The sense of contractions and movement are created purely by dynamic levels integrated into each of the layers. Thus in brass each repetition of the texture gradates the dynamic level from *ff* to *p* and from *p* to *f*. At the same time each repetition in strings proceeds in decrescendo over 8 repetitions from *ffff* to *ppp*. In each case, homogeneous textures are defined by a distinctive articulation marking.

Scultura also features large textures built up through a gradual process of canonic entries of the same part in the whole of the string section (see Fig. 6.20). The metre 4/16 is purely to control the realization of individual parts which enter every four semiquavers. Thus the texture grows by one part every bar until it reaches 36 parts in total. The

181

colourful timbral effects notated graphically involve a wide palette of articulation: interrupted semitone *glissandi*, with internal transformation to ¾ and ¼ *glissandi*, a variety of percussive effects such as striking the strings with the palm of the hand, the effect of breaking the string, striking the body of the instrument with the palm of the hand, striking the frame of the instrument, and striking the strings with the palm of the hand. The wide range of articulation also refers to *glissandi*: *glissandi tremolo*, *glissandi* with semitone trill, downward *glissando* and loud *crescendo*, rapid up-and –down *glissando*, *glissando pizzicato* by turning the peg on the lowest string of the instrument.

Visually the addition of parts represents a '*crescendo*' that begins from 'the middle' of the textural block (that is, in the violin and viola parts) and expands by adding parts one by one in both directions, upwards and downwards. The striking symmetrical graphic element of the score – a large 'cone' extending from the middle voices to the outer - suggests that in this case the visual aspect of the notated score may have contributed as much to the initial conception of the idea as the aural aspect.

A textural block composed by superimposing parts with various metres (which can also be read as irregular subdivision of a beat) dominates the fourth movement. Thus not only the sense of pulse in a section conventionally notated is lost but also the characteristics of individual parts are merged into an inseparable sound mass. The opening of the fourth movement in the brass section uses 5/16, 6/16 and 7/16 simultaneously. The same type of texture this time in 2/8 and 3/8 returns in the 36-part string section. With tempo marking 'rather quickly' (score no. 45) the irregular subdivision involves superimposition of 4 : 5 : 6 : 7 semiquavers in a 2/8 and 3/8 bar.

Among the clear-cut textures mainly defined through articulation, there are also some textures in which a process of gradual transformation takes place. In the 4th movement the large textural block in strings makes use of the glissando, tremolo *sul ponticello*, finger trill and playing over the fingerboard. The above listed modes of articulation are gradually introduced in each part to achieve the effect of blurred edges of changing

colour. However the beginning and end of the entire block is clear-cut (see Fig. 6.15, movement 4, score no. 15-45).

Although the individual movements may have their points of culmination, the end of the fourth movement is the climactic point of the whole piece: a dense polimetric texture reaches a dynamic level of *ffff* and releases its accumulated energy in six synchronized chords *sfff*. While the preceding 3rd movement is the quietest, its textures are fragmented and subtle in timbral splashes, the 5th movement is a very short and briefly recapitulates the familiar sound ideas or 'fingerprints' of the previous movements to conclude the piece. Thus there is a clear sense of textural progression both within each movement and across the entire work, each movement contributing to the lucid large scale structure.

Following Schaeffer's *Tertium Datur, a treatise for harpsichord and instruments*, from 1958, *Scultura* can also be regarded as yet another treatise[9] which represents the essence of sonorism. Unlike some composers 'arriving' at an extreme sonoristic piece, Schaeffer did not 'try out' the sonoristic devices used in *Scultura* in his earlier works. *Scultura*, among the works written in the late 1950s and early 1960s simply stands out, as a 'sonoristic manifesto' at first go.

---

[9] In my conversation (a telephone interview, 2001) Schaeffer readily agreed to the proposition to regard *Scultura* as a sonoristic treatise.

Henryk Mikołaj Górecki: *Genesis* cycle, 1962-63

As one of the leaders of the Polish avant-garde, Górecki's sonoristic phase was brief but intense. Outside of *Scontri*, which was discussed in Chapter 4, Górecki's sonorism (1962 to 1963) is restricted to the three-part *Genesis* cycle (1962-1963) which comprises three pieces for different performing forces: *Elementi* for three string players (1962), *Canti strumentali* (Instrumental Song) for fifteen players (1962) and *Monodramma* (Monodram) for soprano, metal percussion, and six double basses (1963). At the time of writing *Genesis*, Górecki was already well known to the Warsaw Autumn audiences. Leon Markiewicz, after the premiere of his spectacular orchestral piece, *Scontri*, in 1960, pointed to the specific qualities of the young composer wanting to question everything and push the existing barriers, qualities which are shared by the leaders of any avant-garde:

> In Górecki's music not only the artistic stance is worthy of admiration revealed in the will and passion to examine the technical, organizational, energetic and sound possibilities of all sonic material that is at the composers' disposal but also uncompromising attitude and remarkable courage with which he realizes his ideas.[1]

As already mentioned, *Scontri* was found to be interesting to listen to and to watch. The Warsaw Autumn audience was astonished by the new vocabulary of sounds and playing techniques to which Górecki added the unusual disposition of *Scontri's* large performing forces on stage. The expressive side of *Scontri*, which Adrian Thomas called 'Górecki's *Rite of Spring*,'[2] became the priority over the technical procedures employed in the piece. After *Scontri*, Górecki wrote *Diagram IV* for flute solo (1961) which closed the phase in his oeuvre identified by Droba as 'serial constructivism.'[3] During 1961 Górecki also completed two other small chamber works: *Chorale in the form of a Canon* (Choral w formie kanonu) for a string quartet, and *Quasi-Waltz* (Quasi walc) for piano. A prize he

---

[1] Leon Markiewicz, 'O zderzeniach, radości I ... katastrofizmie' [About collisions, Joy and ... catastrophes], *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 10.

[2] Thomas, *Polish Music since Szymanowski*, 188.

[3] Krzysztof Droba, 'Górecki, Henryk Mikołaj,' *Encyklopedia Muzyczna*, vol. 3, ed. Elżbieta Dziębowska vol. 3 (Kraków: PWM, 1987), 424.

had won for *Monologhi* in 1960 from the Composers Union allowed him to a three-month stay in Paris. A short period of compositional inactivity in Paris proved to be fruitful. On his return at the end of 1961, Górecki was ready to explore new grounds as he revealed to Markiewicz after completing *Canti strumentali,* the second piece of the cycle:

> First of all, I consider my previous compositions up to *Scontri* [1960] and *Diagram IV* [1961] as the past, in which I emphasized only the individual stages of getting to know the musical material I had come across. However, I knew that this would not last long. Currently, after a long period of reflection, during which I didn't write a single new note, I have given myself the task of trying out the possibilities of sound for myself, possibilities which are still hidden in the performance forces.[4]

In Górecki's earlier and later pieces such as *Scontri, Refrain* or *Choros I,* the title holds a key to the sonic concept or compositional procedure of the piece. In contrast, *Genesis* refers not to a device or technical procedure but to the initial idea, the conception of the piece. For Górecki 'genesis' was 'a symbol of individual stages of beginning, realization and development of the three basic elements of music, which I consider to be agogics, dynamics and colour.'[5] In *Elementi,* as Górecki explains further, these basic elements are in an embryonic form, hence the title: 'what happens there should be treated as the initial movement of some nucleae, individual atoms.'[6] According to Markiewicz, the original manuscript contained a motto 'In the beginning was Movement.' In *Elementi* this idea of movement was a spatial phenomenon and refers to composite groups of sounds or bands of sounds moving (rather than individual sounds) among the performing forces. Such process had appeared earlier in the *First Symphony* and *Scontri.* In *Elementi* the movement of sound complexes – the major preoccupation in the whole *Genesis* cycle – is restricted by the use of only three string instruments spaced on the stage as a triangle. The idea of spatial instrumental arrangement, as mentioned earlier, was not new for Górecki nor was it a specifically Polish device. Most European scores were accompanied with the diagrams and instructions relating to the spatial arrangements of instruments. The first piece that really drew attention to it was *Grüppen* for three orchestras (1957) by Stockhausen. Even his earlier electronic composition *Gesang der Jünglinge* (1956) had

---

[4] Leon Markiewicz, 'Rozmowa z Henrykiem Góreckim,' 7.
[5] Ibid.
[6] Ibid.

specified the spatial arrangement of five independent loudspeakers surrounding the audience. Stockhausen's later works such as *Zyklus* (1959), *Refrain* (1959) and *Carré* (1960) indicate the specific arrangement of the instruments on the stage. The scores of Boulez and Berio also frequently specified spatial layout.[7] The fact that Western music (both recording and scores) started to filter through to Poland since the Warsaw Autumn is significant and it is highly likely that the Polish composers were influenced by the wider European trend. Górecki's scores are among the first in Polish music to experiment with sound and space.[8] He used the spatial disposition of instruments in his *Epitafium* (1958), then in the *First Symphony 1959, Monologhi* (1960) and *Scontri* (1960). In most of these works however the spatial arrangement emphasizes the instrumental groups. What is different and special about *Elementi* is that Górecki took the conventional trio (violin, viola and cello) and spaced it as far as possible: viola and cello in front spaced 10-12m apart, violin 6-8m to the back, so that the trio no longer exist as a trio but as a group of three solo instruments working together. This is perhaps partly the reason for the aggression of the piece and at the same time adds to the provocative nature of *Elementi* as a sonoristic manifesto.

Canti strumentali, (the second part of the cycle) offers much greater timbral contrast resulting from much more varied performing forces: flutes, trumpet, clavichord, mandolin, guitar, strings (violins and violas) and two percussion groups (see Table 6.10). The performers are arranged in three symmetrical geometric shapes (see Fig. 6.22). The ensemble of *Monodram* with voice (sopran) in the centre surrounded by percussion and double basses (see Fig. 6.23) fits very much with avant-garde ensembles of the period, using voice and percussion. The combination of voice and percussion had been used by several other composers such as Haubenstock-Ramati (*Mobile for Shakespeare*, 1960, and *Credentials*, 1960 for voice and percussion), Ligeti (*Aventures*, 1962-63 for three singers and seven instrumentalists), and Berio (*Circles*, 1960, for voice, harp and two

---

[7] Boulez's *Improvisation sur Mallarmé II* (1958) and Berio's *Tempi concertati (1958-59)* and *Circles* (1960) This provides a broader context for the account on symmetries and spatial aspect of Górecki's works from late 1950s and 1960s absent from Mirka's extensive article 'Góreckiego muzyka geometrica' [Górecki's Geometric Music], *Dysonanse* 1 (1998): 20-30.
[8] Ibid., 20.

percussionists). It is most likely that Górecki was also familiar with Berio's *Circles* (1960) for female voice, harp and percussion much celebrated at the time.[9]

The growth of the performing forces from three instruments in *Elementi* to 56 in *Monodram* is at odds with the length of the individual pieces. *Elementi* with its modest ensemble is the longest of the three and lasts approximately 12 minutes and 42 seconds; *Canti strumentali* is the shortest, eight minutes and four seconds and *Monodram* lasts about 10 minutes. The score of *Genesis* is striking in its simplified notation, such as the simple wavy line to indicate repetition of segments. Throughout the score Górecki uses time-space notation, durational lines for notes, upwards and downwards lines for glissandi. The longer sections of the score are numbered and subdivided into one or two second bars with meter. In *Elementi* there are also longer sections of a repeated pattern given the time span in seconds (for example at score no. 5 and 11).

The first two pieces of the cycle were premiered soon after completion of the score. Górecki himself conducted the premiere of *Elementi* in Kraków on 29 May 1962; *Canti strumentali* was premiered by the Silesian Philharmonic Orchestra under Karol Stryja on September 16, during the 6th Warsaw Autumn in 1962. Curiously *Monodram* still awaits its premiere.

Before proceeding to the analysis of *Genesis*, a comment about the sonic documentation of sonoristic works is merited. Górecki's works from 1950s and 1960s remained neglected in concert halls and in the analytical literature for a long time. The commercial success of his Third Symphony in the early 1990 was followed by a great number of recordings of the symphony and also sparked an interest in his early works. In 1993 Olympia released a recording of Górecki's early works which included, from the *Genesis* cycle, only *Canti strumentali*. There is no greater choice of recordings of *Elementi*. In 1997 the Warsaw Autumn performance of *Elementi* was recorded live and issued with

---

[9] During 1958 Warsaw Autumn Stockhausen and Nono were guests. Stockhausen organized a concert of electronic music in which he presented compositions by Eimert, Berio, Maderna, Ligeti, Pousseur and his own. Berio's *Circles* received its Polish premiere in 1963. However, Polish composers most likely knew the piece through contacts with the West since 1958.

other works performed during the festival. However, there are several reasons to believe that the earlier recording of the premiere by the Polish record company *Muza* is a closer representation of Górecki's original conception of the piece. First, in comparisons with later performances, the premieres of sonoristic manifestos of the same piece are rough and aggressive (as with Szalonek's *Les sons*). What is also important is the fact that the recording stems from the exact historical moment when the pieces were written. It is almost an expectation rather than surprise that the extreme nature of these pieces was matched with engaged and confrontational performances. What one hears in the first performances is not only the music of the time but the sound of the time. Secondly, it is the premieres that were reviewed and the accounts of these pieces often also record the immediate public responses. The Warsaw Autumn audiences confronted with the 'new' were both shocked and excited which adds to the general excitement of the period and climate of the time and place. This has implications for the performance practice applied to these pieces today.

The most comprehensive analysis of the *Genesis* cycle including Polish sources appears in the monograph on Górecki by Adrian Thomas. His long-term engagement with Górecki's music was signaled much earlier, in 1983 and 1984, by two analytical articles which were also a reflection of renewed interest in Górecki's music outside Poland.[10] While Thomas' eloquent analytical accounts of the pieces include technical devices, structural considerations and aesthetic goals within composer's oeuvre, my analytical consideration of the piece focuses on sonoristic elements of *Elementi* and *Canti strumentali* in the context of sonoristic works by other Polish composers. In the absence of the sound document, so important with sonorism, the score of *Monodram* is considered only when it adds to the overall picture of Górecki's sonorism.

Although *Genesis* opens a new phase, Górecki found dodecaphony useful as a point of departure in respect to formal aspects of the piece:

---

[10] Adrian Thomas, 'The Music of Henryk Mikołaj Górecki: The First Decade,' *Contact* 27 (1983): 10-20, and 'A Pole Apart: The Music of Górecki since 1965,' *Contact* 28 (1984): 20-31.

Dodecaphony interests me not so much as a way of organizing individual sounds, but more in terms of organizing sound groups. It helps in creating the form. In *Elementi* - since we are talking about this piece - the O and R sets of an all-interval series provide the basis for the formal design of the whole piece. These intervals are characterized by the different number of semitones in each. I treat semitones not only as the basic sound complexes but also as the smallest formal cells.[11]

Thomas's analysis reveals the series and the relationships between the series and the events or 'substructures' which underpin the overall formal plan of *Elementi*. The series itself is not easily detected. The first instance of what looks like a series of 12 pitches is in the violin part where notes are linked by glissandi (score no. 17, m. 7, see Fig. 6.24). A series with greater structural significance appears later, towards the end of the piece, at score no. 25, and is partitioned between the three instruments, first in the violin part (5-4-3-2-1) then in the viola (6-7) and cello (8-9-10-11-12), with all the top notes played *arco* and doubled at the fifth below (see Fig. 6. 25).[12]

What Górecki drew from the series for the overall structure was the sequence of eleven intervals which determine the number of events within individual groups - so called 'fragment groups'.[13] These in turn are grouped into six sequences.[14] The intervals of the series, measured in semitones, also determine the number of events within the 'fragment groups', creating a large scale palindrome. Thus the first interval of the series has 11 semitones and the corresponding fragment group has 11 events. The symmetry of the design comes from stating the sequence and its retrograde version: 11-5-11-2-9-6-11-3-13-5-11/11-5-13-3-11-6-9-2-11-5-11.[15] The eleven fragment groups proceed towards the mid-point dividing the piece into two phases or two halves. The fact that the series was only a starting point to draw a formal outline is seen in the loose application of it and of the consequences drawn from the series, as the composer noted:

---

[11] 'Conversation with Henryk Górecki: Leon Markiewicz, July 1962,' Translated by Anna Maslowiec, *Context* 14 (1997): 37.
[12] Thomas, *Górecki*, 43 and *Polish Music since Szymanowski*, 188.
[13] Ibid.
[14] Ibid.
[15] Ibid.

Once formal consequences are realized, I'm not following the series of notes that is presented at the beginning. I chose what seems best to me at any moment.[16]

An event can be defined by changes in pitch, texture, a specific rhythmic group or a number of vertical sound impulses. The events of some 'fragment groups' are easier to detect than others. For instance, the five events of the second fragment groups are the five different sound ideas repeated in different order in each part (see Fig. 6.26). Similarly, the 13th 'fragment group' makes use of five sound ideas (one bar each) with integrated dynamics and articulation. The rotation firstly involves two parts simultaneously and then extends to all three parts (see Fig. 6.27 page 18).[17]

As Thomas noted in his analysis, the number of 'fragment groups' of both halves, is not the same: 'it is the expressive and not technical aspect of the work which takes aural precedence...'.[18] To the listener, what generates much of the work's immense energy is the fast rate of change of clearly defined contrasting textural blocks at mostly *ffff* in the first phase of the piece. The sudden drop in the dynamic level to quasi *piano*, the change of register from the highest pitch to the middle register and trills in all parts unifying the texture begins the second phase (score no. 15). In contrast to other sonoristic works, it is difficult to select one culminating point of the piece. Indeed one perceives the piece, more as 'a rugged sequence of combative modes of attack, dynamic and timbres.'[19] In addition to the series, which serves as a starting point for much of the structure, what also governs textural narration is the contrast between continuous and discontinuous sounds forming unified and clearly defined textures.

The use of series in *Elementi* as a way of controlling and organizing a structure is an interesting aspect in relation to the perception by some that sonorism was in opposition to serialism in of both Górecki's and Penderecki's sonoristic works.[20] Górecki in 1962 mentioned to Markiewicz that *Elementi* opens a new phase of 'strict self-control.'[21] The

---

[16] Markiewicz, 'Conversation with Henryk Górecki, July 1962,' 38.
[17] For more detail refer to Thomas, *Górecki*, 42-45.
[18] Thomas, *Górecki*, 43.
[19] Ibid.
[20] For example Humphries, 'Witold Szalonek – Choreograf Dźwięku,' 89.
[21] Markiewicz, 'Conversation with Henryk Górecki,' 38.

series is important as a conceptual framework and has significant relationship to the final structure of the piece but not to what one hears. Obviously in such textures, the individual notes of the series are not perceived. The use of the series in this particular way is also only one instance of undermining the importance of exact pitch in *Elementi*. What is important in relation to pitch is the border between unpitched and pitched sounds and sound versus noise rather than the position of a note on the stave. This is an important point not only in relation to *Elementi* but in sonoristic works in general. The use of the highest sounds on open strings, a common articulation in many sonoristic works, is frequent in *Elementi* and also gains a structural significance. It often ends or begins a new subsection of the piece. An even more striking way of undermining the importance of exact pitch (and the series) is heard at score no. 20 where strongly detuned down instruments play sustained notes on open strings (see Fig. 6.28).

Within what seems to be the limited sound source, Górecki found vast possibilities of generating a variety of sounds and textures. The piece seemed to be conceived with string instruments in mind well before writing a note of the cycle:

> I regard strings as instruments one can still do a lot with. Before working on *Genesis I*, I analyzed their articulation techniques. You will not believe it, but there are about 300 of them. And this is without tapping music stands or using the body of the instrument: only bow, strings and fingers. Obviously, this number also includes the common kinds of articulation. This does not mean that I use all of them in one piece. In *Elementi* there are about ten; however, the predominant sound is rough, and achieved through stronger bow-pressure.[22]

To the basic binary opposition of continuous versus discontinuous sound in the piece, the contrast between entire blocks involves the number of parts, an extreme dynamic level (see Fig. 6.29,) and above all articulation. The range of articulation in *Elementi* does not serve just to extend the timbre variation and search for new sound effects but more importantly it articulates the structure. Each new section and subsection of the piece varies articulation and texture. To the commonly used *arco* (A) *pizzicato* (PZ) *sul ponticello* (SP) and *ordinario* (OR) Górecki's list of articulation also includes fast and

---

[22] Markiewicz, 'Conversation with Henryk Górecki,' 38.

slow *tremolandi*, and a variety of trills (slow, fast, from fast to gradually slow and vice versa). A number of markings relate to the *ad libitum* realization of tone impulses within a texture: playing as fast as possible, durationally irregular succession of notes, freely slowing down and speeding up, and pitch specification such as the highest/lowest note. The *ad libitum* or aleatoric aspect of Górecki's sonorism has clearly defined borders. According to the composer, all the possible ways of realizing the score were foreseen by him and this was his credo from the outset:

> In my opinion aleatorism only makes sense when the composer's data about musical events rules out any unpredictable realizations. Then it is a sort of directed movement, a particular variant of the old '*ad libitum*,' '*ossia*' etc. Chance understood in this way is applied in *Elementi*. I'm sure that performers will not find any realizations other than the ones I have predicted.[23]

To further differentiate the timbre within a given articulation Górecki precisely specified the part of the bow with which to press the strings: press with the whole bow, the upper/lower part of the bow, with an end of the bow and part close to the nut. The scratchy, jarring sound undetermined in pitch and so characteristic of *Elementi* is produced by hard and slow bowing (*premere*). As Górecki mentioned, without using the body of an instrument he created a large vocabulary of sonorities used to build the clear-cut textural blocks. General pauses, which are frequently used in sonoristic works to separate the sections and much more common in Górecki's later pieces such as *Refrain*, are only sporadically used in *Genesis. Monodram* does not use them at all, and in *Elementi* they are sparingly used only on a few occasions: to separate a section in a piece (score no. 10-11 and just before score no. 5), and within section (score no. 10, bar 3, 15 and score no. 19, bar 8). Similarly in *Canti strumentali* the structural role of general pauses on the large scale is greatly reduced; the two instances are found within the middle section of the piece (score no. 18 and 19).

Limiting his resources to three string instruments in *Elementi* Górecki opted for exploration of contrast primarily between the textures rather than within textures. For most part of the piece the textures are clear-cut and homogeneous (see Fig. 6.26). An

---

[23] Markiewicz, 'Conversation with Henryk Górecki,' 38.

example of a homogeneous texture distinct in its overall sonority is at score no. 12-15: a texture composed of crossing over *glissandi* and sustained notes with a combination of fast and slow tremolandi. Górecki precisely specified bowing techniques in which he indicated which part of the bow to use while pressing hard the strings and playing slow to achieve the desired timbral effect.

The polygeneous types of textures are rare in *Elementi*. The two instances of superimposing two contrasting textures are found at score no. 7 (bar 4) and score no. 17 (bar 7). In the first instance downwards glissando in violin part is juxtaposed with synchronized chord like impulses in viola and cello parts. Similarly at score no. 17 (bar 7) the violin's series of notes linked by extended glissandi are set against the background of two other texturally unified parts. (see Fig. 6.27). In both cases the dynamic level *ffff* is integrated to the overall texture rather than individual layers.

The common sonoristic device such as clusters are used in *Elementi*, but the preference is for sustained bands of sound and chord impulses built on the interval of a fifth.
Clusters in *Elementi* do not appear is its 'classic' form as established in Penderecki's *Threnody*. They are part of the process of operating on static and mobile bands of sound. The opening of the piece features such a process of building a semitone cluster by gradual superimposition of parts beginning with one pitch D in the middle register (see Fig. 6.30). As the width of the cluster increases, this layer of sustained band of sound through smooth glissando moves up a fifth (score no. 1). The tension it creates is only interrupted for a brief moment before it migrates to the high register and reaches 'the highest notes on all strings' (score no. 4). Rather than dense clusters as static blocks of sound, Górecki's preference in *Elementi* is for sustained sonic bands created by superimposing the interval of a fifth in each of the three strings.

Górecki's deliberate choice of limiting the sound source to three instruments in *Elementi* to gain maximum effect and generate such an endless energy and tension may have prompted Leon Markiewicz to say in 1965 that '*Elementi* portrays 'Górecki' in the purest

form.'[24] Górecki's working process and setting such limits in this work brings to mind his later phrase: 'the utmost economy of musical material.' Although Górecki used it a few years later to describe the principle of *Muzyczka* cycle, it has some relevance already in *Elementi.*

Canti strumentali

Turning to the second part of the *Genesis* cycle, *Canti strumentali* was no less striking in its aural effect on audiences than *Elementi.* The four instrumental groups include strings (3 violins and 3 violas), winds (flute piccolo, flute and trumpet) and two percussion groups (see Table 6.10). The enlarged performing forces not only enrich the timbral contrast within textures but also extend them. After the premiere in 1962 Józef Patkowski commented on the piece as follows:

> The rich range of colour ... has a strong, immediate, as it were physiological effect. This sonic hedonism of Górecki, characteristic of the nascent Polish school, confers on *Canti strumentali* a special rank.[25]

The concentration on strings only in the opening helps to articulate the formal outline of the piece and its arch-like structure: the sustained band of sounds in strings open the piece and are also featured as a textural layer in the coda to end the piece. The same process of building up the sustained bands of sound familiar from *Elementi* also opens *Canti Strumentali.* The greater performing forces in *Canti strumentali* (6 strings versus 3 in *Elementi*) increase the width of the resulting cluster (major seventh) which through glissandi migrates to the higher register to reach 'the highest notes on all strings.' The contrasting type of texture also featured in *Canti strumentali*'s opening is composed of the repetition of segments based on percussive sounds; both types of textures occupy the high register.

---

[24] Markiewicz, '*Elementy* Henryka Góreckiego,' 9.

[25] Józef Patkowski, 'Premiere at the 1962 "Warsaw Autumn,"' Polish Radio, October 4, 1962, reprinted in *Horyzonty muzyki* 26 (Kraków: PWM, 1970):3, quoted in Thomas, *Polish Music since Szymanowski,* 188.

Table 6.11   Górecki, *Canti strumentali*: formal outline.

Introduction	Middle section		Coda
			Score no. 22
(score no. 1 to 7)	Phase 1 (8-13)	Phase 2 (score no. 14-21)	
		14 15 16 17	

violin 1------------------------
violin 2------------------------
violin 3------------------------
 	
violin 1------------------------
violin 2------------------------
violin 3------------------------
	flute picc. ---
	flute---
	trumpet --
	cc---
	gong--
	violin--
	violin--
		fl, c-lg,
		                        gng, bg
		       mandolin-----
		mandolin-------
		cassa di legno--
		bongos----------
		
		             violin 1-3--------------------------
		             viola 1-3 --------------------------
			violin, viola, flute, trumpet, tam-tams; From score no. 25 violin and viola only.
			
			p (flute, trumpet, tam-tam)-------
			mp (violin, viola) ------------------

ffff *sempre*(tutti)-----------------	*ffff* sempre (tutti)--- *mp*(vn, vl, score no, 21)		*mp/p*-----------------------------

The middle section of *Canti strumentali* can be divided into two phases. The first phase (score no. 8-13) creates variation in timbral colour by gradually unfolding superimposed homogeneous layers in clavichord, mandolin, percussion, trumpet and flutes (including flute piccolo). Each of the instrumental textural layers of this polygeneous texture is clearly defined: the clavichord part is dominated by clusters, the mandolin part features fast *tremolandi* on the highest notes on all strings, trumpets and flutes play sustained notes with a variety of articulation (*frullato, tremolando*) and the symmetrical series of attacks in the gong parts (score no. 10-11). The percussive texture in strings already familiar from *Elementi* and the opening of *Canti strumentali* underlies the other instrumental layers.

The second phase (score no. 14-21) begins with a sudden reduction in dynamics and in texture (score no. 14). The clavichord is excluded and the string texture becomes one of the main textural layers. There is more emphasis on individual timbres and a tendency towards homogeneity of textures. Unlike many extreme sonoristic pieces where the climax is often characterized by dynamics or the use of the full ensemble, it is difficult to identify one culminating point in this piece. The entire phase 1 of the middle section, where the textural narration takes place at one dynamic level – *ffff* – utilizing most of the instrumental forces, could be regarded as the top of the arch like structure.

The coda (score no. 22), introduced by a static cluster in strings completes the arch and introduces *mp* for the first time (see Fig. 6.32). The limited material of the coda - a sustained C sharp in strings and C in the trumpet part as a background to an *ostinato* in flute, and gentle attacks in tam-tams - creates a textural sparseness and austerity foreshadowing a later phase, inaugurated by *Three Pieces in Old Style* (Trzy utwory w Dawnym stylu, 1963) and *Refrain* (Refren, 1965).

Much has been said about the 'geometry of space' and the notation of Górecki's works. Looking at the disposition of instruments on the stage and various kinds of symmetries formed by notation of certain parts, Mirka proposed a 'geometrical period' in Górecki's

music for works from 1962 to 1970.[26] Indeed geometrical figures and symmetries that begin with spatial arrangement of instruments are also found elsewhere in *Canti strumentali,* on different levels, and involve various elements, ranging from the symmetry in the choice of strings to play sustained sounds (score no. 7), the symmetrical arrangement of repeated segments within the texture (as in the first two units, score no. 5), and the graphic symmetry in the two gong parts (written as prime and inverted retrograde), to the less easily detected combinatorial arrangement of two ways of bowing in string texture.

Certainly the visual aspect of some of these notational symmetries and mirror images is striking. Similar types of symmetries are also found in the third piece *Monodram.* The process of constructing textural units is presented at the beginning of the piece, with cymbals presenting four patterns and their possible combinations: prime, inversion, retrograde and retrograde inversion. Later in the piece (score no. 4), entire textural blocks in cymbals and gong are built using these combinations of rhythmic figures (see Fig. 6.33). For both layers the symmetrical axis falls between bar 4 and 5.

The ways Górecki employs symmetries in his music to generate textures and to design performing space is an interesting aspect in itself. Mirka suggests that the audibility of various geometrical operations will depend on the individual listener: not all graphical symmetries translate into musical symmetries and the geometrically visual operations do not need to be audible.'[27] Certainly, the great majority of symmetries of *Canti strumentali* and *Monodram* are not meant to be heard.

In the first place, the textures where more elaborate symmetries are easily seen and found through analysis employ instruments with undetermined pitch. Secondly, it is very unlikely that one type of notational symmetry, designed to generate textures and unify one instrumental group, will be audible when superimposed with other layers, as in

---

[26] Mirka 'Góreckiego muzyka geometrica,' 20-30.
[27] Ibid., 23.

Monodram's percussion texture at score no. 22 (see Fig. 6.32).[28] Similarly the extended symmetries and their retrograde inversions found in gongs parts (Fig. 6.33, score no. 4) of *Canti strumentali* will not be fully perceived. Here the spatial arrangement of instruments on stage is worth reconsideration. As Mirka also noted, some of the symmetries in the score correspond to the symmetrical arrangement of the instrumentalists on the stage which clearly suggest an attempt to map the geometry of the notation onto the performing space. For instance, in *Canti strumentali* the choice of which strings on each instrument are played (two higher, middle and lower), forming a horizontal axis in the score, has its reflection in the symmetrical arrangement of violin and viola players spaced in one line (from violin three to violin one and mirrored by violin one to violin three, see layout Fig. 6.22.). In the same piece the configuration in the bowing in strings detected by Mirka (score no. 10-13) is connected to the disposition of instruments on stage.[29] Unlike *Elementi*, where the stage layout is also symmetrical, the spatial layout of instruments on the stage in *Monodram* – gongs and tam-tams in one line facing the cymbals – does not help one in seeing or hearing the symmetries of the notation.

The issue here, however, is not about how much of the symmetrical structure and the compositional process which went into making these textures is perceptible but rather the relationship between such constructivist devices and the sonoristic technique. One aspect of employing such rigorous procedures is that they sometimes impart a sense of intensity and toughness of structure to a sound. It is also worth noting that in the post-sonoristic works such as *Refrain*, for instance, while the spatial geometry disappears, the tendency to hear such structural symmetries intensifies.

Mirka's assertion that 'for Górecki the performance of the work is secondary and subsidiary to the existence of a work,' and that the composer's greatest concern was the structure of a piece is surely debatable.[30] Such privileging of the score is contrary to the sonoristic aesthetic. In this context, Cornelius Cardew's comment seems particularly

---

[28] In this texture there are three textural layers (blocks comprising 12 parts, cymbals 8 parts and gong four parts) with their own symmetrical rhythmic patterns. The symmetrical axis falls on bar 5 (score no. 22).

[29] It is important to note that the structure of the section is also taken into consideration: various ways of bowing forming graphic symmetry are unified at the end of the section (score no. 13) comprising an entry of flute piccolo and trumpet (*frullato*) and changes in articulation from attacks to trills in gongs.

[30] Mirka, 'Góreckiego muzyka geometrica,' 24 and 30.

198

relevant: 'a musical notation is a language which determines what you can say, what you want to say determines your language.'[31]

Without undermining the importance of notation (its visual aspects and its connection to visual arts) and the fact that in some cases it plays a role in conception of a piece, ultimately the sound was the composer's first concern. For Górecki the sound itself was so important that during his conversation with Leon Markiewicz in 1962 about *Elementi*, he stopped and demonstrated the range of new sounds. No matter how important the architectural background of the piece may be for a composer, in Górecki's case the highly organized structure of *Elementi* and geometrical patterns of the entire textures found in the other two part of *Genesis* provided the realm within which, at a sonic level, he could be sonically provocative.

Much of the textural material of *Canti strumentali* is not new. All the rhythmic-melodic units from *Elementi* reappear in a new context here to create homogeneous textures (compare fig. 6 in *Elementi* and fig. 4 in *Canti strumentali*). Similarly the sustained notes in strings, played with identical articulation in all parts, constitute the primary material of homogeneous textures and layers. While the rate of change does not match the fierce energy and tension of *Elementi*, the piece nevertheless made an impression even on the older generation of composers. In a lecture at the Dartington summer courses in 1963, Witold Lutosławski presented *Canti strumentali* along with Penderecki's *Dimensions of Time and Silence*, Stockhausen's *Zeitmasse* and Cage's *Concert* for Piano and Orchestra. Richard Toop, who attended that Dartington summer school, recollects that Lutosławski found Górecki's piece a little perverse in that the instruments were used in the piece for everything except what they were designed for; he nevertheless regarded it highly, even though himself was not prepared to go that far. [32]

---

[31] Cornelius Cardew, 'Notation – Interpretation, Etc.,' *Tempo* (1961): 21.
[32] Richard Toop, interview with author (Sydney April 24, 2006).

Monodram

What *Monodram* brings to the cycle is not only another variation of ensemble with a focus on percussion to explore texture and timbre but it also introduces a vocal part, which places the work within a small number of sonoristic pieces that use voice and text; (the two others being Kilar's *Diphthongos* and Penderecki's *Dimentiones of Time and Silence*). Górecki's use of a vocal part is not only limited to the exploration of the phonic properties of the language to provide another textural layer to the instrumental texture: the vocal part also helps to articulate the structure (See Table 6.12). After the introduction focused on strings and percussion (score no. 1 to 12), the main section of the piece features the vocal part based on the vowels A-O-U, followed by Górecki's entire text – a single composite word which combines three words – *litome*, *talefonity* and *granity*.

'LI-TO-ME-TA-LE-FO-NI-TY-GRA-NI-TY-**GRA-A**-NI-TY.'

Górecki combined the Polish words for solid (*litome*), metalophone (*talefonity*) and granite (*granity*), and, as Thomas suggested, the extended 'gra-a' alludes to the Polish word for 'play' which is vocalized at the climax of the piece (see Fig. 6.34). Thomas also mentions the influence of the futurist poet Stanislaw Młodożeniec on Górecki's texts including the earlier text of *Monolog II*.[33]

---

[33] Thomas, *Górecki*, 46.

Table 6.12   Górecki, *Monodram*: formal outline.

Introduction	Middle part	Coda
Score no. 1 – 4	Score no. 5-29.	Score no. 30 – 40.
No vocal part	'U-A etc. 'LI-TO-ME-TA-LE-FO-NI-TY-GRA-NI-TY-GRA-A-NI-TY.' Climax (score no. 22): 'gra-a'	'A-O-U-M-U-A'
Low register : the lowest note on detuned strings. *mp*	Low - high (fig. 20-22)-low (from fig. 23) register. *mp-fff*(fig. 20)-*mp/mf al fine* (fig. 24).	Low register ranges from *pppp* to *ffff*

From the syllables –*ni-ty* (score number 24) which separates the percussion texture in cymbals, blocks and gongs, the instrumental parts gradually thin out to a highly ritualistic crescendo in gongs with a series of attacks against the background in strings in preparation for an extended coda (score number 30). After an instrumental section in percussion and strings, the vocal part reappears in the coda with glissandi on vowels '*A-O-U*' and one consonant '*M* 'against the two unified layers: unison attacks on twelve triangles, eight suspended cymbals and four tam-tams, and a sustained band of sound in double basses.

The 'sonic hedonism' noted by Markiewicz in relation to *Canti strumentali* is also evident in *Monodram* in the vocal part and in the setting of single vowels and syllables of Górecki's composite word against metal instruments. With a limited text Górecki explored the vocal range from precise pitches including the 'highest note' and glissandi to accented and sustained notes, all within a wide dynamics range from *pppp* to *ffff*.

The detuned double bases are unified in texture throughout the entire piece and provide a pedal-point above which instrumental groups are the main source of contrast within the texture. In contrast to the other parts of the cycle, *Elementi* and *Canti strumentali*, the use of register strongly underlies the structure of the *Monodram*. The strings' sonic band of

201

the outer sections of the piece and most of the middle section remains within the low register: for the first time Górecki makes use of the 'the lowest note on the strings.' Only for the climactic rise (at score no. 20), the register changes to its other extreme - 'the highest note' on the strings with the dynamics rise to *ffff*. The return to the low register coincides with the vocal part brought down to *mp* on the last two syllables of the text: 'NI-TY.'

In summing up Górecki's sonoristic profile which already starts to emerge in *Scontri*, in addition to specific textures and characteristic sonic events such as sustained bands of sound and percussive textures on the highest notes in strings used in both *Elementi* and *Canti strumentali*, there is another side which is more of a gesture and which also includes the effect of the music on the listener. In *Elementi*, the provocative and confrontational side of Górecki's personality begins with the spatial arrangement of the string trio to emphasize the individual players as soloists rather than to unify the ensemble. The exploitation of dynamic contrast, the use of the highest notes on all strings to produce harsh and screeching sonorities and using the minimum of means (three instruments in *Elementi*) to produce the maximum effect are all part of his gestural fingerprints. This also includes the detuning of the instruments in *Elementi* and *Monodram* which adds an aleatoric element and deliberately takes away the control over the performances of these works. The exploration of sonoristic means takes place within a formal structure in which it is not a matter of building up to a climactic point but seeing the form from the other side, that is, from the point when the relentless energy is finally released. The following pieces such as *Choros I* and *Refrain* point to the new aesthetic path leading to the Symphony No. 3 for which Górecki's uncompromising attitude will be both praised and fiercely criticized.

Table 6.10   Górecki: *Genesis* cycle, instrumentation.

Elementi for violin, viola and cello. Duration ca. 12' 42"
Violin Viola Cello

Canti strumentali for 15 players.[34] Duration ca. 8'4"	
Wind section: piccolo flute (flp) flute (fl), trumpet in C (tr) mandolin (mn) guitar (cht) clavichord for 4 hands (cc)	String section: violin 1 (vn) violins 2 violins 3 viola 1 (vl) viola 2 viola 3
Percussion section – 2 percussion groups	
<u>I</u> 5 casse di legno 2 gongs giacenti: sopran, alto (gng) gran cassa chiaro in horizontal position (gc-ch) bass tam-tam suspended (tmt-pr)	II 4 bongos (bg) 2 gongs giacenti: tenor, bass (gng) gran cassa molto profondo in horizontal position (gc-ch) tam-tam chiaro (tmt-ch)

Monodram for soprano, metal percussion, and six double basses Duration c. 8'4" (56 instruments and 20 players)	
Sopran (s)	
12 blocks (bl) 8 cymbals suspended (pti) 4 gongs (gng)	12 triangles (trg) 8 cymbals (pti) 4 tam-tam (tmt) tubular bells (cmp)
6 double basses (vb)[35]	

---

[34] In total the piece requires 56 instruments and 20 players.

[35] The number of double basses can be enlarged to 12. This is incorporated in the spatial arrangement of instruments indicated in the score of *Monodram*.

Kazimierz Serocki: *Segmenti,* 1960-1961 *and Symphonic Frescoes,* 1963-64

The works of Serocki's first decade of composing, roughly beginning with the founding with Baird and Krenz of *Grupa 49* (1949), mixed the aesthetics of social realism with a neoclassical style and dodecaphony. His *Suite of Preludes* (*Suita preludiow*) from 1952 was among the first twelve-tone pieces composed in post-war Poland.[1] Serocki continued to use dodecaphonic technique in his neo-classical *Piano Sonata* (1955) and *Sinfonietta* (1956). For further experiments with dodecaphony, Serocki turned to the romantic genre of solo song with accompaniment, in the song cycles *Heart of Night* (*Serce nocy,* 1957) and *Eyes of Air* (*Oczy powietrza,* 1957).[2] The more radical tendencies in Serocki's output came after 1958. *Musica concertante* (1958) introduced pointillistic dodecaphony into Polish music and became one of the most important transitional pieces that paved the way for sonoristic technique.[3] Serocki's last dodecaphonic piece, in which he enriched the 12-tone technique with the use of spatial effects, was *Episodes* (*Epizody,* 1959).[4] His next orchestral piece *Segmenti* (1960-61), premiered under Markowski during the 6th Warsaw Autumn festival in 1962, begins a new sonoristic phase among his works; a solo piano piece *A piacere* (1963), modeled on Stockhausen's *Klavierstuck XI,* was an isolated experiment with an open form.[5] His sonoristic line of development reaches new heights in *Symphonic Frescoes* (Freski symfoniczne) written for a large orchestra in 1963-64.

Segmenti, although lacking the overall emotional impact which was to be achieved in *Symphonic Frescoes,* draws attention to the timbre of individual instruments. Zieliński, in his monograph on Serocki's music, opens the discussion on *Segmenti* with the often

---

[1] Ludwik Erhardt, 'Kazimierz Serocki laureat Nagrody Ministra Kultury i Sztuki za rok 1963,' *Ruch Muzyczny* 7, no 19 (1-15 October 1963): 4. Baculewski also lists *Muzyka na smyczki – Nokturn,* (1953) by Schaeffer *(Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974,* 240). According to Lindstedt Haubenstock-Ramati's *Ricercari* for String Trio (1948) was the first twelve-note composition in the post-war Poland. Lindstedt, 'The Development of twelve-Note Techniques...,' 121.

[2] There is also a version of these cycles for solo voice and orchestra from 1960. Ibid.

[3] Chomiński, *Muzyka Polski Ludowej,* 120.

[4] Tadeusz A. Zieliński, *O twórczości Kazimierza Serockiego* (Kraków: PMW, 1985), 61 and 64-65.

[5] During the same festival Górecki's *Canti strumentali* and Kilar's *Riff 62* also received their premieres.

repeated expression, 'the shape of sound,' (*kształt brzmieniowy*) to emphasize the composer's new path into sonorism:[6]

> Serocki finally relinquished the rules of dodecaphony and operating on any series. This technique is not about scales (sometimes the composer operates on 12-tone material or other series) but the importance of **the shape of sound** in a given sound structure. Thus the timbre, dynamics, types of movement and the overall shape of sound arabesque are involved. Because of the increased use of percussion instruments the role of the intervallic relationships is greatly reduced.[7]

In *Segmenti*, contrary to the previous piece, *Episodes* (1959), Serocki excludes the whole string section and uses wind instruments, electric guitar and mandolin, celesta, harpsichord, piano, harp, and expanded percussion section subdivided into 4 groups (see Table 6.17). The exploration of timbres takes place within 'segments' initially alternating between percussion and wind sections (see Fig. 6.35, opening). The particular arrangement of the instruments on the stage with wind instruments and percussion groups forming triangles surrounding the stringed instruments (see Fig. 6.36) enriches the sonoristic effects and draws attention not only to the sounds and timbres themselves but also to the direction of the sound.

Segmenti mark a definite stylistic turn in both notation and the presence of core sonoristic features. In contrast to conventionally notated *Episodes,* the piece uses time-space notation; there is no tempo line and the time is regulated by sections measured in seconds: there are 17 segments labeled from A to T. In order to coordinate the parts and clearly delineate the textures, Serocki subdivides them into shorter time units of varied length numbered within each section.

The work can be divided into two distinct phases, each culminating in a distinct textural block. The first phase gradually unfolds 'segment by segment' (A to O) gradually expanding the texture to culminate in the first homogeneous large texture (see Fig. 6.37,

---

[6] Many writers in the discussion of Serocki's music or sonoristics in general bring up Zieliński's idea of 'the shape of sound.' See for instance Harley, 'The Polish School of Sonorism and its European Context,' 62 and Dziębowska, 'Koncepcja realnego kształtu dzieła muzycznego,' 5-16.
[7] Zieliński, *O twórczości Kazimierza Serockiego*, 69.

205

Segment O). The second phase, much shorter than the first one, comprises three segments (P, R and T) and concludes with the second textural block created by gradual superimposition of parts united in Serocki's sonoristic signature: aperiodic tonal repetition (see Fig. 6.38, segment S-T). The large texture created from this fingerprint, perceived as a fluctuating sound mass in which individual instruments loose their identities, intensifies through a series of dynamic rises and expansion in a number of parts. The accumulated energy is released in a single accented *fff* chord-cluster. The final gesture of the piece is the upward and downward *glissandi* in celesta, piano, harp and percussion (xylophone, vibraphone and marimbaphone) with the decay of the sound marked by tam-tam to end the piece.

Table 6.13.   Serocki, *Segmenti*: formal outline.

Phase 1 (Segment A - O)		Phase 2 (Segment P - T) + final gesture		
Opening: single part (triangle) *ppp*	Closing texture: 17 parts *fff* *tremolo*	Opening: single part (timbales) *fff*	Closing texture: 20 parts *ppp-fff* rapid aperiodic repetition (.....)	Final gesture: Upwards and downwards glissandi *fff*

As with other sonoristic works written in the early 1960s, the search for new textures and timbres in *Segmenti*, expands the range of articulations, often accompanied by notational innovations. Zieliński pointed out that the score well reflects what one can hear.[8] Serocki's notational signs are simple and functional. To the commonly used signs (for example, duration line for held notes, *accellerando* and *ritardando*, repetition of the same note) Serocki adds his own symbols and starts to build a vocabulary which he will continue to expand in later works such as *Symphonic Frescos* and *Forte e piano* (1967). The range of graphic symbols for the percussion section had already appeared in *Episodes* and included the signs for the kind of sticks to use (such as soft, hard, wooden feltsticks, metallic rod, wire brush) and specified which part of the instrument to strike

---

[8] Zieliński, *O twórczości Kazimierza Serockiego*, 69.

(such as strike the side/middle part). *Segmenti* required new symbols for the two types of *glissandi* used in the mallet percussion: *glissando* over the bars (the same symbol is used for glissando over the black/white keys of the piano) and *glissando gettato* which is the 'glissando effect of sweeping motion of the hand over the consecutive bars within the notated range.'[9] As the movement of sound is so characteristic of Serocki, *glissandi* are part of Serocki's fingerprints. They are frequently used to connect the individual timbral colours, mark off the textures and above all to create a texture defined by glissandi movement through pitch registers, as in the segment 'R' (score no. 1-5) where cluster *glissandi* in harp, piano, xylophone and marimbaphone are the principal layers.[10] As already mentioned, they are also featured in the final gesture of the piece (see Fig. 6.38 and 6.39, segment R). Another sonic idea which can be seen as one of Serocki's individual fingerprints is the tone oscilation produced by 'WAWA' muting on a single pitch in the horn part (segment D, score no. 5-6). Typically the dynamics are coordinated with the use of the mute, alternating between *piano* and *forte*.

In contrast to Penderecki's *Threnody* and Górecki's *Scontri*, clusters are used in *Segmenti* but on much smaller scale. In addition to moving cluster glissandi already mentioned, the static sustained sound bands, indicated by a black line, appear only in piano (segment E, score no. 1-2 and segment O, score no. 32-33), and harpsichord part (segment P, score no. 11-12 and 16-19). Serocki's preference lies in the use of clusters as separate attacks in individual parts.

In *Segmenti* the elements of the sonoristic technique are still being worked out: the exploration of timbral colour focuses on the timbre of individual instruments and discrete flashes of colour, rather than operating on large textural blocks. It is nevertheless a very significant piece in both Serocki's compositional output and within the body of sonoristic works written at the same time. With a high concentration of sonoristic features,

---

[9] Preface to the score. Serocki, *Segmenti* (Celle: Moeck, 1962).

[10] Although the notation specifies clusters, the realization on instruments like the harp, xylophone and marimba may be more like a single glissando because of the difficulty of damping the strings as the cluster moves through the range.

Segmenti also provide a glimpse into Serocki's sonoristic profile which was to emerge more clearly in his next piece, *Symphonic frescoes*.

In the context of the 'sonoristic manifestos,' *Symphonic Frescoes* came relatively late and did not offer anything radically new in terms of sonoristic devices. However, the inclusion of this work within 'total sonorism' is not based exclusively on its radicalism or novelty. *Symphonic Frescoes* is his first large scale sonoristic piece and a culminating point for Serocki's sonorism. Josef Häusler saw *Symphonic Frescoes* 'as an enriched offshoot of *Segmenti*' and described it as 'a synthesis of *Episodes* and *Segmenti*.'[11] Bearing in mind the connection to the earlier radical pieces from this period such as Penderecki's *Threnody,* or Górecki's *Elementi, Symphonic Frescoes* showed that 'novelty' was no longer the most important issue. As Markiewicz remarked after the Polish premiere of the work:

> ...as regards the style, the work represents one of the fashionable types of orchestral pieces that belong to the new convention, works which remain close to Górecki's *Scontri,* Kilar's *Riff* and *Générique,* Castiglioni's *Sinchromie,* Kayn's *Schwingungen* etc. Personally, I associate certain fragments of *Frescoes* with *Scontri* (...), *Canti Strumentali* and *Riff.* In my opinion, Serocki was conscious of this while composing. After all it is possible to write a good piece without the ambition of showing something new at any cost, on the assumption that some compositional devices first used by somebody else must be consolidated in a number of pieces. If this was Serocki's goal – without any doubt he achieved it and at the same time he enriched Polish symphonic literature by a new, lofty and imaginative orchestral firework.[12]

Symphonic Frescoes was dedicated to Ernest Bour, who conducted its premiere on July 24, 1964 in Darmstadt, with the Sudwestfunk Orchestra, Baden-Baden, and was subsequently performed at the Warsaw Autumn Festival of Contemporary Music in September 1964 with Polish Radio Symphony Orchestra under Jan Krenz. *Symphonic Frescoes* lasting 11 minutes 40 seconds is a relatively long in comparison to other

---

[11] Josef Häussler, 'Kazimierz Serocki. *Musica concertante – Segments* for Chamber Orchestra, *Episodes – Symphonic Frescoes,* Sleeve notes. Heliodor Wergo 2549 015.
[12] Leon Markiewicz, 'Serocki's *Symphonic Frescoes,*' *Ruch Muzyczny,* no. 21(1964): 9.

sonoristic works.[13] *Symphonic Frescoes* is divided into three movements: however, the third movement can be divided into two distinct sections, the second beginning at bar 150 with a pronounced change of tempo and texture beginning with a rapid aperiodic repetition of a note in the celesta part. This formal plan is also outlined in the first review of the work in 1964 by Markiewicz, who also points to the aural perception of such a four-part structure for the piece:

> The form of *Symphonic Frescoes*, its design and musical content are clear and perceptible on first listening, part I emerging from the dark timbres of double basses contrasted with *crescendi* in the percussion section and pianissimo harmonic bands in the strings, disappearing into silence in the low registers, Part II – incredibly compact, buoyant, radiating energy through sparkling scalar movement, Part III drawing out in its beginning maximal nuances from massive percussion and finally joint with it part IV – as a natural release of musical material presented earlier, full of vigor and impetus, forming the culmination of the whole piece.[14]

Zieliński also perceived a four-part structure, which is clearly delineated by the general principle (common to most sonoristic works) of exploring contrasts in dynamics, registers, textures and timbres.[15] The instruction *attacca* is found at the end of Part I, and in the available recordings the transition from the second to third is also performed *attacca* which appear to have created the perception of a four-part work for listeners without a score.[16] However, Serocki's score and discussion of it in his introductory notes clearly indicate that he treated the form of *Symphonic Frescoes* as a three part structure.[17] In this analytical discussion I will treat *Symphonic Frescoes* as a three-movement work with the third internally divided into two sections, of which the first is a relatively short introduction and the second begins with Serocki's primary fingerprint: the rapid aperiodic tonal repetition of a note, the sonic idea that had emerged earlier in *Segmenti*.

---

[13] For comparison *Scultura* by Schaeffer lasts about 12' 50", *Sequenza I* by Sikorski lasts about 10' to 12,' *Dimensiones of Time and Silence* by Penderecki lasts about 14' 30".

[14] Markiewicz. '*Freski symfoniczne* Serockiego,' 9.

[15] Zieliński, *O twórczości Kazimierza Serockiego*, 76

[16] This seems to be the performance practice of *Symphonic Frescoes*. Recording details: (Sound Chronicle of the Warsaw Autumn 1964 no. 4 (W-971/972, archival no. 217, LP) Muza XL 0267; Polish Radio Symphony, cond. Jan Krenz).

[17] For example in the preface to the score, Serocki writes "Notation in a free rhythm, eg. The rapid, aperiodic reiteration of a note, (...), non-rhythmicised glissandi – e.g. trombones, 3rd movt., bar 326; or strings, 3rd movt., bar 395, etc. ..."

Symphonic Frescoes uses three kinds of notation, conventional notation, time-space notation and graphic notation and Serocki outlines his approach in the preface to the score.[18] The three kinds of notation have different implications for the performer. The standard and rhythmically determined conventional notation requires exact realization. The time-space notation, particularly in relation to rhythm, allows for an element of chance in realization of individual parts playing together but at different tempi.[19] Graphic notation includes graphic articulation symbols such as quasi *glissando* over the metal tubes (in vibraphone and marimba parts), and simplified proportionate notation for succession of chords in the piano part which introduces an aleatory element to the realisation of pitch (for example first movement, b. 62-64, 114, fourth movement, b. 220) and a special notation of clusters on white and black keys (see Fig. 6.49). Again, however, the graphic notation does not indicate any creative improvisatory element. In contrast to many other sonoristic works Serocki retains the dotted barline and the time flow is regulated by meter throughout the piece and Serocki also specifies exact tempi for each movement. In this regard *Segmenti* rather than *Symphonic Frescoes* seems closer to the general practice of using sections measured in seconds. However, the practicality of conducting the large forces used in *Symphonic Frescos* probably played a role in the method of time regulation.

An extended analysis of this piece has already been made by Ireneusz Kaczorek.[20] As with Schaeffer's *Scultura*, the work's title suggests an association with the visual arts, and in his study of the work, Kaczorek takes this as a starting point for investigations into the work's aesthetic and artistic value. Kaczorek maps the stages found in the process of painting a fresco and compares it to the order of presentation of musical material of the piece. He draws analogies between other elements of frescoes, such as contrast, perspective, chiaroscuro, symmetry and proportion and their musical equivalent. Thus contrast equates to the 'disposition of primary and background sound layers contrasting in dynamics, rhythm, agogics and register' within a texture; *chiaroscuro* (light-and-shade)

[18] In *Forte e piano* (1967) for two pianos and orchestra Serocki also uses the same three kinds of notation.
[19] Serocki
[20] Kaczorek, 'Wartość estetyczna i artystyczna *Fresków Symfonicznych* Kazimierza Serockiego' [The Aesthetic and Artistic Value of Kazimierz Serocki's Symphonic Frescoes], in *Dzieło Muzyczne. Studia i Rozprawy* (Poznań: Wydawnictwo Akademii Muzycznej, 1999), 123-215.

is linked to reverberation (a natural decay of sound), graphic symmetries equate to reflection and symmetrical disposition of sound structures, and proportion is related to intervallic and temporal relationships.[21] The first movement, according to Kaczorek, is the 'cartoon' which, in creating a fresco, is 'the full scale detailed compositional rendering'[22] and lays out the overall shape of the work, the length of each movement, the compositional technique, and the projection of sound structures. The other stages such as mixing colours, contour and superimposing of subsequent layers of colour correspond to the remaining movements.[23]

Drawing close analogies between the creative processes applied in a musical work and an art work, whether painting, fresco or sculpture is generically interesting, but has limitations if not substantiated by sketches which show that this was indeed Serocki's creative intention. Firstly, while the order of stages in creating a fresco has to be strictly observed, the order in which movements of a musical work are composed may not always be from the first to the last. The way in which musical material is presented in *Symphonic Frescoes* does in fact suggest some similarities between the two processes, but only to a certain degree. The parallels between the cartoon and the first movement are indeed partly convincing, since some parallels can be found between the idea of a 'cartoon' in a fresco and the first movement of *Symphonic Frescoes*, namely the presentation of the musical material and the exposition of timbres. Even here, though, one can express reservations; for example, the large performing forces - an orchestra with a notably large percussion section for four players, as well as celesta, two pianos, two harps, mandolin and guitar (see Table 6.17), and a large wind section - are not fully revealed in the first movement, but only emerge in the course of the two following ones.

However, the analogy starts to break down if, as Kaczorek seems to suggest, we are meant to draw assumptions about the overall structure of the piece and the length of each movement merely from study or hearing of the first one, as if the piece had no points of reference outside itself. Here, a comparison with earlier works by Serocki such as

---

[21] Kaczorek, 'Wartość estetyczna i artystyczna *Fresków Symfonicznych* Kazimierza Serockiego,' 128.

[22] Ilia Anossov, Modern Fresco Gallery, http://www.truefresco.com/technique/technique_bottom.html (accessed November 28, 2007).

[23] Kaczorek, 'Wartość estetyczna i artystyczna *Fresków Symfonicznych* Kazimierza Serockiego,' 132.

Episodes seems at least equally relevant (see Table 6.14). In terms of the overall shape, both works are divided into four sections linked *attacca*.[24] The relative length of each movement is also analogous in the two works, the second movement being the shortest and the fourth the longest. There are also some parallels between the titles of *Episodes'* individual movements and the musical material in both pieces: the titles in question are *Proiezioni* (Projections), *Movimenti* (Movements), *Migrazioni* (Migrations) and *Incontri* (Meetings). For example, in *Episodes,* and some aspects of musical material in *Symphonic Frescoes,* 'projections' can be understood as the initial exposition of sonic ideas, 'movements' and 'migrations' may relate to the mobile textures moving through registers and 'meetings' to bringing together instrumental groups such as percussion and strings. As mentioned earlier, titles in sonoristic works and works by Polish composers from the 1960s are suggestive and in some cases may hold the key to the compositional procedures used in a piece. However, in case of *Symphonic Frescoes* the title is fairly conventional and perhaps shouldn't be treated too literally.[25] As with the pieces discussed earlier in this chapter, the following discussion will outline the individual movements with focus on sonoristic means and Serocki's stylistic features or fingerprints.

---

[24] Although I regard *Symphonic frescoes* as a three movement work, the third movement, as indicated earlier, is divided into two distinct sections.

[25] The word frescoes in the title brings to mind another composition from a few years earlier: Bohuslav Martinu's: *Frescoes of Piero della Francesca,* composed in 1956.

Table 6.14   Serocki, *Episodes* and *Symphonic Frescoes*: formal outline.

Episodes			
Movement I	**Movement II**	**Movement III**	**Movement IV**
Proiezioni	*Movimenti*	*Migrazioni*	*Incontri*
Strings and percussion	Percussion only	Strings only	Strings and percussion
60<Crotchet> 88	60<crotchet>160	160 (tempo fisso)	88<crotchet >160; 160 tempo fisso
Bars 1-92	Bars 93- 117	Bars 118-277	Bars 278-394; Bars 395-442
Symphonic Frescoes			
Movement I	**Movement II**	**Movement III** **(First section)**	**Movement III** **(Second section)**
Projection of sonic ideas	'Movement of textures'	'Percussive textures'	Mixture of textures from previous movements; expansion of Serocki's signature.
Bars 1-126	Bars 1-124	Bars 1-150	Bars 151-504
Minim= 35	Minim= 78	Crotchet =120	Crotchet =180
Duration 3'35"	Duration 1'35"	Duration 2'30"	Duration 3'55"

In both *Segmenti* and *Symphonic Frescos* the exposition of timbres is primarily achieved through gradual introduction and accumulation of instrumental parts, as well as instrumental groups providing subtle splashes of color. Gawrońska describes this as follows:

> ...the single instrumental parts appear gradually and as in polyphonic treatment of voices they are successively superimposed. (...) As a result the layering of individual lines generates a number of 'culminating points' which in a most natural way divide a work into developmental phases which at the same time lead to a final climax. [26]

[26] Bożena Gawrońska, 'Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego 1960-70,' *Muzyka*, no. 2 (1981): 35.

According to Gawrońska, this 'linear technique' (or layering process), is present in many of Serocki's works.[27] However, the idea of presenting a basic sonic material in the initial part of the work is not unique to Serocki. It brings to mind Droba's remark in relation to Górecki's works from the second half of the 1960s, about the 'predetermined model of the composition based on "givens" presented in the initial section.'[28] The opening of the piece (see Fig. 6.40, opening) contrasts the low register in double basses with high register in the piano. The contrast is also in the texture: held note (*arco sul tasto*) in double basses followed by a series of short impulses on the piano (wavy melodic line). The layering process continues after the general pause (bars 10-20); the texture builds up and gravitates toward the middle register. This reduces the contrast of high and low sonorities, and the main contrast now becomes one based on continuity and discontinuity: the continuous sounds in piano and double basses versus splashes of single sounds by timpani, guitar and harp.

The overall structure of this movement can be divided into the introduction (bb. 1-19), mirrored at the end by the coda (bb. 111-126,) with the main section between articulated dynamic rises and textural expansion which culminate in a large textural block (bb. 77, see Fig. 6.41) of superimposed instrumental groups unified in texture and articulation.

Some of the sonic ideas presented in this movement are not new. Serocki recycles them from earlier works and from the piece he was writing at approximately the same time. The 'wavy melodic line' of short impulses in the piano part, featured in the opening of the piece (bars 6-9), comes from *A piacere* (1963) for piano solo (see Fig. 6.40 and Fig. 6.42 *A piacere*). As already mentioned, Serocki's fingerprint, a texture built up of a rapid, aperiodic reiteration of a note had appeared earlier in *Segmenti*. Similarly, the sonic idea created by WAWA muting in the horn part introduced in *Segmenti* (see Fig. 6.43 *Segmenti*, section D) appears also in *Symphonic frescoes* but slightly modified: rather than a single part Serocki uses six horns to create a cluster based textural layer; dynamics, from *ppp* to *p,* is coordinated with the mutes (see Fig. 6.40).

---

[27] Bożena Gawrońska, 'Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego 1960-70,' *Muzyka*, no. 2 (1981): 42.

[28] Droba, 'Droga do sensu tragicznego', *Ruch Muzyczny* no. 15 (1978): 3.

The second movement is defined by fast moving textures and a fast rate of change. Serocki gives prominence to strings unified in mobile textural blocks created by a succession of chromatic pitches (see Fig. 6.44, 2nd movement, opening). The impression is of a fast sweep through the pitch registers. If one was to draw an analogy to the visual arts and most particularly to abstract painting, one might say the movement emphasizes the action of painting and the direction and movement of the entire texture sweeping through registers rather than the result of that action - the wide brush strokes, usually representing static bands of sound.

Although fast moving textures dominate, there are also static types of textures in this movement. A large clear cut textural block (bb. 24-36, see Fig. 6.45) in brass begins by superimposing horns parts playing groups of short notes with trumpet and trombone parts unified in already familiar texture - held notes with WAWA muting. The internal transformation of parts from short into held notes is accompanied by the dynamic rise from *ppp* to *fff*. The static quality of this texture provides a contrast to the fast pitch movement in the strings. Another static texture features the largest textural expansion in this movement: 48 string parts in a cluster of artificial harmonics (see Fig. 6.46, bb. 56-75). The clear cut edge of this texture is marked by cluster chords in harps and bells. The idea of the shape of sound, introduced by Zieliński in relation to *Segmenti*, is particularly relevant here and relates to the overall shape of the texture. After the clear cut opening of the texture, the ending is delineated by successive phasing out of parts, each ending in a short glissando, eventually reduced to three parts in the lover register of double basses.

What defines the first section of the third movement is the discontinuity of sound in the percussion section, strings and winds. The gradual layering of parts reaches its peak (bar 109) in a texture using the maximum number of strings playing tremolo on the highest note, superimposed with unpitched percussion (bongos, tambourine and tom-tom) playing groups of short notes, mandoline, harps and bells parts featuring chord-clusters, and vibraphone moving from the lowest note to the highest.

The second section of this movement leads to the culminating point of the entire piece. The most effective display of timbres takes place at the fastest speed: crotchet equals 180. Serocki brings back the familiar sonic ideas from the previous movements: the mobile string textures characteristic of the second movement and above all his signature texture of aperiodic tonal repetition which is developed throughout the movement from a single part to longer lasting textural layers, to create finally one homogeneous glittering sound mass leading to the climax of the piece (see Fig. 6.47): the six accented chords like clusters at *fff* (score no. 481) in all parts except for strings. The coda of the piece (bar 486, see Fig. 6.48) exemplifies typical sonoristic devices: textural contrast in a number of parts, timbral contrast in the instruments used and clear cut homogeneous textural blocks.

Apart from Serocki's principal fingerprint, based on periodic tonal repetition, another of his stylistic traits is a predilection for movement rather than stasis. This is reflected not only in the use of mobile textures but in the way he creates static textures which often are animated in some ways by various articulation markings, for instance *tremolo, frullato* or open and muted sound. Chomiński, in his writings on the Polish repertoire, discussed the process of 'transcending the limits of sound selectivity' in which individual sounds lose their characteristics or 'selectivity, being turned into a hardly resolvable sound mass.'[29] Serocki achieves this in a number of ways. One instance is to superimpose irregular subdivision of a beat as in Movement I (bar 52-56). The second movement is dominated by such textures, in which, in addition to superimposition of complex beat subdivisions, there is constantly changing pitch as textures sweep through the registers. The large texture – Serocki's sonoristic signature – towards the end of *Symphonic Frescos*, however, takes this idea further through simplified notation and dynamically balancing the naturally loud and soft instruments. This idea of 'transcending the limits of sound selectivity,' although used by other composers, is particularly relevant to Serocki's sonoristic works. As the first composer to introduce pointillism into Polish music in the dodecaphonic *Musica Concertante* (1958),[30] Serocki consequently followed this path,

---

[29] Chomiński, 'Udział polskich kompozytorów w kształtowaniu nowoczesnego języka muzycznego,' 185 and 188.

[30] Chomiński, *Muzyka Polski Ludowej,* 120

from operating on isolated timbres in pointillist-like textures to creating sound masses in *Symphonic frescoes*.

Table 6.15   Serocki, *Symphonic frescoes*: instrumentation.

4 flutes (fl), 4 piccolo flutes - ottavini (ott) 4 oboes (ob) 4 English horns (cri) 4 clarinets (cl) in B flat 4 bass clarinets in B flat (clb) 4 bassoons (fg) 6 horns in F (cr) 4 trumpets in B Flat (tr) 4 trombones (tn) tuba	celesta (cel) also keyboard glockenspiel (campanelli con la tastiera, cpl) 2 pianos (pf) 2 harps (ar) mandolin (mn) guitar (cht)
Percussion section – 4 percussion groups	

I
xylophone (xf) ossia xilorimba
5 temple blocks (tpbl)
4 tom-tom (tt): soprano (tt s)
                 alto (tt a)
                 tenor (tt t)
                 bass (tt b)
bass drum: gran cassa (gc)
2 maracas (mc)
2 pezzi di ferro (fro) sospesi
hi-hat (hh)
	II
	vibraphone (vf)
	bells (cpl)
	5 Chinese blocks (chbl)
	claves (clv)
	rattle (rgn)
	3 triangles (trg): soprano (s)
	                   alto (a)
	                   tenor (t)
	hi-hat (hh)

III marimba (mbf) 3 tambourine: senza chorda (tmb): soprano (s) alto (a) tenor (t) 4 suspended cymbals (pt): soprano (s) alto (a) tenor (t) bass (b) 2 gong (gng): alto (a) bass (b) tam-tam profondo (tmt) 4 timpani (tp)	**IV.** 4 bongos (bgs): soprano (s) also (a) tenor (t) bass (b) tambourine tamburo rullante (tmb) 2 maracas (mc) 2 cowbells 4 suspended bottles (btl)
24 violins (vn) 10 violas (vl) 8 cellos (vc) 6 double basses (vb) - 4th, 5th and 6th with C string (5 strings).	

Table 6.16   Serocki, *Segmenti*: instrumentation.

Wind section:	
flute (fl), piccolo flute - ottavini (ott) oboes (ob) clarinet (cl) in E flat saxophone alt in E flat (sxf) bass clarinet (cl b) bassoon (fg) horn piccolo (crn) trumpet in C (tr) horn in F (cr) trombore (trn) flicorno tenor in B flat (fcr) tuba (tb)	electric mandolin (mn) electric guitar (cht) harpsichord (cmb) celesta (cel) piano (pf) harp (ar)
Percussion section – 4 percussion groups **I** xylophone (xf) ossia xilorimba 5 temple blocks (tpbl) 4 tom-tom (tt): soprano (s) alto (a) tenor (t) bass (b) bass drum: gran cassa (gc) 2 maracas (mc) 2 pezzi di ferro (fro) sospesi hi-hat (hh)	**II** vibraphone (vf) bells - Campanelli (cpl) 5 Chinese blocks (chbl) claves (clv) rattle (rgn) 3 triangles (trg): soprano (s) alto (a) tenor (t) hi-hat (hh)
III marimba (mbf) 3 tambourine: senza chorda (tmb): soprano (s) alto (a) tenor (t) 4 suspended cymbals (pt): soprano (s) alto (a) tenor (t) bass (b) 2 gong (gng): alto (a) bass (b) tam-tam profondo (tmt) 4 timpani (tp)	**IV.** 4 bongos (bgs): soprano (s) also (a) tenor (t) bass (b) tambourine tamburo rullante (tmb) 2 maracas (mc) 2 campanacci (cpn) (Kuhglocken) - almglocken/?? 4 bottles bottiglie sospese (btl)

Wojciech Kilar: *Diphthongos,* 1964

Wojciech Kilar, born in 1932 in Lwów (formerly Poland, now in Ukraine), is today well known as a prominent film composer. His involvement with film music and Poland's prominent directors such as Kazimierz Kutz, Wojciech Jerzy Has, Konwicki, Andrzej Wajda, Krzysztof Kieślowski and Krzysztof Zanussi goes back as far as the 1960[1] but this did not prevent him producing a sustained output of concert works. Maintaining these two strands of his activity, however they may influence or permeate each other, is very important for the composer: 'I think things have worked well for me in that I've been able to write all my symphonic works while also, for my old age, having gained that sort of popularity from the film work and with it some bigger money, so I feel in a sense very fortunate.'[2]

Sonorism formed a small part of his concert output and, like Górecki and Penderecki, with whom he was linked during 1960s, he came to sonorism after a brief experimentation with serialism. As noted in Chapter 1, he was one of the first to attend the Darmstadt summer school in 1957 followed later by studies with Nadia Boulanger in Paris (1959–60):

> I returned home from Paris in the early 1960s, at the time of a great explosion in Polish avant-garde music. Here primarily you had my friends who were more or less my age, meaning Penderecki and Górecki; we tended to be regarded as a trio. Poles seem to like going by such a system of threes, with gold, silver, and bronze placements like in the Olympics...[3]

Following a brief experiments with serialism in *Herbsttag* (1960) for soprano and string quartet, came the sonoristic phase reflected in three works: *Riff 62* (1962) for orchestra,

---

[1] His widespread popularity beyond Poland and Europe, however, came after scoring his first American film in 1992 directed by Francis Ford Coppola - *Bram Stoker's Dracula*. The popularity of this film score opened the Hollywood's door and was followed by more commissions from highly acclaimed directors: Roman Polański's *Death and the Maiden, The Ninth Gate, The Pianist,* and Jane Campion's *The Portrait of a Lady*.

[2] Mark G. So. 'Wojciech Kilar Interview Part One,' *The Online Magazine of Motion Picture and Television Music Appreciation Lost Issue* (July 2001), http://www.filmscoremonthly.com/articles/2001/04_Jul---Lost_Issue_Wojciech_Kilar_Part_One.asp (accessed May 13, 2007).

[3] Ibid.

Générique for orchestra (1963) and *Diphthongos* (1964) for choir, percussion and the strings. The first work to signal the change and make lasting impression on the Warsaw Autumn audience after its premiere was *Riff 62*, as Elliott Carter reported in a *Letter from Europe*:

> This year, more than ever, the festival favored the advanced school of Polish composers: Penderecki, Górecki, Kotoński, Serocki, Schaeffer, and the conductor Jan Krenz. Of these the first three seemed to be the most effective. The young Polish student of Nadia Boulanger, Wojciech Kilar, provided one of the "wows' of the festival, *Riff "62"* for orchestra, which combined the tone-cluster technique of Penderecki with remote suggestions of very rowdy jazz. The packed hall gave the work such an ovation that it had to be repeated. [4]

A year later *Riff 62* received more performances in United States under Lucas Foss with the New York Philharmonic, the Cleveland Orchestra, and with his own orchestra - the Buffalo Symphony. After its American premiere in New York, Harold Schonberg pointed out to the visual image of *Riff 62*, saying that 'one "sees" it on hearing it; that it's like musical "op-art."'[5] This remark is also true of Kilar's other pieces from the period and other sonoristic works in general. Kilar's response to it also reveals the early influences on his music:

> This I think in part is because I've been greatly influenced by the Impressionists -- Debussy and Ravel -- whose music is also of that type that is really seen. It's because my music seems to correlate with pictures and images, and of the sort conducive to the development of mental images -- and not simply a dry construction, or a mere structure -- that I suppose film makers took an interest to me.[6]

The score that strongly bears such a close connection between the heard and the seen is *Diphthongos* dedicated to Michal Barański. Premiered in Venice on 13 of September 1964 by the Kraków Philharmonic Choir and Orchestra under Andrzej Markowski, it is the shortest of all the sonoristic works, lasting at least four minutes and at the most five

---

[4] Elliott Carter, 'Letter from Europe,' in *Elliott Carter, Collected Essays and Lectures, 1937-1995*, ed. Jonathan Bernard (Rochester: University of Rochester Press, 1997), 38.
[5] Mark G. So. 'Wojciech Kilar Interview Part One.'
[6] Ibid.

minutes, and it is the one in which Kilar's sonoristic technique reaches its peak. For the title Kilar used the English version - *Diphthongos* (in Polish sing. *dyftong*; pl. *dyftongi*), meaning a combination of two vowels.

Written for SATB choir, extended percussion section, piano and strings, *Diphtongos* explore both sonorous qualities of sound generated by the instruments and phonic properties of language: vowels, consonants (voiced and voiceless) and unusual combination of letters (as indicated in the title). For the rest of the text Kilar resorted to a popular and widely read book at the time, *The Sexual Life of Savages in North Western Melanesia* by Bronisław Malinowski.[7] Kilar takes single words and shouts from bawdy songs called lo'uwa songs of the Trobiand Islands: *kapukapugula* (young woman), *agudeydesi* (hollay!), *sayam* (a man celebrated for beauty), *wo, bamasisi* (I'll sleep), *bamamata* (I'll wake), *balage* (I'll hear), *kupira* (drum his [of]).[8] The scoring specifies a choir of 120 singers (30 in each voice) which might suggest dominance of the vocal parts if not at least equal to the instrumental parts. Although this is certainly the case towards the end of section B (see Fig. 6.51), the opening of the piece is the opposite (see Fig. 6.50, panel A). The vocal parts blend in with the instrumental layers to such extend, that at times they become indistinguishable from the instrumental parts.

---

[7] Stockhausen also drew on this book for *Momente* (1962).
[8] The entire text of Lo'uwa Song (I) and (II) in original language and English translation is in Malinowski's book (London: Routlege & Kegan Paul, 1982), 224-225.

Table 6.17.   Kilar, *Diphthongos*: instrumentation.

SATB choir:	Percussion section (6 esecutori):
30 sopranos 30 altos 30 tenors 30 basses	12 bells (cmp) 4 cymbals (pti) 2 gong (gong) vibraphone (vbf) 12 bongos (bg) 4 congas (cg) 2 drums (tmp) bass drum (grc) maracas (mrc) guiro (guiro) wood-block (wbl) sand-block (sbl)
String Section: 8 violins (vn) 8 violas (vl) 8 cellos (vc) 4 double basses (cb)	piano I (pf I) piano II (pf II)

On the large scale the piece consists of three phases labeled A, B and C by the composer (see Table 6.18). What emphasizes the three part division is the use of sound sources and textural development. The opening of the piece - phase A- comprises two panels (A and A1) and explores various shades of unpitched sounds in the percussion section and choir (see Fig. 6.50). The focus is on continuity of sound. By contrast phase B (see Fig. 6.51) opens with percussive effects on strings and proceeds towards a large texture composed entirely of human voices. The piece concludes with phase C, constructed solely of superimposed static clusters (see Fig. 6.53). Each phase is further subdivided into smaller sections - like panels - marked A, A^1, B, B^1, B^2, B^3, and C. Each of these panels lasts 30 seconds and is laid out on a single page. The only exception to this rule is the closing section C which comprises two of those 30-second panels, balancing the length of the opening phase A which comprises two 30-second panels. Thus it is the sound material that articulates in aural terms the subdivision into sections in the score. Each 30-second panel presents a different timbral palette and has its individual sonoristic scope. As in *Elementi*, there is no single point of culmination over the whole piece and the piece is heard as a number of phases, as represented by the panels in the score.

Table 6.18 Kilar, *Diphthongos*: formal outline. Total duration ca 4'.

Phase A		Phase B				Phase C
A	A1	B	B1	B2	B3	C
30"	30"	30"	30"	30"	30"	30" + 30"
7"5" 3"1"2" 2"4"6"	8"4"4"4"10"	9"6"5"4"3"2"1"	18"2"2"2"2"2"2"	10"5"5"10"	30"	
pp—mf <> pppp	*mf — < ffff*	*f—————*	cont.------------	*mf ——— ff*	————*cresc*——	*ffff————— a nientare*
			--			
SATB, pti, sbl, mrc	SATB, pti, wbl, guiro	SATB, bg, vn, vl, vc, cb.	SATB, cg, tmp, vn, vl, vc, cb	SATB, gong, grc, pf 1 and 2, vc, cb	SATB	pti, gong, cmp, vbf, pf 1 and 2, strings.
Material: unpitched sounds, continuity of sound		Material: percussive effects, discontinuity of sound				Material: static clusters, continuity of sound

While *Riff 62* and *Générique* use the mixture of conventional notation and some graphics, *Diphthongos* is a purely graphic score except for the indicative pitches given beneath the clusters, which are notated using the notorious, post-*Threnody* thick black lines (see Fig. 6.53). As in *Scultura* by Schaeffer, the use of graphics is both suggestive and functional. The direction of pitch and contour of melodic lines is indicated by rising, falling and angular lines or wavy lines, while the sychronised attack points of the 12 bongo parts in section B1 are represented by vertical lines which are progressively closer together.

Regarding the temporal organization of the piece the bar lines are entirely replaced by time division marked in seconds. Each 30-second page of the score is further divided into smaller time sectors, measured in seconds, usually coinciding with the entry of a textural layer in the instrumental sections and voices. This neat temporal structure reflects conscious planning in relation to various time subdivisions of the number thirty. Coincidently in a 1959 Darmstadt course, Stockhausen was analyzing *Zyklus* in which each page is also divided into 30 units which are further subdivided. Although Kilar is not listed amongst the Polish participants at the courses (the group included Kotoński, Markowski, Schaeffer, Serocki and Patkowski) it is quite possible that the formal structure of *Zyklus* influenced Kilar in some way. Certainly by the early 1960s Stockhausen's works were known in Poland; *Zyklus* received the Polish premiere in Warsaw Autumn Festival in 1961. In *Diphthongos*, the opening section A is subdivided by series of odd and even numbers: 7, 5, 3, 1, 2, 2, 4, 6. In section B, the number of attacks in the bongo parts increases from 1 to 6, at the same time as the time between the units decreases from 6" to 1" (see Fig. 6.51).

Kilar treats the vocal part here as yet another textural layer that adds to the colour of the entire texture, and the variety of voice articulation as well as the choice of letters is carefully thought out to achieve the desired effect. This can be seen in the opening of the piece in which voices are blended with percussion instruments to create a gradually intensifying block of continuous whispering and whirling sound which is inseparable into individual timbres (see Fig. 6.50, panel A). The layering of unpitched parts in cymbals is coordinated with the entrance of each vocal part and the choice of consonants matches

the sound of the percussion: altos hissing a letter 's', gradually superimposed with tenor part hissing 'sz', soprano part with a letter 'f' and bases with a letter 'h'. Indeed, the choice of single letters in this score exploits the distinctive characteristics of the Polish language. For instance soundless 'sz', 'cz', 'dz' so characteristic of Polish language is used in textures with unpitched sounds. The other soundless consonances are 'f, s, h and 'ż'. For percussive effects Kilar selects a combination of two consonances 'tk', present in many Polish words (*tkanie, tkanina, tkanka, tkliwie, tknąć*) and 'dg.' The letters used are chosen for their sonorous qualities, reinforced by articulation: the consonant 'r' for a kind of *frullato*, 's' for 'tremolo produced by a trembling of the lower jaw,' 'KH' in which K is 'a kind of a sharply attacked *acciaccatura*' and 't', 'tk', 'd', 'dg' for '*staccato* with the vocal cords tight.'[9]

Panels B and B1 are the only ones to use an actual text, and this is limited to single words. This also serves purely sonorous purpose as the individual words cannot be heard in the mass of vocal layer composed by superimposing eight parts, each part repeating different words (see Fig. 6.51, panel B). The whole section proceeds towards a higher dynamic level and the increased number of synchronized attacks in bongos at shorter intervals mentioned earlier. The articulation of vocal parts is integrated as a background color to the dominating instrumental parts. As the number of attacks increase the vocal part shifts from *sussurando* (whispering), through *parlare* (speaking) to *grido* (shout).

As a graphic score, the realization of the parts in *Diphthongos* is left largely to the performer. However, even with the minimum instructions for the vocalists the results are fairly predictable and limited by the instruction: 'the point of departure for a sound is always the middle of the voice range; deviations from the horizontal denote changes in pitch, the vertical proportions indicating the pitch of a sound in relation to the middle range.'[10]

The entry of individual parts is synchronized with other instrumental parts and regulated precisely by the division into time sectors. The only section that allows for greater

---

[9] Preface to the score, Wojciech Kilar, *Diphthongos* (Kraków: PWM, 1965).
[10] Ibid.

flexibility is B3 which features the maximum expansion of voice parts: each of the voices is further subdivided into four and five parts, creating in total a texture of 18 different vocal parts (see Fig. 6.52). There is no formal vertical time division within the 30-second section: instead each part has its own pattern of repetition. The realization of these patterns 'must be strictly observed' according to the relation in which the smallest time value for one centimetre equals one second. This formation of texture bears some similarities to *Scultura* by Schaeffer, in which the visual aspect of the score seems to govern or influence the layering of parts. The horizontal line of axis on the page runs between the altos and tenors with a series of held vowels. Thus sopranos mirror basses and altos mirror tenors with some parts being shifted as in canonic entries. In B3 there are also three kinds of subdivision of number 30, into six, five and four subsections, superimposed on one another. Such graphic symmetries, however, are more noticeable in the score rather than perceptible in a listening except for the direction of pitch.

Diphthongos is the shortest piece among the sonoristic works yet requires the largest performing forces: SATB choir of 120 voices, six percussion players, two pianists and 28 string players. As much as such extremes were a part of the sonoristic era, they may provide an explanation for the lack of performances beyond its premiere.[11] Using the shortest time span and the largest performing forces in the sonoristic repertoire, Kilar achieved the highest concentration of sonoristic means in his output and this, together with its graphic score, firmly established *Diphthongos*, despite its achieving only single performance to date, as one of the emblematic sonoristic works of the 1960s.

[11] In relation to *Diphthongos* Polony lists only a premiere in Venice in 1964. Polony, *Kilar. Żywioł i modlitwa*, 202.

Witold Szalonek: *Les sons*, 1965

Witold Szalonek occupies a special place in Polish sonorism: for him it was not just a phase in his compositional output but a belief that became almost a life-long journey. For Szalonek sonorism began with Chopin and was later developed by Debussy and Varése. His credo was that 'sonorism [is] the soul of the instrument, ascending through music,'[1] and the sound generators are at the heart of Szalonek's sonoristic thinking. Treating timbre as the identity of an instrument, Szalonek spent almost his entire life researching multiphonics (primarily on wind instruments), which he called 'combined sounds'. As late as 1994, Szalonek, in an interview with Iwona Szafrańska, repeated that he did not consider the research into multiphonics that he begun in the early 1960s as completed.[2] He recounted the journey began during his school years:

> I was intrigued by the timbre of strange 'accidental cock sounds' produced – to the joy of listeners – by new earners of wind instruments. While composing *Concertino* in 1960 for flute and orchestra I was going to use them to construct certain sound planes in the second part but not knowing in depth their nature I gave up my intention and in their place I used the reed and mouthpiece sounds of woodwind and brass.[3]

His collaboration with Severino Gazzelloni, in preparation for *Concertino*'s premiere at the Warsaw Autumn in 1963, prompted him to examine multiphonics, initially on woodwind and brass instruments, and develop the appropriate notation. Within Polish sonorism, Szalonek has contributed some of the strongest manifestations of treating timbre – whether of a single sound or texture - as a primary structural element. *Les sons* is one of these works. As a sonoristic manifesto, it came relatively late, and it is one of the pieces that mark the end of the 'pure' sonoristic trend in Polish music. From the start, *Les sons* gained a firm position amongst the 'sonoristic manifestos,' and not only on account of the controversies it caused during its premiere at the 1965 'Warsaw Autumn,' though reviews from the concerts were as colorful as the music. After the premiere, in Szalonek's home town Katowice, the piece was summed up as follows:

---

[1] 'Wokół sonoryzmu. Z Witoldem Szalonkiem rozmawia Iwona Szafrańska' [Around sonorism. Witold Szalonek talks to Iwona Szafrańska], *Opcje*, no. 2 (1994): 76.
[2] Ibid., Parts of Szalonek's text was already published in 1973 in *Res Facta* 7 (1973): 110-119.
[3] Ibid.

The third composition by Silesian innovator Witold Szalonek was interrupted by loud bursts of laughter. (This is the first composition this year to be ridiculed). The senselessly organized noises reminded one in many cases of cocks crowing, geese cackling, ducks quacking and cattle mooing. This nonsense seemed even greater when one reads in the program that W. Szalonek dedicated this piece in memory of a distinguished composer Spisak, who died in January this year. Was the author of this piece completely unaware of how the ideas put spontaneously on paper would sound? And in any case he caused a scandal by dedicating a hideously ugly piece in a way that is more like an insult than remembrance.[4]

Tadeusz Zieliński, though noting the risk associated with the new sound effects, was more serious and generous in his evaluation of *Les sons*:

Les sons by Witold Szalonek as an example of a new and interesting combination of orchestral whispering sonorities, is at the same time a composition loaded with the highest level of startling and tragic expression, and splendidly planned points of tension (albeit some effects on wind instruments, being on the verge of comicality, are risky).[5]

Szalonek's primary fingerprint: multiphonics on wind instruments is reflected in the instrumentation of *Les sons*. Its performing forces include three sections: wind, strings, percussion and piano for two players. The number of players and instruments in the wind section clearly outweighs strings (8 violas and double basses) giving the lead role and preference to wind timbres (see Table 6.21).

[4] 'Ostatni dzień IX Warszawskiej Jesieni. Filharmonia Śląska na estradzie festiwalowej' [The Last Day of Warsaw Autumn. The Silesian Philharmonia on the Festival Stage], *Dziennik Zachodni*, (October 2, 1965).
[5] Tadeusz A. Zieliński, 'Jesień i kryteria' [Autumn and Criteria],' *Ruch Muzyczny* 9, no. 21 (1965): 18.

Table 6.21   Szalonek, *Les Sons*: instrumentation.

Wind section:	Percussion section for 4 players:
flute piccolo (flp) 3 flutes in C (fl) flutes in G (fl) English horn 2 clarinets in B flat (cl 2 and 3) bass clarinet in B flat (cl 4) 3 bassoons (fg) contrabassoon (and bottles) 4 trombones (tn) 4 trumpets in B flat (tr) 6 horns in F (cr) tuba bottles (btl)	4 suspended cymbals (s.a.t.b. pt) 2 gongs (gng) 3 kettledrums (tmp) tom-tom bass,
Piano – 2 players	**Strings:** 8 violas (vl) 8 double basses (vb)

First, I will consider notation, time regulation, texture and timbre as a primary structural element within the overall structure of the piece. Secondly, I will discuss processes of building up textures and the basis of textural contrast that governs the structure of smaller sections of the piece along with the role of the common sonoristic device such as clusters. Remarks on reception from more recent performances of *Les sons* will conclude the discussion.

On the large scale *Les sons* can be divided into introduction, two larger developmental phases delineated by two climactic rises and a coda dominated by strings. As Markiewicz noted in his preview of 1965 Warsaw Autumn, the goal of the unfolding sound planes in *Les sons*, is not to arrive at multiphonics but to proceed towards the 'real' sounds of wind instruments:

> Thus the 'real,' 'classical' sounds are preceded by three phases – from whispering (double consonances *sz, f,* multiphonics on flute, blowing into the bottle), through to reed sounds and rhythmic canons in piano and violin parts...[6]

---

[6] Leon Markiewicz, '*Les sons* Witolda Szalonka,' *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 13.

The score itself is divided into eleven sections, usually separated by general pauses, and labeled with capital letters from 'A' to 'L,' as with Serocki's *Segmenti*. Most of these larger sections are further subdivided into bars of equal duration (circa one second) numbered within each section. However, *ad libitum* sections (H and I), in which textures proceed at their own speed, are measured in seconds without the need of further subdivision. The introduction of meter in section G where one second equates to 6/16 (3+3) is for purely practical reason to help to coordinate the parts of larger textures. As discussed in Chapter 5, Szalonek uses time-space notation and also uses a range of graphic symbols, primarily for multiphonics. Other symbols such as signs for playing on the tail piece, playing with the plectrum, and for notating clusters are part of the widely used notational conventions of the time. Some of the new timbres and new ways of playing required new symbols: for example, blowing across the opening of a bottle, and putting the instrument on the table and playing. In general the notation of *Les sons* is functional and practical.

Turning to the overall structure of *Les sons*, the piece can be divided into an introduction, two phases and a coda (see Table 6.19). The timbre of individual instruments and textural contrast provide the foundation for the structure of the piece. Szalonek also makes use of general pauses to separate the larger sections of the piece, a characteristic of many sonorisic works. In addition to these elements, sound decay plays a significant role, not only as a background colour, but as means of measuring the length of sections, as in the opening of the piece and the first bar of section L. As a general tendency, the sections and textures expand as the piece progresses towards the climaxes. The first climactic point is reached in section H (m. 98) and features a large, *ad libitum* texture employing the winds, piano and percussion (cymbals and kettle drums, see Fig. 6.57, section H.). The second build up in texture and dynamics culminates in a chord-like cluster in winds reinforced by percussion and over a three octave (B – F) cluster in the piano part at *ffff* (see Fig. 6.58, section K, m. 51-52). The brief coda, separated by general pause, filled with the reverberation of the piano cluster ending the previous section, is limited to the string section and explores the subtleties of harmonics and timbres created by playing behind

the bridge. Beginning in double basses in the low register, through textural build up and gradual rise in register, the piece ends on the 'highest note' in violin at *pppp*.

The formal outline is presented in the Table below (Table 6.19), with instrumental forces and dynamic levels indicated at the beginning and end of each larger section. The most contrasting juxtaposition occurs at the climactic points at the end of phase one and two. In both cases the contrast involves change of articulation, change of texture from large textural block to a single part and change of dynamics levels from *ffff* to *f/ff* (the dynamic contrast is intensified by the reduction of large texture to a single part).

Table 6.19   Szalonek, *Les sons*: formal outline with dynamic and textural contrast between the phases.

Introduction	Phase I	Phase II	Coda
Sections A-B	Sections C-H	Sections I-K	Section L
fff *p<f>p*	*pp* *ffff*	*f* *ffff*	*ff* *pppp*

gong   1-4 flutes
piano
	1 part (oboe) tutti	oboe tutti	1 part
			(double bass)
			
			                        1 part
			                        (viola)

The wide range of articulation particularly in the winds often reduces his works to a catalogue of effects and sound experiments. This aspect is a topic of comment in the limited literature on Szalonek's works and perhaps causes commentators to see only one side of his output. However, a closer look at carefully designed structure in *Les sons* reveals Szalonek's sensitivity to the overall balance between larger sections of the piece and a well planned disposition of instrumental colours within these sections. The introduction features flute, the beginning of the first phase is marked by the change from flute to oboe and the coda features strings. The progression of sections is dictated by specific timbres with focus on the timbral possibilities of the oboe (at in the first phase): Szalonek's special interest in these possibilities was pursued further in *Quattro monologhi* for solo oboe from 1966. Thomas also emphasizes Szalonek's intuitive feel for formal structure in relation to later pieces such as *Proporzioni* for chamber orchestra

(1967), *Mutazioni* for chamber orchestra (1966) and *Quattro monologhi* for oboe solo (1966):

> Szalonek's structural mastery is due not only to his understanding of large-scale contrasts and progression (his music is never about sound for sound's sake), but to his mastery in combining instruments, whether or not they utilize the 'combined sounds' of woodwind multiphonics.[7]

The brief introduction comprises two sections, A and B. As the sections unfold, Szalonek proceeds from whispering and unpitched sound towards pitched sound. After the spectacular initial attack in gongs, followed by a cluster of over four octaves on the piano at *fff*, part A then explores subtleties of single notes of the piano from middle to lower register. However, the pitch of the piano notes is obliterated by placing a triangle rod against the vibrating string after striking the key. This layer lasts as long as the decay of the initial attack in gong and piano – ca 28 seconds with the dynamic descent to *pppp*. The following four part textural layer in the flute group is defined by overlapping held harmonics (see Fig. 6.54, section A and B, mm. 1-13). Only at the end of section B in the flute parts (*frullato*) is the pitch definite and close to a conventional flute sonority, progressing from 'blow to the opposite end of the mouthpiece to 'not a full sound', and then 'something like the normal flute sound', and finally 'definite pitch, *pp*.'[8] An additional layer of unpitched sounds is provided by blowing bottles with crescendo-decrescendo dynamics.

The first developmental phase (Phase 1 of Table 6.19) comprises six sections (Section C-H) clearly defined by timbres. The concentration on oboe with its wide range of multiphonics (at times joined by cor anglais) in the initial sections (Section C to F) has another purpose here other than the structural one, and that is to expose the variety of multiphonics, a provocative and unique characteristic of the piece. In the process of building up large sound planes, Szalonek exposes unusual timbres which articulate individual sections. Thus section C opens with a single note in the middle register on the oboe with instruction to 'enclose the mouthpiece and the mouth tightly with clenched

---

[7] Thomas, *Polish Music since Szymanowski*, 200.

[8] Szalonek, preface to the score of *Les sons* (Kraków: PWM, 1967).

fists, and then gradually unclench them.'[9] The texture grows from a single part by the gradual layering of wind, piano and string parts (see Fig. 6.55, section C, mm. 1-19).

In the following D section the oboe arrives at a definite pitch (D) at *ppp* by diminishing the blowing pressure with aim 'to produce a rough sound close to flutter tonguing.'[10] The clear symmetrical structure of this section comes from the textural contrast in timbre and size of alternating two types of textures – a 'solo' and a 'chorus' (See Table 6.20). The 'chorus' consists of winds playing overlapping sustained sounds; the entry of each sound is marked by the piano part. A static to mobile cluster in double basses acts as a background to the overall sonority. The end of this texture is marked by a distinct sonic idea in violas playing upwards moving passage of short impulses (See Fig. 6.56, section D, mm. 1-26).

Table 6.20   Szalonek, *Les sons*: formal outline of section D.

Section D				
Chorus: larinet bassoon contrabassoon horn viola double bass	Solo: 1 oboe	Chorus: clarinet bassoon contrabassoon horn viola	Solo: 1-2 oboes 1ci (vb – one bar)	Chorus: clarinet bassoon contrabassoon horn viola double bass
mm: 1-9	mm: 10-12	mm: 15-23	mm: 24-27	mm: 29-35.

The sonority of oboe changes once again with the next section E, featuring multiphonics on B flat and E at *fff*. This time with increased blowing pressure, the sound is sharp and close to *frullato*. The fast textural build up in each instrumental group results in a large textural block of 24 parts (Section E, m. 36). The individual parts and instrumental groups are unified by articulation: oboe and cor anglais playing harsh *flullato*-like multiphonics, trumpet horn and trombones playing *frullato*, flute synchronized with

[9] Szalonek, preface to the score of *Les sons* (Kraków: PWM, 1967).
[10] Ibid.

clarinet and piano in short vertical impulses. As the piece progresses, the textures enlarge in parts with a tendency towards vertical synchronization until all parts are synchronized in four clusters at the end of section F (see Fig. 6.59, section F, mm. 54-58). At this point (section G) Szalonek introduces meter - 6/16. The entire section G is based on textural contrast between *ad libitum* textures and sections in which there is vertical coordination in parts of wind section and piano. As the section progresses the tendency is to extend the *ad libitum* texture with vertically synchronized chords-like impulses. This gradual transformation of the entire textural block from synchronized parts into *ad libitum* is achieved in overlapping layers, first in flutes, oboes and clarinets with each layer making a sudden change from vertical impulses to *ad libitum* (see Fig. 6.60, section G, mm 72-84).

The following section H lasting for 13 seconds and the first climax of the piece is one large block composed of four textural layers, defined by articulation. The largest is a 31-part homogeneous *ad libitum* texture in winds created by superimposing a series of 12 notes - a remote remainder of dodecaphonic technique (see Fig. 6.57, section H). The percussion layer in 6/16 continues from section G; the piano texture entirely composed of clusters and viola synchronized with double bass in bouncing on open strings to reach the highest note. The sharp cut off of this colorful explosion is juxtaposed with a single layer of multiphonics in oboe beginning the second phase (Section I and J) without a break – the first exception to the rule of placing general pauses to formally separate contrasting sections. Here, however, the continuity is desirable and lasts until the second culminating point at the end of section K. The texture quickly gravitates towards the vertical synchronization of parts. Between sections I and J a general pause is replaced by chords-like clusters *glissandi* in strings towards the highest note accompanied by kettle-drums *glissando* (*crescendo* from *sfp* to *fff*), overlapping with a one-bar reminder of the *ad libitum* texture. However, the *ad libitum* aspect of this texture disappears here: all parts in flute, oboe and clarinet are brought to vertical synchronization by the same subdivision in a bar (8:1).

234

The lead up to the second climax of the piece features increased rate of vertical chordal impulses at *ffff*; here the glissandi in horns provide minor disturbances to this unified textural block, finally culminating in a vertical chord in all parts reinforced by another cluster of over three-octaves at *ffff* (see Fig. 6.58). The general pause to formally separate the coda allows for the decay of the cluster in the piano part.[11]

The coda of *Les sons* – an overall decrescendo from *ff* to *pppp* – is limited to strings and matches the opening in its subtleties of sound featuring, at first, overlapping held notes played behind the bridge to produce 'a jarring sound resembling a harmonic,' followed by a wedge cluster of harmonics ending in a single part *glissando* moving towards the highest note at *pppp*.

While it is the use of multiphonics, resulting in colorful and unusual sonorities, that define the provocative and unique side of *Les sons*, clusters are frequently used as a structural device, particularly to demarcate the beginning of textural blocks and entire sections. For example, the piano part of *Les sons* almost entirely consists of clusters which are often superimposed with clusters in the wind section to act as 'sound impulses' marking the beginning and end of sections (See Fig. 6.59 section G, mm.1-6).[12]

Mobile clusters are typical of string parts, particularly in double basses, which act as a background to superimposed wind parts (Section C, mm. 23-35). The least used type of cluster in *Les sons* is the static cluster. An example is at the end of section C, where the double bass part features a semitone cluster which provides a sound band set against percussion layers: a continuous layer of glissandi played by kettledrums contrasted with single impulses played by cymbals and gongs.

---

[11] In the recording from the premiere the reverberations from the piano are overlapping with the entry of the coda – the single part in double basses. The more recent recording from Warsaw Autumn in 1999 leaves reverberations longer before the entry of double bass.

[12] An exception is found in section C where piano part involves a series upwards and downwards *glissandi* played with the plectrum, and section E where piano part contains 3:1 subdivision of a beat.

235

Even almost fifty years later, the radical side of *Les sons* still caused polarization of opinions. David Wordsworth summed up the 1999 Warsaw Autumn performance of *Les sons* as follows:

> Over Witold Szalonek's *Les Sons* (1965) it is best to draw a veil - a catalogue of what were perhaps 'right on' musical experiments then, but now sound dated and frankly ridiculous.[13]

Others, however, note the work's artistic value and position within Szalonek's oeuvre. Andrzej Chłopecki in his short account of the piece noticed its freshness:

> The assortment of sound effects also includes striking the keys of instruments, speaking through the instrument, using only mouthpieces, and blowing bottles. Even today, a long time since it was considered surprising and amazing, this organised 'chaos' of sound still sounds exciting.[14]

Szalonek's contribution to the sonoristic repertoire is highly individual. Through his unique approach to sound and composition Szalonek, throughout his life, wanted to bridge the gap between Western and non-Western music, between concert hall music and the ordinary sounds that surround us, and between the primordial times through raw, natural sounds and learned 'musical' sounds. Most importantly, Szalonek more than any other composer sought to emphasize the listening experience (sonoristic music as heard, not as seen) and drew attention not only to the individual timbres but to the sound itself.

---

[13] David Wordsworth: http://www.musicweb-international.com/SandH/Dec99/warsaw.htm
[14] Andrzej Chłopecki, Szalonek, Witold, ttp://www.culture.pl/en/culture/artykuly/es_muzyka_współczesna (accessed November 8, 2007).

Tomasz Sikorski: *Sequenza I*, 1966

As one of the youngest of the avant-garde Polish composers, Tomasz Sikorski (1939 – 1988) began his compositional career in the midst of the sonoristic period. Between 1956 and 1962 he studied composition at the Higher School of Music in Warsaw under his father, Kazimierz Sikorski and piano under Zbigniew Drzewiecki. His involvement with the Experimental studio in Warsaw (1961-1963) resulted in two pieces that use magnetic tape: *Echoes II* (Echa II, 1961-63) for 1-4 pianos, chimes, 2 gongs, 2 tam-tams and tape and *Antiphones* (Antyfony, 1963) for soprano, horn, piano, chimes, 2 gongs, 2 tam-tams and tape. Sikorski's interest in *sonorism* is concentrated between 1964 and 1966, the time in which many older composers, especially the leaders of the Polish avant-garde, had already moved away from the sonoristic technique.

Prologues (Prologi, 1964) for a chorus of female voices, two pianos, four flutes, four horns and three percussion groups, is the first piece in which Sikorski used the elements of sonoristic technique. Although in this piece pitch (and its exact notation) remains important, and melodic/motivic elements are still present in vocal and instrumental parts, Sikorski experiments extensively with textural layers, expands the range of articulation and works out the process of building up textural blocks. Sikorski continued further to explore sonoristic texture-timbre in *Concerto Breve* (1965) for piano, twenty four wind instruments and four percussion groups. In this piece Sikorski's notational advances include the possibility of the optional shortening of the time values and irregular fluctuation of rhythm, allowing for more flexibility in realization of the score. Melodic figures are present but much greater emphasis is placed on clusters and characteristic intervals. Sikorski's sonoristic technique culminates in *Sequenza I* from 1966, premiered at the Warsaw Autumn Festival on the 22 September 1966 by the Orchestra Sinfonica RAI di Torino under Andrzej Markowski. The original version of the piece (played at the premiere) was subsequently revised and published by PWM in 1970.[1] This analytical discussion is based on the score which is the revised version of the piece; the issue of revision is addressed at the end of the discussion.

---

[1] The score published by PWM is a facsimile of the autograph.

Sequenza I is the longest of Sikorski's three pieces influenced by sonorism from that period: it lasts for about ten to twelve minutes and employs the largest performing forces of the three pieces: the orchestra has expanded strings and winds, and four percussion groups (see Table 6.27).[2]

Table 6.27. Instrumentation: *Sequenza I*

Wind section:
    4 flutes (fl)
    4 oboes (ob)
    4clarinets (cl)
    4 bassoons (fg)
    4 trumpets in C (tr)
    4 horns in F (cr)
    4 tenor trombones (tn)
	String section:
	12 violins I (vn)
	12 violins II (vn)
	10 violas (vl)
	10 cellos (vc)
	8 double bass (cb)

Percussion section:
 	
1. 4 tom-tom s. a. t. b. (tmt)
     soprano drum (tp)
     2 gongs s.b. (gng)
     bass cymbals (ptti)
	2. 4 bongos s. a. t. b.
	     alto drum (tp)
	     2 temple blocks s. a. (tpbl)
	     2 tam-tam s. b. (tmt)

3. 2 tom-tom a.b.
     tenor drum (timpano tenore)
     guiro
     tubular bells (cmp)
	4. 2 bongos a.t. (bgs)
	     bass drum (tp basso)
	     bass cymbals (pt basso)
	     4 temple blocks s. a. t. b. (tpbl)

2 pianos	

Among the Polish avant-garde works written around mid-1960s *Sequenza I* is striking for its expressive force. The variety of articulation, particularly the upwards *glissandi* in strings and sustained sounds in the brass section, create the sense of urgency and recalls the climate similar to that of Penderecki's *Threnody*. The fact that many composers in the

---

[2] *Prologues* lasts 6'30"; *Concerto Breve*'s prescribed duration is 9 to 11 minutes. The duration of *Sequenza I* is based on the recording of the premiere. The revised version of the piece (as in the score) shortens the piece by about 2'20".

238

second half of the 1960s distanced themselves from searching for new sound effects did not discourage Sikorski from continuing to use instruments in a non-conventional way: the verbal instructions include 'touch the edge of the vibrating instrument with metal stick' in the bass cymbals part, *'fregando' (rubbing)* for temple blocks, 'slide the bow very slowly to produce a jarring sound' in double basses parts and, the most extreme instruction in this score, 'strike with the cover of the keyboard.'[3] Like most sonoristic works, *Sequenza I* uses time-space notation. To regulate the time flow, Sikorski typically uses sections measured in seconds.

Formally the piece is divided into seven sections marked by capital letters A to G which are grouped into three phases involving three dynamic rises. Each section is composed of smaller segments, measured in seconds. General pauses subdivide some of the smaller segments, the practice Sikorski implemented in the earlier works such as *Prologhi* and *Concerto Breve* which frequently make use of general pauses to separate contrasting textures or to cut through textural blocks. This is equally typical of Górecki and Szalonek. Other elements also help to articulate formal structure and delineate the three phases: extreme dynamic and textural contrast. The table below (see Table 6.22) shows the dynamic level and the performing forces at the beginning and end of each phase, reinforcing the contrast at the major structural points of the piece:

Table 6.22 Overall structure of *Sequenza I* and the dynamic contrast between the phases.

Phase 1		Phase 2		Phase 3 (Coda)	
Sections A - C		Sections D - F		Section G	
ppp	*fff*	*ppp*	*fff*	*pp*	*fff*
horn	bassoon	horn	tutti	all strings	
trumpet	horn	trumpet			trumpet
trombone	trombone	t. trombone			horn
piano	cello	bass drum			trombone
	double bass	tam-tam			all strings

---

[3] Tomasz Sikorski, *Sequenza I* (Kraków: PWM, 1970), 11.

The first 'developing' phase from section A to C systematically introduces the main material and two of the dominating instrumental timbres: brass and piano (See Fig. 6.61). It also presents the strategy for building up larger textural blocks: the process of layering smaller homogenic textural units within a single instrumental timbre. The piece opens with three such units contained within brass: horns, trumpets and trombones respectively. The entry of each textural unit is marked by a single pitch (F sharp) on the piano. Each unit operates on minimal melodic material: microtonal glissandi between F sharp and G flat (trumpets), C sharp and D flat (horns), and oscillating within ¼ tone on F sharp (trombones). From the outset the dynamics are integrated to both individual parts on one level, to the textural layers on another level, and to the entire texture built from these layers. Thus the individual textural units reflect the overall shape of the entire section A which proceeds over three dynamic rises (see Table 6.23). In turn, section A is a microcosm of the overall form of the piece also shaped by three dynamic and textural rises.

Table 6.23 *Sequenza* I, section A (the revised version: the score):

Section A: 55"ca					
score no. 1-3		score no. 5		score no. 7-10	
trumpet-------- *ppp<f* horn----------- *ppp<f* trombone- *ppp<f*	P.G.	------------------------ *ppp<f* ------------------------ *ppp<f* ------------------------ *ppp<f*	P.G.	trumpet------------| *pp<fff, <, <* horn-------- *ppp--------* trombone------| *p<fff*	
piano I *sf* piano II *sf*		piano II *sff*		piano I *sff* piano II *sff*	

Although from the opening of the piece the prominent pitch F# in piano part would suggest greater emphasis on exact pitch in general, just over a minute into the piece (second page in the score) horn parts paired to play a perfect fifth (Ab – Db and C # - G #) are instructed to play 'out of tune,' thereby undermining the role of exact pitch. Other instructions to distort the exact pitch are frequent throughout the piece and also include 'the highest tuning,' and 'raise or lower by ¼ tone.' The following two sections B and C

240

are much more varied in colour and articulation: section B introduces a percussion texture composed of a series of attacks *molto accelerando/ritardando* in tom-toms and bongos with the two superimposed piano parts forming a textural layer of repeated perfect fifths *accelerando/ritardando*; section C introduces, for the first time, a string texture in cellos and double basses playing *arpeggio* on all strings behind the bridge.

The second phase, from section D to F, leads to the first climactic rise of the piece through systematic enlargement of texture, particularly in the string section. The entire section D reflects the clarity of formal structure which rests on three timbrally contrasting large textures separated by general pauses (see Table 6.24). The opening of section D (see Fig.6.62 section D) features one of Sikorski's typical textures: a homogeneous block of superimposed brass parts exploring the narrow pitch range through microtonal *glissandi*. The fluctuating 'hair-pin' dynamics in the form of 'throbs' are integrated with pitch changes in each part and keeps the otherwise static texture in flux. This particular use of dynamic contractions integrated to individual parts is one of Sikorski's fingerprints which he had already tried out in *Concerto Breve* (see Fig. 6.63 section F).

Another of Sikorski's fingerprints frequently used in *Sequenza I*, is the use of fluctuations in pitch and dynamics as seen in the second textural block of section D. Another distinctive texture is created by layering parts of fluctuating and vibrating pitch particularly in winds (see Fig. 6.64, section D). The internal motion is created by fluctuations on two levels: the dynamic level (simultaneous *crescendo* with *decrescendo*) and the frequency of pitch fluctuation (simultaneous *ritardando* with *accelerando*). These kinds of textures were also introduced in earlier pieces, first in *Prologhi* (see Fig. 6.65, *Prologhi*, section A) and followed through in *Concerto Breve* (see Fig. 6.66 section J).

Table 6.24   Sikorski, *Sequenza I*: formal outline of section D.

D1	D2	D3	D4	D5	D6
1'-1'30"	7'-10'	15"-25"	5"-7"	5"-7"	30"-45"
trumpet horn trombone *ppp < fff*	P.G.	flute oboe clarinet bassoon trumpet horn trombone *fff*	P.G.	trumpet ⌐ --- horn repeating D1 texture--------------------------- trombone⌐ --- *pp sempre* strings: violin I, II----------- *ppp < ff*	

The third of the textures in section D involves overlapping the two larger homogeneous blocks: winds and strings (violin I and violin II). Sikorski repeats here the D1 texture in winds and after 5-7 seconds introduces a block in the strings, unified in a mobile cluster of upwards *glissandi* from the middle to high register. Thus the entire section D is constructed according to the key characteristics of sonoristic technique: clearly defined large textural blocks, clear-cut sections separated by general pauses, clusters and textural and dynamic contrast.

The process of expansion in strings begins in the following section (E). Beginning with one part in double bases 'sliding the bow very slowly to produce a 'jarring sound' from *piano* to *forte* the maximum textural expansion of the piece reaches its maximum of sixty three parts at the end of section F (see Fig. 6.67 section F). The systematic increase in texture matched by an expanding dynamic range and pitch range to the 'highest note' proceeds again as a series of *crescendi* separated by general pauses. The textural blocks are vertically synchronized at the entry and the cut off point (see Table 6.25):

Table 6.25   Sikorski, *Sequenza I*, sections E and F: textural expansion in the string section over four dynamic rises.

Section E		Section F						
$p < f$		$p < f$		$p < ff$		$p < fff$		
8 double basses	P.G .	10 cellos 8 double basses	P.G.	12 violins I 12 violins II 10 violas 10 cellos 8 double basses	P.G.	12 violins I 12 violins II 10 violas 10 cellos 8 double basses	P.G.	

The three to five seconds of silence does not leave enough time for the reverberation sounded after the climactic end of section F at *fff*. The following texture (section G, m.1) in the strings featuring *glissandi* to and from the highest note begins the closing phase and seems to prolong the echo of the climax. In contrast to the earlier sections, here the contrasting textural blocks of *Sequenza*'s two principal instrumental timbres, strings and winds, overlap continuously, which creates a polygeneous texture with clear contrast between the superimposed layers and clear cut entries and endings of textures. To keep the fast rate of change within the same instrumental group and the same homogeneous textural block, Sikorski cuts through the texture by using a single element such as dynamics. Thus between segments G4, G5 and G6: (see Fig. 6.68, section G) a sudden drop to *subito ppp* followed by *subito fff* colours the overall timbre of the same texture.

The final crescendo to *fff* combines the two already familiar textures: strings, and textural block G1 overlapping with preferred brass timbres reminiscent of the opening of the piece – horns, trumpets and trombones. A similar textural block, although with different pitch material superimposing a microtonal tremolo, opens *Concerto Breve* (compare Fig. 6.69 and Fig. 6.70). The process of assembling the smaller segments and larger textures by repetition, juxtaposition and overlapping creates a clear structure which even from listening alone, could easily be visualized as blocks of a variety of sizes, shapes and shades arranged along the time line.

If Serocki's or Schaeffer's sonoristic fingerprints were defined by the use of distinctive textures and sonorities, Sikorski's fingerprint is defined by the specific use of piano and

exploration of the attack and decay of sound in general. Regarding the former, the piano is featured in all Sikorski's works from the 1960s.[4] However, the role of the piano part in *Sequenza I* changes considerably from the previous two works with sonoristic influence, *Prologhi* and *Concerto breve*. While the piano part in these earlier works constitutes a substantial textural layer, in *Sequenza I*, it does not seem to provide an equal part to the other textural layers in winds and strings. Instead, its role is closely linked to the progression of textures by marking off the entry of textural units in section A and B (first phase). As a short textural layer it is used in section B. Only in the second phase (section E and F) when the vertical space is enlarged to the maximum is the piano part equal to other instrumental layers. Despite its limited role, it embodies one feature of Sikorski's pieces - the attack and decay of sound, which will become central to the following piece, *Sonant* for piano from 1967. Sikorski explained in the programme note:

> This work is based on the contrast between the attack and decay of sound. The work's construction, above all its temporal organization (augmentation of rhythmic values, approximate values, whose duration depends each time on the timbral characteristics of the piano), as well as its 'form' (...) are the consequences of the distribution of *Sonant's* sound material in two strata: those of attack and decay.[5]

In *Sequenza I* the decay of sound is also explored via percussion instruments, particularly gongs and bells that have a similar function to the piano part, i.e. marking off the new sections (see section C and D) and the entry of individual textural blocks as within section D (see Fig. 6.64)

An aleatoric element is an integral part of time-space notation and plays an important part in formation of textures in *Sequenza I*. Indeed the freedom of realization applies to internal organization of musical elements such as pitch ('highest, out of tune), pace and rhythmic flow. The flexibility also applies to the length of each segment as in the opening where the segments are marked from five to seven seconds. However, the cut off point, whether for larger or smaller textures, should be strictly observed. Sikorski specified in

---

[4] These include *Echoes II*, 1963; *Antiphnones*, 1963; *Prologues*, 1964; *Concerto breve*, 1966; *Sequenza I*, 1966; *Monodia e sequenza*, 1966; *Sonant*, 1967; *Diaphony*, 1969; and *Homophony* 1970.

[5] Quoted in Thomas, *Polish Music since Szymanowski*, p. 192.

244

the score that 'the principle of the vertical synchronization applies only to the entry or to the end - in other cases the performers play independently.'[6] As with most sonoristic scores, the limits of the performer's independence is carefully prescribed and has predictable results. For instance, instead of specifying the pitch range and density of a cluster Sikorski makes extensive use of layering parts with 'the highest note.' This procedure aims at similar results to those the opening texture of *Threnody*: to achieve sonority of narrow in range by very dense microtonal clusters. An example of such textural layer can be found in section B (score no. 9) featuring oboes and clarinets playing slow vibrato on the 'highest note' at *forte* dynamic level.

Sikorski also uses 'the highest notes' to create textures of mobile clusters, as in section D (score no. 6). An entire textural block in violins (I and II) is based on repetition of mobile cluster which begins as a two octave semitone cluster moving towards 'the highest pitch' through *glissandi* in each part. The procedure, giving an impression of pitch 'smudging,' effectively narrows the cluster range to a narrow, microtonal group of pitches in the highest register of the instrument. The 'highest note' is also a feature of a texture in the entire string section built by superimposing upwards and downwards *glissandi* (*pizz.*) in which only the lowest note is specified as in section G (see Fig. 6.68).

Sikorski uses similar procedures in relation to a repetition of groups of notes within a textural block. Thus superimposed parts combine *molto accelerando* and *molto ritardando* simultaneously (see Fig. 6.64, section D, score no. 3). In these procedures, which deliberately undermine pitch and exclude any sense of pulse, the emphasis is on the overall textural sound effect *en masse* which only specifies pitch range and direction, rather than on individual detail.

***

---

[6] Tomasz Sikorski, *Sequenza I* (Kraków: PWM, 1970), score cover.

As indicated earlier the original version of the piece that the Warsaw Autumn audience had heard in 1966, preserved in a recording, was revised and published by PWM in 1970. *Sequenza I*, together with *Dimensions of Time and Silence* by Penderecki discussed earlier, are the only two 'emblematic' works for which two versions exist.[7] In relation to the revision of *Sequenza I*, there are two issues that are worth considering: firstly how the revision affects one's peception of the form, and secondly how it affects ones perception of the piece as sonoristic?

To answer these questions I will briefly outline the changes. The revision applies only to phase 1, segment A. In the original recording (of the premiere) Sikorski uses in section A string textures that are later featured in sections F and G. Additionally, the general pauses that separate the blocks of textures in section A are filled with temple block attacks. The table below is a simplified outline of the progression of textures in both versions (see Table 6.26).

The revision cuts out the string textures and the temple block part, and shortens the entire section from 3'16" to about 55 seconds. Thus the revised section A makes use of only the brass section (trumpets, horns and trombones) and piano, as described earlier (see Table 6.23).

---

[7] Only these two versions were available to the author.

Table 6.11   Górecki, *Canti strumentali*: formal outline.

Introduction	Middle section			Coda
				Score no. 22
(score no. 1 to 7)	Phase 1 (8-13)	Phase 2 (score no. 14-21)		
		14 15 16 17		
violin 1------------------------- violin 2------------------------- violin 3------------------------- violin 1------------------------- violin 2------------------------- violin 3-------------------------	flute picc. -------------------------------------- flute--- trumpet --- cc-- gong-- violin--- violin---	mandolin-------- cassa di legno-- bongos--------- mandolin----- violin 1-3--------------------------- viola 1-3 --------------------------	fl, c-lg, gng, bg	violin, viola, flute, trumpet, tam-tams; From score no. 25 violin and viola only. *p* (flute, trumpet, tam-tam)------- *mp* (violin, viola) -----------------
ffff *sempre*(tutti)-----------------	*ffff* sempre (tutti)--- *mp*(vn, vl, score no, 21)			*mp/p*---------------------------------

247

As far as the perception of the form is concerned, introducing the strings textures during the opening phase provides a sense of recapitulation when the same textures, although in a different context, reappear towards the climactic point and the closing sections of the piece. The series of rising *crescendi* in the strings also make the opening of the piece much richer in contrast in instrumental timbres in the original version. However, cutting the string textures from section A heightens the climactic point of the piece which follows after the systematic introduction of instrumental colours and textural build up. Although the revised, shorter version of the piece makes the opening much less extravagant, the piece does not loose its character as a sonoristic work. By the time the revised version of *Sequenza I* was published, Sikorski had already written *Sonant* (1967) and was well into his minimalistic phase.

***

This chapter has focused on sonoristic 'manifestos' which are not only extreme pieces within the sonoristic movement but which also mark a high point of sonorism for each of the composers involved. This aspect often has a direct bearing on how the compositional phases of individual composers are delineated, a notorious point of disagreement in the literature on sonorism. Frequently once a composer arrives at the extreme use of sonoristic technique found in the 'manifesto' pieces, a new compositional phase ensues. The critical discussion has highlighted the role of the sonoristic elements such as sharp contrast, the use of extended techniques, dynamics and notation in articulating the formal outline. Clarity of form, which often evokes a visual image and is easily aurally perceptible, is one of the main characteristics of this repertoire. The common sonoristic traits not only highlight the differences between sonoristic works and other European textural pieces, already discussed in Chapter 3, but also reveal another side of sonorism, that of individual 'fingerprints.' The following chapter presents sonoristic profiles of composers, and discusses their similarities and differences.

Chapter 7

From footprints to fingerprints

The concept of 'footprints' in Polish sonorism and how they relate to the broader context of European textural music at the time, considered in Chapter 3, is complemented in this chapter by the discussion of 'fingerprints.' Through comparison of composers' stylistic features and the treatment of the main sonoristic devices, a distinctive profile can be formed for each of the composers discussed. Mirka has noted that while foreign critics initially emphasized the common and unifying features of Polish music, Polish commentators pointed to individual stylistic differences. Tadeusz Kaczyński had already remarked on this in 1968:[1]

> ...the individuality of single members of the 'group' (the word 'group' can only be used here in quotation marks) asserted itself from the very beginning. From the beginning, each composer followed his own special path (to speak here, of course, only of those who stood at the peak of their profession), without being hindered by others, and without hindering those who took other paths.[2]

Even when the common sonoristic features already noted are considered - the use of clusters, timbre and texture treated as the primary form building element, new articulations bound up with the use of extended techniques, methods of building large textures and fast rates of textural and parametric change - there are striking differences between the composers, and also differences in the way their styles develop, even over short periods of time. Mirka asserts that Penderecki's music 'was perceived not only as the earliest manifestation of sonorism but also as its measure, to which any other pieces and composers classified thereafter as "sonoristic" had to be compared.'[3] While this view

---

[1] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 4-5.
[2] Tadeusz Kaczyński, 'Polnishe Avantgarde am Scheideweg,' *Melos* 1(1968): 6-13, quoted in Mirka, ibid., 4.
[3] Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 7.

can be questioned, it may be useful to take Penderecki's 'sonorist profile' as a touchstone, to see what individual stylistic characteristics emerge in comparison with other composers' works written at the same time or slightly later.[4]

Above all, the Penderecki of these early years appears to be a cluster-based composer. Although the extent to which clusters are used from piece to piece varies, they are almost always essential in building contrasting textures and in articulating the structure. Furthermore, through the sheer variety of his cluster usages, Penderecki creates specific sonorities, his own memorable fingerprints, such as the opening and closing textures of *Threnody* or the vocal cluster-based textures of *Dimensions*. In comparison, Schaeffer's use of clusters in *Scultura* is quite distinct from Penderecki's. For Schaeffer, it is more appropriate to talk about clusters as a special case of sonorities. Clusters are not featured in their 'classic' Pendereckian form as thick, black bands of sound. They arise from a process of building large textural blocks.

For Górecki, on the other hand, clusters are one important factor among other sonoristic devices, but their use and treatment varies considerably from piece to piece. While in *Scontri* they are one of the constituent textural layers and sonorities within larger, diversified textures, in *Genesis* the emphasis is on cluster sonority as the main substance of sustained bands of sound. On the other hand, cluster attacks in the piano, treated as percussion rather than sustained bands of sounds, create the archetypical basis of one of Sikorski's most characteristic sonorities. For Szalonek, particularly in *Les sons*, clusters are marginal and their use is very specific: as attacks and as markers within larger textures. Serocki, like Schaeffer, creates specific types of cluster-sonorities or textures; for example, in *Symphonic Frescoes*, the piano textures are built entirely from cluster attacks (for which he invented a special graphic sign).

---

[4] While Mirka's opinion may seem to hold good for 1960 (*Scultura* was also written in 1960 but not published or performed), even at this time there was scope for other views. Significantly, Xenakis (an undeniable influence on Polish sonorism), in an interview with Mario Bois, said that he was familiar with the music of Penderecki in 1960, but was more impressed by Górecki's work: 'I was a member of the jury of the Museum of Modern Art in 1960. The score submitted by Pendrecki was still in the vein of the Darmstadt serialists. I preferred a score for orchestra by Górecki, with its sustained sounds, its masses, much more advanced.' Mario Bois, *Iannis Xenakis. The Man and His* Music (London: Boosey & Hawkes, 1967), 17.

Returning to Penderecki's sonoristic profile although clusters are central to it, there are also other specific sonorities that contribute to it. For instance, the textural layering based on percussive effects on strings used in *Threnody* (score no. 6-9) is also featured, albeit in a modified version, in *Polymorphia* and the String Quartet. Other distinct in sonority textural layers and notational fingerprints of *Polymorphia* (1961-62) are created from upwards and downwards *glissandi* between the indicated notes (score no. 8), and textures created by superimposing encephalographic-like melodic lines (score no. 11-24). Another distinctive texture, familiar from *Threnody* and used in the String Quartet, is the sonority created by playing on the tailpiece. In *Fluorescences* (1961-62) Penderecki added to this list special effects such as rubbing the strings and sawing a piece of wood (iron) with a hand-saw, for which he naturally had to invent new symbols.

There are many more points of comparison between Penderecki's sonoristic works which on the one hand share textures and on the other introduce a distinct sonority, a fingerprint typical of individual works. In this context, however, Penderecki's String Quartet, rather than *Threnody* or *Dimensions* provides a good point of comparison between Penderecki and Górecki. As mentioned before, in *Elementi* the provocative and confrontational side of Górecki's personality begins with the spatial arrangement of the string trio to emphasize the individual players as soloists rather than to unify the ensemble. The exploitation of dynamic contrast, the use of the highest notes on all strings to produce harsh and screeching sonorities and using the minimum of means (three instruments in *Elementi*) to produce the maximum effect are all part of his gestural fingerprints. By comparison, what Penderecki does in the String Quartet is to emphasize the homogeneity of the string quartet, rather than individuality of the players. Another gestural fingerprint of Górecki's is the detuning of instruments, used in *Elementi* and *Monodram*, a device which adds an aleatoric element and deliberately takes away the control over the performances of these works. As opposed to detuning, Penderecki uses different tunings among different groups. In *Emanations* for two full size string orchestras, the second orchestra is tuned a minor second higher. Penderecki also explores microtonal sonorities by tone fluctuations in both orchestras. However, these sonorities are produced with a much more controlled approach to pitch than in Górecki's pieces.

Since Schaeffer only wrote one sonoristic piece, perhaps it is not appropriate to talk about a sonoristic profile. Schaeffer's describes his compositional credo as to 'compose from the point zero and not to use what one already knows but to learn from oneself by advancing into new directions. For me composition has always been a terrain of experiment in technique, craftsmanship, expression and even the psychology of composition.'[5] Thus it is not surprising that there was no sonoristic period as such in Schaeffer's music and after writing *Scultura* there was also no need to revisit the sonoristic technique that he had already mastered. What is significant about *Scultura* is that despite the large number of works Schaeffer wrote around that time, not only does *Scultura* demonstrates Schaeffer's immediate grasp with the trend, but in comparison with many other sonoristic works, it is a remarkable piece, with a firm place among the foremost sonoristic manifestos.[6] In *Scultura*, Schaeffer could be seen as a composition teacher, demonstrating not only how to compose a sonoristic piece but how to achieve the most striking results. Accordingly *Scultura* deserves to be thought of as a treatise on colour and texture *en masse*.

Serocki, like Penderecki, presents a case in which one can trace the stylistic development of the fingerprints. His preference for mobile rather than static textures is evident in a pre-sonoristic work, *Episodes*, which is dominated by string mobile textures used later in the second movement of *Symphonic frescoes*. As already noted, Serocki's principal fingerprint is created from a specific articulation marking: aperiodic tonal repetition. Starting with *Segmenti*, it became Serocki's sonoristic signature and is one of the dominant textures in *Symphonic frescoes*. The signature first appears as a single layer in the first movement. Absent from the second movement, it then reappears in the third movement several times as a single part (for example in celesta, bar 151), as a textural block of various timbres (for example in harps, guitar and mandoline, bar 184) and as a sound mass of all parts. As a single line it separates other textures and timbres; as a textural layer it may be superimposed with other contrasting textural layers (as in the

---

[5] Joanna Zając, *Muzyka, teatr i filozofia Bogusława Scheffera* [Music, Theatre and philosophy of Bogusław Schaeffer] (Salzburg: Collsh, 1992), 40.

[6] By 1960 Schaeffer had written 66 works. Stawowy and Zając, *Bogusław Schaeffer*, 69.

third movement). The maximum build up of this texture towards the end of the piece reaches forty-eight parts and provides the climax of the whole piece.

In Kilar's case the fingerprints are not so much a matter of stylistic features. A part of Kilar's sonoristic profile, however, is his provocative attitude. This can even apply to his titles, especially when they refer to popular culture: *Riff 62* with an allusion to jazz and *Générique* in French meaning a commercial jingle. With *Diphthongos,* which may have been Kilar's response to two slightly earlier works - Penderecki's *Dimensions* and Lutosławski's *Poems by Henri Michaux* - both using choir, the provocation lies not least in the discrepancy between length and performance resources After all, it seems (at least now) a little perverse to employ over 150 performers for about four minutes of music.

Turning to Szalonek's and Sikorski's fingerprints, what needs to be emphasized, in contrast to Górecki, Penderecki and Serocki or Kilar, is that in their case the specific characteristics do not necessarily arise from the sonoristic pieces, though they work well within the context of sonorism. In case of Szalonek, his interest in multiphonics, not so integral to sonorism, is already present in an earlier work (*Concertino,* 1963) and is pursued in later ones, in fact almost to the end of his life. Sikorski represents a similar case. Although within Sikorski's sonoristic output one can trace the development of fingerprints and certain procedures which are introduced in *Prologhi* and followed through to *Sequenza I,* other stylistic features such as the use of sound decay, and certain specific timbral combination become a lasting preoccupation beyond his sonoristic period. More typical of sonorism are characteristic textures with internal fluctuations of pitch and integrated dynamics. The frequent use of piano flourishes to demarcate brass textures and other specific timbres gives Sikorski's textures a distinctive coloristic identity within the sonoristic repertoire.

Looking at the individual stylistic profiles of composers involved with sonorism, it might sometimes appear that the differences are greater than similarities. However, it is only through considering the relationship between the general sonoristic devices and individual stylistic fingerprints that one gains an integrated perspective on Polish

sonorism, which in turn was a unique and original part of European fascination with timbre and texture.

***

There is always a certain tension between looking at the achievements and characteristics of a national school, and those of the individual artists who comprise the school. Over time the group element and the national element lose significance and individual features come to the fore. Almost fifty years after the event, it is time to rebalance the collective and the individual view of sonorism. This issue was in fact referred to as early as 1967. Upon the publication of *Scultura* by PWM Zygmunt Mycielski wrote about the sound world of *Scultura* and how it reflected the time it was composed in. He said:

> In this way I also look at the first and later cubists, the first and later futurists. Schaeffer was, is and will be ours ... now and later, but I don't know yet how it will be called in 50 years time.[7]

Almost 50 year on the notion of sonorism, despite its problematic issues and contradictions, not only is firmly imprinted as a term and concept in Polish musicology but finally is crossing the language barrier. In spite of everything, the term sonorism has come to represent well both the footprints and the fingerprints of the movement.

---

[7] Zygmunt Mycielski, '*Scultura* Bogusława Schaeffera' [Bogusław Schaeffer's *Scultura*], *Ruch muzyczny* 11, no. 19(1967): 17.

Chapter 8

The Legacy of Sonorism

In the context of Polish music from the end of the 1960s onwards, sonorism left a large body of repertoire that forms an important and fascinating part of a collective musical testimony to both time and place. This chapter only outlines the post sonoristic phase for composers considered in this study. However, the full impact of sonorism on music written after 1966 awaits a thorough assessment. At one level, the legacy of sonorism, for those composers who were a part of it, can be measured by looking at the use of sonoristic devices in the works written by these senior composers well beyond the initial sonoristic phase. At another level, the influence of sonorism can be traced within a younger generation of Polish composers (including students of, for instance, Penderecki and Górecki) for whom sonorism was already a part of their recent cultural heritage and academic training.[1]

As indicated earlier, for most avant-garde composers around 1960, arriving at a 'pure' sonoristic piece was followed by a subsequent sudden change of direction and a new aesthetic. Naturally the point in time at which this change was made varied from composer to composer. However, as a collective movement, sonorism began to fade from around the mid-1960s. The leaders of the avant-garde such as Penderecki and Górecki were among the first to leave the sonoristic paradigm and pursue their own individual paths. For Penderecki, the extent to which sonoristic features function within a changing aesthetic after 1962 varies from piece to piece. As discussed earlier, the piece marking

---

[1] One composer omitted from this study is Zygmunt Krauze (b. 1938) who by the end of 1960s played a significant part in the contemporary music scene: as an improviser and interpreter of graphic scores and as a director of a group 'The Music Workshop' (Warsztat muzyczny). From the late 1950s Krauze's compositions were directly influenced by the abstract painter Władysław Strzemiński (1893-1952) and his concept of 'unism.' The main characteristics of the theory of unism are 'rejection of dynamism and contrast, avoidance of mutual play of colour and shape...' (Krystyna Tarnawska-Kaczorowska, 'Unism Dźwiękowy w twórczości Zygmunta Krauzego') which seem to be on the opposite end to the main features of sonoristic music. Krauze does not see himself as a part of the sonoristic trend: 'I was too young, besides I was always in opposition to so called 'Polish school' and I tried to write music which was different to what my colleagues were writing' (Zygmunt Krauze, letter to author, October, 2, 1999).

the end of Penderecki's 'high sonorism' is *Canon* (1962); a subsequent phase is inaugurated by the *Stabat Mater* for unaccompanied chorus (1962), later incorporated into the *St Luke Passion* (1966). The return to the vocal element and the use of a conventional text, was, as later with Górecki, symptomatic of the aesthetic change. However, signs of Penderecki's sonoristic thinking would still be present until the First Symphony (1973). Whereas in the sonoristic period Penderecki's focus was on the instrumental ensembles, in the post-sonoristic period, large scale vocal works are at the centre of his preoccupations; these include the opera *The Devils of Loudun* (1968-1970), the oratorios *Dies irae* (1967), *Utrenia* - which comprises *The entombment of Christ* (1969-1970) and *The Resurrection* (1970-1971) - and another smaller oratorio *Cosmogony* (1970) which Penderecki composed almost in parallel with *Utrenia*. Mirka classified the period beginning with *Stabat Mater* as 'late sonorism,' a period in which the instrumental pieces 'came about as "spin-offs" from the large vocal works.'[2] Among the instrumental pieces composed in this phase the two pieces that immediately draw attention, not least because of their suggestive title which draws on Lucretius's work *De rerum natura* (On the nature of things), are *De natura sonoris I* (1966) and *De natura sonoris 2* (1970). There are many parallels between these two works and other sonoristic pieces: both works are short (of seven and about nine minutes duration), Penderecki's fingerprints such as clusters are one of the main textural devices. The exploration of timbre includes (as in earlier, 'classic' sonorist works) the use of the highest and lowest note on the instrument, quarter tones, bowing with heavy pressure, playing between the bridge and tailpiece, and rubbing the strings. Timbral and textural contrasts play an important role in the textural narrative; the time-space notation and dotted barlines within the larger sections also fall within the general sonoristic approach to the issues of time regulation and notation. These sonoristic characteristics, however, occur in a different context, and form only one side of the work's aesthetic. The 'other' side of the piece is formed by textures influenced by twelve-note thinking and greater emphasis on exact

---

[2] Penderecki's comment, quoted by Mirka, is, in this context, revealing: 'Usually, when writing a large work, I also write a little piece. I compose it of elements which I have cast off, and which do not enter the large piece .... When writing *Passion*, I wrote *De natura sonoris no. 1*, and [while composing] *Utrenia* [I also composed] *De natura sonoris no. 2* ... When writing *The Devils*, I wrote *Capriccio* for violin and orchestra, which is easily recognizable in the buffo scenes' (Mirka, *The Sonoristic Structuralism of Krzysztof Penderecki*, 343).

pitch. The sonoristic elements within Penderecki's post-sonoristic works are an integral part of the transforming language progressing towards the tradition and traditional means of expression reaffirmed in the *Awakening of Jacob* (1974).

For Górecki, the piece that most clearly anticipated the 'white note' modal idiom of his works written after 1971 was the *Three Pieces in the Old Style* (1963). However, the first work to clearly move towards the style that came to be known as 'new simplicity' was *Refrain* (Refren) for orchestra, written in 1965. *Ad matrem* (1971) for soprano, mixed choir and orchestra, which closed Górecki's immediately post-sonoristic period, also opened a new phase in which, for the majority of works, the text provides an aesthetic basis and has a decisive impact on the character of the music. Even within this period, however, some sonoristic traits are still present: homogeneity of textural layers (confined to the instrumental groups and instruments), the use of extreme dynamics, clear-cut alternations of textures, and a dramatic structural use of general pauses.

Turning to the other members of the avant-garde, *Scultura* remained Schaeffer's only excursion into sonorism (although some textural aspects such the 'marker texture' from *Scultura* are also used and developed further in the String Quartet from 1964). In the course of 1960 Schaeffer composed over ten works and some of them were much more experimental than *Scultura*.[3] The graphic mobile *Nonstop* (1960), which can last from six minutes to eight hours, is often cited as the first happening in Poland.[4] The same year, as already mentioned, Schaeffer experimented extensively with notation. For instance *Topofonica* for forty solo instruments (1959-60) introduced frame notation. Following *Tertium datur* (1958) and *Equivalenze sonore* (1959), *Montaggio* (1960) is Schaeffer's third compositional treatise.[5] Scored for four pianists and two percussionists, it explores each piano in a distinctive way, as 'virtuoso, strict piano, aleatory and a percussion

---

[3] By 1960 Schaeffer had sixty-six compositions to his name. Stawowy and Zając, *Bogusław Schaeffer*, 69.

[4] *Nonstop* was dedicated to Zygmunt Krauze. The premiere took place in Gallery 'Krzysztofora' in Kraków, in 1964 and lasted for seven hours and thirty-eight seconds. The piece ended with a gunshot. Stawowy and Zając, *Bogusław Schaeffer*, 78-79.

[5] Schaeffer, preface to the score *Montaggio* (Kraków: PWM, 1962).

piano.'[6] During the 1970s Schaeffer remained a radical, but his later work focuses increasingly on stage and music theatre.

Although Kilar's sonoristic peak is marked by *Diphthongos,* the next piece *Springfield Sonnet* (1965) for orchestra features a high concentration of sonoristic features including large clear cut homogeneous textural blocks, dynamic contrasts, clearly defined textural layers, sustained cluster sonorities, the use of the highest note on the instrument to create dense microtonal clusters, and even the concluding sustained major-minor seventh chord (perhaps an ironic gesture) which alludes to Penderecki's C major chord at the end of *Polymorphia.* As in sonoristic pieces the formal sections of the piece (*Introduzione, Soggetto, Variante I, II* and *III,* and *Punto*) are defined by textural and timbral contrast. The score also has many attributes of a typical sonoristic score: time-space notation, sections measured by seconds and spatial score layout. As with many of the sonoristic works it lasts about eight and a half minutes. The next piece, *Solenne* for 67 performers (including a soprano, 1967) with its static textures composed from sustained superimposed seconds, is far removed from the fast changing and contrasting textural blocks of the sonoristic pieces and is much closer to Górecki's sound world of *Refrain, Canticum graduum* (1969) and *Old Polish Music* (1969). *Upstairs-Downstairs* (1971) for two children's choirs and orchestra, a much more consonant work (a minor third, A C, sounds throughout the piece), based on sustained sonorities, is a definite and rather beautiful turn away from the sonoristic sound world. The subsequent *Prelude and Christmas Carol* (*Przygrywka i Kolęda,* 1972) coincides significantly with Penderecki's and Górecki's return to tradition and their own cultural roots.

Contrary to several other composers considered here, Serocki's reaching of a sonoristic peak in *Symphonic frescoes* did not lead to a sudden aesthetic shift; Serocki continued to be fascinated with timbre and texture to the end of his life. In *Continuum* (1965-66) for six percussionists and over 120 instruments Serocki experiments with spatial layout and

---

[6] The virtuoso piano part is in traditional notation, the strict piano part has the time ratio of 1:3, the aleatory piano 'is conceived as partly delimited (the number of sounds within the given intervals is fixed, but there are no restrictions as to their use),' and the percussion piano 'has two sound categories at its disposal. There are single sounds of outer or medium registers and groups of a few or a number of chromatic sounds of a specified register. Ibid.

places the audience in the centre of the stage, anticipating Xenakis's *Persephassa* (1969). The score specifies the three types of spatial arrangement: the stereophonic version, simplified version and stage version.[7] The piece comprises thirty-six segments which, as in *Segmenti*, can be subdivided into smaller time units and lasts about ten to thirteen minutes. Serocki's characteristic fast, aperiodic repetition of a tone and fast glissandi developed in the previous pieces is also a part of the *Continuum* textures. The next piece, *Forte e piano* (1967) for two pianos and orchestra dedicated to and premiered by Alfons and Aloys Kontarsky, also makes use of familiar Serocki features: not only aperiodic tonal repetition, but also cluster attacks, textures sweeping across registers in the strings, and, once again, a fast rate of change and textural contrast. In Serocki's music from this period, instrumental colour and movement are at the top of the hierarchy of musical elements. Serocki's large-scale work *Dramatic Story* (1970), inspired by a story by Iwaszkiewicz[8] and originally planned as a ballet, brought a noticeable change in language (twelve-tone chords and cantilena passages.[9] Nevertheless, in his later works, in contrast to Penderecki's and Górecki's turn to their cultural roots and tradition, Serocki revisited some of the features tried out during the sonoristic period: *Ad libitum* for orchestra (1977) is a mobile piece composed of five 'pieces', and *Pianophonie* for piano, electronics and orchestra (1978) uses spatial arrangement of the performing forces.

Among the composers involved in the sonoristic movement, the case of Szalonek is a special one. His commitment to sonorism stems from his own independent research and philosophical approach to composition. Of course in the mid-1960s Szalonek too was under the influence of textural composition and this is reflected in *Les sons* and his next piece *Mutazioni* (1966), for chamber orchestra; the latter uses the same kind of *ad libitum* textures as *Les sons* (3rd movement), focuses on the oboe to introduce larger sections of the piece, and creates homogenic textural layers within instrumental sections which are superimposed and juxtaposed. In the late 1960s Szalonek's focus was on exploring the timbral characteristics of a single instrument (*Quatro monologi* for solo oboe 1966 and *Mutanza* for piano, 1968) rather than creating large textures typical of the early 1960s.

---

[7] Preface to the score, Serocki, *Continuum* (Krakow: PWM, 1968).

[8] Gawrońska, 'Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego,' 37.

[9] Thomas, *Polish Music Since Szymanowski*, 153.

However, there are also ensemble pieces which retain many significant sonoristic features. While *Improvisations sonoristiques* (1968), a graphic score for clarinet, trombone, cello and piano, enriches the timbral palette by various unconventional ways of playing, in *Aarhus music* (1970) for wind quintet Szalonek focuses entirely on multiphonics. Another of Szalonek's graphic scores is *1+1+1+1* (1969) for one to four players exploring timbral possibilities on strings. The freely chosen instruments are unified in textures composed of a wide range of articulations (also typical of the sonoristic period) including striking and rubbing the body of the instruments, a variety of glissandi (also on harmonics), playing behind bridge, striking the music stand or chair and a variety of *pizzicati*. Szalonek's uncompromising attitude during the 1960s would change in the following decades, though sonoristic thinking would always be an integral part of his sound world, a world that would eventually make connections with tradition, modality and his own cultural roots (albeit in a rather different way to Penderecki and Górecki).

As noted earlier, Sikorski's high point of sonoristic thinking is represented by *Sequenza I* which, like Szalonek's *Les sons,* came at the time when Górecki's *Refrain* (1965) and Penderecki's *St Luke Passion* (1966) already symbolize stylistic turning points. Like the latter composers, Sikorski also made a gradual shift towards a more diatonic language. *Sonant* for piano (1967), while exploring Sikorski's 'fingerprint' attack and decay of sound, clearly moves towards a personal form of minimalism in its repetition of structures. *Diaphony's* (1969) specification of duration - *ad libitum* - is symptomatic of this trend. In *Homophony* for 2 pianos, 12 brass instruments and 3 percussions (1970) Sikorski retains the preferred timbral combinations from his sonoristic phase (brass: trumpet, horn trombone and piano) as well as dynamic and textural contrasts typical of the sonoristic works. In Sikorski's description: 'it is a proposal for static, one-dimensional music. In this work, both sound material and structuring are reduced to a minimum.'[10]

---

[10] Tomasz Sikorski, note in programme book of 14th 'Warsaw Autumn' (Warsaw: ZKP, 1970), 19, quoted in Thomas, *Polish Music since Szymanowski*, 220.

Alongside the highly individual contributions of the composers discussed above, one also needs at least to make reference to the compositional output of two composers, Włodzimierz Kotoński and Andrzej Dobrowolski, whose work may not be an obvious part of sonorism, but is certainly affected by it. For Kotoński the sonoristic period begins - in terms of his own work - with *Canto per complesso da camera* for a mixed ensemble of eighteen instruments (1961) and ends with *Aeolian Harp* for soprano and four instrumentalists (1973).[11] Although Kotoński is not regarded as a central figure within sonorism and a significant part of his interest involved the music for tape and working in the electronic studios, some ensemble pieces show clear sonorist influence. *A battere* (1966) for, guitar, harpsichord, viola and cello surrounded by three percussion groups explores the spatial aspect of sound, it draws attention to the individual timbres and concentrates on percussive effects. As is typical with sonoristic works, the score uses time-space notation and general pauses to separate textures, though most of the piece is regulated by meter. The textural aspects of the sonoristic works is explored to a greater extent in *Musica per fiati e timpani* (1963) and in *Concerto per Quattro* (1965). However, operating with large textures and the use of clusters was never Kotoński's preference. Both scores retain typical sonoristic features: time-space notation and sections measured by seconds; both also have a typical sonoristic piece's duration: about six and about seven to eight minutes respectively.

Dobrowolski's predominantly textural orchestral output is closer to Cerha and Ligeti than that of Polish contemporaries. In contrast to Kotoński, Dobrowolski's works from the 1960s mainly use large performing forces. Although *Music for Strings, Four Groups of Wind* (1964) and *Music for Orchestra* (1968) operate with dense textures, the rate of textural change is notably slower and the emphasis on exact pitch is much greater than in typical sonoristic pieces. Both pieces, however, have durations typical of sonoristic works: six and eight minutes.

---

[11] During this span of twelve years Kotoński lists the following works which are written for a variety of performing forces and also include piece for tape: *Mikrostruktury* for tape (1963), *Musica per fiati e timpani* (1963), *A battere* for violin, viola, guitar, harpsichord and three percussionists (1966), *Klangspiele* for tape (1967), *Pour Quatre* for clarinet, bassoon, cello and piano (1968), *Music for Sixteen Cymbals and Strings* (1969), *AELA* for tape solo (1970) and the Concert for oboe and orchestra (1972). Kotoński, letter to author (October 27, 1999).

The influence of sonorism on the younger generation of composers, which opens the next chapter in the history of Polish music, will only be touched on here, in relation to two gifted composers who studied with Penderecki and Górecki respectively. Marek Stachowski (1936-2004), a student of Penderecki during the 1960s, remained under the strong influence of sonorism until the mid-1970s.[12] In a recent study, Malinowski points to two works, *Musica per quartetto d'archi* (1965) and *Musica can una battuta del tam-tam* (1966), which reflect both Pendereckian sonoristic imprints such as the use of articulations typical of his sonoristic works (*legno battuto* and *col legno*) as well as Stachowski's on stylistic fingerprints such as creating large textures composed of divisi parts, each containing precise figurations.[13] In *Neusis II* (1968) Stachowski makes use of the choir in a typical sonoristic manner by exploring the phonetic properties of the language (vocal parts use only letters) and by blending the vocal textures with instrumental ensemble. Other sonoristic elements include, once again, fast rate of change, juxtaposition of large homogeneous textural blocks and a sonoristic score with time-space notation and sections measured by seconds.

The influence of sonoristic elements can also be observed in the works of Górecki's student, Andrzej Krzanowski (1951-1990). Thomas has described Krzanowski's *Canti di Wratislavia* for orchestra (1976) as an 'equivalent of Górecki's *Scontri*.'[14] His many accordion pieces such as *Studium 4* also have a pronounced textural basis, with textural blocks defined mainly by articulation. However, in general his approach seems closer to the works of Górecki such as *Refren* and *Canticum Graduum*.

The degree to which younger generation of composers embraced or rejected sonorism would require a detailed exploration of their output which is beyond the scope of this study. However, the following enlightening comment by Baculewski, who also belongs

---

[12] Stachowski studied with Penderecki between 1963 and 1966. Władysław Malinowski, 'Od nowej muzyki ku przeszłości. Sonoryzm Marka Stachowskiego,' *De Musica* 12 (2006). http://free.art.pl/demusica/de_mu_12/12_02.html, (accessed November 15, 2007).
[13] Malinowski, 'Od nowej muzyki ku przeszłości. Sonoryzm Marka Stachowskiego,' *De Musica* 12 (2006). http://free.art.pl/demusica/de_mu_12/12_02.html, (accessed November 15, 2007).
[14] Thomas, *Polish Music since Szymanowski*, 295.

to the post-war generation of composers who were fascinated by Górecki, Penderecki, Kilar and Kotoński, suggests what such an exploration might reveal:

> During our studies and later, everyone went though a *sui generis* crisis: we had to re-think and revaluate our academic experiences. And in one way or another, every one of us rejected these experiences. Some twenty five years ago sonorism lost its appeal, though its elements are present in our creative output to this day.[15]

---

[15] Baculewski, letter to author (June, 21, 2003).

Chapter 9

Epilogue: Retrospective Views on Sonorism and the Sonoristic Period.

The closing part of this study gives voice to the composers who were a part of the movement in the early 1960s. This chapter presents their retrospective opinions, reflections and statements on sonorism as a concept and as a period or trend. No matter how diverse the opinions are about sonoristic works in individual composers' oeuvres, most agree that the late 1950s and the 1960s was an important time in Polish music. Needless to say, in the case of Penderecki, a sonoristic work such as *Threnody* was not only a catalyst to his international fame but also remained the best known Polish piece of the early 1960s. Collectively, Polish composers reclaimed a significant position on the international contemporary music stage. Nearly half a century on, the responses to sonorism, both as a term and as a period concerned with novelty and the search for the 'new,' vary from composer to composer are often conditioned by further stylistic development of their music.

It may seem like a paradox that the composers who maintain successful international careers to this day are the most dismissive of the term 'sonorism.' No doubt for Penderecki, Górecki and Kilar the return to tradition and tonal language, which made their subsequent music much more accessible, coloured their view of the past. Perhaps the fact that, almost from the beginning, sonorism was commonly associated with not much more than sound experiments and new articulations prompted Penderecki to say 'I always hear that I'm interested in sound for its own sake. Really, the whole notion of sonorism was invented by Polish musicology.'[1] However, in an interview with Robinson, Penderecki's attitude to those times is more revealing and emphasises an important aspect of the trend, which is that its particular historical moment was conditioned by a complex political situation:

---

[1] Krzysztof Penderecki, 'Dyskusja na Seminarium poswieconym Krzysztofowi Pendereckiemu' [Discussion devoted to the Music of Krzysztof Penderecki], *Muzyka* no. 2 (1976): 31.

of the trend, which is that its particular historical moment was conditioned by a complex political situation:

> The kind of style in which we composed in the 1950s and 1960s has almost disappeared. First, it's not needed, and, of course, it's impossible to repeat. We live in another time now. Everything was done in the 1960s to create an avant-garde style, to develop a new musical language, to come up with new techniques for instruments, and to introduce new instruments in the orchestra. Of course, electronic music, which was a very important factor at that time, was also an influence on the style. But now at the end of our century we do not need to do this anymore. The 1960s represent a very important historic movement, but we cannot repeat that style today.[2]

For Włodzimierz Kotoński, the late 1950s and early 1960s marked a very important period in his creative output. Kotoński recounts that it was a time when serialism was replaced with aleatorism and a tendency to create aleatoric structures that would produce a similar effect to complex serial structures: 'why should one calculate exactly all this if the effect will be the same? And indeed the effect was the same and in some cases even much more interesting.'[3] The use of aleatoric procedures, particularly in the orchestra, produced a new *en masse* sonority of the entire ensemble. The direct influence of sonorism on Kotoński is closely related to the extended use of percussion instruments in which he had a particular interest at the time. His book 'Percussion Instruments in the Contemporary Orchestra,' published in Germany, was one of the first important textbooks on the subject.[4] Percussion instruments had an enormous impact on the development of the sonoristic trend:

> Percussion instruments that appeared in works of American, Cuban and Mexican composers during the 1920s and 1930s, gained enormous significance after the war in both chamber and symphonic music. Indeed percussion instruments suggested a use of sound materials that are not defined tonally, do not operate through interval relationships or which, in terms of pitch, are only defined within middle or low register. Thus percussion instruments played a vital role in pursuing

---

[2] Krzysztof Penderecki, *Labyrinth of Time. Five Addresses for the End of the Millennium* (Chapel Hill: Hinshaw, 1998), 74.
[3] Kotoński, interview with author (Warsaw, November 11, 2005).
[4] *Instrumenty perkusyjne we współczesnej orkiestrze* (Kraków: PWM, 1963); published in Germany by Schott.

the idea of composing a piece not based on precise pitch but utilizing sounds that are not definable within the 12 semitone scale, sounds that are on the border of unpitched and pitched sounds.[5]

For Kilar, looking back, the most defining moment in his career seems to have been the return to tonality and folk heritage after his sonoristic period, as the composer recollects: 'by the mid-1960s or so I was tired of it, I felt it wasn't fresh anymore.' After a short break, in 1971-72 Kilar wrote two pieces that were on the verge of minimalism: *Upstairs Downstairs* and *Prelude and Christmas Carol* (Przygrywka i Kolęda). Then in 1974 he composed *Krzesany*, which closed his experimental period for good: 'I really had enough and I wrote this *Krzesany*. And I've been writing like that even since.'[6] For Kilar, sonorism was only a brief transition to the style that he identifies with today:

Then, it seemed that the world was changing but in the end it turned out to be another transitional phase. As far as avant-garde is concerned, I like the analogy to the military: what is an avant-garde? Well, an avant-garde is the front of an army that is lost. Then comes the substantial part of it. In music, it is Gregorian chant, Bach, troubadours – that's what matters. The compositional means such as clusters, aleatorism and new instrumental techniques that were invented in the 1960s only enriched the music, but the music will always be the same. It is impossible to cross the past. Then it was a resignation from melody, tonal harmony and regular rhythms. But very quickly it was realised that rejecting the best elements and old values that were developed over the centuries was not the way to go forward.[7]

Other Polish avant-garde composers of the 1950s and 1960s, such as Serocki, Szalonek and Schaeffer, remained more faithful to experimentalism and avant-garde ideals all their lives. Schaeffer has always been a relentless advocate of the avant-garde. An Austrian critic described Schaeffer as 'an avant-gardist of an avant-garde' and a 'boundary breaker.'[8] In contrast to most other Polish avant-garde composers, a part of Schaeffer's motivation is to 'break boundaries' with nearly every piece. Asked about his compositional credo, Schaeffer says: 'both back then and now, one principle that is constant for me is to begin at level zero and not to use what is mastered but learn new

---

[5] Kotoński, interview with author (Warsaw, November 11, 2005).
[6] Kilar, interview with author (Dzierżoniów, November 29, 2005).
[7] Ibid.
[8] Zając, *Muzyka, Teatr i Filozofia Bogusława Schaeffera*, 36.

methods from oneself. Composition was always for me a terrain of experiment in the technical sense, craftsmanship, expression, and even in the field of psychology of creation.'[9] Schaeffer always absorbed new techniques and trends easily, and with great fascination; writing plays and composing are, for him, second nature.[10] Schaeffer's oeuvre, consisting of some 450 works, is difficult to systematise into periods. From one piece to the next, he seeks to surprise both the listener and himself. This is not to reject completely existing compositional means, but to use them as a basis for the creation of new forms and find new techniques. For example, Schaeffer has remarked that one should not orchestrate; one should 'compose orchestration' moving away from traditional conventions.[11] As a teacher of composition, his advice to students was to move from the area that has been already mastered to the unknown and the new: 'if you know this you should never compose like this again – unless for yourself.'[12] This was also Schaeffer's approach to his own compositions.

Schaeffer describes the word sonorism as 'unfortunate' and reckons that for Chomiński, sonoristics was very convenient 'because it covered everything from clusters and connections to Xenakis, to distinctiveness in sound of individual composers.'[13] Schaeffer asserts that he never used sonorism as a term in his writings.[14] His opinion about it is that sonorism as a term is too all-embracing and makes connections which are a little spurious: '[sonorism] sounds well but smells badly of a kind of "everythingness."'[15] While Schaeffer has always been a relentless advocate of avant-garde and a breaker of boundaries, his resentment towards sonorism as a term and concept does not originate in any particular negative attitude towards this period or towards experimentalism at that time. It was, in fact, passed on to Schaeffer from his teacher, Jachimecki (Schoenberg's pupil and one of his enthusiastic supporters in Vienna) who, as Schaeffer recollects, was indignant at the mention of 'sonorism' and once concluded: 'although it is a new term ... it is unreasonable because what does it mean that music is sonoristic? All music sounds

---

[9] Zając, *Muzyka, Teatr i Filozofia Bogusława Schaeffera*, 40.
[10] Stawowy and Zając, *Bogusław Schaeffer*, 606.
[11] Ibid., 452.
[12] Ibid., 600.
[13] Schaeffer, letter to author (November 16, 2001).
[14] Ibid.
[15] Ibid.

and there is nothing to talk about.'[16] However, from the perspective of time, Schaeffer finds in this, at least, something positive and worth mentioning. As he recounted:

> Musicology, in contrast to, for instance, mathematics or history of art operates on a very limited number of terms; terminologically is very modest and after so many years one can presume that sonorism as a term is not so bad because if such an idiotic term as 'postmodernism' is accepted, then sonorism can exist too. After all, how are we supposed to name everything that goes beyond the schematicism of dodecaphony, serialism and pointillism. How to name the intentions to create music directly; to create music without taking into consideration hitherto laws of form, harmony and the orchestral sound.[17]

Schaeffer also proposes that if we are going to use this term 'it should mean something more concrete' and it should allow one to distinguish new music on the basis of sonority, texture and sound materials used. Going back to the 1950s and 1960s Schaeffer explains:

> Ideally, sonoristic music in those days would be music which vertically would be complete (that is it would use all chromatic notes within a given interval – it wouldn't have to be an octave and it wouldn't have to use all 12 notes), it would operate on strict counterpoint, which would not respect any old rules (such as parallel octave and fifth, avoiding dissonances etc., etc.), and in the orchestra it would avoid traditional doublings, so called thick lines, and first of all it should demonstrate that microtones and microtonal structures, multiphonics on wind instruments, sound combinations on non-pitched instruments – percussion – in essence new material is not foreign to composers. And most of all texture![18]

Witold Szalonek, variously referred to as an 'avant-garde classicist,' 'sonoristic extremist' and 'the greatest representative of avant-garde current in Polish music,'[19] strongly identified himself with the sonorist movement. In 1976 Szalonek proposed a number of theses entitled 'Sonority and its Form Shaping Powers.'[20] This document provides a very important insight into his thoughts on music. Firstly, he says, 'music is a

---

[16] Schaeffer, letter to author (November 16, 2001).
[17] Ibid.
[18] Ibid.
[19] Dziadek, 'Twórczość Witolda Szalonka na tle dziejów muzyki polskiej II połowy XX wieku' [Witold Szalonek's Compositional Output Against the Background of Polish Music of the Second Half of the 20th Century], *Musica practica. Musica teoretica*, (Poznań: Akademia Muzyczna, 2003), 99 and 101.
[20] Szalonek, 'Sonority and its Form Shaping Powers,' Berlin 1976.

268

phenomenon in the field of communication.' Secondly, concerning the psychological sphere of musical expression and perception, he stresses the communication of its content by 'aural means ('by what is audible'). [21] Thirdly, he sees music as a neurological/physical phenomenon, within which musical statements are 'conditioned by the function and structure of Man's central nervous system and hearing apparatus,' and are 'constructions of sonic stimuli which manifest themselves within the element of time.'[22]

Szalonek then proceeds to a series of propositions that relate directly to sonorism. Since sonority is seen as a primary structural element, the focus here is on the formal aspects of a piece. Although they were written a decade after composing *Les sons*, these comments may be regarded as a retrospective analysis of his own creative output from the 'sonoristic period.'[23] The propositions are:

4. The possibility of perceiving various kinds of constructions of sonic stimuli, permits an equally varied range of sound parameters to which the 'principle of repetition'can be applied:

A) Timbre, determined by :

a)   characteristics of the sound generator employed

b)   characteristics of articulation

c)   pitch, which can be organized horizontally (melody)m or vertically in combinations of psychological experience

B)   Volume, as a physical or as a psychological experience

C)   Division of time, which can manifest itself either in structured rhythm, or in arhythmic sonic-space forms.

5. Independently of the degree of complexity of inner sonic parameters (i.e. timbre), the greater the connections and interdependence of sonic structures in a work, the more disciplined and clear will be its form and ultimately its statements.

---

[21] Music is an asemantic language which Man – a social creature situated on the path of evolution and already having developed 'reflective consciousness' – expresses and perceives all the contents indispensable for his human condition, which can be communicated only in terms of aural means ('by what is audible'). Szalonek, 'Sonority and its Form Shaping Powers,' Berlin 1976.
[22] Ibid.
[23] Ibid.

6. The level of intertwining dependencies, conditionalities and relationship of sound parameters, which contribute to the macro-structure of a musical work can be perceived consciously as well as subconsciously by the listener.

7. Because of: a) the sonic stimuli (as acoustic phenomenon)

b) their generators (the performing apparatus) and

c) the receiver (the human nervous system fitted out in the hearing mechanism) are all governed by the laws of nature, the development of the language of music and its progress from simple to more complex forms is a result of this unique interdependence. (This development on Man's discoveries of natural law reflects the level of the intellectual and spiritual progress of various civilizations and cultures). This process takes place exclusively in the physical aspect of musical language and its resulting form functions as a tool of communication that is steadily being 'modernized'. In contrast, the aspect of musical contents has always afforded, and will always afford, evoling Man the possibility of expressing universal and infinite values.

8. "New Music (of the 'white Western world') is, since Debussy, determined by the universalistic tendencies which are integrating the intellectual scope and aesthetic treasures of non-European cultures on one hand, and the achievements in the field of electroacoustical apparatus on the other hand.

Berlin 1976

Szalonek viewed sonorism as a tendency 'in which values of timbre are used as a fundamental and autonomous means of expression'[24] rather than a theory. For him sonorism began with Chopin, who composed with a specific instrument in mind: 'it is impossible to translate his compositions for another instrument and this is Chopin's phenomenon.'[25] Other composers mentioned by Szalonek as 'thinking in terms of timbre' are Debussy, and later Varèse.

Amongst the Polish avant-garde, Szalonek was the only composer for whom aspects of sonorism were present almost throughout his entire compositional output. As noted earlier, his research into multiphonics, carried out since the early 1960s, goes to the heart of sonorism: that is, the process of sound generation and the use of all its 'side effects,'

---

[24] Szalonek, 'Sonority and its Form Shaping Powers.'
[25] Szalonek, 'Wokół sonoryzmu. Z Witoldem Szalonkiem rozmawia Iwona Szafrańska' [Around sonorism], *Opcje* no. 2 (December 1993): 76.

including the sounds which traditionally would not be classified as 'musical sound.' The music of non-European cultures also had an impact on Szalonek's notion of sonorism: 'I've been saying for a long time that, to a large degree, composers' imaginations have been stimulated by non European cultures. This opening of musical language based on the dur-moll system, to the language of 'other' cultures began with Debussy...' All of these areas are of basic value for him and all treated equally as a form of artistic expression; in fact, they are dictated by the 'the spirit of the epoch characterized by a natural tendency to proceed towards universalism in all walks of life.'[26] They are necessary and, as Szalonek remarked, are not a sign of the pursuit of innovation purely for its own sake. Just as, with Penderecki, there was no difference between pitched sound and whispering, unpitched sounds (*szmer* in Polish)[27] so for Szalonek, sounds are not to be divided into 'beautiful therefore musical' and 'ugly, therefore unmusical and unsuitable' ones. There shouldn't be also a division into 'our' and 'other' cultures. In this context, Szalonek's description of how Chopin's 'soundscape' shaped his musicality during his formative years of childhood and youth is interesting and reflects his own sensitivity to sound around him:[28]

I can't imagine that it was about 'rows of weeping willow trees which disappear into the distance, in the flatness of a foggy landscape...'[29]

No! His musicality was shaped first of all by the surrounding soundscape! He must have been deeply moved by everything that sounded! Including the threatening buzzing of crickets, of a bee or a wasp, the singing of a golden oriole [wilga], chaffinch [zięba], or lark [skowronek] and perhaps even a nightingale [słowik], by mother's or nanny's lullaby, the crooning [zawodzić] of country girls, the sound of shepherd's pipes and the unusual sound of Jewish harp, the scraping

---

[26] Szalonek, 'O niewykorzystanych walorach instrumentów dętych drewnianych,' 112.

[27] As Penderecki said: 'for me the difference between unpitched sounds 'szmer' and pitched sounds never existed. While composing *Psalmus* I was also working on *Dimensions of Time and Silence* and indeed *Psalmus* features these sonorities which could not be achieved using the orchestra and choir [dla mnie nigdy the istniało rozróżnienie między szmerem a dźwiękiem. Pracując w studio nad Psalmusem, pisałem równocześnie *Wymiary czasu i ciszy* i w *Psalmusie* sa właściwie te rzeczy których nie można było uzyskać za pomocą chóru i orkiestry [.....].Penderecki, 'Dyskusja na Seminarium poświęconym Krzysztofowi Pendereckiemu,' 46.

[28] The speech on the 30th anniversary of Chopin Society was published later under the title: 'Krajobraz dzwiękowy muzyki Chopina'[Soundscape of Chopin's Music],' *Opcje* 2 (1994): 58-59.

[29] Interestingly this rather melancholic image of a typically Polish landscape with weeping willow trees was a background to one of the most poignant moments in the Antczak's film *Pragnienie Miłości* [The Desire of Love] about Chopin.

271

bow of the double-bass [basetla], the capers and music of taverns, the tinkling sound of cymbals of some Jankiel from Szafarnia was absorbing the richness of Polish village's folklore. All of these formed Chopin's 'soundscape' ... and the music of church bells: here are the two sound archetypes, the two foundations of his creative output.

Contact with non-European music had an enormous impact in shaping Szalonek's artistic stance and his understanding of sonorism. In 1962, after listening to gamelan music, Szalonek discovered 'the missing link' between Chopin and Debussy and while still under the influence of this discovery, wrote a treatise entitled 'Claude Debussy – on the Centenary of his Birth' which contains his reflections and opinions on the influence of non-European music.[30] Asked about the key to his notion of sonorism, Szalonek replied as follows:

Sonorism appears to me as a manifestation of musical thought shaped by the utilization of the absolutely unique characteristic of a given sound generator: that is, an instrument, whether it is a human voice or one of classic European instruments, or a generator of electronic sounds, whispers, rustling, timpani, or cymbals...What I mean is that so-called content, perceived only through hearing, was communicated adequately by means of timbre of a given sound; timbre being in essence a sign of the identity of a given instrument. Sonorism appears as the soul of the instrument, ascending through music.[31]

Szalonek remained enthusiastic about sonorism and the sonoristic period in Polish music throughout his life. In the early 1990s, he proposed to organise a musicological symposium under the banner 'Sonorism and its essence: towards a new paradigm in music theory,' and expressed criticism of the language used to deal not only with sonorism but with new music in general:

Well, some thirty years ago Dr Chomiński created a new term - 'sonoristics' – which described new ways of generating and operating with sound, including what we call the 'sound effects' one can achieve on traditional European instruments. Since then nobody developed this idea, so nowadays theory struggles daily to work with a terminology of 'major-minor' provenance that is inadequate to define contemporary phenomena; the newest ones, for example those of

---

[30] Szalonek, 'Wokół sonoryzmu,'75.
[31] Ibid.

electronic music. We are talking about grinding, banging and squeaking, so we are using negative terminology. According to the classical theory of artworks, beauty is their condition *sine qua non*, and in relation to new phenomena we are using terminology which contradicts art's aesthetics; we are using words of a pejorative character which, in consequence, elicit negative responses to new music in general.[32]

Last but not least, Krzysztof Baculewski (b. 1945), a student of Chomiński, represents a younger generation of composers (together with Szymański, Krupowicz and Sielicki) for whom sonorism has always been a part of their academic training.[33] There is no doubt, as Baculewski emphasises, that sonorism was very influential at that time: even as high school students 'we were fascinated by achievements of Penderecki, Górecki, Kilar or Kotoński (electronic music).'[34] As soon as sonorism became an artistic norm during the 1970s and retreated to the academies, most of its participants moved away from it.

For Baculewski, sonorism is not necessarily a theory but more an artistic attitude which placed coloristics in the centre of compositional concerns: 'therefore the role of other musical elements was reduced in this kind of music.'[35] Thus, for Baculewski, sonorism covers a much wider range of works including pieces like Serocki's 'postserial' *Musica concertante* in which this new attitude towards timbre becomes noticeable and the textural aspect of pointillism comes to the fore.

<center>***</center>

The wide range of opinions presented here raises the following question: to what extent composers' views align with current musicological thought concerning this period?
The disparity in views between the two and among the musicologists themselves range from their attitude to Chomiński's expositions – which are treated as a theory on the one hand, and as an insightful body of analytical literature (with a particular historical dimension) on the other – to the ongoing debate about the range of sonorism in terms of

---

[32] Ibid., 78.
[33] Krzysztof Baculewski, letter to author (June 21, 2003).
[34] Ibid.
[35] Ibid.

composers and works. Even among the more negative views, there is a shared appreciation of the period's importance. However, as already noted, the renewed interest in Chomiński's theory on sonorism which began in the 1990s did little to inspire the interest in the works other than the ones which are already well known and unfortunately the scholarly studies have not been followed by further performances.

By examining the most representative sonoristic works in terms of the sonoristic footprints and stylistic fingerprints and by placing them both in their own historical context and a wider European one, this thesis does, I hope, mark a step towards a reassessment of the sonoristic repertoire, not just as the embodiment of various theories, but as a body of musical works worthy of detailed study and appreciation, both as scores and as sound.

APPENDIX A

SELECT ANNOTATED DISCOGRAPHY

The following annotated discography includes only those works which are the primary focus of this thesis.

Polskie Nagrania LP recordings of live performances from the Warsaw Autumn have a different catalogue number for each side of the disc. The year of issue for these discs is usually that of the performances; in fact, they were often available for sale within days of the performance.

Penderecki: *For the Victims of Hiroshima – Threnody* **1960**

Premiere:	Warsaw, September 1961
Performers:	Kraków Philharmonic Orchestra/Andrzej Markowski
Duration:	8' 26" (originally 8' 37")
Publishers:	PWM, Kraków and Schott Verlag, Mainz
Recordings:	(performed in 1961 and 1964 – not released); released within: Jubilee Record Edition on the 25th Anniversary the *Warsaw Autumn* Festival: 'Warsaw Autumn 1956-1981' no. 3 (SX 2313, LP), Warsaw National Philharmonic Orchestra/Witold Rowicki.
	RCA Italiana SLD 61005-1 (12" stereo LP, 1966?), Orchestra Sinfonica di Roma/ Bruno Maderna.

Penderecki: *Dimensions of Time and Silence* **1960-61**

Premiere:	Kraków, September 1960 (first version); Vienna, June 1961 (second version)
Performers:	Kraków Philharmonic Choir and Orchestra/Andrzej Markowski (first version); RIAS Chamber Choir, Ensemble *Die Reihe*/ Friedrich Cerha (second version).
Duration:	14' 30"
Publishers:	PWM, Kraków and Schott Verlag
Recordings:	Sound Chronicle of the Warsaw Autumn 1960 no. 1 (W-678, Nr arch. 198, LP) Choir and Krakow Philharmonic Chamber Orchestra/Andrzej Markowski Warsaw Philharmonic Choir and Orchestra/Andrzej Markowski; Muza PNCD 017B (CD, 1989), performers as above (recorded 1972)

Lutosławski: *Venetian Games* **1961**

Premiere:	Teatro la Fenice, Venice Biennale, 1961 (first, second and fourth movement);
Performers:	Kraków Chamber Orchestra conducted by Andrzej Markowski
Premiere:	Warsaw: Warsaw Autumn 16 September 1961 (complete and revised version)
Performers:	Warsaw National Philharmonic Orchestra conducted by Witold Rowicki
Duration:	ca 13'
Publishers:	PWM, Kraków and Moeck Verlag

Recordings:	Polskie Nagrania 041 (LP, 1962) Warsaw National Philharmonic Orchestra/Witold Rowicki; EMI IC 165-03 236 Q (CD, 1978) Polish Radio Symphony Orchestra/Lutosławski

Sound Chronicle of the Warsaw Autumn 1961, no. 1 (W-770, archival no. 202, LP) Lutosławski: *Jeux vénitiens. Part 1*
Warsaw National Philharmonic Orchestra /Rowicki

Polish Collection of the Warsaw Autumn 1956-2005 (promotional CD No. 1, polmic 001); *'The World of the 'Polish School'* [W kręgu 'szkoły polskiej']; Warsaw National Philharmonic Orchestra /Rowicki

Lutosławski: *Trois poèmes d'Henri Michaux* **1961-63**

Premiere:	Zagreb Music Biennale, 9 May 1963; (Polish premiere: Warsaw Autumn 22 September 1963, Polish Radio Symphony Orchestra and Polish Radio choir/Jan Krenz and Witold Lutosławski)
Performers:	Zagreb Radio Orchestra/Witold Lutoławski and Zagreb Radio Choir/Zlatić
Duration:	ca. 20'
Publishers:	PWM, Kraków/ Chester
Recordings:	Polskie Nagrania CD 041 (LP 1964) Polish Radio Symphony Orchestra/Jan Krenz and Polish Radio choir/Witold Lutosławski EMI IC 165-03 231/36 Q (1978)

Sound Chronicle of the Warsaw Autumn 1963 no. 2 (W-871/872, archival no. 210, LP); Kraków Polish Radio and Television Choir/Lutosławski and Katowice Great Symphony Orchestra of Polish Radio and TV/Jan Krenz. Jubilee Record Edition on the 25th Anniversary the *Warsaw Autumn* Festival:

'Warsaw Autumn 1956-1981" no. 3 (SX 2313, LP)

Kraków Polish Radio and TV Choir/ Lutosławski and Katowice Great Symphony Orchestra of Polish Radio and TV/Jan Krenz
Sound Chronicle of the Warsaw Autumn 2006 (promotional cassette, no. 6
Camerata Silesia/Szostak and Katowice Great Symphony Orchestra of Polish Radio and TV/Wit

Schaeffer: *Scultura* **1960**

Premiere: Warsaw, 29th September 1965
Performers: Poznań Philharmonic Orchestra conducted by Andrzej Markowski.
Duration: ca 12' 50
Publishers: PWM, Kraków
Recordings: Polskie Nagrania XW 574 (12" mono LP)
Sound Chronicle of the Warsaw Autumn 1965, no. 4 (XW-573/574, archival no. 222, LP)
Poznań Philharmonia Orchestra/ Andrzej Markowski
Jubilee Record Edition on the 25th Anniversary the *Warsaw Autumn* Festival: 'Warsaw Autumn 1956-1981, no. 5 (SX 2315, LPs)
Poznań Philharmonia Symphony Orchestra/Andrzej Markowski

Polish Collection of the Warsaw Autumn 1956-2005
CD No. 1 (polmic 001- promotional CD)
The World of the 'Polish school' [W kręgu 'szkoły polskiej']
Poznań Philharmonia Symphony Orchestra/ Andrzej Markowski

Górecki: *Genesis cycle* **1962-63**

              Elementi **1962**

Premiere: Kraków 29th May 1962
Performers: Henryk Gruszka (violin), Antoni Feliks (viola), Adward Wiertelosz (cello)/Henryk Mikołaj Górecki
Duration: 12' 42"
Publishers: PWM
Recordings   Sound Chronicle of the Warsaw Autumn 1965 Muza XW-570 (12" mono LP), Ensemble instrumental Musiques Nouvelles de Bruxelles
Sound Chronicle of the Warsaw Autumn 1990, no. 4 (promotional cassette; Marek Moś (violin), Łukasz Syrnicki (viola), Piotr Janosik (cello)

Górecki:	*Canti strumentali* 1962

Premiere:	Warsaw ('Warsaw Autumn) 29th September 1962
Performers:	Silesian Philharmonic Orchestra/Karol Stryja
Duration:	8' 4"
Publishers:	PWM, Kraków
Recordings:	Muza W-825 Silesian Philharmonic Orchestra/Karol Stryja;
	Olympia OCD 385 (CD, 1993), Polish National Symphony Orchestra in Katowice/Jan Krenz (recorded 1967)
	Sound Chronicle of the Warsaw Autumn 1962, no. 1 (W-825/826, Nr arch. 207, LP); Silesian Philharmonia Orchestra/Stryja

Górecki:	*Monodramma* 1963

Premiere:	Not performed
Duration:	ca 10'
Publishers:	PWM, Kraków

Kilar:	*Diphthongos* 1963

Premiere:	Venice, 13th September 1964
Performers:	Kraków Philharmonic Choir and Orchestra/Andrzej Markowski
Duration:	4' – 5'
Publishers:	PWM, Kraków
Recordings:	Sound Chronicle of the Warsaw Autumn 1964, no. 2 (W-967/968, archival no. 215, 10" mono LP); Krakow Symphony Philharmonia Orchestra/Andrzej Markowski

Serocki:	*Segmenti* 1960

Premiere:	Baden-Baden 6 August 1962
	Warsaw (WA) 22nd September 1962
Performers:	Sudwestfunk Orchestra/Ernest Bour
	Krakow Philharmonic Orchestra/Andrzej Markowski (Polish Premiere)
Duration:	6'-7'
Publishers:	PWM, Kraków and Moeck Verlag, Celle
Recordings:	Wergo WER 60018 (12" stereo LP, recorded 1965);

Serocki: *Symphonic frescoes* 1963/64

Premiere: Darmstadt 24th July 1964 Sudwestfunk Orchestra, Baden-Baden
Warsaw (WA) September 1964

Performers: Sudwestfunk Orchestra, Baden-Baden; Polish Radio Symphony Orchestra/
Jan Krenz (Polish Premiere)

Duration: 11'40"

Publishers: PWM, Kraków

Recordings: Sound Chronicle of the Warsaw Autumn 1964 no. 4 (W-971/972, archival
no. 217, LP) Muza XL 0267; Katowice Great Symphony Orchestra of
Polish Radio and TV/Jan Krenz

Szalonek: *Le sons* 1965

Premiere: Warsaw, 30th September 1965 (IX 'Warsaw Autumn')

Performers: Silesian Philharmonic Symphony Orchestra/Karol Stryja

Duration: 9' 38"

Publishers: PWM, Kraków

Recordings: Polskie Nagrania XW-576 (12" mono LP), Silesian Philharmonic
Symphony Orchestra/Karol Stryja;
Warsaw Autumn 'chronicle' CD no. 5 (1999, promotional CD) National
Philharmonic Symphony Orchestra/Wojciech Michniewski

Sound Chronicle of the Warsaw Autumn 1965, no. 5 (XW-575,576,
archival no. 223, LP); Silesian Symphony Philharmonia Orchestra/ Karol
Stryja

Polish Collection of the Warsaw Autumn 1956-2005; promotional CD
no. 1 (polmic 001) The World of the 'Polish school' [W kręgu 'szkoły
polskiej']; Warsaw National Philharmonic Symphony Orchestra/
Wojciech Michniewski

Sikorski: *Sequenza I* 1966

Premiere: Warsaw 22nd September1966

Performers: Orchestra Sinfonica RAI di Torino/Andrzej Markowski

Duration: 10'-12'

Publishers: PWM, Kraków

Recordings: Sound Chronicle of the Warsaw Autumn 1966, no. 2 (M-3 XW-713/714,
archival no. 225, 12" mono LP); Orchestra Sinfonica RAI di
Torino(RAI)/Andrzej Markowski

APPENDIX B

Music and Visual Arts in Poland 1945-1966.[1]

	Visual Arts	Music
1945	Kraków: Exhibition of 'Group of young Artists' [Grupa Młodych Plastyków] (Tadeusz Kantor's Group)	April 6, Kraków: PWM (Polish Music Publishers) under Tadeusz Ochlewski; Reactivation of the Polish Society of Contemporary Music; Katowice: inauguration of the Polish Radio Orchestra 1 October, First issue of biweekly "Ruch Muzyczny" [Musical Movement] under red. Stefan Kisielewski;
1946	Kraków: The Exhibition of 'Contemporary Artists'	August 16-22, Duszniki: First Chopin Festival; Reactivation of Polish Society for Contemporary Music.
1947	Poznań: Formation of Group "4F+R"	
1948	Wrocław: Wystawa Ziem Odzyskanych [The Exhibition of Regained Territories]; Kraków, Pałac Sztuki, The Exhibition of Contemporary Art;	August 5-8, The National Convention of Polish Composers in Łagów
1949	The first tashist painting by Alfred Lenica; Poznań, Salon CBA: The first exhibition of "4F+R";	Formation of 'Group 49' by Kazimierz Serocki, Tadeusz Baird and Jan Krenz; Chopin's Composers Competition
1950		Inauguration of monthly music journal *Muzyka*

[1] The main sources for important cultural events in music and visual arts in Poland between 1945 and 1966 are based on the following sources: Baculewski, *Współczesność. Część 1: 1939-1974*, 14-31; Bogucki, *Sztuka Polski Ludowej*, 51-178; Chomiński, *Muzyka Polski Ludowej*, 175-209; Bylander, *The Warsaw Autumn International Festival of Contemporary Music*, 23-100; Kowalska, *Polska Awangarda Malarska 1945-1970*, 186-190.

1951		The first Festival of Polish Music
1952		Formation of Instytut Sztuki PAN [Polish Academy of Sciences]
1953	Katowice: formation of Group "St-53"	
1955	Warsaw: *Arsenał* - National Art exhibition under the title: *Against war, against fascism*; Formation of 'Group 55' and its first Exhibition in Warsaw. Kraków: Exhibition of Group 'Nine' Poznań: Formation of 'Group R-55'	Opening of Philharmonie in Warsaw; The second Festival of Polish Music; Fifth International Festival of Youth and Students
1956	Poznań: Exhibition of 'Group R-55' Periodicals: *Przegląd arstystyczny, Projekt* Lublin: Formation of Group 'Castle' [Zamek] Warsaw: Opening of 'Crooked Wheel Gallery' [Galeria Krzywego Koła]	Warsaw: First *Warsaw Autumn* Festival; April, *Muzyka* (monthly to quarterly became a scholarly journal) Inauguration of the International Jazz Festival in Sopot (later moved to Warsaw) October, Poland joins the Music Council of UNESCO International Tribunal of Composers Competition in Paris
1957	Warsaw: II exhibition of Contemporary Art 'Zachęta' *Plastyka* [Arts] red. Janusz Bogucki - with the *Literary Life*	Kraków: Reactivation of *Ruch Muzyczny* (after 8 year gap) Warsaw: Formation of Experitmental Studio under Józef Patkowski and the beginning of electronic music in Poland; Poznań: First International Competition of Stringed Instrument Makers; Kilar, Dobrowolski, Kotonski Serocki, Markowski and Krenz for the first time visited the Darmstadt Summer Cources
1958	Warsaw: Wojciech Fangor's Spatial Studium; Kraków: Opening of the Gallery 'Krzysztofora'	Second *Warsaw Autumn* Festival First concert of electronic music; Inauguration of *Jazz books*
1959	Warsaw: III exhibition of Contemporary Art 'Zachęta'	The first autonomous music concrete piece by a Polish composer: *Concrete Study (on one cymbal stroke)* by Włodzimierz Kotoński.

1960	Warsaw: Gallery of 'Krzywe Koło' - Exhibition: *Confrontations*	
1961	Elbląg: Opening of gallery 'El'	Penderecki's *Threnody for the Victims of Hiroshima* received fourth prize
1964	Poznań: Opening of Gallery 'Od Nowa'	Kraków: performance of Schaeffer's *Nonstop* in the gallery 'Krzysztofora'
1965	Warsaw, Salon TPSP, Tadeusz Kantor: Polish *Happening*	
1966	Kraków: The first exhibition of the International Biennale of Graphic Art initiated by Witold Skulicz.	30 March Münster, Germany: the premiere of Penderecki's *St Luke Passion* commissioned by Westdeutscher Rundfunk for the 700 anniversary of the cathedral in Münster; 22 April Kraków: the first performance of *St Luke Passion* in Poland

BIBLIOGRAPHY

REFERENCE BOOKS

Bylander, Cynthia. *Krzysztof Penderecki. A Bio-Bibliography*. Westport: Praeger Publishers, 2004.

Gawlińska Małgorzata and Bogusława Zajac. *Sylwetki współczesnych kompozytorów polskich*. [Contemporary Polish composers]. Edited by Zofia Bogdanowicz. Kraków: Miejska Biblioteka Publiczna, 1984.

Machlis Joseph. *Introduction to Contemporary Music*. New York: Norton, 1979.

Michałowski, Kornel and Gillian Olechno-Huszcza. *Polish Music Literature (1515-1990): A Selected Annotated Bibliography*. Los Angeles, University of Southern California, Friends of Polish Music, 1991.

Mrygoń Adam and Eva Mrygoń. *Bibliografia polskiego piśmiennictwa muzykologicznego (1945-1970)*. Warsaw: Państwowe Wydawnictwo Naukowe, 1972.

Rottenberg, Anda. *Sztuka w Polsce 1945-2005* [Art in Poland 1945-2005]. Warsaw: Stentor, 2005.

Stockhausen, Karlheinz. *Karlheinz Stockhausen bei den Internationalen Ferienkursen Für Neue Musik in Darmstadt 1951-1996. Documente und Briefe*. Kürten: Stockhausen Verlag, 2001.

Śmiałek William. *Polish Music A Research and Information Guide.* New York Gerland Publishing, 1989.

MONOGRAPHS AND ARTICLES

Baculewski, Krzysztof. *Polska twórczość kompozytorska 1945-1984* [Polish Composition 1945-1984]. Kraków: PWM, 1987.

_____. *Historia Muzyki Polskiej, tom VII: Współczesność 1: 1939-1974* [History of Polish Music, vol. 7: Contemporary, part 1: 1939-1974], Warsaw: Sutkowski Edition, 1996.

Berger, Roman. 'Polska Szkoła Kompozytorska: Fakt, Mit? Wizja? Projekt?' [Polish Compositional School: Fact? Myth? Vision? Project?]. *Dysonanse* 2 (1998): 24-31.

Bartolozzi, Bruno. *New Sounds for Woodwind.* Trans. and ed. Reginald Smith-Brindle. Oxford: Oxford University Press, 1967.

Bełza, Igor. 'Recepcja współczesnej muzyki polskiej w Związku Radzieckim' [Reception of Contemporary Polish Music in CCCP]. *Muzyka* 20, no. 3(1975): 64-73.

Bilica, Krzysztof. 'Ofiarom Hiroszimy – Tren Krzysztofa Pendereckiego. Próba analizy jednego z aspektów utworu' [Penderecki's Threnody for the Victims of Hiroshima. An attempt to analyze one of the work's aspects]. *Muzyka* 19, no. 2 (1974): 45-71.

Bogucki, Janusz. *Sztuka Polski Ludowej* [The Art of Peoples Poland]. Warsaw: Wydawnictwa Artystyczne i Filmowe, 1983.

Bois, Mario. *Iannis Xenakis. The Man and His Music*. London: Boosey & Hawkes Music Publishers, 1967.

Bradley, Gene Albers. *De natura sonoris I and II by Krzysztof Penderecki, A Comparative Analysis*. D.M.A. Dissertation, University of Illinois at Urbana-Champaign, 1978.

Bristiger, Michał. 'Sonorismo e strutturalismo.' *Collage* 9 (Palermo 1970): 72-76.

Brooks, Richard James. *Structural functions of 'musical gesture' as heard in selected instrumental compositions of the twentieth-century: a graphic analytic method*. Ph.D. diss., New York University, 1981.

Bylander, Cynthia. 'The Warsaw Autumn International Festival of Contemporary Music, 1956-1961: Its goals, structures, programs and people.' Ph.D. diss., Ohio State University, 1989.

Cage, John. *Notations*. New York: Something Else Press, 1969.

Carter, Elliott. 'Letter from Europe.' In *Elliott Carter, Collected Essays and Lectures, 1937-1995*, edited by Jonathan Bernard, 31-39. Rochester: University of Rochester Press, 1997.

Cardew, Cornelius. 'Notation – Interpretation, Etc.' *Tempo* 58 (1961): 21-33.

Chłopecki, Andrzej. 'Should Music Criticism Be Saved?' (The Syndrome of Ideologically Entangled Criticism). *Sounds Australian* (Summer 1990): 22-24.

285

_____. 'Zabobony gasnącego stulecia' [Superstitions of the fading century]. *Dysonanse* [Dyssonances]. Special Issue (1997): 8-20.

_____. 'Polish Music 1958-1966. The Syndrome of the Double Opening.' In *Studies in Penderecki*, vol. 2, edited by Ray Robinson and Regina Chłopicka, 117-125. Princeton: Prestige Publications, 2003.

Chłopicka, Regina. 'Extra-Musical Inspirations in the Early Works of Krzysztof Penderecki.' In *Studies in Penderecki*, vol. 2, edited by Ray Robinson and Regina Chłopicka, 257-271. Princeton: Prestige Publications, 2003.

_____. *Krzysztof Penderecki. Musica Sacra – Musica Profana.* Warsaw: Adam Mickiewicz Institute, 2003.

Chomiński, Józef. *Muzyka Polski Ludowej* [The music of the PRL]. Warsaw: PWM, 1968.

_____. 'The contribution of Polish composers to the shaping of a modern language in music.' *Polish Musicological Society* 1 (1977): 167-215.

_____. 'Z zagadnień techniki kompozytorskiej XX wieku' [Problems of the 20th century compositional technique]. *Muzyka* 3, no. 1 (1956): 23-48.

_____. 'Przemiany techniki kompozytorskiej w trzydziestoleciu PRL' [Tranformations of compositional technique in Thirty Years of Polish People's Republic], *Muzyka* 20, no. 3 (1975): 16-27.

_____. 'Technika sonorystyczna jako przedmiot systematycznego szkolenia' [Sonoristics as a subject of systematic training/schooling]. *Muzyka* 6, no. 3 (1961): 3-10.

Chomiński, Józef and Krystyna Wilkowska-Chomińska. 'Podstawy Sonologii muzycznej' [The foundations of musical Sonology]. *Formy muzyczne* [Musical Forms], Kraków: PWM, 1983.

Cowell, Henry. *New Musical Resources*. New York: Something Else Press, 1969.

Ćwikliński, Przemysław and Jacek Ziarno. *Pasja* [The Passion]. Warszawa: Polska Oficyna Wydawnicza BGW, 1993.

Davies, Lyn. 'Serocki's "Spatial Sonoristics."' *Tempo* 145 (1983): 28-32.

Dobrowolski, Andrzej. 'Wpływ festivali *Warszawska Jesień* na rozwój życia muzycznego w Polsce' [The influence of Warsaw Autumn festivals on the musical life in Poland]. *Muzyka* 20, no. 3 (1975): 58-63.

Droba, Krzysztof. 'Hierarchia czynników formalnych w twórczości Krzysztofa Pendereckiego (na przykładzie *Polimorfii*)' [The hierarchy of formal elements in the creative output of Krzysztof Penderecki (on the example of *Polimorfia)*]. *Muzyka* 21, no. 2 (1976): 22-28.

_____. 'Droga do sensu tragicznego.' *Ruch Muzyczny* 22, no. 15 (1978): 3.

_____. 'Górecki, Henryk Mikołaj,' *Encyklopedia Muzyczna,* edited by Elżbieta Dziębowska vol. 3. Kraków: Polskie Wydawnictwo Muzyczne, 1987, 420-433.

_____. *Sonoristics. The term and range of the notion.* IMS 16th International Congress. London, 19th August 1997. Unpublished paper.

_____. 'Sonoryzm Polski' [Polish Sonorism]. In *Kompozytorzy Polscy 1918-2000* [Polish Composers 1918-2000], vol. 1, edited by Marek Podhajski, 277-281. Gdańsk – Warszawa: Akademia Muzyczna w Gdańsku i w Warszawie, 2005.

Dziadek, Magdalena. 'Twórczość Witolda Szalonka na tle dziejów muzyki polskiej II połowy XX wieku' [The compositional output of Witold Szalonek Against the background of the Polish music in the second half of the 20th century]. In *Musica practica. Musica theoretica,* edited by Brodniewicz Teresa, Janusz Kepinski, Hanna Kostrzewska and Janina Tatarska, 95-103. Poznań: Wydawnictwo Akademii Muzycznej, 2003.

Dziębowska, Elżbieta. 'Koncepcja realnego kształtu dzieła muzycznego' [The concept of the real shape of the musical work]. *Muzyka* 24, no. 4 (1979): 5-16

'Dyskusja na Seminarium poświęconym Krzysztofowi Pendereckiemu' [Discussion devoted to the music of Krzysztof Penderecki]. *Muzyka* 21, no. 2 (1976): 29-52.

Dufallo, Richard. *Trackings. Composers Speak with Richard Dufallo.* New York: Oxford University Press, 1989, 340-52.

Erhardt, Ludwik. *Spotkania z Krzysztofem Pendereckim* [Encounters with Krzysztof Penderecki]. Kraków: PWM, 1975.

_____. 'Kazimierz Serocki laureat Nagrody Ministra Kultury i Sztuki za rok 1963' [Kazimierz Serocki Prize-winner of the Ministry of Arts and Culture for the year 1963]. *Ruch Muzyczny* 7, no. 19 (1-15 October 1963): 3-4.

Ebert-Obermeier, Traude. 'Niektóre zagadnienia recepcji polskiej muzyki współczesnej w Niemieckiej Republice Demokratycznej' [Some issues of reception of Polish contemporary music in the DDR]. *Muzyka* 20, no. 3 (1975): 74-82.

Evarts, John. 'The New Musical Notation – a Graphic Art?' *Leonardo* 1, no. 4 (October, 1968): 405-412.

Foy, Randolph. *Textural Transformations: The Instrumental Music of Krzysztof Penderecki, 1960-1973.* D.M.A. diss. Baltimore, Peabody Institute of the Johns Hopkins University, 1994.

Gawrońska, Bożena. 'Organizacja tworzywa muzycznego w twórczości Kazimierza Serockiego 1960-70' [The organization of musical fabric in the oeuvre of Kazimierz Serocki]. *Muzyka* no. 2 (1981): 23-45.

_____. 'Szkoła polska – koniec historii?' [The Polish School – The End of History?]. In *Duchowość Europy Środkowej i Wschodniej w muzyce końca XX wieku* [Spirituality of the Middle and Eastern Europe in music towards the end of the 20th century], edited by Krzysztof Droba, Teresa Malecka and Krzysztof Szwajgier, 129-136. Kraków: Akademia Muzyczna, 2004.

Gojowy, Detlef. 'Drugie Średniowiecze. Laudation na cześć Witolda Szalonka' [The Second Middle Ages. Laudation in honor of Witolda Szalonka]. *Opcje* 2 (1994): 79-85.

Gorczycka, Monika. 'Wobec nowych wymiarów (na marginesie *Musique en relief* i *Epizodow*) [In the face of new dimensions (in the background of *Musique en relief* and *Episodes*)]. *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 10-11

Griffiths, Paul. *Modern Music and After. Directions since 1945.* Oxford: Oxford University Press, 1995.

Gwizdalanka, Danuta. *Music and Politics* [Muzyka i polityka]. Kraków: PWM, 1999.

_____. '*Warszawskie Jesienie* w cieniu polityki' [Warsaw Autumns in the shadow of politics]. *Ruch Muzyczny* 18 (1997): 11-15.

Gwizdalanka, Danuta and Krzysztof Meyer. *Lutosławski. Droga do Dojrzałosci* [The road to maturity]. Kraków: PWM, 2003.

——————————————————. *Lutosławski. Droga do Mistrzostwa* [The road to mastery]. Kraków: PWM, 2004.

Harley, James. *Xenakis. His life in Music*. New York: Routledge, 2004.

Harley, Maria Anna. 'The Polish School of Sonorism and its European Context,' *Crosscurrents and Counterpoints: Offerings in Honor of Bengt Hambraeus at 70*. Edited by Per Broman, Nora A. Engebretsen and Alphonce Bo. Gothenburg: University of Gothenburg, Sweden, 1998: 62-77. Reprinted in Polish as 'Polski sonoryzm i jego europejski kontekst' [Polish sonorism and its European context]. *Dissonances - Pismo muzyki współczesnej* [Dysonances. Journal of Contemporary Music and Other Arts] Special Issue (1997): 34-40.

Haubenstock-Ramati, Roman. 'Forum: Notation. Notation – Material and Form,' *Perspective of New Music* 4, no. 1 (Autumn-Winter, 1965): 39-44.

Häussler, Josef. 'Kazimierz Serocki. *Musica concertante – Segments* for Chamber Orchestra, *Episodes – Symphonic Frescos*.' Sleeve notes. Heliodor Wergo 2549 015.

Hicks, Michael. 'Cowell's Clusters.' *The Musical Quarterly* 77, no. 3 (1993): 428-458.

Homma, Martina. 'Witold Lutosławski's *Trois poèmes d'Henri Michaux*. The sketches and the work.' *Polish Music Journal* 3, no. 2 (Winter 2000).
http://www.usc.edu/dept/polish_music/PMJ/issue/3.2.00/homma.html (accessed June 20, 2006).

Humphries, Carl. 'Perspektywy rozwoju badań nad muzyką na przykładzie twórczości Witolda Szalonka' [Perspectives of the Research Development on the basis of the compositional output of Witold Szalonek]. *Dysonanse* 1 (1998): 31-37.

_____. 'Witold Szalonek: choreograf dźwięku' [Witold Szalonek: choreographer of sound]. *Opcje* 2 (1998): 88–92.

Jacobson, Bernard. *20th-Century Composers. A Polish Renaissance.* London: Phaidon Press Limited, 1996.

Jarociński, Stefan. 'Polish Music after World War II.' In *Contemporary Music in Europe: A Comprehensive Survey,* edited by Paul Henry Lang and Nathan Broder, 244-258. London: Dent and Sons, 1965.

Jaroszewicz, Jerzy. 'Tomasz Sikorski's *Sequenza I.' Ruch Muzyczny* 10, no. 22 (15-30 November 1966): 7.

Jarzębska, Alicja. 'Sonorystyczne środki wyrazu muzycznego w kwartetach smyczkowych XX wieku' [Sonoristic means of musical expression in 20th-century string quartets]. *Muzyka* 26, no. 3-4 (1981): 47-64.

_____. 'Nowatorskie efekty dzwiękowo-szmerowe i ich notacja: pojęcie "sonorystyka" Józefa Chomińskiego'[New Sound Effects and Their Notation: Józef Chomiński's 'Sonoristics']. In *Z dziejów myśli o muzyce* [From the history of ideas about music], 247-251. Kraków: Musica Jagiellonica, 2002.

_____. *Spór o piękno muzyki. Wprowadzenie do kultury muzycznej XX wieku* [Dispute about the Beauty of Music. An Introduction to the Musical Culture of the 20th Century]. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego, 2004.

Kaczorek, Ireneusz. 'Wartość estetyczna i artystyczna *Fresków Symfonicznych Kazimierza Serockiego*' [The Aesthetic and Artistic Value of Kazimierz Serocki's *Symphonic Frescoes*]. In *Dzieło Muzyczne. Studia i Rozprawy* [The Work of Art. Studies and Debates], 123-215. Poznań: Wydawnictwo Akademii Muzycznej, 1999.

Kaczyński, Tadeusz. '*Concerto Breve* Tomasza Sikorskiego' [Tomasz Sikorski's *Concerto Breve*]. *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 14

_____. 'Jesień '66. Pierwsze rozpoznanie' [Jesień '66. At the first glance]. *Ruch Muzyczny* 10, no. 22 (15-30 November 1966): 11-12.

_____. '*Kwintet Dęty* Tomasza Sikorskiego' [Tomasz Sikorski's *Wind Quintet*]. *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 10.

Kagel, Mauricio. 'Tone, Clusters, Attacks, Transitions.' *Die Reihe* 5 (1954): 40-55.

Kałużny, Jan. 'Krzysztof Penderecki and his contribution to modern musical notation.' *Polish Review* 3, no. 8 (1963): 86-95.

Karkoschka, Erhard. *Notation in New Music. A Critical Guide to Interpretation and Realisation.* London: Universal Edition, 1972.

Kilar, Wojciech. *Na Jasnej Górze. Odnalazłem wolną Polske ... i siebie* [At Jasna Góra I found free Poland, I found myself]. Częstochowa: Edycja Świętego Pawła, 2003.

Kisielewski, Stefan. 'Polska twórczość muzyczna wczoraj i dziś' [Polish Compositional Output Now and Then]. *Ruch Muzyczny* 4, no. 18 (15-30 September 1960): 1-2.

_____. 'Dwudziestolecie Polskiego Wydawnictwa Muzycznego' [The Twentieth Anniversary of Polish Music Publishers]. *Ruch Muzyczny* 9, no. 19 (1-15 October 1965): 8-9.

Klee, Paul. *On Modern Art*. Translated by Paul Findlay with an Introduction by Herbert Read. London: Faber: 1966.

Kowalska, Bożena. *Polska Avangarda Malarska* 1945-1970 [Polish Avant-garde in Painting 1945-1970]. Warsaw: PWN, 1975.

Kowalska-Zając, Ewa. *Oblicza Avangardy. Roman Haubenstock-Ramati* [Faces of the Avant-Garde. Roman Haubenstock-Ramati]. Łódź: Akademia Muzyczna im. Grażyny i Kiejstuta Bacewiczów, 2000.

Kostrzewska, Hanna. 'Pojęcie sonorystyki w polskiej myśli muzykologicznej' [The notion of sonoristics in Polish Musicological Thought]. *Muzyka* 35, no. 1 (1990): 53-59.

_____. *Sonorystyka* [Sonoristics]. Poznań: Ars nova, 1994.

_____. 'Sonoryzm jako forma muzycznej wypowiedzi w XX wieku (na przykładzie wczesnej twórczości Krzysztofa Pendereckiego)' [Sonorism as a Form of Musical Expression in the 20th century (on the basis of early works by Krzysztof Penderecki)]. In *Musica practica. Musica theoretica,* edited by Brodniewicz Teresa, Janusz Kępiński, Hanna Kostrzewska and Janina Tatarska, 155-163. Poznań: Wydawnictwo Akademii Muzycznej, 2001.

_____. 'Twórczość fortepianowa Kazimierz Serockiego' [The piano works of Kazimierz Serocki]. In *Musica practica. Musica theoretica,* edited by Brodniewicz Teresa, Janusz Kepinski, Hanna Kostrzewska and Janina Tatarska, 111-119. Poznań: Wydawnictwo Akademii Muzycznej im. I.J. Paderewskiego, 2001.

Krawczyk, Dorota. 'Koncepcje czasu i ich wpływ na kształtowanie formy w polskiej muzyce współczesnej' [Conceptions of time and their impact on the shaping of form in Polish contemporary music]. *Muzyka* 40, no. 4 (1995): 113- 117.

_____. 'Lutosławski i Serocki – Dwa typy kształtowania struktury czasowej utworu' [Lutosławski and Serocki – Two types of time formation in the musical work], *Dziedzictwo europejskie a polska kultura muzyczna w dobie przemian. Studia pod redakcją Anny Czekanowskiej,* 219-232. Kraków: Musica Jagiellonica, 1995.

Kotoński, Włodzimierz. *Muzyka elektroniczna* [Electronic Music]. Kraków: PWM, 2002.

_____. 'Perkusja' [Percussion]. *Ruch Muzyczny* 4, no. 3 (1-15 March 1960): 14-15.

'Kronika PWM 1945-65' [The Chronicle of the Polish Music Publishers]. *Ruch Muzyczny* 9, no. 19 (1-15.October 1965):6-7.

Lindstedt, Iwona. 'Teoria sonologii muzycznej Józefa Michała Chomińskiego' [Józef Michał Chomiński's Theory of Music Sonology]. *Muzyka* 51, no.1-2 (2006): 33-84.

_____. 'The Development of Twelve-Note and Serial Techniques in the Music of Polish Twentieth-Century Composers.' In *Musicology Today,* 106 – 124. Warsaw: Institute of Musicology, University of Warsaw, 2005.

_____. *Dodekafonia i serializm w twórczości kompozytorów polskich XX wieku* [Dodecaphony and Serialism in the Output of Polish Twentieth-Century Composers]. Lublin: Polihymnia, 2001.

_____. 'Between Dodecaphony and Sonoristics: Post-Serial Formulas in Penderecki's Work, 1960-1962.' In *Studies in Penderecki*, vol. 2, edited by Ray Robinson and Regina Chłopicka, 227-243. Princeton NJ: Prestige Publications 2003.

Lissa, Zofia. 'Analiza repertuaru Warszawskich Jesieni' [The analysis of the Warsaw Autumn Repertoire]. *Muzyka* 14, no. 3 (1969): 40-66.

_____. 'Główne nurty stylistyczne w muzyce polskiej 1944-1974 [The Main Stylistic Currents in the Polish Music 1944-1974]. *Muzyka* 20, no. 3 (1975): 5-15.

Lobanowa, Marina. *György Ligeti: Style, Ideas, Poetics,* Berlin: Verlag Ernst Kuhn, 2002.

Lutosławski, Witold. *Witold Lutosławski. Postscriptum.* Edited by Danuta Gwizdalanka and Krzysztof Meyer. Fundacja Zeszytów Literackich: 1999.

_____. 'Tęsknota za nieznanym światem' [Longing for an unknown world]. *Kontrapunkt, Magazyn Kulturalny Tygodnika Powszechnego* 67, no. 1 (15 February 2004): 12-13.
Lutosławski issue, *Muzyka* 40, no. 1-2 (1995).

Malinowski, Władysław. 'Od nowej muzyki ku przeszłosci. Sonoryzm Marka Stachowskiego' [From the New Music towards the Past. Sonorism of Marek Stachowski]. In *De Musica* 12 (2006). http://free.art.pl/demusica/de_mu_12/12_02.html (accessed 5 June 2007).

Małecka, Teresa. 'Neusis II Marka Stachowskiego' [Marek Stachowski's Neusis II].

Muzyka 23, no. 1 (1978): 45-60.

_____. 'Problem sonorystyki w *Mitach* Szymanowskiego' [The Problem of Sonoristics in Myths by Szymanowski]. *Muzyka* 4, no. 4 (1957): 31-44.

295

Markiewicz, Leon. 'Główne tendencje twórcze w katowickim środowisku kompozytorskim' [Main Creative Tendencies in the Katowice Compositional Circles]. *Muzyka* 19, no. 2 (1974): 22- 30.

_____. '*Choros I* Henryka Góreckiego' [Henryk Górecki's *Choros I*]. *Ruch Muzyczny* 8, no. 21 (1-15 November 1964): 8-9

_____. '*Elementy* Henryka Góreckiego' [Henryk Górecki's *Elementi*]. *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 9.

_____. 'Freski symfoniczne Serockiego' [Serocki's *Symphonic Frescoes*]. *Ruch Muzyczny* 8, no. 21 (1964): 9.

_____. '*Les sons* Witolda Szalonka' [Witold Szalonek *Les sons*]. *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 13.

_____. 'O zderzeniach, radości i ... katastrofiźmie' [About collisions, joy and ... catastrophes]. *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 10-11

_____. '*Scultura* Bogusława Schaeffera' [Boguslaw Schaeffer's *Scultura*]. *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 11-12.

_____. 'Stare i nowe w muzyce B. Szabelskiego' [Old and New in the Music of B. Szabelski]. *Ruch Muzyczny* 6, no. 18 (15-31 September 1962): 9-10.

_____. '*Riff 62* Wojciecha Kilara' [Wojciech Kilar's *Riff 62*]. *Ruch Muzyczny* 7, no. 2 (15-31 January 1963): 10.

_____. 'Rozmowa z Henrykiem Góreckim' [Conversation with Henryk Górecki]. *Ruch Muzyczny* 4, no. 17 (1-15 September 1962): 6-8.

_____. 'Wojciech Kilar's *Springfield sonnet*' [Wojciech Kilar's *Springfield sonnet*]. *Ruch Muzyczny* 9, no. 17 (1-15 September 1965): 8.

Masłowiec, Anna. "'The Utmost Economy of Musical Material:" Structural Elements in the Works of Górecki from *Refrain* (1965) to *Ad Matrem* (1971).' *Context* 14 (Summer 1997): 15-33.

Michalski, Grzegorz. 'The Glittering Music of Kazimierz Serocki.' *Music in Poland*, 1-2 (1983): 15-19.

Miklaszewska, Joanna. *Minimalism w muzyce polskiej* [Minimalism in Polish music]. Kraków: Musica Jagiellonica, 2003.

Mirka, Danuta. 'Góreckiego muzyka geometrica' [Górecki's geometric music]. *Dysonanse* 1 (1998): 20-30.

_____. 'Penderecki's Sonorism Against Serialism.' In *Studies in Penderecki*, vol. 2, edited by Ray Robinson and Regina Chłopicka, 305-311. Princeton NJ: Prestige Publications 2003.

_____. 'Sonorystyczny Strukturalizm Krzysztofa Pendereckiego' [The sonoristic structuralism of Krzysztof Penderecki]. In *Muzyka Polska 1945-1995*, 235-247. Krakow: Akademia Muzyczna w Krakowie, 1996.

_____. *The sonoristic Structuralism of Krzysztof Penderecki*. Katowice: Akademia Muzyczna, 1997.

Morgan, Robert. *Twentieth-Century Music. A History of Musical Style in Modern Europe and America*. New York: Norton, 1991.

Mycielski, Zygmunt. '*Scultura* Bogusława Schaeffera' [Bogusław Schaeffer's *Scultura*]. *Ruch muzyczny* 11, no. 19 (1 – 15 October 1967): 17.

_____. *Dziennik 1950-1959* [Journal 1950-1959]. Warszawa: Iskry, 1999.

_____. 'Warszawska Jesień 1961' [Warsaw Autumn 1961]. *Ruch Muzyczny* 5, no. 21 (1-15 November 1961): 1-4.

_____. '*Passio et mors domini nostri Jesu Christi secundum lucam* Krzysztofa Pendereckiego.' *Ruch Muzyczny* 10, no. 10 (15-31 May 1966): 3-7.

Nicholls, David. 'Getting Rid of the Glue. The Music of the New York School.' In *The New York Schools of Music and Visual Arts,* edited by Steven Johnson, 17-56. New York: Routlege, 2002.

Nikolska, Irina. 'O ewolucji twórczosci instrumentalnej Krzysztofa Pendereckiego' [The evolution of Krzysztof Penderecki's instrumental writing]. *Muzyka* 32, no. 1 (1987): 31-53.

_____. 'Recepcja polskiej muzyki współczesnej w Rosji (1960-1980' [Reception of Contemporary Polish Music in Russia (1960-1980)]. *Dziedzictwo europejskie a polska kultura muzyczna w dobie przemian. Studia pod redakcją Anny Czekanowskiej.* Kraków: Musica Jagiellonica, 1995, 261-274.

_____. *Conversations with Witold Lutosławski.* Stockholm: Melos, *En Musiktidskrift,* 1994.

Nordwall, Ove ed. *Lutosławski.* Translated by Christopher Gibbs et al. Stockholm: Edition Wilhelm Hanses, 1968.

Ochlewski, Tadeusz. 'Po dwudziestu latach mojej pracy w PWM' [After Twenty Years of my Work in the Polish Music Publishers]. *Ruch Muzyczny* 9, no. 19 (1-15 October 1965): 3.

O'Loughlin, Niall. 'Threnody and Performance.' In *Studies in Penderecki,* vol. 2, edited by Ray Robinson and Regina Chłopicka, 57-68. Princeton: Prestige Publications, 2003.

Pacewicz, Izabela. 'Sonorism.' In *Kompozytorzy Polscy 1918-2000* [Polish Composers 1918-2000], vol. 1, edited by Marek Podhajski, 269-275. Gdańsk – Warszawa: Akademia Muzyczna w Gdańsku i w Warszawie, 2005.

Paja-Stach, Jadwiga. *Witold Lutosławski.* Kraków: Musica Jagiellonica, 1996.

_____. *Lutosławski i jego styl muzyczny* [Lutosławski and His Musical Style]. Kraków: Musica Iagellonica, 1997.

_____., ed. *Witold Lutosławski i jego wkład do kultury muzycznej XX wieku* [Witold Lutosławski and his contribution to the 20th century musical culture]. Kraków: Musica Jagiellonica, 2005.

Pasiecznik, Monika. 'Szalonek z czyśca historii' [Szlonek from purgatory of history], *Odra,* 6 (2006): 83-85.

Penderecki, Krzysztof. *Labyrinth of Time. Five Addresses for the End of the Millennium.* Edited by Ray Robinson. Translated by William Brand. Chapel Hill: Hinshaw Music, 1998.

Pociej, Bohdan. '*Muzyka ipsa* Bogusława Schaeffera' [Bogusław Schaeffer's *Muzyka Ipsa.*' *Ruch Muzyczny* 7, no. 7 (1-15 April 1963): 12-14.

_____. 'Muzyka polska 1960 czyli o potrzebie, kierunkach i granicach nowatorstwa' [Polish Music 1960 – on the needs, directions and limitations of the new]. *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 2-3.

_____. 'Poza dobrem i złem' [Beyond good and bad]. *Ruch Muzyczny* 8, no. 22 (15-30 November 1964): 3-5.

_____. '*Zderzenia* Henryka Góreckiego' [Henryk Górecki's *Scontri*]. *Ruch Muzyczny* 4, no. 18 (15-30 September 1960): 7.

_____. '*Gry Weneckie*. Nowy utwór Witolda Lutosławskiego' [Venetian Games. A new work by Witold Lutosławski]. *Ruch Muzyczny* 5, no. 10 (15-30 May 1961): 4.

_____. '*Tertium datur Bogusława Schaeffera*' [Bogusław Schaeffer's *Tertium datur*]. *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 4.

Poszowski, Antoni 'Zagadnienie sonorystycznej techniki harmonicznej' [The question of sonoristic technique in harmony?]. Zeszyty Naukowe PWSM w Sopocie, Z. III, Sopot 1967.

Podobińska, Klaudia and Leszek Polony. *Cieszę się darem życia. Rozmowy z Wojciechem Kilarem* [I enjoy the gift of life. Conversations with Wojciech Kilar]. Kraków: PWM, 1997.

Polony, Leszek. *Wojciech Kilar*. Kraków: PWM, 2005.

Prosnak, Antoni. 'Zagadnienie sonorystyki na przykładzie etiud Chopina' [Sonoristics in Chopin's Etudes]. *Muzyka* 3, no. 1-2 (1958): 14-32.

Rae, Charles Bodman. *Muzyka Lutosławskiego*. Warszawa: PWN, 1996.

_____. *The Music of Lutosławski*. Sydney: Omnibus Press, 1999.

Rappoport-Gelfand, Lidia. 'Sonorism: Problems of Style and Form in Modern Polish Music.' *Journal of Musicological Research* 4 (1983): 399-416.

_____. *Musical Life in Poland. The Postwar Years 1945-1977*. Amsterdam: Gordon and Breach, 1991.

Risatti, Howard. *New Music Vocabulary. A Guide to Notational Signs for Contemporary Music*. Chicago: University of Illinois Press, 1975.

Roberts, Gwyneth Margareth. 'Procedures for analysis of sound masses.' PhD diss., Indiana University, 1978.

Rogala, Jacek. *Muzyka polska XX wieku* [Polish music of the 20th Century]. Kraków: PWM, 2000.

Rosen, Judith. *Bacewicz. Her Life and Works*. Los Angeles: PMRC, 1984.

Rörich, Mary. 'Penderecki's *Threnody for the Victims of Hiroshima*: A case study in the dangers of expressive aesthetics and the limits of formal analysis.' *Slavic Symposium*, Department of the University of the Witwatersrand, Johannesburg (1982): 193-235.

Rychlik, Józef. 'Punktualizm we wczesnej twórczosci Krzysztofa Pendereckiego' [Pointillism in Krzysztof Penderecki's early musical works]. *Muzyka* 21, no. 21 (1976): 5-21.

Schaeffer, Bogusław. *Dzwięki i znaki. Wprowadzenie do kompozycji współczesnej,* Warszawa: PWN, 1969.

_____. *Muzyka XX wieku: twórcy i problemy.* Kraków: Wydawnictwo Literackie, 1975.

_____. *Nowa Muzyka. Problemy współczesnej techniki kompozytorskiej.* [New music. Problems of contemporary compositional technique]. Wydanie nowe II. Kraków: PWM, 1969.

Scherzo dla Wojciecha Kilara prowadziły Maria Malatyńska i Agnieszka Malatyńska-Stankiewicz [Scherzo for Wojciech Kilar conducted by Maria Malatyńska i Agnieszka Malatyńska-Stankiewicz]. Kraków: PWM, 2002.

Schiller, Henryk. 'Po prawykonaniu *Wymiarów czasu i ciszy* Krzysztofa Pendereckiego' [After the Premiere of Krzysztof Penderecki's *Dimentions of Time and Silence*]. *Ruch Muzyczny* 4, no. 21 (1-15 November 1960): 5-6.

Schwinger, Wolfram. *Krzysztof Penderecki. His Life and Work.* London: Schott, 1989.

Skowron, Zbigniew. *Recepcja postaw i programów awangardowych w powojennej muzyce polskiej* [The Reception of Avant-garde attitudes and Programme Post-war Polish Music]. Materialy sesji naukowej, Kraków, 6-10 December 1995.

Sonntag, Brunhilda. 'Przyczynek do twórczości kompozytorskiej Witolda Szalonka' [Contribution to Compositional Oeuvre of Witold Szalonek]. *Opcje* 2 (1994): 86-89.

Stawowy, Ludomira and Joanna Zając. *Bogusław Schaeffer.* Salzburg: Collsch Edition, 2001?

Stucky, Steven. *Lutosławski and his Music*. Cambridge: Cambridge University Press, 1981.

Stone, Kurt. 'New Notation for New Music, Part 2' *Music Educators Journal* 63, no. 3 (November, 1976): 54-61.

Szalonek, Witold. 'Krajobraz dzwiękowy muzyki Chopina' [Sound landscape of Chopin's music]. *Opcje* 3 (1993): 58-59.

_____. 'O walorach sonorystycznych instrumentów dętych drewnianych' [On the unexploited sonoristic qualities of woodwind instruments]. *Res Facta*, 1973.

_____. 'Sonority and its Form Shaping Powers.' Unpublished paper. Berlin June 1976.

Thomas, Adrian. 'A Pole Apart: The Music of Górecki since 1965.' *Contact* 28 (1984): 20-31.

_____. *Bacewicz. Chamber and Orchestral Music*. Los Angeles: PMRC, 1985.

_____. *Górecki*. Oxford: Clarendon Press, 1997.

_____. '*Jeux vénitiens*: Working Methods at the Start of Lutosławski's Mature Period.' In *Lutosławski Studies*, edited by Zbigniew Skowron, 211-243. Oxford: Oxford University Press, 2001.

_____. 'The Music of Henryk Mikołaj Górecki: The First Decade.' *Contact*, 27 (1983): 10-20.

_____. *Polish Music since Szymanowski*. Cambridge: Cambridge University Press, 2005.

Tomaszewski, Mieczysław. 'Listening to Penderecki.' In *Studies in Penderecki*, vol. 2, edited by Ray Robinson and Regina Chłopicka, 17-28. Princeton: Prestige Publications, 2003.

Toop, Richard. *György Ligeti*. London, Phaidon Press, 1999.

_____. 'Notations.' *Collage* 9 (Palermo, 1970): 93-98.

Zathey, Janusz. 'Darmstadt osierocony' [Orphaned Darmstadt]. *Ruch Muzyczny* 6, no. 15 (1-15 August 1962): 10-11.

Zieliński, Tadeusz A. 'Nowe utwory Krzysztofa Pendereckiego' [The new works of Krzysztof Penderecki]. *Ruch Muzyczny* 5, no. 12 (15-30 June 1961): 17-18 and 24.

_____. *Dramat Instrumentalny Pendereckiego* [The instrumental drama of Penderecki]. Kraków: PWM, 2003.

_____. '*Fluorescencje* Krzysztofa Pendereckiego' [Krzysztof Penderecki's *Fluorescences*]. *Ruch Muzyczny* 7, no. 2 (1964): 5-6.

_____. 'Jesień i kryteria' [Autumn and Criteria].' *Ruch Muzyczny* 9, no. 21 (1965): 16-18.

_____. *O twórczości Kazimierza Serockiego* [About the creative output of Kazimierz Serocki]. Kraków: PWM, 1985.

_____. 'Nowa sytuacja polskiej muzyki współczesnej' [The new situation of Polish contemporary music]. *Ruch Muzyczny* 5, no. 2 (15-31 January 1961): 2-3.

—————————. 'Odkrycia i wydarzenia' [Discoveries and events]. *Ruch Muzyczny* 8, no. 22 (15-30 November 1964): 6-7.

—————————. 'Włodzimierz Kotoński's *Concerto and Trio.*' *Ruch Muzyczny* 5, no. 21 (1-15 November 1961): 9.

—————————. 'Współczesny kompozytor a tradycja. Rozmowa z Krzysztofem Pendereckim' [Contemporary composer and tradition. A conversation with Krzysztof Penderecki]. *Ruch Muzyczny* 7, no. 12 (1963): 8-9.

Tomaszewski Mieczysław. *Krzysztof Penderecki and His Music.* Kraków: Akademia Muzyczna, 2003.

—————————. 'Sonorystyczna ekspresywność i alegoryczny symbolizm: symfonia polska 1944-1994' [Sonoristic expression and alegoric symbolism: Polish symphony 1944-1994]. In *Muzyka Polska 1945-1995* [Polish Music 1945-1995], 13-40. Kraków: Akademia Muzyczna w Krakowie, 1996.

Tomaszewski, Mieczysław ed. *Muzyka Krzysztofa Pendereckiego. Poetyka i recepcja* [The music of Krzysztof Penderecki. Poetics and reception]. Kraków: Akademia Muzyczna, 1996.

Valovy, Evzen. 'Kilka uwag o wykonaniach polskiej muzyki współczesnej w Czechosłowacji' [A few points about performances of Polish Contemporary Music in Czechoslovakia]. *Muzyka* 20, no. 3 (1975): 95-100.

Varga, Bàlint Andràs. *Lutosławski Profile.* London: Chester, 1974.

Varnai, Peter. 'Powiązania między polską i węgierską twórczościa muzyczną XX wieku' [Links between Polish and Hungarian compositional output of the 20th century]. *Muzyka* 20, no. 3 (1975): 101-104.

Wachowicz, Zygmunt. 'Muzyka Bogusława Schaeffera' [The Music of Bogusław Schaeffer]. *Ruch Muzyczny* 4, no. 19 (15-30 October 1960): 3-4.

Wallek-Walewski, Marian. 'W kręgu poszukiwań materiałowych – Krzysztof Penderecki' [All around the search of musical material – Krzysztof Penderecki]. *Ruch Muzyczny* 4, no. 17 (1-15 September 1960): 1-2.

'Warszawska Jesień' na cenzurowanym. Głosy prasy zagranicznej' [Warsaw Autumn' on censorship. Voices of the Foreign Press]. *Ruch Muzyczny* 4, no. 2 (15-29 February 1960): 19.

Wellens, Ian. *Music on the Frontline. Nicolas Nabokov's Struggle Against Communism and Middlebrow Culture*. Aldershot: Ashgate, 2002.

Whitehouse, Richard. *Wojciech Kilar Film Music*, CD notes for 'Bram Stoker's Dracula and other film music by Wojciech Kilar.' Marco Polo 8.225153.

Zavarsky, Ernest. 'Formy popularyzacji polskiej muzyki współczesnej w Słowacji' [Forms of popularization of the contemporary Polish music in Slovenia]. *Muzyka* 20, no. 3 (1975): 105-108.

INTERVIEWS

Kaczyński, Tadeusz. 'Trzynaście wcieleń Bogusława Schaeffera. Polemiki jubileuszowej część pierwsza' [Thirteen incarnations of Bogusław Schaeffer. Jubilee Polemics' part 1]. *Ruch muzyczny* 34, no. 5 (11 March 1990): 1 and 4.

_____. 'Trzynaście wcieleń Bogusława Schaeffera. Polemiki jubileuszowej część druga' [Thirteen incarnations of Bogusław Schaeffer. Jubilee Polemics' part 2]. *Ruch muzyczny* 34, no. 5 (25 March 1990): 1 and 4.

_____. 'Trzynaście wcieleń Bogusława Schaeffera. Polemiki jubileuszowej część trzecia' [Thirteen incarnations of Bogusław Schaeffer. Jubilee Polemics' part 3]. *Ruch muzyczny* 34, no. 5 (April 1990): 1 and 4.

_____. 'Rozmowa z Józefem Patkowskim o Studiu Eksperymentalnym. Rozmawiał Tadeusz Kaczyński' [An Interwiew with Józef Patkowski about Experimental Studio. Conducted by Tadeusz Kaczyński]. *Ruch Muzyczny* 7, no. 1 (1-15 January 1963): 3-6.

Ligeti in Conversation with Peter Varnai, Josef Hausler, Claude Samuel and himself. London: Eulenburg Books, 1983.

Ługowska, Marta. 'Wykorzystana szansa. Z Jerzym Jasieńskim rozmawia Marta Ługowska' [A chance taken up. Marta Ługowska talks to Jerzy Jasieński]. *Studio* (October, 1992): 9.

Malatyńska-Stankiewicz, Agnieszka. 'Nie będe pisał na metry i łokcie.' Z Henrykiem Mikołajem Góreckim rozmawia Agnieszka Malatyńska-Stankiewicz. *Przeglad Polski*

On-Line 20 February 2004. http://www.dziennik.com/www/dziennik/kult/archiwum/01-06-04/pp-02-20-01.html (accessed May 15, 2006).

Marczyński, Jacek. 'Muzyka jest labityntem. Rozmowa Jacka Marczyńskiego z Krzysztofem Pendereckim' [Music is a Maize. Conversation with Krzysztof Penderecki – Jacek Marczyński]. *Rzeczpospolita- Plus minus* (31 October - 2 November 2003): 8.

Markiewicz, Leon. 'Conversation with Henryk Górecki: Leon Markiewicz, July 1962'. Translated by Anna Masłowiec *Context* 14 (Summer 1997): 35-41.

——————————. 'Po powrocie z Paryża. Rozmowa z Wojciechem Kilarem' [After returning from Paris. A Conversation with Wojciech Kilar with Leon Markiewicz]. *Ruch Muzyczny* 5, no. 5 (1-15 March 1961): 3-4.

——————————. 'Witold Szalonek o Darmstacie i *Wyznaniach*'. An Interwiew with Leon Markiewicz [Witold Szalonek on Darmstadt and *Confessions*]. *Ruch Muzyczn* 4, no. 22 (15-30 November 1960): 22.

'Rozmowa z Józefem Patkowskim o Studiu Eksperymentalnym' [An Interview with Józef Patkowski about Experimental Studio]. *Ruch Muzyczny* 7, no. 1 (1-15 January 1963): 3-6.

Rozmowa z Bogusławem Schaefferem 1 [An Interview with Bogusław Schaeffer part 1]. *Ruch Muzyczny* 4, no. 18 (15-30 September 1960): 3-5.

Rozmowa z Bogusławem Schaefferem(II) [An Interwiew with Bogusław Schaeffer (II)]. *Ruch Muzyczny* 4, no. 19 (15-30 October 1960): 3-5.

So, Mark G. 'Wojciech Kilar Interview Part One,' *The Online Magazine of Motion Picture and Television Music Appreciation Lost Issue* (July 2001).

http://www.filmscoremonthly.com/articles/2001/04_Jul---
Lost_Issue_Wojciech_Kilar_Part_One.asp (accessed May 13, 2007)

Szafrańska, Iwona. 'Wokół sonoryzmu. Z Witoldem Szalonkiem rozmawia Iwona Szafrańska' [Around sonorism. Iwona Szafrańska talks to Witold Szalonek]. *Opcje* [Options] no. 2 (1994): 75-78.

_____. 'Czy istnieje polska szkoła kompozytorska? Z Pawłem Szymanskim, Stanisławem Krupowiczem, Andrzejem Chłopeckim – rozmawia Iwona Szafrańska,' [Polish Compositional School – Does it exist? Iwona Szafrańska talks to Paweł Szymański, Stanisław Krupowicz and Andrzej Chłopecki]. *Dysonanse*, Special Issue, (1997): 41-42.

INTERVIEWS CONDUCTED BY THE AUTHOR

Baculewski, Krzysztof. Interview with author (Warsaw, November 11, 2005).

_____. A letter to author (June 21, 2003).

Kilar, Wojciech. Interview with author (Dzierżoniów, October 29, 2005).

Kotoński, Włodzimierz. Interview with author (Warsaw, November 11, 2005). .

_____. A letter to author (October 27, 1999).

Krauze, Zygmunt. A letter to author (October, 2, 1999).

Schaeffer, Bogusław. A letter to author (November 16, 2001).

Toop, Richard. Interview with author (Sydney, April, 24, 2006).

SCORES

Górecki, Henryk Mikołaj. *Genesis*. Kraków: PWM, 1977.

——————————————. *Choros I*. Kraków: PWM, 1976.

——————————————. *Refren*. Kraków: PWM, 1979.

——————————————. *Scontri*. Kraków: PWM, 1962.

Kilar, Wojciech. *Diphthongos*. Kraków: PWM, 1965.

——————————. *Riff 62*. Kraków: PWM, 1963.

——————————. *Générique*. Kraków: PWM, 1964.

Kotoński, Włodzimierz. *A battere*. Celle: Moeck Verlag, 1968.

——————————————. *Concerto per Quattro*. Kraków: PWM, 1977.

——————————————. *Musica per fiati e timpani*. Kraków: PWM, 1964.

——————————————. *Kwintet* [Quintet]. Kraków: PWM, 1966.

Lutosławski, Witold. *Jeux Vénitiens*. Celle: Moeck Verlag, 1962

———————————. *Trois Poémes d'Henri Michaux*. Kraków, 1964.

Penderecki, Krzysztof. *Anaklasis*. Celle: Moeck Verlag, 1960.

_____. *Dimensions of Time and Silence*. Celle: Moeck Verlag, 1961.

_____. *Emanacje* [Emanations]. Kraków: PWM, 1978.

_____. *Fluorescences*. Kraków: PWM, 1980.

_____. *Ofiarom Hiroszimy – Tren* [Threnody - To the Victims of Hiroshima]. Kraków: PWM, 1961.

_____. *Quartetto per archi*. Kraków: PWM, 1971.

_____. *Polymorphia*. Kraków: PWM, 1982.

Schaeffer, Bogusław. *Equivalenze sonore per 20 esecutor*. Kraków: PWM, 1962.

_____. *Musica ipsa*. Kraków: PWM, 1965.

_____. *Montaggio*. Kraków: PWM, 1962.

_____. *Scultura*. Kraków: PWM, 1967.

_____. *String Quartet*. Berlin: Ahn & Simrock, 1966.

_____. *Tertium datur*. Kraków: PWM, 1962.

Serocki, Kazimierz. *Continuum*. Kraków: PWM, 1974.

_____. *Epizody*. Kraków: PWM, 1979.

—————————. *Forte e piano*. Kraków: PWM, 1980.

—————————. *Musica concertante*. Kraków: PWM, 1978.

—————————. *Segmenti*. Kraków: PWM, 1970.

—————————. *Symphonic Frescoes*. Kraków: PWM, 1979.

Sikorski, Tomasz. *Concerto Breve*. Kraków: PWM, 1968.

—————————. *Prologhi*. Kraków: PWM, 1967.

—————————. *Sequenza I*. Kraków: PWM, 1970.

Szalonek, Witold. *Les sons*. Kraków: PWM, 1967.

—————————. *Mutazioni*. Kraków: PWM, 1969.

—————————. *Mutanza*. Kraków: PWM, 1970.

—————————. *1+1+1+1*. Stockholm: Hansen Edition, 1973.