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G. Ligeti's Hamburg Concerto as a Summary of Late Artistic Tendencies

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Abstract

The relevance of this study is conditioned upon the need to highlight the internal content of the modern academic musical language and, specifically, the features of the late work of G. Ligeti. This paper aimed to conduct an in-depth study, comprehensively covering, analyzing, and generalizing the panoramic display of the creative traditions of G. Ligeti in the context of world musical art. The materials of this paper are sources that illuminate the path of stylistic search and the evolution of the musician's composition, as well as information about the leading directions of the modern world academic musical environment. The research methods included a search and collection of information base dedicated to the Hamburg Concerto by G. Ligeti; analysis and compilation of available materials; determination of the leading categories of the phenomenon presented in the late period of the composer's work; showing his stylistic and compositional principles as a single multifaceted system. The result of the study was the individual author's concept of vision of the role, significance, and content of G. Ligeti's work in the history of academic musical art. The practical significance of this study was manifested in the demand for the results of this study among students of secondary and higher musical educational institutions, as well as among specialists investigating the processes of transformation and expansion of the boundaries of the melodic, compositional, and technical arsenal of professional musical creativity.

Keywords: modern academic tradition; sonoristic layer; micropolyphony; timbre dramaturgy; thematic mode

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INTRODUCTION

The problem of summarizing the late tendencies of G. Ligeti's work on the example of his Hamburg Concerto requires its study due to several factors. One of them is the need to reveal the voluminous, modernized, and complicated musical language of academic music, which was formed by the end of the 20th - and beginning of the 21st centuries, and the context in

which the composer's work evolved. The second factor is conditioned upon the uniqueness of the Hamburg Concerto, which embodies the leading trends and techniques of compositional techniques, styles, and creative philosophy of modern times (Berehova, 2022).

The Hamburg Concerto deeply reflected his later work's stylistic, intonational, rhythmic, timbre, compositional, and technical tendencies. However, all the

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listed components have not yet been analyzed as elements of a single composite system.

Scientists from different countries focused their attention on its various aspects. Thus, A. Bauer (2020) notes that the legacy of the composer combines intellectual sophistication with respect for the sensual attributes of his musical themes. Much of the research related to the music of the Hungarian composer revolves around categories such as musical technique, theoretical writings, and lectures. Specialist (Bauer, 2020) states that for six decades, the musician has been creating solo chamber works, choral compositions, experimental opuses (Fluxus), electronic, orchestral works, and examples of various genres of musical theatre. His early orchestral compositions, Apparitions (1958–1959) and Atmosphères (1961) cemented Ligeti's reputation among the European avant-garde. The scope of his style expanded significantly during the 1970s by turning to polar genres: intimate solo works for harpsichord and the grandiose opera The Great Death (1974-1977, a new edition appeared in 1996) (Bauer, 2020). Elements of musical traditions outside of Europe and, specifically, African art, as well as the canonical Music of Conlon Nancarrow and fractal geometry, enriched in the 1980s the fund of his intonational language and stylistic system based on the native national language and the traditions of the academic atmosphere, in the field of which G. Ligeti was at the dawn of his creative career (Bauer, 2020; Voyvoda, 2022).

M. Chemillier (2020) plunges into the study of the updated interpretation of sound in the Music of G. Ligeti, as a weighty unit that includes many mobile components. In his opinion (Chemillier, 2020), the transformation of sound is based on such methods as changing the pitch and its modification in time. In this case, the sound acts both separately, individually, and in the context of a harmonic complex or micropolyphonic construction (Chemillier, 2020).

I. Pace explores the issues of the emergence of a renewed sound field both

through the modernization of intonational and technical (interpretative) aspects: meter and rhythm, as well as musical notation, accentuation on the example of G. Ligeti's Etudes for Piano. He thoroughly examines the principle of touching the piano keyboard, special techniques for using the pedal, and the effects of discontinuity and continuity in the sound of a horizontal musical-thematic line (Pace, 2012).

A. Bauer (2019) is absorbed in the study of ideological content, which is contained in the images of the musician's works. According to his concept (Bauer, 2019), the Hungarian composer manifests himself in his own works ("Etudes for Piano") as an ideological architect, a symbol of the era of late modernism, where virtuosity in performance is interpreted broadly and polarly: from rejecting its necessity and prevailing, to doubling the effects from the use of its resources.

A deep philosophical study of G. Ligeti's work is carried out by E. Schreiber (2019). The scientist (Schreiber, 2019) analyses the comments of the Hungarian composer on his own works of different periods, which helps reveal the creative evolution of the musician more subtly and clearly. Specifically, it is noted that in the early stages, Ligeti purposefully emphasized the analytical and interpretive aspects of his works, to which he consistently returned later (Schreiber, 2019). The musician's appearance as an original artist was clearly manifested in his retrospectives at the turn of the 1950s and 1960s. (Schreiber, 2019; Hromchenko, 2022).

Since the problem of an individual creative style and the use of a wide range of compositional techniques of a musician is voluminous and multi-vector, it requires its study, illumination, and conceptualization, where it will be presented as an integral complex system. To accomplish this task, this publication turns to the materials available in musicology that address this issue; new sources are discovered, and the collected information is analysed; the processes of interpretation of the Hamburg Concerto are monitored.

METHOD

The materials of this study included sources investigating several large-scale blocks. The first of them analyses the intonational and compositional-technical fund of academic music of the late 20th and early 21st centuries. The second block covers the characteristics of the work of the Hungarian composer. The third block is devoted to extensive coverage of the content, significance, and role of the Hamburg Concerto both in the context of G. Ligeti's life and professional path and in the world of composer practice.

Thus, the information provided by the spheres of musicology, orchestration, and performance practice was used. The data of scientific analysis of the methods of creating music were studied. Among them, it is necessary to name such elements as melody and rhythm, thematic mode, timbre, dramaturgy, and genre structure. They were applied when correlating G. Ligeti's style and the objective processes of complicating the musical language, expanding the forms of its current presentation.

The study analyzed the sources covering the transformation of the Hungarian musician's work, which is reflected in the updated, individualized interpretation of several components of composer practice. These include instruments that have both tempered and untampered tunings semitone divided into microparticles. The aforementioned information was put into practice when compiling a panorama of the Hungarian composer's artistic laboratory, within which the Hamburg Concerto arose.

The publication covered materials directly analyzing the Hamburg Concerto. They were taken from studies in musicology, history, music theory, and musical pedagogy, specifically, the methodology for performing works by contemporary composers. They highlight the list of composers' writing techniques used in this study: transformation of folk-national origins and genres (folklore, academic). They were used in defining and deriving the leading categories of the Hungarian composer's musical thinking.

Among the research methods for the problem of summarizing the late trends in G. Ligeti's work, using the example of the Hamburg Concerto, it is necessary to name scientific and exploratory, analytical, systemic, ideological, and thesis. The first of them is based on the search and collection of sources on the subject under study. The second aims to study and complete the received base of materials. The third method aims to identify and deduce the categories that form the basis of the creative style in the Hamburg Concerto. The fourth is responsible for creating an individual author's concept of a phenomenon that embodies the problem under study in the form of a complex, multifaceted, and holistic system.

The first stage in the development of a topic dedicated to modern academic music, the work of G. Ligeti and his Hamburg Concerto was carried out using a scientific exploratory method, the foundation of which is the search and collection of information. On its basis, a database of sources on the research topic was created.

The second stage of investigating the problem was the use of the analytical method of its scientific development. It included analysis and compilation of materials of the obtained information base. This stage became a prerequisite for the discovery of significant elements of the system of creative approach to the creation of the Hamburg Concerto.

The third stage summarized the tendencies of G. Ligeti's late work on the example of the Hamburg Concerto using the systematic method, the essence of which is to find and outline the leading categories of style in general and the compositional features inherent in the Hamburg Concerto.

The fourth (final) stage of the study was based on the implementation of the ideological and thesis method, which became the basis for the formation of an individual author's concept regarding the vision of the discoveries of the Hamburg Concerto as a single complex system. This method of creating an original concept contributed to the implementation of novelty and prospects, which are contained in the content of the publication.

RESULTS AND DISCUSSION

When summarizing the tendencies of G. Ligeti's late works on the example of the Hamburg Concerto, a complex, voluminous, and integral system of compositionaltechnical, stylistic, rhythmic, intonational, and timbre components of his writing was identified and outlined. Each of them, as evidenced by the data of the present study, differs in a certain scale and function.

Table 1 lists the categories, as well as their characteristics, which are inherent in the composer's style of writing.

Table 1. The main creative principles of G. Ligeti and their description

	Ligeti and their description
Focus- ing on the instru- mental concerto genre	Attraction to a large concert form, which provides unlimited opportuni- ties for compositional experiments in the field of the formation of thematics; intonation and rhythmic structure; timbre and textural dramaturgy, as well as the structural aspect
Mod- erniza- tion of the instru- mental concerto	Implementation of artistic compo- sitional and technical means that provide a new vision of musical mate- rial, its main themes and episodes of development, dynamics, as well as an individual, unprecedented interpreta- tion of expressive techniques that exist in the practice of creating music
Synthe- sis of academ- ic and folklore tradi- tions	The principle of referring to com- positional structures and writing techniques developed by the academic practice of creating music over several centuries, including ultramodern techniques for designing and devel- oping material in a harmonious and direct combination with elements of folk genres (specifically, interval and metro-rhythmic micromodes, natural tunings)
Appli- cation of avant- garde style	The introduction into the genre of in- strumental concerto of such categories as microtonality, sonorous vertical, micropolyphony

Com-	The desire for a natural and profound
bina-	combination of the latest composi-
tion of	tional and technical fund of the late
modern	20th – early 21st centuries and the
complex	integral components of the style of the
writing	Romantic era in music (specifically,
tech-	solo instruments, the national folklore-
niques	genre basis in the form of imitation of
and	certain rhythms and timbres, as well as
neo-ro-	a characteristic genre and the structur-
mantic	al aspect of the major concerto form)
style el-	
ements	

Source:	created	by	the	authors	of	this	study.	

Thus, Ligeti's creative heritage includes seven instrumental concertos, and this is more than he has written in any other musical genre. The method of end-to-end development of motive groups (cells), inherent in this large-scale form, is being implemented.

Each of the seven concertos has a unique stylistic, structural (a departure from the traditional three-part form), and timbre-instrumental appearance, reflecting the author's tortuous trajectory of the author's creative searches. Specifically, he created double (Concerto for flute and oboe with orchestra), ensemble (Chamber concerto for 13 instruments), and orchestral (Concert românesc) concertos.

The first Concert românesc (1951) chronologically records the impressions of studying folk music at the Institute of Folklore in Bucharest. Three concertos, created in the 1960s and early 1970s, capture avant-garde experiments associated with the ideas of sound-colourfulness, micropolyphony, and static composition. The last three instrumental concertos, dated 1988 and 1999, demonstrate the interaction of the full range of previously developed writing techniques with neo-romantic tendencies, indicative of the late period of the musician's work. The ways of formation and development of the composer's works are presented in Table 2.

	composer G. Ligeti
Micro- themed elements	This category acts as the intonational basis of themes in the genre sections of the work and acquires inde- pendent significance in sonorous episodes.
Expand- ing, fro- zen and narrowing cluster, sonorous vertical	The method of creating a timbre space, the formation of its dramatur- gy (episodes of the First Movement of the Hamburg Concerto, comple- tion of its Second Movement)
Polypho- ny (micro poly- phonic imitation; combina- tion of different themes)	The method of developing and forc- ing dynamics in the process of de- ploying the thematic material of the Hamburg Concerto (the last section of the First Movement; the second section of the Second Movement; the completion of the second section of the Third Movement; the third section of the Third Movement; the fourth section of the Fourth Move- ment)
Timbre echo (res- onance)	The method of deepening expres- siveness in showing the image (beginning of the Second Movement of the Hamburg Concerto)
Transpo- sition of thematic source	The method of colouring the main material by comparing the different pitches of the scale that makes up the carcass of the theme
Thematic transfor- mation	A method of musical narration based on a change (sometimes radi- cal) in the nature of the material that sounded earlier (completion of the second section of the Second Move- ment of the Hamburg Concerto)
Variability	A method for developing thematic material based on preserving its core and revealing its various facets (first section of the Third Movement of the Hamburg Concerto)
Genre rhythm	A category associated with the implementation of the rhythmic basis of folk melodies in modern academic Music, specifically the "Aksak" dance with its unique relief combination of durations: 4 + 3 + 2 (second section of the Third Move- ment of the Hamburg Concerto)

Table 2. Categories and methods of formation, as well as development of material by the

Combina- tion of scales	The technique of creating a complex sound environment by combining different sound series or modes at the same time (second section of the Fourth Movement of the Hamburg Concerto)
Cross- cutting thematic develop- ment	The method of using the intona- tional-rhythmic basis of the mate- rial of one of the movements of the Hamburg Concerto in its other movements (re-intonation in the Fifth Movement of the intonations of the First Movements)
Group technique	Method for organizing and develop- ing textured cells

Source: created by the authors of this study.

The nature of the images and themes of the Hamburg Concerto, its genre, and structural foundations, as well as a set of compositional and technical means, form an integral system. It includes such blocks as the thematic modus (sonoristic field; melody in the form of an individual horizontal line; intonational, timbre, and rhythmic resonation); dynamic principles (variability; comparison of modal elements and scales in different pitch contexts; micropolyphony); timbre architecture; interpretation of national traditions combined with modern writing techniques. Figure 1 illustrates the structure of G. Ligeti's musical language used in the Hamburg Concerto. Blocks are given that form its basis and at the same time realize the composer's creative searches, his experiments in the field of applying various techniques and their combinations.

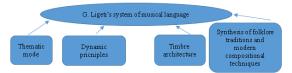


Figure 1. G. Ligeti's Hamburg Concerto as an indicator of the modern musical language system

Thematic material (mode), in combination with dynamic principles, features of timbre design, and rhythmic schemes, concentrates a certain type of presentation of musical thought. When analysing each of the parts of the Hamburg Concerto, their different variants were identified.

Thus, the First Movement - Praeludium - opens with the composer's classic, textbook technique: a microcluster of Eflat - F for natural horns, which then expands to a fifth of D-flat - A-flat. Against its background, the soloist sets out a rather lengthy "frozen" melody. In measure 10, the middle section begins, built on the soloist's wide expressive leaps, with the support and doubling of the French horns and the sonorous clusters of other instruments. In sharp contrast in measure 15, the last section breaks in, built on a unison and cluster line for the strings, which are chanted by all instruments, and the effect of declamation is enhanced by micropolyphonic imitations on woodwinds and brass instruments.

The Second Movement consists of three sections - Signale, Tanz, Choral. Its beginning is a spectacular dialogue between the soloist and the horn ensemble, built on a fanfare takeoff along two minor and two major thirds. The horns echo the solo instrument. The middle section is a dance representing a three-part, with the soloist's stepwise movement of the melody doubled within the interval of a quart of one of the horns (fourth), which creates a special sound effect. At the same time, the second and third horns, in a Cancrizans imitation, set out the intonations of the initial fanfare, thanks to which both sections are combined. Such a vertical alignment is indicative of Ligeti. Doubling to a fourth creates a sonoristic effect, on which complex imitation is superimposed by counterpoint. The beginning of the third (lyrical in figurative structure) section - the Choral - sounds muffled by four horns, and the abundance of natural overtones gives it a specific sound. Like the First Movement, the Second Movement ends with an extended sonorous layer for wood and stringed instruments.

The Third Movement has three small sections: Aria, Aksak, Hoketus. The first of them is a soulful Aria, the melody of which is heard by the soloist. It is supported by soft string chords, built as a combination of two fifths: B-flat - F and C - G, in combination with which the interval of a second B-flat - C is observed. The colorful effect is enhanced by the individual phrases of the four bongs. If we talk about the melody in the soloist's part, then it first builds up as a varied movement along the scale of E-flat - F - A-flat - A - B - C, which also hearkens back to the First Movement. In monophony, the sonorous effect is created by the fact that the sounds of E-flat - A-flat - A should be played by the performer as natural, untampered.

The second section is Aksak, a medieval dance performed in the countries of the Balkan Peninsula, in Hungary. In this case, Ligeti takes his rhythmic basis and organization of durations: 4 + 3 + 2. The composer builds the horizontal line in parallel fifths, colorfully, from the perspective of timbres, embodying it in the orchestral fabric. The beginning of the second section is distinguished by its relief: the G-D fifth is played, where the lower sound is performed by the bassoon and the upper one - by two flutes. This figure is doubled by a marimba, which is joined by a fifth for basset horns and a fifth pizzicato for strings. The counterpoint to this melodic line is played by separate phrases- echoes from the horns, creating continuity with the first and second sections of the cycle.

The third section – Hoketus (measure 24) – synthesizes the intonations of Aksak, melodic turns from the Aria and some linear moves that refer the listeners to the material of the end of the Prelude. In this case, Hoketus is a natural continuation of the dance, but with maximum polyphonic complication and the combination of various layers that do not coincide in metric terms, creating the illusion of aleatorics. In this case, the composer interprets Hoketus as a technique in the context of a complex orchestral texture.

The Fourth Movement consists of four sections: Solo, Intermezzo, Mixtur, Kanon. The first section – the horn solo – creates an intonation and genre arc to the first section of the third movement (Aria). The melody is built as a free movement of

material, with an abundance of expressive jumps and soft progressive moves. As in the previous movements, the soloist's part retains the imitation of natural horns and implements the techniques of micro dynamics. The sound of a horn with a mute creates the updated timbre colouration. Here, the echo effect appears when the same melodic interval is presented first on ff, then on pp. Ligeti instructs the soloist to play it at different overtones, adding a timbre-register contrast to the dynamic tone. In figurative terms, this solo is a continuation of the lyrical line from the Prelude, the third section of the Second and the first section of the concerto's Third movement.

Intermezzo enters as a striking contrast: fast tempo, variable meter, distinctly accentuated rhythm and ostinato sound of a tambourine combined with a polyrhythmic complex. The opening phrase of Intermezzo develops the idea of open strings in bowed instruments. It is echoed by a contrasting phrase in the woodwinds and double bass, which, due to the simultaneous combination of several scales, creates the feeling of using the technique of groups.

The third section – Mixtur – continues the development of the sections Intermezzo, Solo, and is built on a new melodic line of a pronounced impulsive nature. The composer creates the note "quasi jazz, parlando" (measure 42). The percussion group is amplified by the bass drum. There is also an expressive timbre development in the form of a comparison of various doublings and mixes.

The final section – Kanon – is a vivid example of the technique of micropolyphony. Starting at the second violins, due to the orchestral crescendo, it grows to tutti (without horns) and then, through the orchestral diminuendo, "calms down" in the parts of the basset horn, bassoon, trombone, and strings. This material is very indicative from the standpoint of using the technique of micropolyphony, first of all, in terms of tempo – prestissimo, which enhances the effect of ostinato sound and irregularity when repeating its elements. The Fifth Movement is Spectra. Like the Prelude, it represents a single phase of development. The chorale of the ensemble of horns and the soloist is an intonationally updated initial phrase of the soloist in the Prelude. The development is built on timbre contrast – a comparison of the sound of horns and other instruments of the orchestra.

The Sixth Movement - Capriccio includes three sections. The first of them is a bright and dynamic dance. The composer builds it as a timbre-textural complex, combining the melodic line of the soloist (occasionally supported by horns) and the accompaniment of the strings (pizzicato), designated by the composer as "quasi guitar". The second section of this movement, having something in common with the first, is marked by a new melodic figure, which the composer develops polyphonically and through timbre. The beginning of the third section of this movement is a sharp contrast to the earlier material. Beginning with a G-flat-D-flat fifth on the basset horns, it revives the material of the Third Movement of the concerto, and Capriccio "melts" in the soft downward stepping motion of the horns' fifths, which connect with the trembling layer of fifths, and then their upward movement at the trembling strings.

The concerto's Seventh Movement - Hymnus - is interpreted as a postlude, a gradually fading procession, a chorale. Not being sonorous in technique, it is replete with special sound effects, thanks to the technique of playing frulato on horns, which, combined with a noticeably quiet sonority, creates a mysterious, enigmatic image. The violins play the sul ponticello tremolo, which reinforces this impression. The internal contrast of thematism is exacerbated by a second interval in C-D for viola and cello, with mute and harmonics. The material in the double bass part has a different genre nature, the stroke of which (pizzicato vibrato) vaguely resembles Aksak from the Third Movement and the dance from the Second. Such an unexpected artistic turn in the concert finale retrospectively changes the ideological and semantic interpretation of the dramaturgy of the work as a whole and each of its movements separately, introducing elements of elegy and sadness.

As for the interaction of compositional techniques, in this concerto, Ligeti uses almost the entire range of composing techniques he developed earlier: sonorous layers; intonation, rhythmic, and timbre imitations; and in terms of organizing textured micro-complexes – the technique of cells. All this is united by an original sense of texture (horizontal and vertical). Unlike other concertos, there is no aleatoric in its pure form in the Hamburg concerto, and only some effects arise in the sphere of rhythm and are perceived primarily by ear (Figure 2).

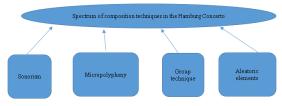


Figure 2. The system of techniques of G. Ligeti in the late period of creativity (on the example of the Hamburg concert)

It is this synthesis of proven elements and techniques, characteristic of the Hamburg Concerto, with new timbre-harmonic discoveries (including the use of a natural, non-tempered system) that determines the final role of this work in the composer's work, reflecting the tendencies inherent in his late style.

Scientists from various countries turned to certain aspects and facets of G. Ligeti's work. Thus, the final role of the Hamburg Concerto allows, according to M. Searby (2010), to reveal in the course of analytical procedures the features of the late style of the Hungarian musician, noted, according to most researchers, on the one hand, by the synthesis of trends that determined the evolution of the composer at the previous stages of his creative path, and on the other hand, the incessant search for something new, namely harmonic and microtonal ideas. M. Searby (2010) points out that the composer used natural overtones in the horn part of the Trio for violin, horn, and piano (1982) and even earlier in the Third Movement of the Romanian Concerto (1951), but they represented more of a horizontal line than a vertical one.

Research has been carried out on the conception, creation, and performing fate of the Hamburg Concerto. It was ordered to Ligeti, according to Müller, by the German charitable foundation "Zeit-Stiftung," established in 1971 by Ebelin und Gerd Bucerius. The customer expressed the wish that the work requested by him be associated with Hamburg - the place of registration of the foundation - and for the first time performed there. Such a wish, according to the creator himself, gave him the idea to call his concert "Hamburg Concerto" by analogy with the "Brandenburg Concertos" by J. S. Bach (Muller, 2003). Describing the Hamburg Concerto, researchers first of all emphasize the specific nature of its sound due to the choice of instrumental composition: a chamber orchestra with four natural horns, two basset horns, and a large number of percussion instruments. In the comments to the score, the composer indicates that the soloist must also episodically imitate the sound of a natural horn and prescribes a special sound production on individual overtones in the indicated places. Explaining his idea, Ligeti emphasizes that he sought to build a musical narrative with the help of a spectrum of tones beyond the traditional temperamental system, formed into a harmonic layer of his composition (Muller, 2003).

Ch. Chapman (2012), a member of the *Ensemble Musikfabrik*, a contemporary classical music ensemble in Cologne, sharing her experience of performing the Hamburg Concerto at the opening of the International Festival of Contemporary Music "Warsaw Autumn" in 2014, described this work as a compact necklace of seven pieces, performed for fifteen minutes and distinguished by beauty, mystery, penetration into another world, captivating by the sound of a French horn.

As the analysis of the Hamburg Concerto testifies, the "natural" intonation of the horns is combined with the temperamental tuning of the rest of the instruments of the orchestra, generating not only special timbre colours, but also marking, according to G. Kurtág (András, 2009), a rapid movement towards a new world of harmony (vertical). The Hamburg Concerto is perceived as the result of Ligeti's steady movement while searching for a new sonosphere, in which temperamental sounds coexist with natural sounds and the composer himself called "mistuned mu*sic*" (Antonova, 2017). The multipartness of the concerto, based on the contrast of laconic sections (seven parts), evokes various associations among researchers: A. Minich (2020) reminds of cyclic instrumental compositions of the seventeenth century.

E. Schreiber (2019) aims to identify and characterize the key thematic trends in the works of G. Ligeti and demonstrate their role in shaping and expanding the understanding of the composer and his works. Thus, the attention of the scientist (Schreiber, 2019) focuses on visual spatial metaphors, especially those that resemble fabric, web, labyrinth, and mirror surfaces. Attention is also drawn to the composer's desire to describe his own creative processes, which largely contributes to his artistic self-identification (Schreiber, 2019).

B. Levy (2017) explores the evolution of the author's style from the perspective of the composition techniques he uses, marking the path from the continuity of the traditions of B. Bartók, through the experimental sphere associated with electronic music to a unique synthesis of the leading trends in academic music of the 20th and early 21st centuries.

The cosmopolitan orientation of G. Ligeti's work is noted by E.-P. Salonen, whose words are quoted in his article by A. Bauer (2012). Therewith, the fact is emphasized that each of the works of the Hungarian composer, who survived the Second World War, is a theatre of the absurd with a pronounced comic tinge, which connects them with large-scale modernist themes and searches (Bauer, 2012; Meleshchenko, 2023).

C. Wilson (2004) concludes that composers' ideas about themselves - in articles, program notes, and interviews - had a significant impact on the music science of the 20th century, shaping not only the perception of particular works but also broader historiographic concepts of the recent past. Specialist (Wilson, 2004) traces one particular way of discourse through the published statements of G. Ligeti: his "rhetoric of autonomy" seeks to renounce allegiance to "schools" or institutions and downplay stylistic or aesthetic commonality with the work of other composers. It naturally clashes with the already familiar pluralistic cultural paradigm of the late 20th century, a paradigm that many postmodern theories, despite its deconstruction of the "unique self" ideology, did not perceive as antagonistic (Wilson, 2004; Kim, 2017; Nurtazina & Toktushakov, 2017). In a cultural sphere increasingly engulfed by commerce, the image of the radical, autonomous creator, once symbolic of the rejection of the mass market, inevitably finds itself captured by its mechanisms as an obvious advertising tool (Wilson, 2004; Chung, 1987).

The purpose of K. Īvāne's study (2015) was to investigate the microtonal intonation in György Ligeti's "*Hora lungă*" for viola solo. It is considered from three perspectives: composing, performing, and audience (Īvāne, 2015). Its special effect, capable of immersing the listener in a strange, magical, nostalgic world, was most clearly manifested in the author's performance (Īvāne, 2015).

The researcher of G. Ligeti's work – P. Edwards (2015), using the example of the final *Passacaglia* from his opera "The Great Death", notes the period of stylistic crisis, which marks the return of the artist to more conventional compositional means. Consonances and tonal allusions in music are indicative of a similar retrospective trend (Yeboah et al., 2022). However, notions of functional hierarchy or centres of pitch do not fully explain the underlying processes that contribute to *Passacaglia*'s sense of constant unfolding. The resistance of tonal teleology contains the process of differentiation of pitch material. In this regard, *Passacaglia* can be considered a further development of Ligeti's efforts to introduce an individual authorial process into musical material, albeit with an increase in the level of interval transparency (Edwards, 2015).

P. Laki (2013) analyses two major works dedicated to G. Ligeti as one of the leading representatives of the European academic composer school of the second half of the 20th – early 21st centuries. Specifically, the specialist (Laki, 2013) offers readers an edited volume of the essay "On Foreign Lands and Strange Sounds." His training brought together scientists and composers from different countries, many of whom were strongly associated with the composer as co-authors or students. The book provides access to crucial source material and sheds light on many questions about the Hungarian composer's biography, analysis of creativity and musical aesthetics (Koniukhov, 2022). The most significant revelation comes at the end of the publication, where the author draws a fascinating parallel between Ligeti and fellow Holocaust survivor I. Kertész, winner of the 2002 Nobel Prize in Literature. Beginning in the 1980s, the composer's entire musical universe received vital new impulses from his meetings with two eminent scientists from two vastly different fields. Mathematician H.-O. Peitgen introduced the composer to fractals and chaos theory, and the ethnomusicologist S. Arom introduced the incredibly complex rhythmic polyphony of Central Africa (Laki, 2013).

D. Chua (2008) considers the importance of complex compositional and interpretation techniques that arose in the twentieth century on the example of the public and musicological science, in particular, music criticism, the perception of I. Stravinsky's ballet "The Rite of Spring". The scientist seeks to reveal the significance of the individual beginning, sometimes expressed in an unprecedented form and manner, causing the public a shock that is opposed to the universal and generally accepted in the world of Music (Chua, 2008). It was in their context that the original, universal, from the standpoint of the synthesis of the latest means of expression, the work of G. Ligeti was formed (Chua, 2008).

Papagiannakopoulou (2001) writes about the significance of rhythm as one of the leading categories of the musical language, the compositional technique of writing in the academic art of the 20th and 21st centuries. Specialist (Papagiannakopoulou, 2001) refers to the works of the outstanding French composer O. Messiaen, stating the fact that rhythm appears in the academic music of the 20th century as one of the most original aspects of the work of the authors of this era, specifically the Hungarian composer (Papagiannakopoulou, 2001).

Research is being carried out on implementing and developing the traditions of G. Ligeti in the musical composition of the 21st century, accompanied by the use of soundscaping (Morandi & Schiavoni, 2022; 2019).

The problem of the formation and functioning of digital art is studied, as the implementation of creative searches and discoveries of unknown areas of music, essential for G. Ligeti, as well as the principles of using computers, diverse types of software to create "new" Music (Schiavoni et al., 2019; Vieira & Schiavoni, 2020).

Scientists also investigate the evolution of the intonation fund and the means of recording it and transmitting it to listeners, namely through audio applications, when a mobile portable device becomes a musical instrument, and the audience turns into a part of the soundscape (Gomes et al., 2019; Teixeira et al., 2019). The sphere of the modernized musical space its sociological and ecological nuances are being studied (Vieira et al., 2020a; 2020b). However, showing the musical language of G. Ligeti as a single, voluminous, and complex system requires research, coverage, and implementation.

CONCLUSIONS

The publication explored the problem of reflecting the later trends in G. Ligeti's work in his Hamburg Concerto. The stylistic context and the environment of the intonational fund of academic music of the second half of the 20th – early 21st centuries, within which the individual style of the Hungarian composer was formed, were analysed.

As a result of investigating the subject under study, a set of writing techniques became apparent, using which Ligeti's works and, specifically, the Hamburg Concerto were created. These include sonorism, micropolyphony, group technique, aleatoric elements.

The study of summarizing the late tendencies of the musician's work on the example of the Hamburg Concerto helped cover the system of his musical language. It is based on such blocks as thematic mode, dynamic principles, timbre architecture, synthesis of folklore traditions, and modern compositional techniques.

In the context of this integral system, the categories and methods of formation and development of musical material by the composer G. Ligeti were identified. These categories and methods appear as micro-thematic elements: expanding, frozen, and shrinking clusters; sonorous vertical; polyphony (micropolyphonic imitation; combination of diverse themes); timbre echo (resonation); transpositions of the thematic source; thematic transformation; variability; genre rhythm; combination of scales; through thematic development; group techniques.

During the study on the reflection of the tendencies of G. Ligeti's late work in the Hamburg Concerto, his main creative principles were determined. Among them, the following are of leading importance: focusing on the genre of the instrumental concerto; modernization of the instrumental concerto; synthesis of academic and folklore traditions; the use of avant-garde style; a combination of modern complex composing techniques and neo-romantic style elements.

All of the above determines the significance and relevance of this paper in various fields, such as musicology, history, methods of performance, and composition basics. This also emphasizes the prospects of the subject under study for researchers in the future since the intonational and stylistic fund of the compositional and technical arsenal are constantly updated and enriched with new discoveries, and, thanks to this, these areas are expanding their boundaries.

REFERENCES

- András, V. (2009). *György Kurtág: Three interviews and Ligeti homages*. New York: University of Rochester Press.
- Antonova, O.G. (2017). Concerto for violin and orchestra by Gyorgy Ligeti: a dialogue with the genre tradition. *Journal of the Tchaikovsky National Music Academy of Ukraine*, 1(34), 4-17.
- Bauer, A. (2012). The cosmopolitan absurdity of Ligeti's late works. *Contempo*rary Music Review, 31(2-3), 163-176.
- Bauer, A. (2019). From pulsation to sensation: virtuosity and modernism in Ligeti's first and ninth piano études. *Contemporary Music Review*, 38(8), 1-22.
- Bauer, A. (2020). György Ligeti. In: *Music*. https://doi.org/10.1093/obo/9780 199757824-0271.
- Berehova, O. (2022). Comparative poetics of composers' creativity in the formation of the European cultural paradigm. *Interdisciplinary Cultural and Humanities Review*, 1(1), 13-19.
- Chapman, Ch. (2012). Warschauer herbst. https://www.musikfabrik.eu/en/ calendar/warschauer-herbst/.
- Chemillier, M. (2020). György Ligeti and the logic of textures. School of Advanced Studies in Sciences. *Analyse Musicale*, 38, 75-85.
- Chua, D. (2008). Rioting with Stravinsky: A particular analysis of the Rite of Spring. *Music Analysis*, 26(1-2), 59-109.

- Chung, J.K. (1987). Social Criticism of Non-Church Christianity in Japan and Korea. Chicago: The University of Chicago. https://www.proquest.com/openvi ew/2739d364bcf9969fae37a6e4a46fd 789/1?pq-origsite=gscholar&cbl=18 750&diss=y
- Edwards, P. (2015). Resisting closure: the Passacaglia finale from György Ligeti's Le Grand Macabre. *Music Analysis*, 35(2), 258-278.
- Gomes, A., Gonçalves, L., Resende, F., & Schiavoni, F. (2019). Prototyping Web instruments with Mosaicode. *Simpósio Brasileiro de Computação Musical*, 17, 114-120.
- Hromchenko, V. (2022). The integration's problem of specialized musical disciplines into the distance education. *Interdisciplinary Cultural and Humanities Review*, 1(1), 6-12.
- Īvāne, K. (2015). Microtonal intonation from composer's, performer's and concert-audience's perspective: the case of György Ligeti's Hora lungă for viola solo. Arts and Music in Cultural Discourse Proceedings of the International Scientific and Practical Conference, 4, 35-42.
- Kim, K.H. (2017). A Study on the Role of Colporteurs in the Growth of Early Korean Church. Gwangju City: Kwangshin University.
- Koniukhov, S. (2022). Specific Features of the Process of Decolonisation of Modern Textbooks on the History of Ukraine. *Foreign Affairs*, 32(6), 39-45. https://doi.org/10.46493/2663-2675.32(6).2022.39-45
- Laki, P. (2013). György Ligeti: of foreign lands and strange sounds ed. by Louise Duchesneau and Wolfgang Marx, and: Ligeti's laments: nostalgia, exoticism, and the absolute by Amy Bauer (review). *Notes*, 69(4),767-770.
- Levy, B. (2017). *Metamorphosis in Music: The compositions of Gÿrgy Ligeti in the 1950s and 1960s.* New York: Oxford University Press.
- Meleshchenko, T. (2023). The political path of independent Ukraine

from the national-state revival to its place in the modern historical process. *Foreign Affairs*, 33(2), 31-41. https://doi.org/10.46493/2663-2675.33(2).2023.31-41

- Minich, A. (2020). The work of Gyorgy Ligeti in the 1980s–2000s: structural, syntactic and semantic features of the theme of instrumental concerts. *Scientific Herald of the Tchaikovsky National Music Academy of Ukraine*, 129, 213-231.
- Morandi, T., & Schiavoni, F. (2019). Creative Processes of foley, soundscape and ubiquitous Music in audiovisual productions. *Jornada Interdisciplinar de Som e Música no Audiovisual*, 4, 366-380.
- Morandi, T., & Schiavoni, F. (2022). Foley, soundscape and Ubiquitous Music in audiovisual creative processes. *Revista Nava*, 7(1), 1-159.
- Muller, Ch. (2003). Gyorgy Ligeti on his works: Preface. The Ligeti project IV. Mainz: Scott Music International GmbH & Co.
- Nurtazina, R., & Toktushakov, A. (2017). Internal migration in central Asia: Social risks (case studies of Kazakhstan, Tajikistan, and Kyrgyzstan). *Central Asia and the Caucasus*, 18(4), 46-56.
- Pace, I. (2012). Maintaining disorder: some technical and aesthetic issues involved in the performance of Ligeti's études for piano. *Contemporary Music Review*, 31(2), 177-201.
- Papagiannakopoulou, E. (2001). Discuss approaches to the conception of time and rhythm in the Music of Messiaen. https://doi.org/10.13140/ RG.2.1.1558.6002/1
- Schiavoni, F., Gomes, A., Teixeira, J., & Resende, F. (2019). Alice: Arts lab in interfaces, computers, and everything else – Research report. ISimpósio Brasileiro de Computação Musical, 17, 157-164.
- Schreiber, E. (2019). Childhood memories and musical constructions. autobiographical threads in György Ligeti's

notes on his works. In: *Musical Analysis Historia – Theoria – Praxis* (pp.169-181). Wrocław: The Karol Lipiński Academy of Music.

- Schreiber, E. (2019). The structure of thought. On the writings of György Ligeti. *TRIO*, 1-2, 18-43.
- Searby, M. (2010). Ligeti's stylistic crisis: transformation in his musical style. 1974-1985. Lanham: Scarecrow Press.
- Teixeira, J., Junior, I., Paulo, A., & Schiavoni, F. (2019). A technical approach of the audience participation in the performance 'O Chaos das 5'. Simpósio Brasileiro de Computação Musical, 17, 28-34.
- Vieira, R., & Schiavoni, F. (2020). Can Pipeand-Filters architecture help creativity in music? *Workshop on Ubiquitous Music (UBIMUS)*, 2020, 109-120.
- Vieira, R., Barthe, M., & Schiavoni, F. (2020a). Everyday use of the internet of musical things: intersections with ubiquitous music. *Workshop on Ubiq*-

uitous Music (UBIMUS), 2020, 60-71.

- Vieira, R., Schiavoni, F., & Goncalves, L. (2020b). The things of the Internet of Musical Things: defining the difficulties to standardize the behavior of these devices. 2020 X Brazilian Symposium on Computing Systems Engineering (SBESC), 2020, 1-7.
- Voyvoda, E. (2022). Contextual analysis of European integration sentiments in post-communist countries: Trends, changing rhetoric, and sequence of practical steps (1991-2021). European Chronicle, 7(1), 23-29.
- Wilson, C. (2004). Gyorgy Ligeti and the rhetoric of autonomy. *Twentieth Century Music*, 1(01), 5-28.
- Yeboah, A.S., Carol, S., & Fathi, A. (2022). Demographic Challenges for the Caucasian Race: What Can the Assimilation of Cultures on the European Continent Lead to? *European Chronicle*, 7(4), 5-13.