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THE USE OF ELECTRONIC MUSIC IN THEATRICAL PERFORMANCES: THE INFLUENCE OF TECHNOLOGY ON MUSICAL DRAMATURGY

Contemporary theater is actively using the latest technologies to enhance the expressiveness of dramatic works and improve interaction with the audience. A striking example of this is the use of electronic music, which expands the possibilities of soundtrack and changes the approach to musical design of theatrical productions. Electronic music has become an integral part of contemporary theater, particularly in theatrical performances, thanks to its unique capabilities. Working with sound in real time allows you to create unique sound compositions that enhance the drama of the work and form an emotional background. Thanks to its interactivity, electronic music easily interacts with other elements of the stage, such as light, video effects and actor movement, creating a dynamic and spontaneous performance. Modern technologies make it possible to create electronic music at a lower cost and without the need for special musical training.

The purpose of this article is to highlight the role of electronic music in contemporary theater as an important element of a holistic artistic performance and the use of new technologies to enhance the emotional depth of a performance.

Electronic music in the Ukrainian theater is becoming a dynamic trend, opening up new avenues for creative experiments. The combination of classical theatrical forms with the latest technologies contributes to the creation of unique and impressive productions. Its flexibility, ability to convey the atmosphere, interaction with other art forms, and sensitivity to the current demands of the time make electronic music an integral part of contemporary theater. It not only adds new possibilities for sound design, but also transforms the approach to musical design of theatrical performances, creating dynamic, interactive and improvisational forms that resonate with the needs of modern audiences.

Key words: *electronic music, sound design, musical drama, performance, theater, technologies.*

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ВИКОРИСТАННЯ ЕЛЕКТРОННОЇ МУЗИКИ У ТЕАТРАЛЬНИХ ПЕРФОРМАНСАХ: ВПЛИВ ТЕХНОЛОГІЙ НА МУЗИЧНУ ДРАМАТУРГІЮ

У сучасному театрі активно застосовують новітні технології для посилення виразності драматичних творів і покращення взаємодії з глядачем. Яскравим прикладом цього є використання електронної музики, яка розширює можливості звукового супроводу та змінює підхід до музичного оформлення театральних постановок. Електронна музика стала невіддільною частиною сучасного театру, зокрема в театральних перформансах, завдяки своїм унікальним можливостям. Робота зі звуком у реальному часі дозволяє створювати неповторні зву-

кові композиції, що підсилюють драматичність твору та формують емоційний фон. Завдяки інтерактивності електронна музика легко взаємодіє з іншими елементами сцени, такими як світло, відеоефекти та рух акторів, формуючи динамічний і спонтанний перформанс. Сучасні технології дозволяють створювати електронну музику з меншими витратами й без необхідності спеціальної музичної підготовки.

Метою цієї статті є висвітлення ролі електронної музики в сучасному театрі як важливого елементу цілісного мистецького дійства і використання нових технологій для підсилення емоційної глибини вистави.

Електронна музика в українському театрі стає динамічною тенденцією, відкриваючи нові шляхи для творчих експериментів. Поєднання класичних театральних форм із новітніми технологіями сприяє створенню унікальних постановок, що вражають. Її гнучкість, здатність передавати атмосферу, взаємодія з іншими видами мистецтва та чутливість до актуальних запитів часу роблять електронну музику невіддільною частиною сучасного театру. Вона не лише додає нові можливості для звукового оформлення, але й трансформує підхід до музичного дизайну театральних вистав, створюючи динамічні, інтерактивні та імпровізаційні форми, що резонують із запитам сучасної аудиторії.

Ключові слова: електронна музика, звуковий дизайн, музична драматургія, перформанс, театр, технології.

Problem statement. Contemporary theater, like any other field of art, actively integrates technology into its processes. One of the brightest examples of such synthesis is the use of electronic music in theatrical performances. This innovation not only expands the possibilities of sound design of performances, but also brings fundamental changes to the approaches in creating musical drama. Electronic music has become an integral part of modern theater due to a row of its features. First, its ability to manipulate sound in real time provides opportunity to create unique soundscapes and adapt to a variety of stage situations. Second, the expressiveness of such music allows us to convey the nuances of the characters' emotional states and create an atmosphere of tension, calm, or euphoria. Third, due to its interactivity, electronic music can interact with other elements of the performance, notably, the lighting, video, and actor movements, and create dynamic and improvisational performances as a result. Fourth, modern technologies allow us to create electronic music without large financial costs and special musical education. Fifth, in electronic music, sound textures and rhythms often play more substantial role than melodies, which helps to create more abstract and atmospheric soundscapes.

Research analysis. The processes of formation and development of electroacoustic music in Ukraine were studied by Zagaykevich A. The composer focused on the theoretical foundations of the development of new musical thinking, the history of the creation of electronic instruments, and the creative searches and practices of Ukrainian composers in the field of electroacoustic compositional solutions. In particular, the researcher traced the connection between the musical aesthetics of avant-garde art, artists of the sixties, and modern electronic musical innovations (Zagaykevich, 2015). Bondarenko A. analyzes the concepts of “acoustic event” (G. Kohut’s term) and “sound object” (P. Schaeffer’s term) in their correlation using the example of the work of com-

poser Oleksandr Nesterov, with an emphasis on the work “Color Fluography” “given the “purely electronic” nature of this work – the recording of acoustic instruments or vocals is not used in this work” (Bondarenko, 2020: 24).

Bondarenko A. dedicated his dissertation research to the history of electronic music in Ukraine, combining the study of academic and non-academic electronic music in the outlined period (Bondarenko, 2021). Also, within the thematical direction of our article, it is necessary to mention the dissertation research of Rakunova I., which considers composer's technologies of electronic music using the example of Alla Zagaykevich's works (Rakunova, 2008).

Electronic music as a phenomenon of cultural creation has become the subject of research conducted by Arefieva E. The author emphasizes the broad dimension of “planetary self-improvement, self-preservation, and self-realization of music, which becomes an example for the modern alphabetic system of notation, although letter notation has long been lost. The digital alphabet is a musical continuum, where every note, every letter sounds special, every person is both a letter and a planet, the alpha and omega of the communicative space.” (Arefieva, 2023: 194). S. Lazarev studied electronic music as a special aesthetic value and artistic creation of the late 20th – early 21st centuries (Lazarev, 2011).

Performative performances as a component of cultural and artistic processes in Ukraine in the 20th–21st centuries were studied by Maslova-Lysichkina I. The researcher emphasized the dominance of theatrical performance, which combined theater, fine arts, stage space, and interaction with the viewer (Maslova-Lysichkina, 2022). Artistic and cultural features of performance in the context of Ukrainian theatrical culture were studied by Lachko O. (Lachko, 2015; Lachko, 2022). Tonkoshkura O. updated the issues of theater research in the context of the rapid development of digital technologies (Tonkoshkura, 2022).

The aim of the article is to highlight the role of electronic music in modern theatrical performances as an important component of the entire theatrical performance and the use of modern technologies to enhance the drama of the theatrical work.

The main material. Modern theater offers many examples of the successful use of electronic music. It may include both large musical performances and chamber performances where music plays a key role. Modern Ukrainian theater, like the world theater scene, is actively experimenting with various forms of art, searching for new means to express current problems and emotions. One of the most interesting trends is the increasing use of electronic music in theatrical productions. This trend not only expands the variety of sound tools, but also allows creating unique theatrical worlds that reflect modern reality and its complexity. However, theatrical productions that refuse live music in favor of synthesized or pre-recorded music are not a new phenomenon in the artistic community. There are several reasons for this. The first reason is saving money for a theatrical production. Second, the use of the latest technologies in productions provides broader prospects for experiments and new creative searches. Today, academic theater institutions often use synthesized parts and pre-recorded compositions provided by theater score distributors. Such approach to the musical design of a theatrical production is rational in terms of alleviating technical requirements for the quality of the theatrical performance, especially when it comes to touring. Modern sampling and studio recording methods have made many synthesized theatre accompaniments virtually identical to their acoustic analogues. Spending hours in front of their computers musicians create hyper-realistic and emotionally powerful tracks by means of modern technology. Then in theatrical performances they are combined with other elements of the action, notably, lighting, sounds of the performance, etc. (Hashim, Zulkepeli, Rahman & Siu, 2023). Modern theater music now often contains elements of rock, rap, hip-hop, pop music, which distinguishes it from traditional theatrical styles of writing musical accompaniment. Music in the theater with a word, continues in the rhythm and in the melody of speech. It is the true essence of a theatrical performance. Thanks to music, a theatrical production acquires what is commonly called soulfulness, an indescribable meaning that touches the soul and is reflected in the mind and heart (Buchma-Bernatska, Chystiakova, Bazylchuk, Putiatytska, Kopytsia, 2021: 372).

According to Emma Rice, artistic director of Shakespeare's Globe Theatre, "There is no formula to the way we make theatre. It starts with an itch, a need,

an instinct... We look at books and films, we sketch and start creating a concept; an environment where a story can exist, and actors can act. This physical world has meaning, just as narrative does, it is an instrument of storytelling just as the written word does" (Theatre Laboratory). At the same time, as theater critic Michael Billington argues, "It would be crazy for theatre not to embrace new technology, especially video projections, the results can be brilliant" (Using digital technology).

One of the most famous modernist composers, as well as a songwriter, producer, director, playwright, and rapper, Lin-Manuel Miranda, used predominantly acoustic forms of musical accompaniment in his first Broadway show, "In The Heights." But it already included a lot of electronics in the form of click tracking, amplification, sound effects, etc. (Church). One of the most anticipated premieres for American viewers, Lin-Manuel Miranda's "Hamilton," took place on Disney+ streaming on July 3, 2020. In the 2010s, a play about the life of Alexander Hamilton, an iconic figure in American history, one of the seven founding fathers, became a real dramatic hit. As for Lin-Manuel Miranda himself, he regularly appears in popular TV series, and his songs are featured in Disney films. That is why the attention of theater lovers was drawn to a rap performance about the American Revolution. The love for the musical "Hamilton" has brought together diverse people, namely, conservative Dick Cheney, Democrat Barack Obama, rapper Jay-Z, actor Neil Patrick Harris, and the British royal family. The hip-hop version of the American Revolution debuted in 2015. Within a year, it had become wildly popular. Lin-Manuel Miranda and the cast were even invited to perform at the White House. Within few months, the musical had won a record 11 Tony Awards (the musical theater equivalent of the Oscars). The studio recording of the play won a Grammy. Louis-Manuel Miranda became the winner of the Pulitzer Prize (Rink, 2020). The musical has formed the basis for covers of a number of hip-hop and rap artists, including Nas, Regina Spektor, Ja Rule, and Chance The Rapper. It even received a parody version on the TV series Modern Family. Since 2020, rumors have been circulating in the media that influential film companies are competing for the right to make a full-fledged film adaptation of the musical. Art historians and critics admit that the secret of such success is primarily in the unconventional approach to presenting material on historical topics with the help of rap, soul, and r'n'b, using modern slang and drawing parallels with today's problems (the depiction of disputes in the Senate in the form of rap battles). Also sensitive topic of immigrants and their integration into society was also reflected in the musical. Louis-Ma-

nuel Miranda himself is a descendant of immigrants in the first generation. There is also an allusion in the musical that Hamilton was born on one of the Caribbean islands and was also an immigrant (Abarinov, 2018; Rink, 2020).

Also, over the past decade, the attention to the aesthetic component of electronic music in Broadway shows has increased. The role of sound engineer becomes increasingly important in a theatrical production, since there must be coherence and harmony between electronics and acoustics in order to achieve the most effective dramatic tension for both sides: performers and audiences (Church).

It is necessary to briefly consider certain aspects of the electronic music development in Ukraine as a phenomenon in the music industry. Therefore, we suggest turning attention to the works of composer Alla Zagaykevich. Having received professional education at the Kyiv State P. I. Tchaikovsky Conservatory (now the National Music Academy of Ukraine), she interned in Paris at the Annual Courses in Composition and Music Informatics at the IRCAM Institute. She also studied Ukrainian authentic singing when being part of the folklore ensemble "Drevo". She founded an electronic music studio. In her work, the composer combines academic genres and modern media art. Since the mid-1990s, Alla Zagaykevich started promoting electronic music in Ukraine, collaborating with colleagues from France, Sweden, Japan, the Czech Republic, Lithuania, Canada, and Germany (Agay). Ukrainian composers who began experimenting in the field of electronic music also fruitfully collaborated with cinema. In particular, in the film "Mamai" (2003) directed by Oles Sanin we can hear music by Alla Zagaykevich. Her musical accompaniment is also used in the films: "The Guide" (2014, directed by O. Sanin), "Live Fire" (2016, directed by O. Kostyuk) (Bondarenko, 2021: 152). The opera "Vyshyvanyi. King of Ukraine" premiered on October 1 and 2, 2021. It was created on the initiative and at the request of the Honorary Consul of the Republic of Austria in Kharkiv, Vsevolod Kozhemyaka. The opera became the largest component of the project, which are united by name and its historical background. The opera tells us about significant figure in the history of Ukraine - the Austrian Archduke Wilhelm Habsburg, better known by his pseudonym Vasyl Vyshyvanyi. The main idea of the opera is to demonstrate the significance of national identity and emphasize Ukraine's civilizational belonging to Europe. The author of the opera libretto is Serhiy Zhadan, who in poetic form revealed the ideological principles of the life and work of Vasyl Vyshyvanyi. The libretto was also published as a separate book in

a creative tandem with Olga Zhuk and Nadia Kelm. The cover had a rose embossed on it, which emphasized the drama of the Archduke's life story and his connection with Ukraine again (Opera libretto).

For the creators of the opera "Vyshyvanyi. King of Ukraine", this experience was in many ways an innovation and a creative experiment. For Alla Zagaykevich it was the first large-scale opera. Poet and writer Serhiy Zhadan wrote a libretto for himself for the first time. For director Rostyslav Derzhypilsky, the opera was his first experience of staging an opera, and, moreover, he worked not on his own stage. Similarly, most of the actors and musicians had their first experience working in an avant-garde opera. Producer Oleksandra Sayenko also conducted an opera project for the first time. In addition, the opera became the first avant-garde opera during the years of state independence in Ukraine on the stage of KNATOB (Kharkiv National Academic Theater of Opera and Ballet named after Mykola Lysenko). The opera combines symphonic and electronic music, and also appeals to the authentic folk singing of the Hutsul region and Poltava region (The premiere of Alla Zagaykevich's opera "Vyshyvanyi. King of Ukraine" with libretto by Zhadan took place in Kharkiv)

A vivid example of Ukrainian theatrical performance using, among other things, electronic music is the contemporary art festival GOGOLFEST. The festival was first held in Kyiv in 2007. Later, the festival also took place in Mariupol, Ivano-Frankivsk, Vinnytsia, Kherson, and Dnipro. Over 600,000 spectators visited the festival locations (About the festival). The festival aimed to "collect and present current cultural products in one location, which means that it is multidisciplinary. These are theatrical performances, art installations, musical works and concert programs, discourses with cultural figures and performances" (Intimate performance and puppet cabaret: Vinnytsia gathers AIR Gogol Fest, 2018).

In the context of our research, we will consider the opera "Stus: Passerby" more specifically. This chamber opera presented at GOGOLFEST is a vivid example of the use of electronic music to create an atmospheric and emotional soundscape that emphasizes the drama of the plot and the inner world of the main character. The opera premiered in September 2020 in Kherson during Dream GOGOLFEST. In March 2019 the actors of the "DAKH" theater started preparation of the production. Their task was to create musical interpretation of the poetry of Vasyl Stus, conveying love, tenderness and fragility of life. More than a dozen of poems by Vasyl Stus gained new shades thanks to the sounds of the double bass, the piano and the voices of Sofia Baskakova, Ihor Dymov, and

Volodymyr Rudenko. The poetry sounded in a new way because the director and playwright of KLIM, Volodymyr Klymenko felt its depth. He knew about the poet's love of music, and once wrote to his son: "You should visit concerts with your mother and get used to not only pop music but also to classical and folk." While explaining his literary preferences, Stus used musical terminology. He also translated vocal pieces into the music of famous composers and translation talent alone is not enough, because in this case the text depends a lot on the music" (Koval, 2021).

In December 2022, the Lviv Solomiya Krushelnytska Opera and Ballet Theater hosted the premiere performances of the modern ballet "Know Thyself" dedicated to the 300th anniversary of Hryhoriy Skovoroda. In this production, the theater used electronic music for the first time. The theatrical performance combined modern choreography, choral singing, and acrobatics. The synthesis of electronic music, ancient choral singing, the original video projection by Oleg Kindrativ, and acrobatic sketches presented the image of Skovoroda's life and philosophy in a new way. This production broadcast the meanings, thoughts, and ideas of the figure of the Baroque era, whom the world tried to catch but didn't manage to. Harmonious combination of historical allusions and modern technologies allowed to demonstrate the versatility of Hryhoriy Skovoroda's metaphors and talent and to actualize his figure in the present. This is exactly what the author of the idea and libretto, the director Vasyl Vovkun and choirmaster Vadym Yatsenko sought to achieve. The composer Dmytro Danok created the electronic music for the performance. It was his first experience of interacting with the classical opera repertoire (Slipchenko, 2022).

Theatre has always combined a variety of artistic instruments to create coherent storylines and narratives. Artists are inventing new ways of using casual and unconventional objects as means to express creative intent and dramaturgy. The digital information age has revealed a multitude of theatrical opportunities to performing arts producers, and automation and advances in digital technology have become the standard for operating theatres.

The most notable change is the use of pre-recorded music in live performance settings. Regardless of advantages or disadvantages, electronic music samples are almost guaranteed in many modern theatrical performances. The use of electronic music, along with live musicians, helps to enhance and complement the sound of theater pit orchestras. Furthermore, nowadays musical instruments significantly rely on digital technology to create the necessary modern sound (Shepherd-Barr, 2005)

So, the key trends that characterize the interaction of electronic music with various genres of theater are as follows:

- the increasing penetration of electronic music elements into both experimental productions and traditional genres (opera, ballet, drama); it creates new opportunities for expression and pushes the boundaries of theatrical art;
- creating unique soundscapes; modern technologies allow you to create incredible sound palettes that help immerse the viewer in the atmosphere of the performance and emphasize its ideological component;
- electronic music gets increasingly involved in multimedia projects, where it is combined with lighting effects, video art, interactive elements, and other forms of visual art;
- elements of electronic music can be used to create interactive performances where the viewer can influence the course of the action and the soundtrack;
- modern theatrical productions that use electronic music are often the result of mixing various musical styles, ranging from classical music to experimental techno.

The use of electronic music in Ukrainian theater has its own peculiarities. First of all, it is a synthesis of the traditional and the modern. Ukrainian theater directors and composers are often combining traditional Ukrainian instruments and folk music with electronic sounds, creating original soundtracks that resonate with the modern listener. Electronic music is often used to enhance the social themes of performances, conveying a sense of anxiety, alienation or, conversely, unity and hope.

Conclusions. Electronic music in Ukrainian theater is a dynamically developing direction that opens up new opportunities for creativity and experiments. The combination of traditional theatrical forms with modern technologies allows to create unique and impressive performances.

Electronic music has become an integral part of modern theater, including such a large-scale festival as Gogol Fest, for a number of reasons.

First, it creates atmosphere and mood. Second, electronic music is flexible, and it allows to create a wide range of soundscapes: from abstract and experimental to concrete and illustrative. It helps to convey the atmosphere of the scene more accurately and also emphasizes the mood of the characters, contributes to the necessary emotional coloring. Third, the dynamics of electronic music can change in real time and synchronize with the action on stage. This allows to create a sense of dynamics, tension and release. Fourth, electronic music

can be used to create a variety of sound effects that enhance the experience of the performance. These can be sounds of nature, machines, voices, as well as abstract noises. Fifth, electronic music interacts well with other art forms. It is often used in synchronization with lighting design, video projections, and other visual elements. Sixth, by means of electronic music, you can set the rhythm and tempo for dance numbers, emphasizing the movements of the actors and creating dynamic compositions. Seventh, modern technologies gives opportunity to create interactive music installations that allow the viewer to participate in the creation of the soundscape. Such immersiveness has a positive effect on the feeling of involvement in the theatrical performance. Eighth, electronic music is one of the most popular genres of contemporary music. By using it theater makes performances relevant and meets the tastes of a modern audience. Ninth, it opens up wide opportunities for experiments with sound and form. It allows to create non-standard and original theatrical productions. Tenth, modern software allows you to create complex musical compositions even on a regular

computer. It makes electronic music accessible to a wide range of creators. Eleventh, electronic music is easy to integrate into any theatrical production. It can be used as background music, as a sound effect, or as the main element of the composition.

So, electronic music has become an integral part of modern theater due to its flexibility, ability to create atmosphere, interact with other art forms, and respond to the modern zeitgeist.

The use of electronic music in theatrical performances has become an important trend in contemporary art. It not only expands the possibilities of sound design of performances, but also radically changes the approaches to creating musical drama. Electronic music allows to create more dynamic, interactive and improvisational performances that meet the modern requirements of the audience.

Electronic music in Ukrainian theater is a dynamically developing direction that opens up new opportunities for creativity and experiments. The combination of traditional theatrical forms with modern technologies allows to create unique and impressive performances.

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