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SOUNDS OF WAR: TIMBRE AND AUDIOVISUAL STRATEGIES OF EMBODYING TRAUMA IN CONTEMPORARY PIANO MUSIC

The article examines the significance of contemporary art as a means of reflecting on wartime experiences through the lens of semiotics and an interdisciplinary approach. The research focuses on the audiovisual project "Seven Basic Emotions in Wartime" for two performers and a prepared piano by composer Asmati Chibalashvili, which reinterprets the theory of seven basic emotions proposed by American psychologist Paul Ekman in light of modern wartime realities. In this performance, fear, anger, joy, sadness, contempt, disgust, and surprise acquire new semantic nuances and reflect the complex psychological and social challenges caused by war. The musical component is combined with visual paintings by artist Volodymyr Mukhin, created for each emotion, enhancing the overall emotional impact on listeners and viewers.

Using prepared piano and extended playing techniques expands the instrument's sonic possibilities and enriches the timbral palette necessary to convey the multilayered human experiences in a wartime context. The article provides a detailed analysis of this project's sound and visual elements as semiotic systems that allow an exploration of the inner world of wartime experiences and highlight their traumatic consequences. The semiotic approach enables the interpretation of music and visual means as symbols that capture deeply rooted emotions and memories of war, contributing to a broader understanding of the impact of wartime themes on contemporary Ukrainian art. It is revealed that the synthesis of music and visual images enhances emotional perception and forms new models of cultural memory, which are crucial for comprehending wartime trauma and restoring social cohesion. This approach underscores the potential of contemporary art to create a space for reflection, where the reinterpretation of the seven basic emotions – from fear to surprise – becomes a catalyst for deeper understanding and overcoming the consequences of war.

Key words: semiotics, audiovisual performance, wartime experience, basic emotions, prepared piano, cultural memory.

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ЗВУКИ ВІЙНИ: ТЕМБРОВІ ТА АУДІОВІЗУАЛЬНІ СТРАТЕГІЇ ВТІЛЕННЯ ТРАВМИ У СУЧАСНІЙ ФОРТЕПІАННІЙ МУЗИЦІ

У статті розглядається значення сучасного мистецтва як засобу рефлексії на воєнний досвід через призму семіотики та міждисциплінарного підходу. Дослідження фокусується на аудіовізуальному проєкті «Seven Basic Emotions in Wartime» для двох виконавців та препарованого рояля композиторки Асмати Чібалашвілі, в якому переосмислюється теорія семи базових емоцій, запропонована американським психологом Полом Екманом, з огляду на сучасні воєнні реалії. У творі страх, гнів, радість, смуток, відразу, презирство та здивування набувають нових змістових відтінків і відображають складні психологічні та соціальні виклики, спричинені війною. Музичний компонент поєднується з візуальними картинками художника Володимира Мухіна, створеними для кожної емоції, що посилює загальний емоційний вплив на слухачів і глядачів.

Використання препарованого рояля та розширених технік гри не лише розширює звукові можливості інструменту, а й збагачує тембральну палітру, необхідну для відтворення багатогарних людських переживань у воєнному контексті. У статті детально проаналізовано звукові й візуальні елементи цього проєкту як знакові системи, що дають змогу проникнути у внутрішній світ воєнного досвіду та унаочнити його травматичні наслідки. Семіотичний підхід дозволяє розглядати музику й образотворчі засоби як символи, у яких фіксуються глибоко укорінені емоції та пам'ять про війну, сприяючи ширшому розумінню впливу воєнної тематики на сучасне українське мистецтво. Виявлено, що синтез музики та візуальних образів не лише підсилює емоційне сприйняття, а й формує нові моделі культурної пам'яті, конче важливі для осмислення воєнної травми та відновлення соціальної згуртованості. Такий підхід підкреслює потенціал сучасного мистецтва у формуванні простору для рефлексії, де переосмислення семи базових емоцій – від страху до здивування – стає каталізатором для глибшого розуміння і подолання наслідків війни.

Ключові слова: семіотика, аудіовізуальний перформанс, воєнний досвід, базові емоції, препарований рояль, культурна пам'ять.

Introduction. Contemporary art plays a key role in understanding the traumatic experience of war, which profoundly impacts individual and collective consciousness. Cizmici and Rogers (2024) noted, that music is a cultural artifact capable of connecting personal experiences with collective memory, serving as a tool for reflection, healing, and societal recovery. In the context of war, musical works document historical events but also create a space for emotional representation of universal human reactions to crisis. According to the researchers, «Music and sound contribute to and heal the physical, psychological, and emotional consequences that arise in post-traumatic contexts» (Cizmici & Rogers, p. 512). Consequently, war, as an extreme life experience, introduces new challenges for art, compelling it to seek appropriate means for conveying complex and multifaceted emotions.

Audiovisual performances, such as the project «*Seven Basic Emotions in Wartime*,» provide an opportunity for the synthesis of auditory and visual symbols that simultaneously shape cultural memory and promote collective healing. As Meinhart and Rogers (2023) highlight, music is a leading medium for reflecting social catastrophes and violence, making interdisciplinary approaches especially relevant to contemporary Ukrainian culture. In this sense, art becomes a tool capable of integrating traumatic events into the collective consciousness while laying the groundwork for future recovery.

Analyzing of works composed during wartime is extremely important for documenting the emotional or social consequences of crisis events and developing new performance practices. The interpretation of such musical compositions requires performers to master extended techniques and to develop a profound understanding of emotional dramaturgy, which often transcends the boundaries of traditional piano performance schools.

The aim of the research is to comprehensively study the audiovisual work «*Seven Basic Emotions in Wartime*» by composer Asmati Chibalashvili and artist Volodymyr Mukhin, focusing on the analysis of semantic codes, poly-timbral imagery, and visual symbols that serve as means of conveying complex emotional states in the context of war. Particular attention is given to innovative timbral experiments, prepared piano extended playing techniques, and the integration of musical and visual elements into a unified artistic concept that reflects the multilayered nature of wartime experiences.

The research methodology is based on an interdisciplinary approach that enables a holistic examination of audiovisual performance as a

unified aesthetic system, where musical, visual, and performative elements create a multilayered emotional experience. Semiotic analysis explores the symbolism of sound imagery and timbral solutions, each representing a specific spectrum of emotions (fear, anger, sadness, etc.), while the visual imagery complements their semantic and emotional depth. This analytical framework focuses on how integrated musical and visual symbols reflect the multifaceted nature of human experiences in the context of war.

Additionally, a sociocultural approach is applied, taking into account the historical and social circumstances in which the work was created, allowing for the exploration of not only its aesthetic value but also its socio-communicative function. The study thus demonstrates how the artistic work conveys and reinterprets the traumatic events of wartime through the lens of emotional and cultural experience.

Literature Review. In contemporary scholarly works focusing on the role of music in wartime, its ability to stimulate emotional recovery and strengthen collective resilience is emphasized. Specifically, Janine Natalie Clark, in her work *Music, Resilience and 'Soundscaping': Some Reflections on the War in Ukraine*, argues that music can transform the acoustic environment of conflict, forming so-called «micro-ecologies» (Clark, 2022). These microenvironments foster emotional healing, the restoration of psychological balance, and the preservation of social connections, as the musical «sound space» counters the destructive noises of war.

The significance of such acoustic «protection» grows in contemporary piano music, where the technique of piano preparation becomes a means of emotional dialogue with the audience, reflecting the complexity and contradictions of wartime experiences. In this context, Maksym Shadko's research is particularly relevant, as it demonstrates how a prepared piano allows the reproduction of a range of profound emotional states and intricate dramatic narratives. His analysis indicates that the preparation technique opens up new creative possibilities for composers to craft unique sonic textures capable of reflecting the intense experiences of war.

In the article «The Realization of Sonoric Modality in John Cage's '*Dangerous Night*, '» Shadko emphasizes that "sonoric modality" involves creating a unique timbral palette where each sound takes on a specific role in the emotional structure of the piece (Shadko, p. 212). According to his findings, the American composer, by employing piano preparation, not only expanded the instrument's expressive possibilities but also created a unique dramaturgy reflecting the inner psychological states of an

individual. This approach provides a multilayered listening experience, eliciting an immediate intuitive reaction and a reflective evaluation of the presented musical imagery, which correlates with the extreme realities of wartime.

In this context, the prepared piano functions as a technical instrument and a cultural phenomenon, combining traditional piano sounds with unexpected timbral innovations. These sonic experiments allow the artist to reflect the spirit of the times, creating sonic metaphors that highlight the tension, chaos, and emotional trauma caused by war. Emphasizing the unique role of timbre in conveying emotions, Hailstone and his colleagues assert that timbre affects the perception of emotions in music independently of other acoustic or cognitive parameters (Hailstone et al., 2009). This underscores the particular power of timbral solutions in crafting emotional imagery that can impact listeners even before they consciously analyze the musical material.

Furthermore, Nicola Di Stefano's studies emphasize that timbre can convey emotional effects on a pre-reflective level, i.e., before the listener rationally processes melody or rhythm (Di Stefano, 2020, p. 2628). This is particularly significant in musical works aiming to communicate complex emotional states, such as fear or sadness, that arise in crises. Thus, timbral experiments with the prepared piano become a key tool for creating emotional textures that deepen the listener's immersion in the work's dramaturgy.

In summary, the research mentioned above highlights the importance of using timbral innovations and experimental techniques, such as piano preparation, to convey multifaceted emotional states. These approaches enable composers to craft complex sonic structures that reflect and reinterpret the cultural and psychological contexts of contemporary times, especially in crisis conditions.

Presentation of the main material. In contemporary Ukrainian music, the prepared piano acquires not only an instrumental but also a symbolic status, as in the context of wartime realities, it serves as a means of reflecting national pain and active cultural resistance. Timbre experiments, emerging from unconventional playing techniques, play an extremely important role in expanding the sound palette, especially in interpreting the complex, multidimensional emotions characteristic of wartime experiences.

The idea behind the audiovisual performance *«Seven Basic Emotions in Wartime»* is based on Paul Ekman's theory of basic emotions, according to which people from any culture can recognize seven fundamental emotions: fear, anger, joy, sadness,

disgust, surprise, and contempt. Ekman's concept of the universality of emotions, supported by empirical studies of facial expressions, serves as the theoretical foundation for an in-depth analysis of the emotional spectrum in artistic works (Ekman, 1992). In the case of the *«Seven Basic Emotions in Wartime»* project, the authors—composer Asmati Chibalashvili and artist Volodymyr Mukhin—reinterpret this theory through the lens of wartime reality, emphasizing the psychological burden that accompanies crises.

Each part of the performance corresponds to a specific emotion and conveys it not only through the musical component but also through a corresponding visual image. This approach ensures a synthesis of sound and imagery, which deepens the impact of the work on the audience's perception. As a result, emotions such as fear, anger, and sadness become not just themes for interpretation but multilayered symbols of the wartime experience, encompassing sudden emotional reactions and profound psychological trauma.

The first part, *«Fear»* begins with a glissando across the strings in the lower register of the instrument, creating a sense of suddenness and immersing the listener in a state of disorientation and fear. This is followed by clusters accompanied by strikes on the strings, reminiscent of the muffled sound of distant explosions. Subsequently, rhythmic strikes on the soundboard between the piano strings emerge, symbolizing the emotional and stressful state of a person. In the second performer's part, sharp, dissonant tutti chords and texturally fragmented chords are played, conveying the intensification of anxiety and its ebb and flow. These episodes intertwine two symbolic realms: the illustrativeness of external events and the corresponding shifts in a person's internal state. Simultaneously, in the first performer's part, rhythmic strikes on the strings and soundboard are repeated in the background, culminating in an abbreviated, mirrored reprise of the initial material. The first part concludes with a glissando across the strings, mirroring the opening gesture.

In the second part, *«Anger»* a repetitive figure in the lower register serves as a backdrop, symbolizing the state of a person «boiling over» with rage. Against this foundation, an actively accented theme develops, based on an ascending motion in seconds, which is mirrored in the parts of both performers. As the ascending motion unfolds over the lower-register figure, the theme culminates in an E-flat in the upper register, which is duplicated by the second performer. The repetition of this note creates a sense of mounting aggression. The second part ends abruptly, leaving the tension unresolved.

The third part, «Joy» is more of a reflection of a state of light sorrow, a reminiscence of past positive events, and a hope for their return in the future. This section is characterized by consonant melodic lines, which gradually dissipate and fade away towards the end.

The fourth part, «Sadness» begins with pizzicato on the B-flat string in the contrabass register, combined with playing on the piano strings using office rubber bands. This creates a scraping effect, evoking horror and unease. These sounds are interrupted by the sound of a B-flat note, performed ordinary and sustained on the pedal, followed by pizzicato on the D string in the third octave. The pizzicato sounds static for the first seven measures against the backdrop of the scraping, which continues until a descending minor second from D appears in the second performer's part (on the keys).

This descending minor second gradually builds into a dissonant cluster, symbolizing the growing presence of sadness. These sounds are interrupted by a descending glissando across the strings, which transitions into the scraping of rubber bands on the strings. This is followed by another *pizzicato* on the B-flat string, leading into the second episode with a static, soft D note in the upper octave.

The descending minor second is then formed by pizzicato on the D-flat string, alternating with a small glissando after the D. This minor second in both episodes is staggered in time and only later transitions into unison, first with a temporal gap between notes and finally simultaneously, fading into a diminuendo that reaches quadruple piano (*pppp*). The section concludes with a low B-flat played *pizzicato*.

These timbral and sonor techniques not only convey the emotional state of sadness but also illustrate the physical and mental feelings of brokenness and loss inherent to the wartime experience.

The fifth part, «Contempt» is constructed in a through-composed form. The material is based on the development of a theme consisting of melodic movements through fifths, tritones, and fourths. This theme is presented in different registers, at varying pitches, and in various metrorhythmic variations (expansions or contractions). The theme is accompanied by the sound of a wooden ruler being dragged across the piano keys, first in the second performer's part and then in the first performer's. Emotionally, this part conveys a state of detached disdain.

The sixth part, «Disgust» begins with ping-pong balls being dropped onto the piano strings, while the other performer, seated at the keyboard, presses both the left and right pedals. The resulting sound is muted yet resonant, with an indeterminate pitch. Next, in

the second pianist's part, there is a movement from the extreme registers towards the center. When this motion reaches the middle register, a chord in melodic arrangement is played and sustained on the pedal, while the sound of the ping-pong balls moving across the strings reappears in the background.

The sixth part, «Disgust», continues the exploration of human emotions during wartime through unconventional acoustic experiments. The opening, featuring ping-pong balls on the piano strings, creates a unique sonic palette, combining muted, indeterminate tones with bright timbres. This forms a sonic metaphor for disgust, expressed as a physical and psychological rejection of wartime reality.

The dialectical motion from the piano's extreme registers to the middle register in the second pianist's part reflects a struggle between the desire to escape this feeling and the inability to avoid its influence. This part, with its accumulation of dissonances and resonant layers, evokes disgust not only as an emotional reaction but also as a process of internal transformation, accompanied by a growing sense of discomfort and unease.

The final, seventh part, «Surprise», concludes the cycle. It is relatively short and features a theme in the upper register of the strings, an allusion to a motif from *Swan Lake* by the well-known Russian composer. This allusion references a symbol of imperial collapse – the dissolution of the Soviet Union, which was historically accompanied by broadcasts of the aforementioned ballet.

After this allusion is played, a final pizzicato on the «E» string in the contrabass register sounds, followed by an ascending glissando in the upper register performed pianissimo (*ppp*). Following this, the second pianist closes the keyboard lid, and the first pianist lowers the grand piano's main lid, symbolizing the death of evil. The first pianist then transitions from playing on the strings to returning to the keyboard. The lights dim, bringing the performance to an end.

The visual component of the work represents a distinct layer of semiotic meaning. Each painting by artist Volodymyr Mukhin corresponds to a specific emotion embodied in the musical material, yet also possesses its expressive power. Intense contrasts of color and expressive textures contribute to the multifaceted portrayal of states such as fear, anger, joy, or disgust, complementing the symbolic aspects of the sound. In this way, musical and visual codes function as interconnected systems, forming an integrated aesthetic experience.

In addition to the audiovisual interaction, the timbral aspect plays a crucial role in conveying different

emotions. The use of a prepared piano, involving metal objects, rubber bands, or ping-pong balls, creates unique sound textures capable of reflecting the destructive effects of war or, conversely, subtle mental vulnerability. This timbral palette becomes symbolic, with cluster chords representing emotional chaos and distant percussive sounds evoking deep-seated fear or barely restrained aggression.

The performative aspect requires heightened attention to playing nuances: from dynamic control in striking the strings to precise placement of objects between the strings to achieve specific timbres. Given the complex emotional states conveyed through sound, the performers must not only master the technical aspects of the instrument but also withstand significant psychological pressure, as they “live through” each emotion in real-time.

Thus, «*Seven Basic Emotions in Wartime*» should be regarded as a complex artistic phenomenon that synthesizes technical, psychological, and semiotic aspects. War serves as a source of deep, often contradictory emotions that require a specific artistic language for their expression and comprehension. In this work, fear, anger, sadness, contempt, and other fundamental emotions acquire new shades and meanings, reflecting both collective and individual experiences under extreme conditions.

Thanks to its cohesive concept, which integrates musical and visual elements, as well as advanced techniques for playing the prepared piano, the audience is allowed not just to hear or see the war but to directly feel its multifaceted nature.

Finally, the social function of the work lies in conveying and interpreting the emotions of wartime, creating a space for collective healing and the formation of cultural memory. Art serves as a mediator, offering listeners and viewers diverse avenues for reflection and for processing traumatic experiences. By translating emotional components into an artistic form, they become more accessible for understanding and acceptance.

Conclusion. The audiovisual project «*Seven Basic Emotions in Wartime*» represents an innovative format

of interaction between musical and visual arts within the context of contemporary Ukrainian culture, aimed at a profound emotional exploration of the wartime experience. The use of a prepared piano and extended playing techniques allows the composer to create a multidimensional timbral palette that reveals complex emotional states typical of a crisis period. Each part of the composition, dedicated to a specific basic emotion (fear, anger, sadness, joy, contempt, disgust, surprise), is built upon timbral and textural innovations that simultaneously serve as symbols of various aspects of wartime.

The synthesis of music and visual elements enhances audience engagement by activating not only auditory but also visual channels of perception. The visual component, embodied in paintings, deepens the semantic dimension of each emotion, enabling its multifaceted interpretation. Color, texture, and composition function in inseparable connection with the sound elements, amplifying the dramaturgy of the work and increasing its overall emotional resonance.

With significant sociocultural importance, the project serves not only as a reflection of the emotional spectrum of society during wartime but also as an effective tool for collective healing. Music and visual art provide a space for expressing and "reliving" traumatic experiences, stimulating processes of psychological rehabilitation and the formation of cultural memory. The participation of performers, who combine technical mastery with deep emotional involvement, plays a key role in enhancing the communicative potential of the work and creating a powerful impact on the audience.

Thus, «*Seven Basic Emotions in Wartime*» exemplifies how contemporary Ukrainian art responds to the societal challenges of wartime by utilizing experimental forms and technologies to achieve a profound emotional effect. This project creates new possibilities for musical and visual interpretation of traumatic events, demonstrating the ability of art to document historical ruptures and to contribute to their understanding and resolution on both collective and personal levels.

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