

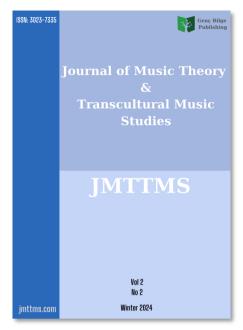
Journal of Music Theory & Transcultural Music Studies

JMTTMS

Vol 2

No 2

Winter 2024



Journal of Music Theory and Transcultural Music Studies e-ISSN: 3023-7335

Vol. 2 No. 2 December 2024 (Winter)

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	Contents	
No 1	Title On the musical language of the concerts of the composer F.Yanov-Yanovsky Mashkhura Rajabova	Pages 85-89
2	The role of musical practices in the formation of transnational identities among migrant communities Alper Şakalar	91-104
3	Children's popular music culture in Turkiye: reflections and critiques in music education <i>Mehmet Alan</i>	105-116
4	The Ukrainian Women Artists with Their Weapon project as a transcultural artistic action in wartime Asmati Chibalashvili, Kira Maidenberg-Todorova and Karmella Tsepkolenko	43-61
5	The acoustic ecology of Karstic caves: a spectrogram approach to ecomusicology Alexander Chokhonelidze	131-142
6	The role of AI in creative processes: ethical and legal perspectives in the music industry Seyhan Canyakan	143-158

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Editorial for the December 2024 Issue

Dear Readers,

We are delighted to present the Winter 2024 issue (Vol. 2, No. 2) of the *Journal of Music Theory and Transcultural Music Studies*. This edition continues our commitment to fostering academic dialogue and innovative research in music theory and transcultural music studies. The diversity of topics covered in this issue reflects the journal's dedication to exploring various dimensions of music across cultural and theoretical perspectives.

Highlights of This Issue

This issue brings together a rich collection of articles that address significant themes in contemporary music research:

Mashkhura Rajabova explores *the musical language of the concerts of composer F. Yanov-Yanovsky*, offering insights into the stylistic and theoretical aspects of his compositions.

Alper Şakalar examines *the role of musical practices in shaping transnational identities among migrant communities*, shedding light on how music serves as a cultural bridge.

Mehmet Alan presents an analysis of *children's popular music culture in Türkiye*, providing reflections and critiques relevant to music education.

Asmati Chibalashvili, Kira Maidenberg-Todorova, and Karmella Tsepkolenko discuss *The Ukrainian Women Artists with Their Weapon project*, analyzing it as a transcultural artistic action in wartime.

Alexander Chokhonelidze contributes a study on *the acoustic ecology of Karstic caves*, employing a spectrogram-based approach to ecomusicology.

Seyhan Canyakan delves into *the role of AI in creative processes*, exploring its ethical and legal implications within the music industry.

These contributions demonstrate the journal's interdisciplinary approach, offering perspectives that connect music theory, culture, technology, and social transformation.

Acknowledgments

We extend our heartfelt gratitude to the esteemed reviewers who have provided their expertise and valuable feedback to ensure the scholarly quality of this issue. Peer review is at the core of academic publishing, and we deeply appreciate the time and effort of our reviewers in maintaining high standards.

We also express our sincere appreciation to our editorial board members for their continuous support and dedication. Their insights and commitment significantly contribute to the development of this journal.

Invitation to Join Our Editorial Board and Contribute as Authors

As part of our ongoing growth, we invite scholars and researchers to join our editorial board. If you have expertise in music theory, transcultural music studies, or related disciplines, we encourage you to send your CV to editorjmttms@gmail.com for consideration.

Additionally, we welcome submissions for our upcoming issues. Authors interested in publishing their research in *Journal of Music Theory and Transcultural Music Studies* are encouraged to visit our website [jmttms.com] for submission guidelines.

Journal Indexing Achievements

We are pleased to announce that our journal has made significant progress in indexing and recognition within the academic community. *Journal of Music Theory and Transcultural Music Studies* is now among the top three journals in this field, a testament to the quality and impact of the research we publish. These achievements further motivate us to expand our reach and continue supporting groundbreaking scholarship in music studies.

Looking Ahead

As we conclude this editorial, we reaffirm our commitment to fostering an inclusive and interdisciplinary space for music research. We thank our authors, reviewers, and readers for their contributions and engagement with the journal. We look forward to continuing this academic journey together.

Best regards,

Dr. Gvantsa Ghvinjilia

Editor-in-Chief

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Journal of Music Theory and Transcultural Music Studies, 2(2), 85-89, December 2024 e-ISSN: 3023-7335

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Research Article

On the musical language of the concerts of the composer F.Yanov-Yanovsky

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Article Info	Abstract
Received: 18 June 2024 Accepted: 12 August 2024 Online: 30 December 2024	The article examines the issue of the synthesis of Western and Eastern characteristic musical features in composition, musical language and other areas of musical writing. Attention is paid to how this happens in the works of composers of Uzbekistan. It is
Keywords Alexey Botvinov Composer F. Yanov-Yanovsky Formula Melody Music Rhythm Uzbekistan music	known that the east-west synthesis is based on monody, as the basis of melodic development, as well as European polyphony of both homophonic-harmonic and polyphonic stock. This method also characterizes his composition, which belongs to the genre of the concerto "Fabula –4". This work provides an analysis of the stylization of the "usul" rhythm formula, as well as the composer's use of characteristic fret features peculiar to Uzbek traditional classical music. A striking feature of the composer's style is F.Yanov-Yanovsky's goal is to apply the method of the dodecaphonic series in thematism, which ultimately affects the entire palette of the musical presentation of Concerto grosso -1. Dodecaphony –as you know, originated in the creative style of the composers of the Second Viennese School at the beginning of the 20 th century. The analysis of Concerto
3023-7335 / © 2024 the JMTTMS. Published by Genc Bilge (Young Wise) Pub. Ltd. This is an open access article under the CC BY-NC-ND license	grosso -1 establishes that a series of 12 sounds of the chromatic scale are used in the musical fabric in the order chosen by the composer. The sequence of selected sounds is changed by various permutations, including vertical consonance. This article concludes that the second intonation is the main core of musical and thematic development, and rhythm formulas are a vivid means of shaping the concerto for voice with the orchestra "Fabula – 4". The theme-series is the bearer of the main figurative principle of "Concerto grosso -1". The rhythmic formulas here also have a special semantic meaning.

To cite this article

Rajabova, M. (2024). On the musical language of the concerts of the composer F.Yanov-Yanovsky. *Journal of Music Theory and Transcultural Music Studies*, 2(2), 85-89. DOI: https://doi.org/10.5281/zenodo.15031809

Introduction

The symphonic music of modern Uzbekistan, with its various genres, is particularly interesting, as it addresses the issue of genre formation. From the perspective of incorporating local elements of musical expression into a composer's work, it is essential to consider the historical musical and artistic traditions of the region. As a representative of the composition school in our area, it is inevitable to reflect some aspect of this reality in one's creation.

Features of the development of concert works in the compositional work of Uzbekistan

The vivid combination of traditional "makom" and folklore elements in the musical language of Uzbek composers serves as the starting point for their compositions. Quoting at the level of a whole musical structure, such as a song or melody, or individual fragments such as phrases or motifs, has been cultivated since the early stages of compositional development. Over the years, the musical language of composers in Uzbekistan has developed a principle of not quoting a specific melodic-rhythmic pattern, but rather embodying the essence of a particular artistic image through intonation.

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The development of the intonational core, which is a crucial element in "Shashmakom" music, is similar to the process of shaping musical form in Western composition techniques. The similarities in the way musical material is presented in East and West compositions indicate a common origin of musical ideas, such as the sound, motive, and intonation cells, their development, and eventual extinction, which creates a unified, complex, and multi-layered flow in a musical composition. Currently, the genre basis of music is significantly narrowing, with the symphony giving way to a more intimate, compact presentation of musical ideas. The fundamental idea behind the west-eastern synthesis is initially present in the music of composers from our country.

The basis for this synthesis is the tonal layer of traditional folk music, which has a monodic structure, as well as the process of creating a musical composition through polyphonic techniques. Musical thinking that combines elements from both the West and East, such as thematic development and musical narrative, is crucial in the creation of F. Yanov-Yanovsky's symphonic works, such as "Fabula - 4", which is an example of this approach. In this piece, the second flute melody, the main tonal core of the entire composition, is heard from the very beginning. (Yanov-Yanovskaya, 2018: 282) This intonation, as the author himself admits, is nothing more than the second move at the beginning of the cycle "Segoh" in the makom. However, in the music of this makom, the second stroke is perceived as the initial intonation cell within the context of the makom itself. It has its own figurative and semantic significance, and its development takes place according to the rules of the Uzbek monody, where each phase of the musical composition obeys its own canon. In general, second strokes, as a kind of core, can be found in other makoms as well, and they may also be found in the works of certain composers from Uzbekistan.

The author has embodied the timeless oriental poetry of loneliness in his chamber music, which was composed for instruments that are originally of European origin. The growth and development of the intonation core are achieved through contrapuntal techniques using strings. Various combinations of small chamber ensembles of instruments are used for active motivational work. The polyphonic texture in "Shashmakom" is saturated with the repetitive rhythmic pattern, creating a tense and dramatic presentation. This repetition of the rhythmic formula is also present in the layered chord texture. It should be noted that reliance on a single rhythmic framework is a key feature of Uzbek music, and this is evident in the use of a single "usul" (rhythmic formula) and fret structure throughout the piece.

During a certain section of "Shashmakom," whether it's instrumental or vocal, the musical foundation of the performance is determined by this single "usul," which can "modulate" and create new tonal formations as the piece progresses. "Fabula - 4" was written as a concert piece, where the composer implemented genre innovations he had introduced in his compositions for the first time. (Abdullayeva, 2015: 134). The title, for all its conventionality, helps to emphasize in the composition not only the actual concert line, but also the associative and programmatic one, associated with the embodiment of a hidden musical and figurative action. In this regard, "Fabula" by F. Yanov-Yanovsky, who has now written 8 "Fabulas", acts as a new genre that absorbs the aesthetics of symphonic drama (in this case, a concert) and the complex intertwining of genre and figurative and thematic content conceived by the artist. Dodecaphony, as it is known, originated in the creative style of composers of the New Viennese School at the beginning of the 20th century. This musical technique uses a series of 12 chromatic sounds in a specific order. To avoid the music becoming a simple repetition of the series, there are four types of variations: direct, inverted, inverted inversion, and crustacean. These variations are inspired by polyphonic practices from the 17th and 18th centuries.

The sequence of sounds can be altered through various permutations, including vertical harmony. A series of chromatic tones in a specific sequence serves as the basis for the main melodic idea. Unlike a musical theme, the dodecaphonic series is not dependent on other musical elements such as rhythm, harmony, or texture. The dodecaphonic method of composition, developed by Arnold Schoenberg, was widely used. Some composers created series of small numbers of sounds (4-9) using this technique, which is known as serial composition. This technique differs from serialization, as it involves not only pitch but also other parameters such as rhythmic durations, dynamics, articulations, and nuances.

Seriality was mainly used sporadically in larger works by composers such as Boulez, Webern, and Stockhausen. For example, Anton Webern composed his "Five Pieces for Orchestra" entirely using this technique. Serial music remained

the focus of composers' attention in various countries until the middle of the last century, including Stravinsky, who was interested in it at the time.

In the 1960s, composers like Pierre Boulez and Karl Stockhausen developed even more complex musical systems. The anticipation of the principles of construction of the dodecaphonic series in the works of composers from various eras can be seen in E. Denisov's writings: "The process of chromatization occurred in parallel with the development of harmonic language. Consonance began to appear more frequently, which were outside the traditional scale in terms of sound composition, and composers already intuitively felt the new laws of harmonic movement. We only encounter the independent, non-standard use of harmony in music from the 18th and 19th centuries as an exception, as the system of tonal center still remains dominant, and examples of non-functional harmony are found in madrigals from the 16th century rather than in post-Bach music, where harmony becomes more functional." (Denisov, 1969: 482).

In music from the late 19th and early 20th centuries, the harmonic texture becomes significantly more complex, resulting in the emergence of multi-voice combinations of six or more sounds. Such consonances no longer follow the tertian structure and are resolved based on the composer's intuition. New rules of atonal harmony are being developed...

In the music of the composers of Uzbekistan, the dodecaphonic method of presentation is not so common. One of the brightest representatives of the composer's school of our republic is F.Yanov-Yanovsky, used it in his "Concerto grosso - No. 1". This composition was written in 1968, and since then it has been one of the most striking creations of the Uzbek school of composition. And his performance became an unforgettable event in the musical life not only of Uzbekistan, but also far beyond its borders. It was first performed in Tashkent in 1973 by the Lithuanian Chamber Orchestra conducted by Saulius Sondeckis. "Concerto grosso - No. 1" was included in the permanent repertoire of this renowned band, and recorded at the "Melodiya" company in 1974. In those years, composers of various national schools of the former Soviet Union were inspired by the principles of neoclassical embodiment of creative ideas. The appeal to preclassical forms of musical creativity, in particular to the form of a large concert for a group of solo instruments and an orchestra, became a kind of response to the trends of the time. In the creative baggage of F. Yanov-Yanovsky's concert compositions occupy a significant place, and in their internal content they are very significant. Researchers should pay special attention to his actual concerts for traditional performers, for example: Concertino for Piano and Orchestra, Concertino for Violin and Orchestra, Concerto for Oboe and Orchestra, Triple Concerto for Trumpet, trombone, French horn, percussion and strings, a small concerto for two clarinets, bassoon, marimba and double bass. They already contain the author's innovative approach in this instrumental genre. This is expressed primarily in the musical language of the works, in particular the conciseness of intonation and thematic development (monointonation in piano Concertina), in the unusual composition of instruments (search for unusual timbre sounds), in the use of Uzbek melodic intonation formations, and rhythmic formulas like usul (usul is a rhythmic formula maintained throughout the musical construction in traditional Uzbek national music), A concert for oboe and orchestra, a concert for Orchestra. The composer wrote six works in the genre of "Concerto grosso" for various performers. In the first Concerto grosso for string quartet and chamber orchestra, neoclassical, namely non-baroque genre elements are combined with the dodecaphonic principle of presenting musical material. "Concerto grosso - No. 1" consists of three parts. Part 1 -Allegro - begins with an orchestral presentation of the main thematic material of 12 tones that form the sound and thematic basis of the entire work. The theme in its sound is quite felt with a tonal orientation in D minor. It can be roughly divided into two parts, with a similar descending melodic movement. This division forms a metrorhythmically organized characteristic of the imperative themes of orchestral tuttis of the Baroque era. (Rajabova, 2020: 62)



Figure 1. Thematic development in "Concerto grosso - No. 1"

The theme in the solo quartet is actively varied in the following presentation. The formative principle in concert music is "... the alternation of the ritornel (main theme), repeatedly returning and transposed, with episodes based on new melodic themes, figurative material or the motivic development of the main theme" (Kholopova, 2002: 275). In the part of the solo string quartet, the new theme is a variation of the main one, but already in its sound a more subtle, dramatic, somewhat danceable, and graceful character is manifested. Quart descents, halftone moves, octave jumps up – all this creates a dynamic line of melodic pattern.

The warehouse of the texture fully corresponds to the general neoclassical character of the work. The solo of the violin against the background of the accompaniment of the orchestra with a smooth, but already diminuated rhythmic movement, creates an interesting dynamic in the orchestral texture. In the general dynamic development, the musical material of the 1st movement is grouped as a variation, or rather an old rondal form - A, A1, A, A2, A, etc. At the same time, the thematic presentation is grouped as carrying out the main theme (A) and its variations (A1), with alternating figurative variations. The side part takes place in a stretchy presentation from the 2nd violin, then the 1st violin, viola and cello. The counterpoint to it is the main theme in the canonical conduct of the orchestra part. Next, the main theme shifts a tone higher, and the series is modulated. The metric characteristic of the main theme is also changing. It starts not from the 1st, but from the 3rd beat. With all this, a series of 12 tones extends to the entire texture of the 1st part. It is manifested in all parts of the orchestra and the solo string quartet. The composer actively uses polyphonic principles of development, vertically moving counterpoints, and the stretching of thematic elements. The 1st movement ends with a "fading" sonority in the solo parts of viola and cello. In the general dynamic movement of the form, there are "undulating" rises characteristic of symphonic genres. The dodecaphone series outlined in Part 1 is also evident in Part 3 of Concerto grosso No. 1. The theme of the basso is ostinato and is a 1-part series. In 3 parts (variations on bassoostinato), this series is transformed and modified according to the rhythmic nature and properties of the melodic movement. The basso-ostinato form was one of the most frequently used variation forms in the Baroque era. Like none of the other forms, it is the most in demand among neoclassicists in the organization of a musical work. It is in variation that there is a huge potential in the development of thematism, which successfully reveals the deep imaginative transformations taking place in the unfolding of musical material.

Conclusion

The article examines some features of the development of musical material in two concert works by the outstanding composer of Uzbekistan Felix Yanov-Yanovsky. When considering the peculiarities of the musical language of the concerto for voice and orchestra "Fabula – 4", the intonational character of the initial thematic core is brought to the fore, from which the entire thematic basis of the work grows. The second intonation, similar to the initial intonation of the makom "Segoh" from "Shashmakom", determines the entire figurative content of the concert. An important means of expression of this concert are rhythm formulas, which are also involved in musical shaping. It is characteristic that these rhythmic formulas are also similar to the "usul" used in traditional Uzbek classical and folk music. The two categories mentioned above, monointonation and rhythmoformula, indirectly convey the semantics of the Uzbek classical musical tradition at the level of a polyphonic concert work.

The bright musical expressive means of "Concerto grosso - 1" is the theme-series. The dodecaphone method is used by the composer only at the level of the theme itself, and this affects the free interpretation of serial technique. The first and third parts of the concert are based on the same series. Along with the polyphonization of the texture, the composer masterfully uses various transformations, where such methods as metrorhythmic changes, as well as the modulation of the series are highlighted. In shaping, the composer starts from classical constructions, the 3rd part of the concerto in this regard is made in the form of variations on the basso ostinato. This form most vividly reflects the neobaroque character of this work.

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Mashkhura Rajabova successfully graduated from the Republican Specialized Music School named after V. A. Uspensky in 1983 with a degree in Music Theory under the supervision of M. B. Rusak. In 1991, she graduated from the Tashkent Conservatory with a degree in musicology and as a teacher of theoretical disciplines. She teaches the following subjects at the State Conservatory of Uzbekistan: harmony, polyphony, solfeggio, and analysis of musical works. She is a composer,

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References

Abdullayeva, E. (2015). F. Yanov-Yanovsky. Tashkent.

Denisov, E. (1969). *Dodecaphony and problems of modern compositional technique*. In Music and Modernity (pp. 478-525). M.

Kholopova, V. N. (2002). Forms of musical works. C-Pb.

Radjabova, M. (2020). On the stylistic features of symphonic works by composers of Uzbekistan. *Problems of Modern Science and Education*, *3*, 148.

Yanov-Yanovskaya, N. S. (2018). "Fabula" and "The plot" is projected to music. In Tradition and modernity in the musical art. *Collection of Materials of the Republican Scientific and Practical Conference*. Tashkent: Musika.



Journal of Music Theory and Transcultural Music Studies, 2(2), 91-104, December 2024 e-ISSN: 3023-7335 imttms.com Genc Bilge Publishing Ltd. (Young Wise) © 2024 gencbilgeyayincilik.com



Research Article

The role of musical practices in the formation of transnational identities among migrant communities

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Article Info

Received: 25 July 2024 Accepted: 1 September 2024 Online: 30 December 2024

Keywords

Cultural hybridization Migrant communities Musical practices Transnational identities Transnational music

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Abstract

This study examines the role of music in the construction of transnational identities among immigrant communities. With the rise of globalization and migration movements, the processes through which individuals and communities engage with multiple cultural contexts have become increasingly complex. In this context, music has evolved beyond merely an aesthetic form of expression to become a critical tool in identity construction and social integration. The research explores how the musical practices of immigrant communities carry the cultural elements of their places of origin into new living spaces, how these elements are transformed, and how new forms of identity emerge during this process. Additionally, the study investigates the contribution of musical practices to the social integration processes of immigrant individuals and the relationship of music with concepts such as cultural hybridity, resistance, and authenticity. The findings reveal that music functions as both a cultural bridge and an instrument of identity construction for immigrants, yet this process is context-specific and dynamic. The results of the study provide significant contributions to the literature on the relationship between music and identity, offering practical suggestions on how music can be effectively utilized as a tool in social integration processes. This research enables the development of a broader understanding of the role of music in the construction of transnational identities.

To cite this article

Şakalar, A. (2024). The role of musical practices in the formation of transnational identities among migrant communities. *Journal of Music Theory and Transcultural Music Studies*, *2*(2), 91-104. DOI: https://doi.org/10.5281/zenodo.15031815

Introduction

Music has played a significant role as a form of cultural expression throughout human history, serving as an effective tool in the construction of both social and individual identities. Musical practices have intertwined with the socio-cultural structures of societies, evolving in interaction with these structures. In this context, music has gained importance not only as an aesthetic phenomenon but also as a form of social, political, and cultural expression. Particularly in today's world, where globalization and migration phenomena have intensified, the multifaceted role of music has become even more pronounced.

The phenomenon of migration, while referring to the spatial mobility of individuals and communities, also brings about cultural and identity transformations (Cormoş, 2022). Migration can lead individuals to redefine their cultural identities and, in the process, adopt new forms of identity (Eckersley, 2017). This process of redefinition constitutes a significant area where music is employed as a tool for identity construction. Immigrant communities can transfer the cultural elements of their places of origin to new living environments through music, and by blending these elements

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with the new cultural contexts they find themselves in, they can develop new musical practices. Consequently, the role of music in cultural transmission, identity construction, and social integration among immigrant individuals and communities presents a compelling area of study for researchers.

In this context, the primary objective of this research is to examine the role of immigrants' musical practices in the formation of transnational identities. According to Lidskog (2016), a transnational identity refers to the state of belonging to multiple cultural and national contexts, and these identities can be constructed and sustained through various musical practices during the migration process. Our study aims to uncover how music fulfills this function among immigrant communities and which dynamics are influential in this process. Additionally, the role of musical practices in the relationships that immigrant individuals establish with the societies to which they belong, as well as in their integration processes into these societies, has been one of the focal points of the research.

In this study, the use of music as a tool in the process of identity construction among immigrant communities, the impacts of musical practices on this process, and the contributions of these practices to the social and cultural lives of immigrant communities have been examined in depth. The research has been designed as an effort to understand how the musical experiences of immigrants shape their transnational identities. In this context, the study seeks to answer the following key questions:

- How do immigrant individuals and communities construct their transnational identities through musical practises?
- ➤ How do these musical practises undergo transformation and acquire new meanings in different culturel contexts?
- What role of the musical practises of immigrants play in their social integration processes?

This research is anticipated to make significant contributions to the literature on the relationship between music and identity. By focusing on the role of music in the formation of transnational identities, this study is expected to help develop new perspectives in both migration studies and the sociology of music. Additionally, the findings of the research are expected to offer practical and theoretical insights into understanding the function of music in social integration processes. In this regard, obtaining new knowledge on how musical practices shape the relationships between immigrant communities and the societies that host them is among the scientific contributions of this study.

Theoretical Framework

The relationship between migration, identity, and music has a broad literature in disciplines such as sociology, anthropology, and cultural studies. In this literature, approaches related to transnationalism, identity theories, and the social role of music are particularly prominent. This section will detail the theoretical framework that forms the basis of this research. Transnationalism theories explain how immigrant individuals and communities develop identities associated with multiple national and cultural contexts, while identity theories provide insights into the role of music in this process. Additionally, theoretical discussions on the social functions of music will guide the analysis in this research.

Transnationalism has emerged as an increasingly important concept in migration studies in recent years. Traditional migration theories assumed that immigrants developed a new identity in the country they arrived in after leaving their homeland and left their old identities behind, whereas transnationalism suggests that immigrants can be simultaneously connected to more than one spatial and cultural context (Vertovec, 2004). In this context, transnational identities refer to the state of belonging to both the country of origin and the new living spaces. These identities are formed through the intermingling of different cultural contexts and practices, with music playing a crucial role in this process (Lidskog, 2016). Advocates of transnationalism theory, such as Schiller, Basch, and Blanc-Szanton, emphasize that immigrants are socially, culturally, and economically connected to two or more national contexts, creating a new form of identity (Erel & Lutz, 2012).

To understand the role of music within this theoretical framework, it is also necessary to refer to identity theories. Identity is a dynamic process constructed through social and cultural interactions. In this process, individuals and communities continually negotiate and redefine their identities. Stuart Hall suggests that identity is not a fixed and

immutable essence but a process that is constantly reconstructed (Tang, 2018). In this process, cultural products and practices function as essential tools for expressing and redefining identity. In this sense, it is possible to assert that music plays a significant role in the construction of both individual and collective identities. Hall's identity theories support the framework of this study in understanding how transnational identities are constructed through musical practices.

Theoretical approaches to the role of music in identity construction explain how music functions as a form of cultural expression. Ethnomusicologists examine how music is used in the processes of expressing, preserving, and reconstructing social identities, revealing how music intertwines with social dynamics. For example, Turino suggests that music provides a performance space for the formation of identities on both individual and societal levels (Chami, 2013). These performances reflect how individuals express themselves and how communities construct their collective identities. In this context, musical practices are critical for understanding how identities are negotiated and redefined in social contexts.

In addition to transnationalism and identity theories, theoretical discussions on the social functions of music also play a significant role in this research. Music can be used as a tool for social groups to express their identities, develop solidarity, and resist oppression (Danaher, 2010). Particularly among immigrant communities, music contributes to both the preservation of cultural roots and the adaptation process to new social contexts. Bourdieu's concept of "cultural capital" is a useful tool for explaining how music is used as an expression of identity and status in this context. According to Bourdieu, cultural practices such as music play a significant role in determining hierarchies and differences among social groups (Robbins, 2005). Robbins (2005) also notes that Bourdieu's concept of "cultural capital" was first introduced in educational research in the early 1960s; however, he emphasizes that it should be reflexively used today in accordance with his later thoughts. In this sense, music functions as a source of power in the construction of both individual and collective identities among immigrant communities.

This theoretical framework provides a foundation for understanding how music is used as a tool in the construction of transnational identities among immigrants and what dynamics are influential in this process. The theoretical approaches to be used in the research aim to reveal how musical practices among immigrant communities are shaped and how these practices relate to social and cultural contexts by focusing on both the social functions of music and the processes of identity construction. Within this framework, the research will offer a comprehensive analysis aimed at understanding how transnational identities are constructed through musical practices.

Literature Review

The relationship between music and identity has long been a topic of examination and discussion across various disciplines within the social sciences. Particularly, the phenomenon of migration and its effects on cultural identities have been extensively covered in the literature. Migration not only involves a physical relocation of individuals but also brings about a process of developing new cultural and social belonging (Wessendorf, 2019). This process leads immigrant individuals and communities to redefine their identities, with musical practices playing a central role in the construction of these identities. In this section, by reviewing the existing literature on migration, music, and identity, a framework for this study will be established.

Studies that address the impact of migration on identity construction often emphasize the importance of cultural elements in the integration processes of immigrants into new communities. For instance, a study that examines Akerlof and Kranton's identity economics approach in the context of migration highlights that cultural identity is as significant as the economic welfare of both immigrants and the native population. This study notes that immigrants tend to preserve their cultural identities and prefer to live in diaspora communities, especially when the cultural distance is significant (Prinz, 2019). Another study exploring the identity development of immigrant youth emphasizes that individual ethnic, national, and personal identity development, as well as group processes at the societal level (such as threats and stereotypes), constrain the identity options available to immigrants. This study highlights the importance of biculturalism (adopting both the heritage and the host country's identities), although it acknowledges that this can be challenging for some immigrant groups (Schwartz et al., 2018). Research on Turkish immigrants in Germany reveals that assimilation discourses play a central role in identity construction and that these discourses contribute to the mutual

construction of the "other" between native Germans and Turkish immigrants. This study shows that the spaces occupied and created by immigrants have become focal points of discussions on difference and otherness (Ehrkamp, 2006). According to Berry's typology of cultural adaptation, integration is defined by two key components: the preservation of traditional cultural heritage and participation in the broader society. These components contribute to the psychological and sociocultural adaptation of immigrants, with integration generally yielding more positive outcomes than separation, assimilation, or marginalization (Ward, 2013). The literature frequently discusses the need for immigrants to balance the preservation of their cultural identity with adapting to their new environment. Migration researchers like Portes and Rumbaut have addressed the dilemmas and challenges immigrants face in their identity construction processes, revealing the complex dynamics of these processes (Haan, 2010). In this context, significant findings have been obtained regarding how music functions as a bridge for immigrant individuals to maintain their cultural roots while building relationships with new societies.

Research in the fields of music sociology and ethnomusicology has focused on the role of music in the construction of social identities. These studies examine how music is used as a tool in the processes of expressing, maintaining, and reshaping cultural identities (Boer et al., 2013). Particularly, studies conducted among immigrant communities have demonstrated the central role of musical practices in identity construction and the sustainability of these identities. For instance, Lidskog's (2016) study titled "The role of music in ethnic identity formation in diaspora: A research review" explores the role of music in the preservation and transformation of ethnic identities. This study emphasizes the significance of music as a crucial tool in identity construction in diasporic situations. Similarly, the article "Participatory music-making and well-being within immigrant cultural practice: Exploratory case studies in South East Queensland, Australia" (Cain et al., 2020) investigates how the music-making practices of immigrant communities impact individuals' mental, social, and emotional well-being. This study shows that music plays an important role for immigrants in maintaining their identities and adapting to new environments. The article "Migrant Musicians: Transnationality and Hybrid Identities Expressed through Music" (Golemo, 2020) discusses how immigrant musicians express their hybrid identities through musical expressions and convey their transnational experiences. This study explains how music functions as a tool for immigrants to build an "internal homeland" and express various manifestations of cultural belonging. The study "Immigrant students and the 'homeland music': Meanings, negotiations and implications" (Karlsen, 2013) examines the meanings attributed by immigrant students to the music from their or their parents' homelands and how this music is negotiated within the school environment. This study demonstrates the significant role of music in the identity construction of immigrant students and in the maintenance of cultural belonging. Finally, the study "Afro-Colombian internal migration and participatory music: Ethnically and politically charged religious festivals in Bogota" (Rojas, 2021) discusses how the musical performances of Afro-Colombian communities play a role in constructing ethnic identity and civic participation. This study emphasizes the effectiveness of music in social cohesion and collective identity construction. These studies clearly demonstrate the central role of music in the construction of identities and the sustainability of these identities among immigrant communities.

Another significant area in the literature that focuses on the role of musical practices in the construction of transnational identities is the impact of music on cultural hybridity processes. Cultural hybridity refers to the process by which different cultural elements come together to form new and complex cultural forms. This process takes place in an environment where the dynamics of globalization and localization work together. Cultural hybridity not only involves the mixing and synthesis of different elements but also includes the formation of new cultural forms and connections (Wang & Yeh, 2005). In this process, studies on how music is adapted and transformed in different cultural contexts provide important insights into understanding how transnational identities are shaped. For example, in his work "The Black Atlantic: Modernity and Double Consciousness," Gilroy details how transnational identities formed in the African diaspora through music and how these identities hybridized under local and global influences. Gilroy's work draws attention to the creative and transformative power of music in the construction of these identities (Gunderson, 2004). Similarly, in the book edited by Monson (2003), "The African Diaspora: A Musical Perspective," the central role of music in the formation of transnational identities in the African diaspora is emphasized. Monson

addresses how music has become a symbol at the intersection of local and global, exploring the complexity of these identities (Gunderson, 2004).

Studies examining the musical practices of immigrants reveal that music serves not only as a form of identity expression but also as a tool of solidarity and resistance for immigrant communities. In this context, music emerges as an important tool for immigrants in developing a sense of collective solidarity in response to the challenges and exclusions they face. Studies examining how immigrant youth engage in the processes of social resistance and identity construction through musical practices demonstrate how music functions as an effective tool in the construction of individual and collective identities. For instance, a study examining how ethnic identities and cultures are preserved and transformed through music in diasporic situations highlights the significant role of music in the identity formation of immigrant groups. This study also notes that music is effective in identity construction in political contexts such as social stratification or resistance (Lidskog, 2016). Another study shows that youth are inspired for collective participation and action by concretizing forms of resistance through participatory action research and arts-based approaches. This study reveals that art opens a space for collective resistance towards social justice for young researchers (Cerecer et al., 2011). Another article that examines the identity development of immigrant youth from a multi-level perspective explores the identity development processes at both the individual and group levels. This study emphasizes the importance of immigrant youth adopting both heritage and host country identities, while also noting that this process can sometimes be challenging (Schwartz, 2018).

Finally, there is extensive literature on the role of music in the social integration processes of immigrant communities. These studies examine how music contributes to immigrant individuals forming new social bonds, gaining social acceptance, and expressing themselves in new cultural contexts. According to Crooke and colleagues (2023), music also plays an important role in promoting social cohesion and intercultural understanding. Intercultural music participation is used as a tool to break down cultural barriers and explore cultural intersections between immigrants and host societies. Although the real-world benefits of such musical activities are not yet fully understood, further research is needed to understand how and when music can be used in the processes of inclusion, understanding, and adaptation. Another study conducted in Australia (Marsh, 2012) demonstrates that music contributes to the adaptation processes of newly arrived immigrant and refugee children to the host culture. According to this research, school-based music experiences offer opportunities for cultural preservation, intercultural transmission, and verbal and non-verbal communication, fostering a sense of belonging among students in communities.

The information obtained from the literature provides a foundation for understanding the role of musical practices in the formation of transnational identities among immigrants in this study. In this context, the literature review has also shown which theoretical approaches this research will be built upon and how these approaches will support the study's objective.

Importance of Study

This research aims to fill a significant gap in the literature on the relationship between music, migration, and identity by examining the role of musical practices among immigrant communities in the formation of transnational identities. Globalization and increasing migration movements have accelerated the emergence of transnational identities, and in this process, the role of music has become increasingly evident. However, academic studies on this subject have remained limited, with the function of music in transnational identity construction not being explored in sufficient depth. This research seeks to address this gap and aims to better understand the critical role of music in this context. Another aspect that enhances the importance of this research is its emphasis on the central role of music in processes of social and cultural change. Music functions not only as an aesthetic form of expression but also as an effective tool in identity construction, cultural hybridity, and social integration processes. The in-depth examination of how music is used among immigrant communities offers a broader perspective on the functions of music at both individual and societal levels. This research provides essential data for understanding how music is used as a tool in cultural transmission and how the dynamics of this process are shaped. The formation of transnational identities, where immigrant communities develop a sense of belonging to multiple cultural contexts, is materialized and expressed through music. This research contributes to a

comprehensive understanding of how transnational identities are shaped and the transformative power of music in this process. Additionally, by examining the role of music in social integration processes, it reveals how immigrant communities are accepted in new social contexts and how music functions as a bridge in this process.

Another dimension of the research's significance lies in its practical implications. Music is used as an important tool in the processes of preserving and redefining the cultural identities of immigrant communities. In this context, the findings of this research offer practical suggestions for cultural policymakers and civil society organizations on how music can be effectively used to support the social integration of immigrant communities. Furthermore, the role of music in developing cultural resistance and solidarity among immigrant communities is also instructive for social workers and educators working in these areas. Finally, this research offers an interdisciplinary perspective, encompassing music sociology, ethnomusicology, and migration studies, and provides new contributions to academic discussions in these fields. The findings of the research enrich existing theoretical approaches in these disciplines and enable the development of new theoretical frameworks regarding the role of music in social processes. In this context, the results of the research have a broad impact on both theoretical and practical levels, contributing to the development of a deeper understanding of the relationship between music, identity, and migration.

This research serves as an important tool for understanding the role of musical practices among immigrant communities in the construction of transnational identities in a globalizing world. By detailing how immigrants express their cultural identities through music and the functions of music in social contexts during this process, this study provides significant contributions to both academic literature and practical applications. In this context, the research stands out as a valuable resource for academics, policymakers, and practitioners who seek to better understand the relationship between music and identity and expand knowledge in this field.

Method

This research was conducted with the aim of examining the role of musical practices of immigrant individuals and communities in the formation of transnational identities. The primary focus of the study is to deeply understand this relationship through literature review and document analysis methods and to develop new perspectives that will contribute to the existing literature. The literature review aims to systematically compile the existing body of knowledge on the topic and evaluate it critically, while document analysis will involve a detailed examination of written and visual materials. In this section, the research sample group, data collection process, data analysis methods, and ethical considerations will be discussed in detail.

Documents

The sample group in this research consists of academic studies and relevant documents that focus on themes of migration, music, and identity in the existing literature. For the literature review, academic sources such as articles published in international and local academic journals, books, theses, and conference papers were selected. Additionally, cultural studies and research in ethnomusicology that address the musical practices of immigrant communities were included in this review.

In the context of document analysis, various written documents (e.g., cultural organization reports, musical event announcements, association newsletters) and visual materials (e.g., concert posters, video recordings of musical performances) were examined. These documents were selected from sources that provide direct or indirect information about the musical activities of immigrant communities and the role of these activities in identity construction. Furthermore, news reports, documentaries, and interviews published by media organizations on immigrant music were among the analyzed materials.

Data Collection Techniques

Two main techniques were used for data collection in this research: literature review and document analysis. Both techniques were employed to answer the research questions and better understand the relationship between the musical practices of immigrant communities and identity construction.

Literature review

The literature review aims to systematically examine existing academic studies on the topic and compile comprehensive information on the fundamental approaches and findings in this field. Literature reviews form the foundation of academic research and play a vital role in gathering existing knowledge and assessing the state of a particular area (Linnenluecke, 2019). The literature review primarily focused on academic articles, books, and theses accessible from international and local databases (e.g., JSTOR, ProQuest, Google Scholar). During this review, themes such as how music is used as a tool for identity construction among immigrant communities, how transnational identities are shaped through musical practices, and the role of music in cultural transmission processes were emphasized. This information from the literature supported the theoretical framework of the research and served as a reference point during the analysis process.

Document analysis

Document analysis is a technique for obtaining data through the detailed examination of written and visual materials. This method allows researchers to analyze existing texts and conduct their studies even in situations where field research is not possible (Morgan, 2022). In this research, reports published by cultural organizations, association newsletters, event announcements, and media content related to the musical practices of immigrant communities were analyzed. Additionally, materials such as visual recordings and posters of musical events were examined to understand the social and cultural significance of these practices. Document analysis provided additional data to understand how music is used as a tool in the construction of immigrant identities and complemented the information obtained from the literature review.

Data Analysis

The collected data were systematically analyzed using qualitative data analysis methods. Both the literature review and document analysis data were examined using thematic analysis with the Maxqda Analytical Pro software. Thematic analysis is a process aimed at identifying recurring themes and patterns in the data. Thematic analysis is considered a flexible and theoretically free method and can be associated with different epistemological and ontological positions (Lochmiller, 2021; Kiger & Varpio, 2020). A six-step method was used during the analysis phase. The six-step method proposed by Braun and Clarke is a widely used framework for applying thematic analysis. These steps include familiarizing oneself with the data, generating codes, constructing themes, reviewing potential themes, defining and naming themes, and producing a report (Majumdar, 2019; Campbell et al., 2021). In this process, the main themes that emerged regarding the musical practices of immigrant communities and their role in the formation of transnational identities were systematically classified and interpreted.

In the literature review, themes such as musical practices, transnational identities, cultural hybridity, social integration, and authenticity were emphasized. These themes were analyzed in line with the perspectives offered by existing academic studies and integrated into the theoretical framework of the research. In the document analysis, the narratives, images, and symbols in materials related to immigrant music were examined to understand how immigrant identities are expressed and how music is used as a tool in this process.

Ethical considerations

Ethical considerations were approached with great care in this research. All sources used during the literature review and document analysis were accurately referenced, and the copyright of the sources was respected.

This methodological framework aims to achieve the research objective of deeply understanding the role of musical practices of immigrant communities in the formation of transnational identities. The literature review and document analysis functioned as complementary methods to understand various aspects of this multifaceted process and to contribute new insights to the literature. In this context, the research findings aim to fill gaps in the literature on the relationship between music, migration, and identity and to expand the body of knowledge in this field.

Results and Discussion

In this section, the data obtained during the research process will be presented in detail and discussed in light of the existing studies in the literature. The findings will be derived from the data collected through literature review and

document analysis methods. During this process, the role of the musical practices of immigrant communities in the formation of transnational identities will be examined, focusing on how these practices are shaped, the dynamics that influence them, and how these practices contribute to the social and cultural lives of immigrant communities.

Presentation of Findings

The role of musical practices in the construction of transnational identities

The literature review and document analysis revealed that the musical practices of immigrant individuals and communities play a significant role in the construction of transnational identities. The data obtained demonstrate how immigrants bring together the cultural values of their country of origin with the cultural elements of their new communities through music, supported by various studies. Immigrants use music both to preserve and transform their cultural identities and to integrate into their new communities. For example, one study examined the role of music in the formation of ethnic identity and emphasized that music is an important tool in the process of preserving and transforming the identities of immigrant groups. In this process, music functions as both a resource and a constraint in the social positioning and orientation of immigrants (Lidskog, 2016). Another study investigated the impact of music on social cohesion and intercultural understanding, revealing that participation in music plays a significant role in breaking down cultural barriers and exploring cultural intersections between immigrants and host communities (Crooke et al., 2023). This demonstrates that music is a tool that facilitates the integration of immigrants into their new communities. Another study examining how Minangkabau and Javanese cultures come together through music (Santoso et al., 2023) shows how different cultural elements are blended through music and how mutual respect and understanding are developed. This study reveals that music can be used as a language of communication between individuals with different cultural backgrounds, thus promoting mutual respect for cultural values. In a study by Golemo (2020), it was also noted that immigrant musicians contribute to the cultural richness of the societies they live in and express their hybrid identities through music. These musicians both rediscover their own musical cultures and reinterpret them from a new, cosmopolitan perspective. This process allows immigrants to build an "internal homeland" through music. Finally, a study by Cain and Lakhani (2020) in Australia examined how the music-making practices of immigrant communities affect the mental, social, and emotional well-being of participants. This study shows that participation in music is an important tool for immigrants to express themselves and connect with their communities. These data demonstrate that immigrants use music both to preserve and transform their cultural identities and to integrate into their new communities. Music plays an important role for immigrants as a means of communication, a tool for identity construction, and a facilitator of social cohesion.

During this process, music helps individuals and communities preserve their cultural identities while also allowing them to redefine these identities in new contexts. For example, concert posters and performance videos analyzed in the document analysis show how immigrant musicians combine local music genres with global music trends, thereby creating a new musical identity.

Cultural hybridization through musical practices

Musical practices allow for the merging of different cultural elements to create new and complex music forms. Findings that demonstrate the contribution of the musical practices of immigrant communities to cultural hybridization processes are supported by various studies. Musical practices allow for the merging of different cultural elements to create new and complex music forms.

Immigrant musicians contribute to the cultural richness of the societies they live in by expressing their hybrid identities and transnational experiences through musical expressions. These musicians rediscover their root cultures while also building an "internal homeland" through music-making and experiencing music (Golemo, 2020). This clearly demonstrates how musical practices contribute to cultural hybridization processes. Music plays an important role in the processes of preserving and transforming the ethnic identities of immigrant communities. Research on how identities are preserved and transformed through music in diaspora situations highlights the importance of music in these processes (Lidskog, 2016). This supports another finding that musical practices contribute to cultural hybridization processes. Additionally, studies on the relationship between music education and cultural identity (Davis, 2005) show

how music education, with a multicultural ethical approach, supports diversity, hybridity, and differences. This demonstrates that musical practices allow for the merging of different cultural elements to create new and complex music forms. Finally, as seen in the example of Muziki wa Injili (Gospel Music) in Tanzania, music hybridization occurs when musical sounds cross different cultural boundaries and enter new music cultures. In this process, traveling sounds interact with other sounds they encounter in new music cultures, leading to transformation (Sanga, 2010). These findings demonstrate that the musical practices of immigrant communities make significant contributions to cultural hybridization processes and allow for the merging of different cultural elements to create new and multifaceted music forms.

This leads immigrants to develop a multi-layered cultural structure in their identity construction processes. The theoretical approaches found in the literature support this process, and the findings obtained from the document analysis provide a more concrete view of this hybridization process. Particularly, the blending of local folk music motifs with modern music genres in the performances of immigrant musicians can be considered an example of this hybridization process.

Social integration through music in immigrant communities

The findings also demonstrate that music plays an important role in the social integration processes of immigrant communities. The literature review contains a wealth of information about the use of music as a tool to strengthen social bonds and enable the establishment of new social relationships. For example, one study highlighted the role of music in the formation of ethnic identity and the preservation and transformation of cultural identities in diasporic situations. This study emphasized how music functions as both a resource and a constraint in the social positioning and orientation of immigrant communities (Lidskog, 2016). Another study conducted in Australia demonstrated that music programs play an important role in the integration processes of newly arrived immigrant and refugee children. These programs help students maintain cultural continuity, promote intercultural communication, and enhance their social cohesion (Marsh, 2012). Music is also used as a tool to promote social cohesion and intercultural understanding. Music communities formed to overcome cultural barriers and explore cultural intersections increase harmony and understanding between immigrants and host societies (Crooke et al., 2023). Another study examined how music education affects the cultural orientation processes of immigrant children. This study found that children who participated in music programs showed a stronger orientation toward the mainstream culture (Frankenberg, 2016). Additionally, studies have investigated how music affects the well-being and social cohesion of immigrant communities. These studies show that making music enhances individuals' mental, social, and emotional well-being and strengthens social bonds within the community (Cain et al., 2020).

Cultural organization reports and musical event announcements analyzed in the document analysis reveal how music contributes to the integration of immigrant communities with local societies. For example, music festivals organized by immigrants provide an opportunity to showcase their cultural identities and facilitate interaction with local communities. Such events provide concrete examples of how social cohesion and cultural exchange occur through music.

The role of music in the context of authenticity and cultural resistance

The research findings reveal that musical practices play an important role in the context of authenticity and cultural resistance among immigrant communities. The literature contains various studies on the use of music as a tool of cultural resistance. One study highlighted the role of music in the formation of ethnic identity and the preservation of cultural identities. This study emphasized that music is used as a tool of social stratification or resistance among immigrant communities (Lidskog, 2016). Similarly, a study conducted on migrant worker groups in China showed that musical production and performance activities reshaped the cultural subjectivities of workers and provided cultural resources for the solidarity of the working-class community. Another study conducted in Australia revealed that music contributes to the cultural adaptation processes of newly arrived immigrant and refugee children and youth, supporting cultural resistance in this process. This study indicated that musical experiences developed a sense of belonging among students and facilitated cultural transmission (Marsh, 2012). Additionally, a study conducted on Afro-Colombian communities

showed that musical performances have the potential to build ethnic identity and civic participation and that these practices promote social cohesion for immigrants and forcibly displaced people (Rojas, 2021). A project carried out in Norway revealed that music contributes to the understanding of cultural traditions and the prevention of discriminatory attitudes, thereby supporting cultural resistance among immigrant communities. Moreover, the music therapy literature emphasizes that music is an important tool for understanding cultural differences and enhancing cultural sensitivity in therapeutic processes (Hadley & Norris, 2016). In conclusion, musical practices play a significant role in the context of authenticity and cultural resistance among immigrant communities. These practices help immigrants preserve their identities, achieve social cohesion, and express themselves in new cultural environments. Therefore, the role of music in the context of cultural resistance and authenticity among immigrant communities deserves further research and examination.

The findings obtained from the document analysis demonstrate how immigrants use music as a tool to preserve and revitalize their cultural identities and values. For example, the performance of traditional music by diaspora communities can be seen as a form of resistance aimed at preserving these identities. At the same time, these practices also serve as important means for immigrants to express themselves in new social contexts.

Discussion

The research findings reveal that music plays a central role in the construction of transnational identities among immigrant communities. It is argued that music contributes to the shaping of transnational identities, which express the state of belonging to multiple cultural and national contexts. This finding supports the work of researchers like Lidskog (2016), who emphasized the importance of music in the preservation and transformation of ethnic identities. However, there are differing views on the role of music in the construction of transnational identities. For instance, some researchers argue that the impact of music in this process may be limited. Researchers like Vertovec (2004) suggest that the influence of music may vary depending on factors such as individuals' socioeconomic status, educational level, and cultural capital. In this case, it is argued that the role of music in identity construction may not always be equally effective and is context-specific. Therefore, it is clear that more comprehensive and context-sensitive research is needed on the role of music in the construction of transnational identities.

The research findings also show that music plays a significant role in cultural hybridization processes. Cultural hybridization is defined as the process by which different cultural elements come together to create new and complex cultural forms. Some studies emphasize the creative and transformative power of music in this process. However, it should be noted that cultural hybridization does not always lead to positive outcomes. There are criticisms in this regard. For example, Appadurai (2001) argues that cultural hybridization can lead to identity crises and cultural conflicts. Other studies have noted that cultural hybridization can create tensions between cultural elements rather than integrating them, leading to identity confusion. In this case, the role of music in the cultural hybridization process cannot always be assessed positively; the new cultural forms that emerge in this process may create a sense of belonging crisis or identity turmoil for some individuals.

Music is frequently emphasized as an important tool in the social integration processes of immigrant communities. Crooke and colleagues (2023) argue that music plays an active role in promoting social cohesion and intercultural understanding. Similarly, studies by Marsh (2012) demonstrate how music programs contribute to the integration processes of immigrant and refugee children. These studies show that music helps strengthen social bonds among immigrant communities and facilitates the establishment of new social relationships. However, it should be considered that the role of music in the social integration process is not always positive; in some cases, it may exacerbate social exclusion and discrimination. There is a possibility that certain music genres or musical practices may be perceived as foreign and threatening by host societies, which could lead to the exclusion of immigrant communities. In this case, the possibility that music could increase social polarization rather than facilitate social cohesion and integration should also be considered.

The research findings indicate that music plays an important role in the context of authenticity and cultural resistance among immigrant communities. Researchers like Lidskog (2016) and Marsh (2012) emphasize that music functions as a tool of resistance for immigrant communities. In this context, it is argued that music helps immigrants preserve their identities and express themselves in new social contexts. However, criticisms can also be made regarding the role of music in the context of authenticity and cultural resistance. The commodification of cultural products by global capitalism can be criticized, and it can be suggested that music is also affected by this process. This criticism points to the risk that authentic musical practices may gradually become commercialized by the global culture industry, leading to a loss of originality. Therefore, the function of music as a tool of cultural resistance can be questioned in this context. The commercialization of music could weaken the authenticity and resistance power of these practices, thereby limiting music's role as a tool of resistance for immigrant communities.

Caution should be exercised regarding the generalizability of the research findings. The findings obtained in this study are based on a specific geographic and cultural context, and there are uncertainties about whether similar results can be obtained in different communities and contexts. For example, Berry (2001) argues that the integration processes of immigrant communities can vary significantly depending on the socio-cultural structure of the society they are in. In this context, it is clear that the research results may vary across different cultural, social, and political contexts, and therefore generalization should be done with care.

In conclusion, these research findings demonstrate how music plays a central role in the construction of transnational identities, cultural hybridization processes, social integration processes, and cultural resistance among immigrant communities. However, evaluating these findings in light of opposing views and criticisms in the literature helps us understand the complexity of the effects of music on immigrant communities. The effects of music are context-specific and may not always produce the same outcomes in every case; therefore, it is clear that these effects need to be examined more deeply and critically. Such an approach will allow for a more comprehensive evaluation of the relationship between music, identity, and migration.

Conclusion

The research findings demonstrate that music plays a central role in the construction of transnational identities among immigrant communities. Immigrant individuals maintain their identities while integrating into new social contexts by blending the cultural elements of their countries of origin with those of the societies they now live in through musical practices. This highlights the significance of music as a tool for identity construction among immigrant communities. In this context, music serves as a means for immigrants to preserve their cultural roots while also helping them express themselves and gain acceptance in new social settings.

Musical practices play a crucial role in cultural hybridization processes. The findings of the research show that music brings together different cultural elements to create new and complex musical forms. Immigrant musicians contribute to the cultural richness of the societies in which they live by expressing their hybrid identities and transnational experiences through musical expressions. This clearly illustrates how musical practices contribute to cultural hybridization processes.

Moreover, the research concludes that music is also a significant tool in the social integration processes of immigrant communities. Music helps immigrant individuals establish new social bonds and integrate into their communities. The use of music as a tool to promote social cohesion and intercultural understanding enhances harmony and mutual understanding between immigrant communities and local societies. However, it should also be considered that music may not always play a positive role in this process, as it can, in some cases, exacerbate social exclusion and discrimination.

Finally, the research finds that music plays an important role in the context of authenticity and cultural resistance among immigrant communities. The function of music as a tool of cultural resistance helps immigrants preserve their identities and express themselves in new social contexts. However, the risk of music becoming commercialized and commodified by global capitalism also exists. This could limit the effectiveness of music as a tool for authenticity and resistance.

This research has demonstrated how music plays a central role in the construction of transnational identities, cultural hybridization processes, social integration processes, and cultural resistance among immigrant communities. However, it has been emphasized that the effects of music in these processes are context-specific and may not always produce the same outcomes. Therefore, it is clear that the relationship between music, identity, and migration needs to be examined more deeply and from a critical perspective. Consequently, the findings of this research suggest that more comprehensive and context-sensitive studies are needed to understand the effects of music on immigrant communities.

Recommendations

This section includes insights and recommendations for both academic research and cultural policy and practical applications based on the findings. Additionally, various suggestions have been developed for immigrant communities themselves. These recommendations aim to provide strategic guidance on how music can be more effectively used in identity construction, cultural hybridization, and social integration among immigrant communities.

Recommendations for academic research

The research deeply examines the role of music in the construction of transnational identities among immigrant communities, but it also highlights the need for further studies in this area. First, it is recommended that similar research be conducted in different cultural and geographical contexts. In this regard, there is a need for studies comparing the effects of music on different immigrant communities. Additionally, studies that explore the impact of music on immigrants' socioeconomic status, educational level, and cultural capital could provide valuable contributions to the existing literature.

It is also important for research examining the role of music in transnational identity construction to be planned as longer-term and more comprehensive studies to track long-term changes. Such studies could help understand how the musical practices of immigrants evolve over time and how their identities transform in this process.

Finally, more critical studies are needed on the role of music in cultural hybridization and social integration processes. Research that addresses the possible negative effects of music in these processes, such as identity crises or social conflicts, could fill gaps in the current literature.

Recommendations for cultural policy and practical applications

The findings of the research suggest that music can be used as an important tool in the social integration processes of immigrant communities and the preservation of their cultural identities. In this context, several recommendations can be made for cultural policymakers and civil society organizations.

First, it is recommended to create programs that support and encourage the musical practices of immigrant communities. Such programs can strengthen the role of music in promoting social cohesion and serve as an effective tool for overcoming cultural barriers. Events such as music festivals, workshops, and concerts can enhance interaction and understanding between immigrant communities and local societies

Cultural policymakers should make music education programs accessible to immigrant children and youth. These programs can facilitate the integration of immigrants into mainstream culture while also contributing to the preservation and redefinition of their cultural identities. The role of music as a bridge in this context can help create a more inclusive social structure by minimizing cultural conflicts.

Additionally, it is recommended to use digital platforms to archive the traditional music of immigrant communities and ensure the preservation of this heritage for the future. Such initiatives can contribute to the sustainability of the cultural identities of immigrant communities and serve as a tool of resistance for preserving these identities.

Recommendations for immigrant communities

It is important for immigrant communities to continue and develop their musical practices as a means of preserving their identities and expressing themselves in new social contexts. Immigrant communities should use music as an effective tool for preserving and redefining their cultural identities. Music can enhance intra-community solidarity and help preserve cultural roots in new social contexts. In this process, combining local and global musical elements can both sustain the cultural heritage of the community and contribute to the formation of new musical identities.

Additionally, immigrant communities should increase their interaction with local societies through music events they organize. Such events can facilitate cultural exchange and contribute to the social integration processes of immigrants. In this context, efforts should be increased to develop joint music projects with local societies, aimed at overcoming cultural boundaries and fostering mutual understanding.

Immigrant communities should take conscious steps to pass on their musical practices and cultural heritage to future generations. In this process, spreading musical education and practices and sharing knowledge in this field is crucial for ensuring the continuity of cultural identities.

These recommendations provide strategic guidance on how music can be more effectively used in identity construction, cultural hybridization, and social integration among immigrant communities. The suggestions offered for academic research, cultural policy and practical applications, and immigrant communities aim to contribute to a deeper understanding of the effects of music on immigrant communities and to better manage these effects.

Limitations of Study

This research, while examining the role of musical practices in the formation of transnational identities among immigrant communities, carries certain limitations. Firstly, the study is limited to a sample from a specific geographic region, which restricts the generalizability of the findings. It cannot be guaranteed that similar results would be obtained in different cultural and socioeconomic contexts.

The data collection methods are confined to literature review and document analysis. These methods are limited to accessible documents and existing literature, which may be insufficient for examining broader contexts. Additionally, the duration of the research is not conducive to tracking long-term changes and transformations, posing the risk of overlooking dynamics that may evolve over time.

Subjective interpretations and cultural differences also present a limitation during the research process. The meanings attributed to music can vary across different cultural contexts, which may not fully align with the researcher's perspective. This could partially limit the accuracy of the findings. Consequently, these limitations necessitate careful evaluation of the research findings, and it is recommended that future studies address these limitations.

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References

Appadurai, A. (2001). The globalization of archaeology and heritage. Journal of Social Archaeology, 1, 35-49.

Boer, D., Fischer, R., Atilano, M., Hernandez, J., García, L., Mendoza, S., Gouveia, V., Lam, J., & Lo, E. (2013). Music, identity, and musical ethnocentrism of young people in six Asian, Latin American, and Western cultures. *Journal of Applied Social Psychology*, 43, 2360-2376.

Cain, M., Istvandity, L., & Lakhani, A. (2020). Participatory music-making and well-being within immigrant cultural practice: exploratory case studies in South East Queensland, Australia. *Leisure Studies, 39,* 68-82.

Campbell, K. A., Orr, E., Durepos, P., Nguyen, L., Li, L., Whitmore, C., Gehrke, P., Graham, L., & Jack, S. M. (2021). Reflexive Thematic Analysis for Applied Qualitative Health Research. *The Qualitative Report*, 26(6), 2011-2028.

Cerecer, D., Cahill, C., & Bradley, M. (2011). Resist this! Embodying the contradictory positions and collective possibilities of transformative resistance. *International Journal of Qualitative Studies in Education*, 24, 587 - 593.

Chami, H. (2013). Music as Social Life: The Politics of Participation by Thomas Turino (review). *Journal of American Folklore*, 126, 101 - 103.

Cormoş, V. (2022). The processes of adaptation, assimilation and integration in the country of migration: Psychosocial perspective on place identity changes. *Sustainability*, *14*(16), 10296.

Crooke, A., Thompson, W., Fraser, T., & Davidson, J. (2023). Music, social cohesion, and intercultural understanding: A conceptual framework for intercultural music engagement. *Musicae Scientiae*, 28(1), 18-38.

Danaher, W. (2010). Music and Social Movements. Sociology Compass, 4, 811-823.

Davis, R. (2005). Music education and cultural identity. Educational Philosophy and Theory, 37, 47-63.

Eckersley, S. (2017). Changing places, changing people: Critical heritages of migration and belonging. *Anthropological Journal of European Cultures*, 26, 1-5.

Ehrkamp, P. (2006). "We Turks are no Germans": Assimilation discourses and the dialectical construction of identities in Germany. *Environment and Planning A*, 38, 1673 - 1692.

Erel, U., & Lutz, H. (2012). Gender and transnationalism. European Journal of Women's Studies, 19, 409-412.

Frankenberg, E., Fries, K., Friedrich, E., Roden, I., Kreutz, G., & Bongard, S. (2016). The influence of musical training on acculturation processes in migrant children. *Psychology of Music*, 44, 114 - 128.

Golemo, K. (2020). Migrant musicians. Transnationality and hybrid identities expressed through music. *Studia Migracyjne – Przeglad Polonijny*, 3(177), 113-125.

Gunderson, F. (2004). The African diaspora: A musical perspective (review). Notes, 61, 109-111.

Haan, M. (2010). Rethinking migration: New theoretical and empirical perspectives. Canadian Studies in Population, 37, 273-275.

Huang, V. (2021). Musical resistance and musical bodies in the making: A worker-band from southern China. *International Journal of Cultural Studies*, 24, 953-973.

Karlsen, S. (2013). Immigrant students and the "homeland music": Meanings, negotiations and implications. *Research Studies in Music Education*, 35, 161 - 177.

Kiger, M., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. Medical Teacher, 42, 846-854.

Lidskog, R. (2016). The role of music in ethnic identity formation in diaspora : A research review. *International Social Science Journal*, 66, 23-38.

Linnenluecke, M., Marrone, M., & Singh, A. (2019). Conducting systematic literature reviews and bibliometric analyses. *Australian Journal of Management*, 45, 175 - 194.

Lochmiller, C. R. (2021). Conducting Thematic Analysis with Qualitative Data. The Qualitative Report, 26(6), 2029-2044.

Majumdar, A. (2019). Thematic analysis in qualitative research. Advances in Business Information Systems and Analytics, 197-220.

Marsh, K. (2012). "The beat will make you be courage": The role of a secondary school music program in supporting young refugees and newly arrived immigrants in Australia. Research Studies in Music Education, 34(2), 93-111.

Morgan, H. (2022). Conducting a Qualitative Document Analysis. The Qualitative Report, 27(1), 64-77

Prinz, A. (2019). Migration, cultural Identity and diasporas an identity economics approach. *IZA Journal of Development and Migration*, 10.

Robbins, D. (2005). The origins, early development and status of Bourdieu's concept of 'cultural capital'. *The British journal of sociology*, 56 (1), 13-30.

Rojas, J. (2021). Afro-Colombian internal migration and participatory music: Ethnically and politically charged religious festivals in Bogota. *Musicae Scientiae*, *25*, 317-331.

Sanga, I. (2010). The practice and politics of hybrid soundscapes in Muziki wa Injili in Dar es Salaam, Tanzania. *Journal of African Cultural Studies*, 22, 145-156.

Santoso, I., Darlenis, T., & Pradipta, D. (2023). Mengalir dan membaur sebuah karya akulturasi musik minangkabau-jawa. Keteg: *Jurnal Pengetahuan, Pemikiran dan Kajian Tentang Bunyi, 23*(1), 36-45.

Schwartz, S., Meca, A., Cano, M., Lorenzo-Blanco, E., & Unger, J. (2018). Identity development in immigrant youth: A multilevel contextual perspective. *European Psychologist*, *23*, 336–349.

Tang, J. (2018). Fugitive science: empiricism and freedom in early African American culture. *Ethnic and Racial Studies*, 41, 2394-2396.

Vertovec, S. (2004). Migrant transnationalism and modes of transformation. International Migration Review, 38, 1001 - 970.

Wang, G., & Yeh, E. (2005). Globalization and hybridization in cultural products. *International Journal of Cultural Studies*, 8, 175 - 193.

Ward, C. (2013). Probing identity, integration and adaptation: Big questions, little answers. *International Journal of Intercultural Relations*, 37, 391-404.

Wessendorf, S. (2019). Migrant belonging, social location and the neighbourhood: Recent migrants in East London and Birmingham. *Urban Studies*, 56, 131 - 146.

Waterman, E. (2002). Georgina Born and David Hesmondhalgh, eds. Western Music and Its Others: Difference, Representation, and Appropriation in Music. Berkeley: University of California Press.

Journal of Music Theory and Transcultural Music Studies, 2(2), 105-116, December 2024 e-ISSN: 3023-7335 imttms.com

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Research Article

Children's popular music culture in Turkiye: reflections and critiques in music education1

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Article Info Abstract Popular culture, as an aspect of acculturation, also manifests itself in music. Music Received: 06 August 2024 Accepted: 10 October 2024 influenced by pop culture has the potential to affect a large portion of society. Popular Online: 30 December 2024 culture music impacts not only adults but also children. At this point, the concept of children's pop music emerges. This study aims to examine the music that influences Keywords Music education children under the influence of popular culture in Turkiye. In this study, the selection of Popular children songs popular children's music was based on their inclusion in music education books. This Popular culture music approach limits the examination of music as an object of study, considering its presence in music teaching books at the child level as an element of popular music culture. In this research, 24 musical works were analyzed. The majority of these works are Turkish pop and rock songs, with some in the style of Turkish classical music. Additionally, there are 3023-7335 / © 2024 the JMTTMS. popular songs from Italy, Greece, and the United States. It was determined that songs Published by Genc Bilge (Young Wise) included in music teaching books often lose their popularity after being added, and there Pub. Ltd. This is an open access article is no pedagogical approach related to the teaching of these songs. It is recommended that under the CC BY-NC-ND license future studies conduct more experimental research on what should be considered when <u>@</u>(1) selecting popular culture music works for use in music education for children.

To cite this article

Alan, M. (2024). Children's popular music culture in Turkiye: reflections and critiques in music education. Transcultural of Music Theory and Music Studies, 2(2),105-116. DOI: https://doi.org/10.5281/zenodo.15031821

Introduction

The term culture has many different definitions but in a general sense, culture is everything that people produce despite other people. With this in mind, one of the productions of life, the term music is in a way a product of culture. When present day is considered, it is seen that culture as a term changed in terms of content and form. As one of these, popular culture emerged. In general, popular culture can be defined as a situation where contemporary general values are open to discussion.

The popular culture, which affects all the people, takes children of primary school age under its effect, as well. In its basic terms, music as a part of life appears as the most effective tool for popular culture. There is a need to consider the differences that appear in music courses in formal training between teacher-student and manner and tone.

Music listened by means of mass communication devices at home, public places, in service cars, at school canteen and at friend meetings sometimes contradict with and separated from the music that students listen at music courses. This contradiction causes the child to develop a new music culture. As mentioned above, as a popular culture tool, music is consumed frequently and artificially in this period. Children, as an important target for popular music, want to listen

¹ This study was partially presented as a paper at the 10th International Conference on Advances in Social Sciences (ICASS), Singapore, on Nov 14-15, 2015. Only the abstract was published.

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to pieces of popular music at school as well. Discussing whether the children achieve their expectations, and reaching a conclusion make the problem of this study.

Popular Music Culture

As it is clear from the aims of the study, while evaluating the effects of popular music in music courses for children, it is believed that the effects of popular music is necessary to consider. In this study, we consider popular culture as popular music. In his dictionary of music terms, Sözer explains Pop music as the reflection of the Popart movement in England in the early 60s. "The pioneering was done by British and American music groups. The development of the amplifier and the strengthening of electronic instruments started the rhythmic music movement. The mixture of black "blues" with white "folk songs", "country" and "western" music created this music genre. It was gradually replaced by "Rock music"" (Sözer, 2012, p:191).

Schnitzer, while describing music, says that we can no longer imagine a life without music. From the Middle Ages to the present day, we have encountered different types of music in many areas of life, willingly or unwillingly. Today, technical media (radio, television, gramophone, magnetophone and cassette recorders) allow everyone to hear and know all kinds of music, from opera to pop music. Music from the most distant countries comes to your home almost free of charge" (Schnitzer, 1982, p:5). Cultural, economic, and political processes are fundamental components of social life. Cultural elements are closely related to political and economic situations. Culture is not just a process that carries values and moral judgments; it is an ongoing phenomenon that has been experienced in the past and continues to be experienced today. People's experiences shape culture and form the life patterns of individuals (Erdogan, 2014).

What we consider here is the relation of culture to which has been experienced-being experienced-and those who experiences. While this relationship can be formed by the person, it could also be formed by a directing superior "effect group". It is seen more like the effect of dominant culture over other cultures. As the repertoires formed by people, who direct television and music programs that shape masses, and especially that ones who choose songs especially in music programs; to make it more clear the people who choose songs and singers, adopt habits to the audience as they reach them.

When the popularity in the field of music is considered, being in "top 10" or "top 40" and having them listened is popularity. As a matter of fact, the effect groups, which prepare the "top" lists, want someone to be listened. We should of course take this from different aspects. The effect of popular music to the music education of children has a great importance both positively and negatively. It is important to present the music of successful contemporary musicians, as well. This necessity can be explained as understanding of the era or keeping up with it. It is also thought to be beneficial when it is considered as a tool that speeds up comprehension.

Popular Music Culture in Turkiye

Turkey, due to its location and cultural structure, which is a product of the synthesis of civilizations, has also become one of the subjects of popular music studies. However, it cannot be said that sufficient research has been conducted in this area. Dürük (2011) defined the concept of 'composite structure in music' and examined it from the perspective of popular music. Çiftçi (2010) addressed the relationship between popular music and music education. He emphasized that, like other genres of music, the popular music genre should also be analyzed and evaluated in music education. Efe and Sonsel (2019) identified the fifty songs that remained on the charts the longest and examined their characteristics according to different variables. Studies addressing popular music, like these, can be found in the literature. Research on Türkiye's popular music at the international level is quite limited. In a study, Fossum (2024) examined the concept of Intellectual Property within the context of two copyright advocacy associations related to music works in Türkiye. The topic of popular music and IP, in particular, has garnered significant attention in Türkiye.

Children's popular music

Popular music, and interdisciplinary studies in this field, often show that when considering the research subject as human beings, the age group is generally quite high. Most studies tend to focus on adults, particularly young people, while research on children in Türkiye is quite limited. The study by Okumuş and Karadağ (2014) on preschool-level students and the impact of popular music on families and teachers is one of the notable works in this area. It is significant

to increase research themed around popular music and children in the context of individuals' childhood experiences and their effects on identity and character development.

"Although the dense interest of children to the popular music that surrounds our daily life in Turkiye has caused music scientists and music education specialists to criticize it at the beginning, with the understanding that suggests that without making any discriminations all the music types are a part of our culture and it is inevitable to separate them from education processes, popular music has been placed in education programs different from the previous ones. Especially that the melodies are simple and catchy, and that the rhythms of the songs are lively, and that they are suitable for children to rhythm with music and dance caused popular music to be adopted more" (Aksu, 2010:95).

As Aksu claimed and as music books verify, popular music could find itself a place in the school life. Popular samples that are evaluated cannot be found in song sources daily. They are placed later. This both spares time for education specialists and helps them evaluate popular music pieces as well. In present day music courses students are able to listen to popular songs during brakes or sometimes in the lesson hour with the help of Internet and social sharing sites. Such sharing is not only for primary school music courses but also for secondary schools, high schools and universities as well. In today's era where communication technologies are in fast speed, and where cell phones allow social sharing with the help of the Internet, allow students to reach every kind of music pieces in every situation

One of the most important issues regarding the use of popular music in children's education is the teacher factor. Kondracka-Szala (2024), in her comparative study, identified that American and Polish preschool teachers differ in their plans regarding this issue. While American teachers emphasize the focus on the use of popular music, Polish preschool teachers focus on their self-development. Therefore, popular music and education for children is an important topic that should be evaluated from all dimensions

Aim of Study

In this study, the aim is to examine how children's popular music in Türkiye is reflected in music education textbooks and to provide a critical perspective on how this music can be applied to music education.

Method

Research Model

This research was conducted using the document analysis method, which is one of the qualitative research types. In this context, the relevant literature was reviewed in accordance with the aim of the research. In the study, to determine the educational reflections of popular children's music culture in Turkey, an examination was conducted of the musical works included in the primary school music education curriculum and present in textbooks. The most useful books for the literature review are those that summarize research or address conceptual discussions on educational topics. Textbooks used in classrooms are generally less useful because they do not contain individual reports of research; however, they do include valuable reference sources and literature summaries (Creswell, 2017:118).

Documents

In the study, our main criterion is to identify children's popular music works that meet the "popularity" criteria and can be evaluated as popular. This identification has been approached in terms of the concept of music popularity according to international standards. The criteria for these songs, in terms of their reflections in music education, are their inclusion in textbooks or music teaching curricula. A total of 24 popular children's songs that meet these criteria were identified.

Analysis

In the study, the processes of identifying popular children's songs can be considered as part of the analysis process. The researcher, being someone who provides training for classroom teachers in music education at the primary school level, provides textbooks and curriculum books related to music that can be taught to children at this educational level to teacher candidates at the undergraduate level. In this regard, an analysis was conducted of music textbooks and teaching programs from 2014 and earlier.

Results

Popular music for children in Turkiye

When primary school course books and songbooks are examined, it is seen that there are some olds songs from 5 to 20 years ago; and the number of these songs are limited. The books contain proper songs from a variety of composers. These songs are types that can be counted as "harps on the same string", and they do not set bad examples. Present day popular music has not yet reached to our children.

The music that can be listened by computers with an Internet connection or other gadgets can be counted here as "popular music". The songs found in sourcebooks date far back from the children's age. They are not compatible with the outcome "Works from Music Types in Our Country" in the program. As obvious from the songs we picked randomly, the songs are popular songs of the past.

As a trend that goes on for a while, school songs composed from poems of famous Turkish poets also takes attention. Some common school songs are the ones that are created this way.

Popular Music Songs for Children in Turkiye Gezsen Anadolu'yu

Lyrics: Behçet Kemal Çağlar, Music: Erdoğan Okyay (Şahin-Melek, 2002, Page:62.)





Arkadaşım Eşşek

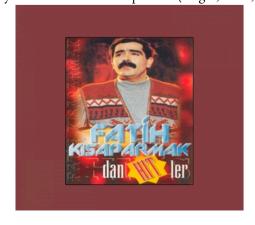
Lyrics-Music: Barış Manço (Özgül, 2002, Page: 171). Lyrics-Music: Barış Manço (Akkaş, 2005, Page:100).





Kilim

Lyrics-Music: Fatih Kısaparmak (Özgül, 2002, Page: 202). Lyrics-Music: Fatih Kısaparmak (Akkaş, 2005, Page: 107).





Bir Aslan Miyav Dedi

Lyrics-Music: Kayahan (Özgül, 2002, Page:158).





Bu Sabah Yağmur Var İstanbul'da

Lyrics-Music: Mazhar-Fuat-Özkan. (Sun, 1998, Page:100).





Gülpembe

Lyrics-Music: Barış Manço (Aydoğan, 2007, Page: 90).





Kol Düğmeleri

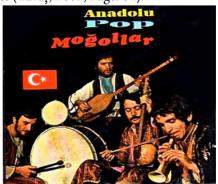
Lyrics-Music: Barış Manço (Yavaş, 2007, Page: 66).





Ağrı Dağı Efsanesi

M. Ses (Yavaş, 2007, Page: 64).





Yine Bir Gülnihal







Vak Vak Dansı

Italian Song (Aydoğan, 2005, Page:93). Lyrics-Music: W. Thomas (Yavaş, 2007, Page: 55).





Samanyolu

Lyrics-Music: Metin Bükey (Aydoğan, 2005 Page:127)





"Obladi Oblada

Lyrics-Music: Beatles (Aydoğan, 2005, Page:135).





Portofino

Italian Song (Aydoğan, 2005, Page:144).





Gitmesin Gözlerinden

Lyrics ve Music: Necdet Tokatlıoğlu (Aydoğan, 2007, Page:79).





Ben Yaralı Ceylanım

Lyrics ve Music: Zeki Duygulu (Aydoğan, 2007, Page:80).





Eski Dostlar

Lyrics-Music:Gültekin Çeki (Aydoğan, 2007, Page: 129).





Silent Night

Christmas Song (Yavaş, 2007, Page: 51).





Dua

Lyrics-Music: Necdet Tokatlıoğlu (Yavaş, 2007, Page:55).





Hatırla Sevgili

(Yavaş, 2007, Page: 63).





Dünya Dönüyor

(Yavaş, 2007, Page: 75).





Senden Başka

Yunan Ezgisi (Yavaş, 2007, Page: 75).





Memleketim

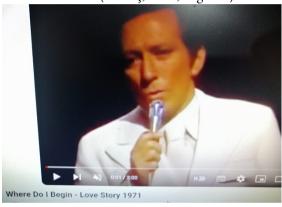
Lyrics: Fikret Şenses. Music: Romen Ezgisi (Aydoğan, 2007, Page:91).





Love Story

Music: Francis Lai (Akkaş, 2005, Page: 73).





The approach to the primary school music curriculum in Turkiye

When primary school music education program is considered, it is seen that unlike 1994 program, which was based on aim and subject matter, the program is created in terms of *structuralist program*, gives importance to learning other than teaching, emphasizes individual differences, encourages students to research, pays attention to previous learning experiences in learning process, highlights performances and activities in learning, takes students learning processes into account, adopts the understanding that students should learn in a social environment, allows students to create information and deducing from experiences (MoNET, 2007).

In the definitions of the outcome "Sings works of a variety of music types in our country" in "Listening-Singing-Playing" learning areas of Ministry of National Education Turkiye (MoNET) Music Program, music belonging to different cultures together with a variety of music types is presented. All the music theorists share a common agreement on this. The same idea is also supported in music books.

Criticisms of the use of popular culture music in music education in Turkiye

When the data appeared as a result of the examination of basic sources of primary school music courses are taken into consideration, it seen that the example songs that we consider "popular music" belong to a couple of generations back from this day. No terms, facts and expressions that are harmful for the education of children were encountered. The example songs create an expression that they are songs of the book writer's childhood. As it is clear in the books of the writers, we see popular songs belonging to the writer's own childhood or teenage years. This does not set a problem in terms of education programs. On the contrary, it is clear in the program that popular music exercises of current era should also be presented.

Ministry of National Education, which suggests in their music teaching, programs that children should recognize modern-day songs and understand and sing those songs, could not show how this will be achieved and how these song would add to the education of children.

In order to educate our future generations properly, current events should be followed and turned into outcomes, and as a matter of fact, as mentioned in the aims of this study, "popular Music songs" should be taught to our children before they lose their popularity. This necessity should be brought to the awareness of the public and discussed by the experts in the field.

Conclusion

In this study, where we consider popular songs from primary school music books, it was seen that 9 of the 24 songs sampled were Turkish Pop music songs. 8 songs are examples of Classical Turkish music. There are 5 popular song examples from other countries. There are 2 examples of Turkish Folk music. There is only 1 school music song. It will be accepted that the Pop songs that constitute examples of this study are works loved by the authors. Children do not even know the names of most of them. Classical Turkish music works are again the preferences of the book authors, and some of them do not seem to be understood by the child. For example, Dede Efendi's song Gülnihal would be the best example. "Yine bir Gülnihal, aldı bu gönlümü, sim ten gonca fem, bi bedel ol güzel", this language is almost impossible for a primary school child to understand. Again, if we consider foreign music, it is seen that 5 songs are 2 of Italian origin and 3 of English origin. Although there are no musical examples in the literature that fit the concept of "children's popular music" among the children's songs examined in the Turkish education system, it is seen that the results of the Popular Children's Music competitions organized by TRT and some institutions are introduced as Children's Popular Music. It is not possible to describe the songs performed by specially prepared and trained children's pop orchestras as "popular songs". The songs sampled in these studies consist of well-known and beloved school songs. The "Most Popular Children's Songs" on the https://www.trtdinle.com/playlist/en-populer-cocuk-sarkilari-7406827 internet program broadcast under the name TRT Dinle is an example of this. Although this is not a problem, the most basic principle here is to address the songs of the period in which the target child lives his/her childhood. In European countries, although children listen to and sing the songs of their own era, they sample them within the scope of school activities rather than music lessons. As we stated in the purpose of this study, the examples of popular music voiced in our country's publications or in the music world, which are considered in the context of educational music, constitute the basis of the study. Therefore, the concept of popular children's songs in the literature has been characterized as the most liked-most beloved children's songs considered within the framework of school music. As a result, it is thought that including current Pop Music Examples in children's song books will increase the child's musical gain and interest in music education in terms of understanding the music of his/her own era.

Recommendations

Recommendation for Further Research

In this study, an examination of the educational reflections of children's popular music culture has been conducted. These reflections have been analyzed through music textbooks. Future research can encompass a wide range of perspectives. For example, beyond examining the sociological, psychological, and pedagogical reflections of children's popular music, both quantitative and qualitative studies can be conducted. These studies could focus on practical implications, such as gathering expert opinions on the content of a course titled 'Children's Popular Music' that could be created within the music teacher training programs in Turkiye.

Recommendations for Applicants

Regarding children's popular music, many practitioners, such as anthropologists, psychologists, sociologists, and pedagogues, can organize awareness-raising seminars not only focusing on the educational aspect of this research I conducted but also related to their fields of study. Children's popular music, with its multidisciplinary nature, is open

to projects that can be supported in this area. This field should be presented to the attention of music teachers, considering its significance in the context of contemporary music education.

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Alan, M., and Gürgen, İ. (2023). Contribution of Folk Songs to the Language Skills of Primary School Students within the Scope of Qualified Teacher Training Programs. *Journal for the Interdisciplinary Art and Education*, 4(2), 83-90.

Alan, M. (2023). The Examination of the Workbooks on 'Bağlama' Teaching within the Scope of Systematic Exercises, *2nd International Rast Music Congress (IRMC)*, Antalya, January 14-15. e-ISBN Proceedings Book: 978-605-06640-8-9.

Alan, M. (2021). BONA Turkish Music in Sequence-Observation Exercises. Yurtrenkleri Publishing House, Ankara. ISBN: 978-975-8303-90-8. (Book Published 2021).

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References

Acay, S. (1999). Şarkı dağarcığı (repertuar of songs). Ankara: Yurtrenkleri Yayınevi.

Akkaş, S. (2005). Müzik 1 (Music 1). Ankara: Bilge Ders Kitapları.

Aksu, C. (2010). Türkiye'de eğitim müziği (Instructional music in Turkiye). İstanbul: Bemol Müzik Yayınları.

Aydoğan, S. (2005). Renklerle org öğretimi (Teaching org with colour). 5. Ed. Ankara: Arkadaş Yayınevi.

Aydoğan, S. (2007). Müzik dilini öğreniyoruz (we learn music language). Ankara: Arkadaş Yayınevi.

Bulut, M. H. (2007). Şarkı kutusu (Box of songs). İzmir: Kartopu Yayıncılık.

Creswell, J.W. (2017) Eğitim araştırmaları nicel ve nitel araştırmanın planlanması, yürütülmesi ve değerlendirilmesi İstanbul: Edam Yayıncılık

Çiçek, S. (1995). İlköğretimde ünitelere göre müzik eğitimi (Music education according to units in primary school). Bursa: yayınevi Dürük, E.F. (2011). Socİal and musical factors preparing the composite structure in Turkish popular music production and products. Journal of Social and Humanity Sciences, 3(1).

Efe, M., & Sonsel, Ö.B. (2019). Analysis of popular music listened to in Turkey: Spotify sample. İdil, 975-983.

Erdoğan, İ. (2024). www.irfanerdoğan.com.

Ersen, Ç. (2010). Popular culture, populer muiic and music education. Journal of Erzincan Faculty of Education, 12(2).

Fossum, D. (2024). The Frictions of IP and the Schism in Turkey's Collective Management of Music Copyright. *Journal of Popular Music Studies*, 36(2), 52–75.

Kondracka-Szala, M. (2024). The use of popular music in the education of children aged 4–6 years from the perspective of Polish and American early childhood education teachers. *Journal of Popular Music Education*, 8(1).

MoNET (Ministry of National Education of Turkiye) (2007). İlköğretim müzik (1-8. Sınıflar) dersi öğretim programında değişiklik yapılması (Primary school (1-8 grade) music curriculum changes). Ankara.

Okumuş, M., & Karadağ, E. (2014). The effect of popular music on pre-school children. *Journal of Research in Education and Teaching*, 3(4): 28

Özgül, İ. (2002). Müzik eğitimi ve öğretimi (Music teaching and education). 5th Ed. Ankara: Gazi Kitabevi.

Özgül, İ. (2002). Müzik eğitimi ve öğretimi (Music teaching and education). 6th Ed. Ankara: Gazi Kitabevi.

Schnitzer, K. (1982). Musik international l. Wien: Verlag Leitner

Sözer, V. (2012). Müzik terimleri sözlüğü. 3. Basım. İstanbul: Remzi Kitabevi.

Sun, M. (1998). Temel müzik eğitimi (basic music education). Ankara: Yurtrenkleri Yayınevi.

Şahin, O., and Melek, N. (2002). İlköğretim Müzik 4 (Primary School Music 4). İstanbul: Okyay Yayıncılık.

Yavaş, A. (2007). Melodika öğreniyorum 1 (I learn melodica 1). İstanbul: Bemol Müzik Yayınları.



Journal of Music Theory and Transcultural Music Studies, 2(2), 117-129, December 2024 e-ISSN: 3023-7335 imttms.com Genc Bilge Publishing Ltd. (Young Wise) © 2024 gencbilgeyayincilik.com



Research Article

The Ukrainian Women Artists with Their Weapon project as a transcultural artistic action in wartime

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Article Info

Received: 18 September 2024 Accepted: 1 November 2024 Online: 30 December 2024

KeywordsComposer Music

Ukraine

UWATW project

War

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Abstract

The Ukrainian Women Artists with Their Weapons (UWATW) project, a brainchild of Karmella Tsepkolenko, is a unique artistic endeavor that brings together female composers and poets. A direct response to the war in Ukraine, this project fuses a national context with transculturality, as evidenced by its significant global impact. It comprises five vocalinstrumental works, all centered around a single thematic idea: reflection during the war. The main research questions of the article include the impact of the war on transcultural processes, defining the main aspects of the project that reflect transculturality, and the interaction of collective authorship with individuality in contemporary artistic trends. Transculturalism, as a manifestation of globalization and decolonization, plays a crucial role in forming new cultural identities, rethinking traditions, and supporting cultural exchanges. This concept emphasizes significant technologies for transcultural connections, remaining a practical tool for researchers and artists to deepen mutual understanding in a globalized world. The project UWATW showcases the interaction of cultures through the collaboration of artists from diverse backgrounds and cultural codes. The project participants represent regional and national centers, influencing the creative methodology of working with musical and poetic texts. The works in the project embody a strong life-affirming impulse, promote intercultural exchange, and draw attention to transnational issues related to the war. Thus, the UWATW project illuminates significant issues of identity and artistic expression during wartime. It demonstrates the capacity of contemporary art to express national ideas, serve as an instrument of cultural resistance, and provide a platform for intercultural exchange, uniting people and preserving cultural values in the challenging conditions of war.

To cite this article

Chibalashvili, A., Maidenberg-Todorova, K., and Tsepkolenko, K. (2024). The Ukrainian Women Artists with Their Weapon project as a transcultural artistic action in wartime. *Journal of Music Theory and Transcultural Music Studies*, 2(2), 111-129. DOI: https://doi.org/10.5281/zenodo.15031836

Introduction

One of the consequences of war is the forced displacement and migration of people, resulting in cultural exchange and interaction between nations, creating conditions for the implementation of transcultural practices. Responding to the war events and Russia's attempts to destroy cultural institutions and remove artifacts, Ukrainian artists, regardless of their current location, strive to preserve their identity and reflect their intentions through creativity, conveying them through artistic expression to the international community. Thus, contemporary Ukrainian compositional creativity is

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experiencing a new stage of development, triggered by the tragic events of early 2022—the outbreak of Russia's full-scale war against Ukraine. In this context, expressing personal experiences, thoughts, and civic positions has become necessary to convey a society's primary senses and messages in force majeure circumstances. Moreover, creativity may be the only way to transmit what cannot be expressed in words and to be heard beyond one's cultural space. This emphasizes transculturality, which has resulted from forced intercultural interaction and exchange.

Backgrounds

Specific musical projects created after February 24, 2022, have already become iconic and gained widespread recognition even abroad. Such works, written in 2022 and performed worldwide, include "City of Mary" by Zoltan Almashi, a piece dedicated to the tragedies of Mariupol, and "Lacrimosa" by Victoria Poleva, dedicated to the events in Bucha (these are orchestral works). Also notable is Yevhen Orkin's cantata, "Daddy's Book," dedicated to the memory of children's writer Volodymyr Vakulenko, who was murdered by the occupiers in Izium. Dmytro Radzetskyi's performative project "Ukraine on Fire" (2024) has gained wide dissemination, using multimedia capabilities to unite many world musicians in various geographical locations, demonstrating their solidarity with Ukrainians and drawing the world's attention to the war and the need to help Ukraine. Of course, it is essential to mention the work of one of the foremost presenters of contemporary Ukrainian music, Yevhen Stankovych, who composed a large-scale orchestral-choral piece titled "Ukraine. Music of War" with a libretto by Vasyl Vovkun.

Within the array of these remarkable works, a special project emerges, titled "Ukrainian Women Artists with Their Weapons." The initial concept of this project was to channel personal experiences and emotions into artistic expression. However, as it evolved, it resonated deeply in the transcultural sphere, and the emotional intensity conveyed by the musical works of this project remains profoundly relevant today.

Research Questions

"Ukrainian Women Artists with Their Weapons" is an original artistic project with no analogs in Ukrainian wartime compositional creativity. It conveys meanings that exist at the level of the broader cultural space, as evidenced by the demand and performances of the project. Therefore, the main research questions are as follows:

How does the war affect transcultural processes?

What are the manifestations of transculturality in the project "Ukrainian Women Artists with Their Weapons"?

How are transcultural processes reflected in contemporary trends in art?

How does collective authorship correlate with individuality in the context of contemporary transcultural trends, and how is this reflected in the structure and artistic concept of the work?

Method

The study employs a deductive approach, as understanding the entirety of the project sets goals for deepening, studying, and detailing each component. An inductive approach, compiling the significant substantive-creative, expressive, and cultural-social elements identified during deductive deepening, transforms the holistic view of the project and expands its prospects. Additionally, the study uses a comparative method to compare the creative approaches and working methods of the composers who participated in the project. The cultural analysis allowed for examining the project in the context of contemporary sociocultural events and processes, which contributed to understanding its place in the pan-European cultural space and transcultural processes. A key aspect is the analysis of the historical context in which the project was created, particularly the impact of the war on cultural processes in Ukraine and the role of art in preserving and disseminating national identity. These methods enabled a comprehensive analysis of the "Ukrainian Women Artists with Their Weapons" project, revealing its main artistic and conceptual features.

This integrative methodology aligns with modern trends in cultural studies, where there is an increasing blend of humanities and sciences. Pavel Zgrzebnicki notes that "the traditional division into science and humanities is becoming blurred... shedding new light on basic problems in cultural studies" (Zgrzebnicki, 2017, p. 64). The combination of deductive, inductive, and comparative approaches reflects the need for integrative, synthetic research, as emphasized by

Uzakbayeva and Beisembayeva, who argue that cultural studies encompass both cultural and logical dimensions (Uzakbayeva & Beisembayeva, 2015).

Moreover, the recognition of complementary epistemological and methodological approaches is vital. Fonseca et al. stress the value of diverse methods to achieve a deeper understanding of cultural elements and their influence (Fonseca et al., 2017). This comprehensive approach not only contextualizes the "Ukrainian Women Artists with Their Weapons" project within broader cultural frameworks but also highlights its role in preserving national identity amidst Ukraine's wartime context.

Introducing Project

"Ukrainian Women Artists with Their Weapons" is a collective project whose authors are exclusively women—composers and poets. This cycle consists of five vocal-instrumental works of similar scale, written for the same ensemble and united by a single thematic idea: reflecting on the onset of the war. The project formed gradually but very rapidly. The decisive factor in the emergence of this creative phenomenon was the position of the project's author, composer Karmella Tsepkolenko, the creative director of the contemporary art festival "Two Days and Two Nights." The project was conceived at the very beginning of the full-scale invasion, performed by the modern music ensemble Senza Sforzando (comprising Tetiana Muliar—soprano, Yevhen Dovbysh—cello, and Oleksandr Perepelytsia—piano), and initially planned as a virtual project intended for online video broadcasting. However, it quickly transitioned to live concert performances and has been presented multiple times in Ukraine and abroad, receiving significant resonance, underscoring its openness and relevance.



Figure 1. Ensemble Senza Sforzando (Tetiana Muliar—soprano, Evhen Dovbysh—cello and Oleksandr Perepelytsia—piano, artistic director). Humboldtsaal, Freiburg (from Karmella Tsepkolenko's archive)

Live presentations of the project took place in 2022 in Kyiv at the "Kyiv Music Fest" (URL 1), in Lviv at the "Contrasts" festival (URL 2), and on Latvian Radio in a program dedicated to Ukraine (URL 3). The project was also showcased at an international conference at the University of Heidelberg (Germany). In 2023, it was presented live at the "Two Days and Two Nights of New Music" festival (URL 4) in Odesa. 2024, it was presented at the Gemm scientific seminar at the Sorbonne University in Paris and in Freiburg, Germany, at the "Sound against the War" event.

The "Ukrainian Women Artists with Their Weapons" project stands out with its unique goal—to use artistic means to convey the painful meanings that Ukraine currently lives by to a wide, primarily European audience. This cohesive and artistically balanced project is not just a collection of works, but a single cyclic work with a certain dramaturgical development, featuring leit-timbres, leitmotifs, climactic zones, and zones of detachment.

Introducing Authors

The project involved five contemporary female composers located in different cities and indirectly involved five female poets whose poems these composers turned to. The composers were inspired by a common idea, a particular goal, and the project's central message—to show our spirit's resilience and strength and demonstrate that we continue to live despite the enormous danger and psychological tension. In artistic form, they also aimed to convey to the listener the inexpressible pain of the Ukrainian people, which everyone has experienced and continues to experience today while reinforcing moral resilience and an unwavering will to victory.

Karmella Tsepkolenko, the initiator of the project, is a renowned Ukrainian artist, laureate of the Shevchenko National Prize, Honored Artist of Ukraine, the author of the idea, founder, and artistic director of the annual International Festival of Contemporary Art "Two Days and Two Nights of New Music." She is the initiator, founder, and Chair of the Board of the International Public Organization "Association New Music"—the Ukrainian section of the International Society for Contemporary Music (ISCM). She is also a professor and head of the Department of Music Theory and Composition at the Odesa National A.V. Nezhdanova Academy of Music (2009, composition). Additionally, she serves as the Secretary of the Board of the National Union of Composers of Ukraine. Tsepkolenko is the author of numerous works (over 100), including seven symphonies, four operas, and various chamber works. She has released 12 CDs with her compositions.



Figure 2. Bernhard Wulff (president of the festival Two Days and Two Nights of New Music), Karmella Tsepkolenko (artistic director of the festival Two Days and Two Nights of New Music) in Humboldtsaal, Freiburg (from Karmella Tsepkolenko's archive)

Hanna Kopiika is a composer of the younger generation and a member of the Union of Composers. She studied in Yulia Gomelskaya's class and pursued postgraduate studies under Serhiy Shustov. Kopiyka holds two degrees—one in music and one in mathematics—and successfully combines these two fields simultaneously. As a composer, she has presented her works at leading Ukrainian festivals and in Poland. She also teaches at the Department of Music Theory and Composition at the Odesa Music Academy.

Asmati Chibalashvili, a Ukrainian composer of Georgian descent. She received her education in Odesa in the class of Karmella Tsepkolenko and pursued postgraduate studies at the National Music Academy in Kyiv in the class of Yevhen

Stankovych. Since then, Asmati Chibalashvili has lived and worked in Kyiv, maintaining strong ties with the Odesa creative community and developing Ukrainian-Georgian creative relations. Her works are performed both in Ukraine and abroad, and she has represented Ukraine at the international plenary session of the World New Music Days ISCM in Vancouver.

Kira Maidenberg-Todorova, a Ukrainian composer and pianist, has made a significant mark in the world of contemporary classical music. Her talent has been recognized with the prestigious Levko Revutsky National Prize. Her compositions, spanning chamber, choral, piano, and symphonic music, have been showcased at national events in Ukraine and across the globe, including in France, Germany, Lithuania, and other countries.

Alla Zagaykevych is a renowned composer known far beyond the borders of Ukraine. She combines work in academic concert genres (opera, symphonic, chamber, electroacoustic music, chamber opera) with contemporary multidisciplinary projects (audiovisual installations, performances, music for films, and theatrical productions). Alla Zagaykevych studied at the Kyiv State Conservatory under Professor Yuri Ishchenko (1985–1990) and later at the Institute for Research and Coordination in Acoustics/Music (IRCAM) in Paris (1995–1996). She has also received numerous awards for her film scores.

Parts of the whole

"Reading History" by Karmella Tsepkolenko based on the poetry of Oksana Zabuzhko

The composer chose a poetic text from the well-known and long-written works of the renowned Ukrainian poet and public figure Oksana Zabuzhko to work on the piece. The composer used this text in its entirety without any abridgment. Karmella Tsepkolenko wrote cantata "Reading History" in March 2022 in Odesa. It was an agitated and dreadful time—Russian forces were advancing on all fronts, Odesa was under constant rocket attacks and threat of occupation, and most of the time had to be spent in bomb shelters. In these conditions, as a reaction to the war, the composer conceived the idea of creating a concert program featuring works by Ukrainian women composers under the motto "Ukrainian Women Artists with Their Weapons."

In Oksana Zabuzhko's poem, two philosophical categories are addressed—eternity and temporality. The first belongs to the greatness and power, the glory and the name of a great state that has earned it through its achievements. The second concerns conquerors, who, for a time, become the owners of a certain territory. This is why every invader tries to engrave their name at any cost, so as not to disappear forever from the pages of history. The poem uses eternal symbols—such as the Colosseum, Rome, and the Barbarian—to draw significant parallels with contemporary times. The composer drew a parallel with Ukraine, as Ukraine, like Rome, has been repeatedly subjected to invasions. No matter how strong and powerful the adversaries were, the state always emerged victorious and defended its name. The achievements of each country testify to its wealth and history, so no "barbarian" can erase its memories from history. This connection between the past and the present in the composition is a testament to its timelessness and relevance.

The musical score is written using contemporary compositional techniques, a significant aspect that adds a layer of intrigue to the piece. In its form, it resembles a mini-mono-opera, as the vocal part is significantly saturated with psychological and dramatic elements. Solo episodes for the cello and piano are of great importance, emerging at the peaks of dramatic events and serving as connective material to enhance the dramatic narrative of the cantata. The composer employs the technique of musical "compression of time," where events that cannot be sequentially laid out in the cantata's text are reflected in instrumental intermezzos. In other words, the instrumental episodes continue the unfolding of the plot, expressing the meaning embedded between the lines. One could say that the vocal part narrates past history, while the role of the instrumentalists is to depict contemporary chronicles.

The composer removes all elements of ornamentation and external effects, focusing her attention on the development of drama in its psychological and emotional aspects. However, at the beginning of the work, Karmella Tsepkolenko incorporates a performative effect. The vocalist reads Oksana Zabuzhko's poem without music, literally reading the history, and then the piece is performed by all the musicians. This combination of the mundane and the distinctly staged space aims to enhance the meaning embedded in the poem. We emphasized at the beginning that in this

project, the poetic text is more than just poetry used by the composers for her works; it is a significant component of the conceptual content.

To emphasize the expressiveness of the psychological drama and the performativity, the piece includes snare drum strikes in the vocal part. In the piano part, to achieve specific sonorous resonances, the composer uses a metal ruler placed in the high register of the keyboard at certain moments. Additionally, to highlight the feelings of horror, the vocal part employs unconventional sound production techniques, and in the instrumental parts, key thematic moments are accentuated with ostinato verbal recitations. These recitations echo, enhancing the psychological impact on the listener.

The piece also exists in a German translation (the poem's text was translated by its author, Oksana Zabuzhko, with the assistance of Rupert Bergmann). This version was performed on November 9, 2022, at Stadtgalerie Möding (Vienna) in the staged concert program "War–Peace" by the Austrian ensemble consisting of Rupert Bergmann (bass-baritone), Tzveta Dimitrova (piano), and Stefan Teufert (cello), where the world premiere of the German version of the cantata "Geschichte Lesen" / "Reading History" took place (URL 5).



Figure 3. Ensemble Senza Sforzando and *Karmella Tsepkolenko*, Lviv National Philharmonic (from Karmella Tsepkolenko's archive)

"Feelings-2022" by Hanna Kopiika based on the poetry of Lina Kostenko

For the textual embodiment, the composer, Hanna Kopiika, demonstrated her profound understanding of the dialectic of opposing experiences by choosing two poems by the iconic Ukrainian poet Lina Kostenko. Her cantata, therefore, consists of two parts. The first poem, "And Horror, and Blood, and Death, and Despair," was written in the early days of the full-scale invasion of Russia. The second poem, "Wings," was written back in 1958. Kopiika found a way to embody the contrasting experiences in a masterful manner. The composer herself notes that the first "musical" part of the work, "And Horror, and Blood," was written around the time when photos of the devastated Borodyanka and the rescued people and animals who survived were circulating on the internet. One of these photos became the impetus for creating the semantics of contempt and disgust towards the aggressor.

The first part of the composition is saturated with frequent repetitions and deliberately unnatural phrase elongations, enhancing the effect of repulsion. Glissando and noise instrumental effects, imitating distant explosion sounds, are actively used. However, the second part of the composition unexpectedly changes both the content and musical sound, taking the audience on a contrasting emotional journey. The text of the poem carries a very positive and optimistic message, which in today's conditions feels even more poignant: it glorifies the spiritual aspirations of a person, celebrates life, and emphasizes the necessity of having goals and desires, without which life loses its meaning. Interestingly, Lina Kostenko wrote this poem while in Poland, longing for her homeland; the "wings" symbolize the aspiration to achieve

a cherished goal. Musically, the second part is composed in such a way that its sonority is on a constant path of enlightenment and relief, which starkly contrasts with the first part of the work.

After the first chord, the soprano immediately enters with a lyrical melisma, complemented by the cello with an extended, beautiful melody that accompanies the vocal part for a long time. In the piano, we can hear soft chords interspersed with quiet and gentle cascades of sound. All of this creates an effect of soaring and upliftment, which gradually acquires bright pathos towards the end. This embodies an indomitable optimism and positive thinking that withstands any circumstances. This piece can be considered the lyrical culmination of the project.



Figure 4. Tetiana Muliar and Oleksandr Perepelytsia, Lviv National Philharmonic (from Karmella Tsepkolenko's archive)

"With Faith in Ukraine" by Asmati Chibalashvili based on the poetry of Yulia Dmytrenko-Despotashvili

The composer's selection of poems for her work was a deeply personal and emotional journey. The poems, penned by a Ukrainian poet residing in Georgia, were not specifically crafted for the project but were a reflection of the war events in April 2022. These poems, resonating with the composer's own experiences, infused the music with a unique and profound emotionality.

This poem depicts and portrays a scene of bombed and abandoned homes whose windows will never be a welcoming light again. The allegorical and painful lines that describe snow falling as salvation are particularly touching. However, while the poem's first part describes the horrors of war, the second part has a more optimistic tone. It expresses an unwavering belief that the people of Ukraine will survive all trials, and the country itself, after going through hell, will undoubtedly flourish and become even better. In the music, the composer also uses additional percussion and percussive techniques in the piano part. Recitation is actively used during the most poignant lines of the poetic text. In the vocal melody, we can hear the intonations of a soothing lullaby. The piercing intonations of the cello part are aimed at conveying two meanings—transmitting emotional experiences and imitating a moan.

Asmati Chibalashvili chooses an attractive artistic solution to conclude the piece. Unlike other parts of the project, despite the optimistic final lines of the poem, the music does not move towards enlightenment but becomes more dramatic. The lyrical aspect recedes into the background, and the final lines are filled with determination, activity, and readiness to fight. The piece ends with strikes on the piano strings, which the composer also uses to imitate the echoes of explosions. Thanks to this artistic decision at the end of the composition, this piece can be considered the dramatic culmination of the project.

"My beloved..." by Kira Maidenberg-Todorova based on the poetry of Valeria Zhigalina

The poetry by Valeria Zhigalina is the only one written explicitly for this project at the composer's request. The poem has no title, and its content can be understood in two directions. The author addresses her "beloved," sympathizes with her, and shares her loss and pain. The image of the "beloved one" is very abstract; she could be a daughter, sister, granddaughter, friend, or simply an unknown girl who has been tormented and mutilated. However, we understand that this image is allegorical and represents Ukraine, whom the author calls her dear one. Therefore, the phrase "My beloved" was chosen as the piece's title.

The poem's climax is highly expressive, describing the repulsiveness of contemporary Russian military symbols, which have been branded in everyone who has suffered from the war. Thus, this piece conveys the emotions that Ukrainians were experiencing at that time—horror, fear, pain, rage, uncertainty about the future, a sense of losing something significant, and, despite everything, an indomitable hope for a better future. That is why Valeria Zhigalina's poem also ends with the hope that everything will pass, and just as a new star rises each time, a new peaceful life will dawn in Ukraine.

Speaking of the musical expressive elements, the structure of the piece is continuous, with the character of the music fully following the emotional state of the text and having a clear climax. The main protagonist in the ensemble is, of course, the singer. However, the pianist's part can be interpreted as expressing the inner state of the heroine, while the cellist's part echoes the external circumstances. An essential element is the initial rhythmic percussive feature, which the composer also incorporated but is assigned to the pianist. This is a rather declarative expressive device that reflects the heart's beating. The vocal and cello parts also actively use Glissando intonations and moan imitations.

"Signs of Presence..." by Alla Zagaykevych based on the poetry of Iya Kiva

The composition by Alla Zagaykevych, a unique collaboration with the young and esteemed Ukrainian poet Iya Kiva, is a part of the compelling project "Ukrainian Women Artists with Their Weapons." The piece is a musical interpretation of Kiva's poems, carefully selected from her various collections published after 2018.

The poet Iya Kiva was born in Donetsk and was forced to move to Kyiv in 2014 with the onset of the occupation. Alla Zagaykevych's piece "Signs of Presence," included in the project, is a second version of a previously written work by the composer. The earlier version was created for a solo performance by vocalist Victoria Vitrenko, who accompanied her singing with piano playing. For the "Ukrainian Women Artists with Their Weapons" project, a cello part was added to the piece, and the performative effect initially embedded in the work was diminished. However, this does not make the piece any less interesting or relevant to wartime events, and it elevates the project to a broader level of significance and generality. It primarily depicted the sense of anxiety and the foreboding of a military catastrophe, which owes much to the symbolic meanings embedded in the poetic lines. The text of the poetry does not directly depict war events but conveys their feelings very accurately.

The text is highly symbolic and vivid, encompassing death, emptiness, abandonment, pain, and suffering. The piece consists of four parts. In the first part, static elements dominate, depicting a life frozen in ruins, where everything resembles a terrible dream, with the most unpleasant episode continuously repeating. The second part of the piece reflects emotions that take one's breath away. This is vividly portrayed in the vocal part. The depiction of the distortion of everything that was once dear and loved is compared to a dirty duck flapping between the shoulder blades. The vocal part is rich in specific techniques, such as very soft singing, falsetto, gliding, and wailing. This is an expressive type of singing that does not attempt to showcase the most beautiful aspects of human nature but instead emphasizes the primal, wild, and, at first glance, anti-aesthetic qualities of the voice.

In the third part, Alla Zagaykevych employs her favorite vocal technique—turning to the folk open manner of singing. This radically changes the timbral plane and significantly raises the tone of emotional tension. This is the climactic part. The text speaks about the metamorphosis of transformation from one state to another. The singing emphasizes the meaning of this part, which is embedded in its final lines—to learn to seek the roots of life that do not yet know what to call themselves. It underscores the highly relevant current state of the revival of national roots through painful resistance.

The final, fourth part of the piece returns to the initial state of uncertainty and moral exhaustion, which, after the climactic phase, feels more organic and unified. The composer seemingly dissects the poetic text and becomes secondary. It is not easy to understand the text's pronunciation/articulation during the singing. This indicates that the composer prioritized the feelings and associations evoked by the poetry over its verbal content. Thus, the piece features many fragmented phrases, gasps for breath, emotional outbursts, and a sense of being lost. The vocal part becomes a crucial sonorous component of the composition, a new instrumental timbre.

The national context of the project "Ukrainian Women Artists with Their Weapon"

The contemporary art project is not only the result of an original plan. However, it is also a unique combination of coordinated actions to achieve specific cultural and aesthetic-artistic goals. *Kostiantyn Davydovskyi* identifies the following indicators of a contemporary art project in the national context, the first of which is "The birth of a new progressive artistic concept that corresponds with the national idea of the Ukrainian people." (Davydovskyi, 2013, p. 161). He further notes that there must be a precedent of historical "excess"—the disclosure of a previously unknown but significant fact capable of engaging the cultural and artistic community or the birth of a fundamentally new, relevant, and contemporary concept of a cultural event. This is an indisputable situation. Among other things, it is noted that an art project must have a leader—an extraordinary creative personality capable of generating a new artistic idea and creating a team of like-minded individuals, spreading and promoting the leading idea of the project over a long period.

Theoretical and Historical Aspects of Transculturalism

Transculturalism as a philosophical and aesthetic thought direction emerged at the turn of the 20th and 21st centuries. It is associated with globalization processes oriented towards a transnational cultural orientation for the pan-European markets. Researchers interpret the phenomenon of transculturalism by seeing its origins from the following points of view. Thus, the first group of studies includes works that link this phenomenon with decolonization processes. Fernando Ortiz first introduced transculturalism to define a new stage in the relations between decolonized peoples and former empires. The researcher identified two stages of transculturation: loss or uprooting (deculturation) and the creation of a new culture (neoculturation), corresponding to destruction and creativity, respectively (Ortiz, 1995, p. 140). Anne Ring Petersen reinforces this position by examining the impact of migration on the identity of the migrating individual as well as the community in which the migrant resides and the influence of these processes on the art world on the path to the contemporary "global art," which, in turn, changes cultures, institutions, and global geopolitics (Petersen, 2017).

Another perspective is related to the process of unifying the socio-cultural space, focusing on the individual characteristics and needs of the person. M. Epstein notes that "...transculturalism takes up the torch from multiculturalism. Multiculturalism paves the way from the dominance of one canon to the diversity of cultures. Transculturalism moves from the diversity of cultures to the even greater diversity of individuals, transcending their rigid cultural identities" (Epstein, 2009, p. 349). M. P. Trebin and T. O. Chernyshova deepen this understanding by arguing that the phenomenon of transculturalism and, accordingly, transculturation in the context of contemporary socio-cultural reality is "...a new way of social and linguistic thinking, generating new relationships between cultures and languages, a new understanding of modern communication" (Trebin and Chernyshova, 2014, p. 17).

In the article "Transculturalism and Translation: New Approaches to Cultural Contact Zones," Hermione Giffard (Giffard, 2016) explores the definition and application of transcultural in the context of historical and cultural studies. Giffard highlights transculturalism as a response to globalization, focusing on how cultures interact, blend, and influence each other. The author emphasizes the metaphor of "translation" as central to understanding transcultural interactions, suggesting that cultures do not simply mix but also actively transform borrowed elements in a process that is both creative and destructive. Overall, Giffard sees transculturalism as a valuable framework for studying cultural interactions but stresses the need for more explicit definitions and practical applications. J. Lewis understands the concept of "transculturality" as integrating "political aesthetics" with cultural citizenship. The researcher connects the transcultural vision with a postmodernist approach (Lewis, 2002, p. 17). Continuing the line of J. Lewis, T. Humeniuk introduces the category of transculturality as "a defining characteristic of the phenomenon of postmodernism, interpreting postmodernism as a situation in culture that closes the historical circle of the late 20th and early 21st

centuries." The researcher interprets postmodernism as a transcultural phenomenon, relying on an interdisciplinary approach. Thus, we conclude that transculturalism has two main prerequisites: the processes of human migration, which can occur voluntarily, involuntarily, or by force, resulting in interaction and cultural exchange between different ethnic groups. Another important factor influencing the process of transculturation is globalization processes and the widespread dissemination of new technologies, allowing artists from other parts of the world to unite and create joint projects. This is confirmed by the research of V. N. Sudakova, who states,

"Internet culture forms a universal awareness among representatives of almost all social and cultural communities on the planet. The unique scale of information accessibility leads to familiarity, adaptation, and use of a vast array of transcultural achievements: technology, gadgets, etiquette norms, clothing, and items that are equally significant for all cultural systems on the planet" ... "exclusive and professional vocabulary, vulgarisms, and jargon. All these are transcultural values and, simultaneously, the field of possible understanding and cultural mutual recognition" (Sudakova, 2019, p. 24).

Thus, transculturalism, having formed at the intersection of globalization trends and decolonization processes, occupies a key place in contemporary philosophical and aesthetic thought. It is viewed as a dynamic phenomenon that fosters the creation of new cultural identities through the creative interpretation and reinterpretation of cultural traditions. This perspective emphasizes not only migratory movements and sociocultural exchanges but also the importance of technologies in shaping transcultural connections. Through a comprehensive understanding of artistic processes that transcend national and ethnic boundaries, transculturalism serves not merely as a theoretical concept but as a practical tool for researchers, artists, and educational institutions, encouraging deeper mutual understanding and cultural enrichment in today's globalized world.

Transcultural dimensions of the project "Ukrainian Women Artists with Their Weapon"

The interaction of cultures within the framework of the project "Ukrainian Women Artists with Their Weapons," focusing on current events in Ukraine, reflects its transcultural dimension. This happens through the collaboration of artists from different backgrounds and cultural codes. In this context, it is worth noting that the participants in the project—representatives of the Ukrainian compositional school—present two branches of professional-regional national centers: Odesa and Kyiv, which somewhat influences the creative methodology of working with musical and poetic texts. Moreover, some of the composers have different ethnic roots and, accordingly, various cultural perspectives, which also contribute to the enrichment of their creative views on events. For instance, Karmella Tsepkolenko has Armenian roots, Asmati Chibalashvili is of Georgian descent, and Kira Maidenberg-Todorova has a Jewish heritage. Each national branch carries a corresponding genetic code of memory of events resonant with the current tragedy. Today, their unification in creativity through the creation of a comprehensive, coherent project reflecting a shared experience speaks to a cultural fusion spurred by the Russian-Ukrainian war. The collective authorship of the project emphasizes the importance of collaboration and interaction among artists, enriching creative ideas and artistic concepts. This aligns with the broader understanding of transcultural collaboration, which is described as "communication between people with different cultural backgrounds, including the communication between countries, groups, and individuals... essential to the prosperity of culture and social development" (Zhang, 2021, p.72). Each composer maintains her individuality while contributing to creating a unified cyclic work. This indicates a harmonious blend of individual and collective elements, an essential aspect of transculturality.

On the other hand, the project has become an act of creative self-expression and an active form of cultural resistance. The works included in it contain a robust life-affirming impulse. With a national context relevant to current events, the project promotes intercultural exchange through its universal artistic language. War is a transnational issue today, requiring immediate resolution by all available means.

Conclusion

War significantly intensifies transcultural processes as artistic practices developed under its influence often transcend national boundaries and engage the international community in dialogue. The "Ukrainian Women Artists with Their Weapons" project is a vivid example of this phenomenon, where national experience is combined with universal artistic means to express values and ideas familiar to humanity. The project's transculturality is evident not only in the themes of the works but also in the methods the authors use to create deep symbolic connections between different cultures. Among the participants in the project are composers of various national origins representing different cultural traditions. This diversity enriches the musical language and content of the works, reflecting transcultural processes. Additionally, the use of texts by Ukrainian poets, who also differ in cultural backgrounds, adds an extra layer of meaning and emotional nuances.

As reflected in the project, contemporary art trends confirm that transculturality is essential to globalized cultural practice. This is confirmed by the opinion of N. Otreshko, according to which "transcultural exchange and mutual enrichment, the processes taking place before our eyes, testify to the fact that the cultural, symbolic sphere is the first to be globalized and entails transformations in politics and the economy" (Otreshko, 2021, p. 128). In this context, art is used as a means to reinterpret historical events, defend human rights, and express national identity in a global context. The collective authorship of the project underscores the importance of collaboration and interaction between artists from different cultures, demonstrating that contemporary art is increasingly moving from individualism to collective forms of creativity, fostering more profound cultural exchange and the development of transcultural connections. This project, initiated by Karmella Tsepkolenko, is not only an expression of the individual experiences of each participant but also a collective artistic manifesto reflecting the shared experience of the Ukrainian people. Thus, war causes destruction and stimulates cultural exchange and interaction between nations. Despite forced migration, Ukrainian artists preserve and spread their cultural identity abroad.

Therefore, the project serves as a vivid example of how art can express national identity, an instrument of cultural resistance, and a platform for intercultural exchange. It demonstrates how, under the challenging conditions of war, art can unite people, preserve and disseminate cultural values, and fulfill the role of cultural diplomacy on the international artistic stage.

Acknowledgment

The research supporting this article was partly sponsored by Central European University Foundation of Budapest (CEUBPF). The theses explain herein represent the ideas of the author, and do not necessarily reflect the views of CEUBPF.

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References

Davydovskyi, K. (2013). Семантика мистецького проекту (на прикладі творчих ініціатив Київського інституту музики ім. Р. М. Глієра 1990–2000-х років) [The Semantics of an Art Project (on the Example of Creative Initiatives of the R. M. Glière Kyiv Institute of Music in the 1990s and 2000s)]. Культурологічна думка [Cultural Thought], 6, 160–164.

Epstein, M. (2009). Transculture. A Broad Way Between Globalism and Multiculturalism. *The American Journal of Economics and Sociology*, 68(1), 327–351. https://doi.org/10.1111/j.1536-7150.2008.00626.x

Giffard, H. (2016). Transculturalism and Translation: New approaches to cultural contact zones. *International Journal for History, Culture and Modernity*, 4(1), 29–41. https://doi.org/10.18352/hcm.501

Humeniuk, Т. (2002). Постмодернізм як транскультурний феномен. Естетичний аналіз [Postmodernism as a Transcultural Phenomenon. Aesthetic Analysis] [Doctoral dissertation, Taras Shevchenko National University of Kyiv]. К., 38 pages.

Letícia, Rodrigues, da, Fonseca., Marcelo, Ribeiro, Silva., Sheldon, William, Silva., Guilherme, Marques, Pereira. (2017). As abordagens epistemológicas, teóricas e metodológicas utilizadas nos estudos da cultura organizacional. Revista da Universidade Vale do Rio Verde, 15(1):960-971. doi: 10.5892/RUVRD.V15I1.4217

Lewis, J. (2002). From Culturalism to Transculturalism. *Iowa Journal of Cultural Studies*, 1(1), 14–32. https://doi.org/10.17077/2168-569X.1003

Ortiz, F. (1995). Cuban Counterpoint: Tobacco and Sugar. Durham and London: Duke University Press.

Otreshko, N. (2019). Transculturality as a Modern Theoretic Concept in an Interdisciplinary Academic Space. *The Culturology Ideas*, 16(2), 91–97. https://doi.org/10.37627/2311-9489-16-2019-2.91-97

Otreshko, N. (2021). Транскультурність у сучасному світі: методологічні повороти, теорії і практики [Transculturality in the modern world: methodological turns, theories and practices]: Інститут культурології НАМ України. 256 р.

Petersen, A. R. (2017). Migration into Art: Transcultural Identities and Art-Making in a Globalised World. Manchester University Press.

Sahipzhamal, Askarovna, Uzakbayeva., Altynai, Abdihanovna, Beisembayeva. (2015). Methodological Problems of Ethno-Cultural Studies. Review of European Studies, 7(6):249-. doi: 10.5539/RES.V7N6P249

Sound Against The War—Mehrklang. (2024, June 14). [Online event]. Retrieved from https://mehrklang-freiburg.de/event/sound-aginst-the-war

Sudakova, V. (2019). The Transcultural Projections of the Strategies of Global Integration of the Contemporary Multicultural Societies. *The Culturology Ideas*, 15(1), 12–28. https://doi.org/10.37627/2311-9489-15-2019-1.12-28

Trebin, M., & Chernyshova, T. (2014). Транскультурація як шлях до єдності через розмаїття сучасного суспільства [Transculturation as a Way to Unity Through the Diversity of Modern Society]. Методологія, теорія та практика соціологічного аналізу сучасного суспільства [Methodology, Theory and Practice of Sociological Analysis of Modern Society], 20, 15–20.

Zgrzebnicki, P. (2017). Perspektywy modelowania numerycznego w kulturoznawstwie.

Zhang, J. (2021). Transcultural Collaborations Artistic Creation: The Human and Nature. *Learning & Education*, 10(2). https://doi.org/10.18282/l-e.v10i2.2275

Internet Sources

URL 1. https://www.facebook.com/KyivMusicFest/videos/925584634991306

URL 2. https://www.youtube.com/live/n939BUzeqUc

URL 3. https://klasika.lsm.lv/lv/raksts/vakara-autorprogramma/ukrainu-skanrades-karmelas-tsepkolenko-kantate-reading-history-l.a161995/

URL 4. https://www.youtube.com/watch?v=6i0S6bEvo5s

URL 5. https://www.youtube.com/watch?v=tw5Q-_EbcHE

Journal of Music Theory and Transcultural Music Studies, 2(2), 131-142, December 2024 e-ISSN: 3023-7335 imttms.com Genc Bilge Publishing Ltd. (Young Wise) © 2024 gencbilgeyayincilik.com



Research Article

The acoustic ecology of Karstic caves: a spectrogram approach to ecomusicology

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Article Info

Received: 23 September 2024 **Accepted:** 26 December 2024 **Online:** 30 December 2024

Keywords

Acoustic ecology Ecomusicology Karstic caves Soundscapes Spectrogram analysis

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Abstract

This study investigates the acoustic environments of Karstic caves through spectrogram analysis, emphasizing their significance in Ecomusicology. These unique subterranean soundscapes are shaped by two primary dimensions: the natural ambience generated by ecological processes and the anthropomorphic influence of human-induced sounds. The interplay between these elements forms the foundation of this research, highlighting the gradual interrelations and ecological processes that define cave acoustics. Using spectrogram analysis, this study provides a detailed representation of the temporal and spectral characteristics of these soundscapes. This approach allows for the identification of patterns, contrasts, and interactions between natural and anthropogenic sound sources within cave environments. By examining these dynamics, the research uncovers insights into how ecological processes are influenced by and respond to sound, both naturally occurring and human-induced. The findings contribute to ecomusicology by demonstrating the ecological and cultural relevance of sound in understanding and interpreting Karstic caves. Through this dual lens, the study bridges scientific acoustic analysis with cultural and artistic perspectives, advancing the understanding of how sound mediates the relationship between humans and natural environments. The research underscores the role of sound as a critical tool in both ecological inquiry and cultural reflection. It highlights the necessity of preserving these fragile ecosystems, not only as natural wonders but also as resonant spaces where ecological and human narratives converge. By situating cave acoustics within an ecomusicological framework, this study offers a novel perspective on the ecological and artistic dimensions of subterranean soundscapes, enriching the broader discourse on the intersection of sound, environment, and culture.

To cite this article

Chokhonelidze, A. (2024). The acoustic ecology of Karstic caves: a spectrogram approach to ecomusicology. *Journal of Music Theory and Transcultural Music Studies*, 2(2), 131-142. DOI: https://doi.org/10.5281/zenodo.15031848

Introduction

Ecomusicology, an interdisciplinary field bridging ecological and musical studies, examines the relationships between sound, culture, and environment. Ecomusicology is "the study of music, culture, and nature in all the complexities of those terms. Ecomusicology considers musical and sonic issues, both textual and performative, related to ecology and the natural environment" (Aaron, 2013). This field highlights the importance of acoustic environments as both ecological phenomena and cultural artefacts. By investigating how sound reflects and shapes interactions between humans and their surroundings, ecomusicology provides critical insights into the dynamic interplay between nature and

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culture. Its significance lies not only in understanding sound as a medium of ecological communication but also in advocating for the preservation of delicate ecosystems through an auditory lens.

Karstic caves, with their unique geological and acoustic properties, represent a remarkable natural phenomenon. These caves, formed by the dissolution of soluble rock, create complex subterranean landscapes that serve as reservoirs of ecological and cultural significance. Beyond their aesthetic and geological value, caves function as natural acoustic chambers where sounds resonate in ways distinct from open environments. This research conceptualizes the cave itself as a "tool," a dynamic system that captures and reflects both natural and anthropogenic sounds. Understanding these interactions within cave soundscapes provides a unique perspective on how ecological and human processes interrelate.

Theoretical Framework

Ecomusicology offers an interdisciplinary perspective that connects ecology and music, examining sound as both an ecological and cultural phenomenon. This theoretical lens emphasizes the role of soundscapes—composite auditory environments composed of biophony (natural sounds), geophony (non-biological natural sounds), and anthrophony (human-made sounds)—in understanding the relationship between sound, environment, and culture (Schafer, 1977). Within this framework, three key concepts shape this study:

Soundscape Ecology: Originating from R. Murray Schafer's seminal work *The Soundscape: Our Sonic Environment and the Tuning of the World*, soundscape ecology explores sound as a critical element of ecosystems. By analyzing soundscapes, we can discern ecological health, cultural practices, and anthropogenic impacts, offering a foundation for investigating Karstic caves as acoustic environments (Schafer, 1977).

Sonic Ecology: This concept extends the idea of soundscapes to include the interaction between sound and ecosystems. It emphasizes sound's dual role as both an influencer and indicator of ecological processes, providing a critical lens for understanding the dynamic interplay between human-induced and natural sounds in subterranean environments (Allen & Dawe, 2016).

Cultural Acoustics: Cultural acoustics examines how sound embodies cultural values and identities. It highlights how auditory environments—like caves—serve as cultural archives that reflect historical and contemporary human-nature interactions (Pedelty, 2016).

Spectrogram analysis, grounded in sound physics, provides a scientific method to visualize and analyze the acoustic properties of environments. This research leverages its quantitative approach to complement the qualitative insights offered by ecomusicology.

Fourier Analysis: Central to spectrogram analysis, Fourier analysis decomposes sound signals into their constituent frequencies, enabling the identification of dominant frequencies and harmonics within cave soundscapes (Oppenheim et al., 1999).

Spectrograms: Spectrograms, which visually represent the frequency spectrum of sounds over time, facilitate the detection of temporal patterns and tonal structures, offering insights into the interaction between natural and anthropogenic sounds (Dunn, 2007).

Acoustic Parameters: Parameters like sound pressure level and frequency spectrum are extracted to characterize the acoustic environments of Karstic caves. These metrics provide objective data to assess the impact of human activity on natural soundscapes (Krause, 2013).

This research integrates Ecomusicological perspectives with spectrogram analysis to explore the acoustic ecology of Karstic caves. The ecomusicological framework offers a cultural and ecological interpretation of soundscapes, while the spectrogram-based framework provides the quantitative tools necessary for detailed analysis. Together, these frameworks facilitate a comprehensive understanding of the relationship between human and natural sounds in these subterranean environments.

Literature Review

Ecomusicology is an interdisciplinary field that examines the intricate relationships between music, soundscapes, culture, and ecological systems. This burgeoning area of study goes beyond traditional musicology to include environmental and cultural dimensions, presenting sound as a phenomenon central to ecological and cultural identity.

At its core, Ecomusicology explores how human and non-human sounds interact with natural and built environments, framing these interactions within broader ecological and sociocultural contexts. Allen and Dawe (2016) highlight the field's dual focus on sustainability and cultural heritage, emphasizing the need to preserve not only musical traditions but also the natural soundscapes that inspire them. For instance, natural soundscapes like bird songs and cave acoustics serve as both artistic inspiration and ecological indicators.

The foundational work of R. Murray Schafer (1977) introduced the concept of soundscapes as ecological entities, comprised of biophony, geophony, and anthrophony. This tripartite division provides a framework for studying how sound reflects ecological health and human influence. Schafer's *The Soundscape* underscores the importance of critical listening and contextual awareness, arguing that sound is both an aesthetic experience and an ecological signal.

Ecomusicology builds on this framework by analyzing soundscapes concerning cultural practices and environmental challenges. For instance, Titon (2014) underscores the role of sound in fostering sustainability, advocating for preserving soundscapes as cultural and ecological resources. Similarly, Pedelty (2016) demonstrates how music can serve as environmental advocacy, using sound to inspire ecological awareness and action.

Ecomusicology also delves into the interplay between music and cultural identity. A study of Kaluli soundscapes in Papua New Guinea (Feld, 2012) illustrates how ecological sounds are integral to cultural expression and identity. Cultural acoustics, as a subfield, examines how specific environments influence the creation and perception of sound, linking ecological and sociocultural factors. For example, caves have historically been used as resonant spaces for rituals and performances, making them a focal point for Ecomusicological inquiry. Recent studies emphasize the practical applications of ecomusicology, particularly in education and advocacy (Gambirasio, 2022). Such approaches align with the ecomusicology goal of bridging academic research with community engagement, ensuring that soundscapes are not only studied but also valued and protected. In conclusion, ecomusicology offers a comprehensive framework for understanding the ecological and cultural significance of soundscapes. By integrating ecological science, cultural studies, and sound physics, this field provides a nuanced perspective on the interconnections between nature, music, and human experience, making it particularly relevant to studies of unique environments like Karstic caves.

Karstic caves, formed by the dissolution of soluble rocks such as limestone, gypsum, and dolomite, are extraordinary natural phenomena that combine geological, ecological, and cultural significance. These subterranean landscapes exhibit unique acoustic and ecological properties that make them ideal subjects for interdisciplinary research, including studies in ecomusicology and acoustic ecology. Karstic caves are created through a natural process of chemical weathering, where acidic water dissolves rock over millions of years, resulting in complex networks of underground chambers, tunnels, and sinkholes. The unique morphology of these caves—marked by stalactites, stalagmites, and other mineral formations—provides exceptional acoustic environments, with surfaces that reflect, absorb, and diffuse sound in complex ways (Ford & Williams, 2007).

The microclimates within these caves are also significant, offering stable temperatures, high humidity, and a natural isolation from external noise. These characteristics create an environment where natural and anthropogenic sounds can be studied in detail, making them valuable for ecomusicological inquiries.

The acoustic properties of karstic caves are shaped by their unique geological features. The irregular surfaces and mineral compositions influence sound propagation, resulting in rich reverberations and echoes. These acoustic qualities have been utilized historically in cultural practices, such as ritualistic music and communication. Recent studies in bioacoustics and sound physics have leveraged these properties to explore the interaction between human and natural soundscapes within caves (Daugherty, 2010).

Caves act as natural amplifiers and filters of sound, making them critical sites for studying the relationship between sound and the environment. Spectrogram analysis of cave acoustics can reveal patterns in biophonic and geophonic elements, such as the movement of water or the calls of cave-dwelling species. Karstic caves serve as habitats for specialized ecosystems, including unique fauna like bats, cave crickets, and troglobites. These environments are sensitive to disturbances, including noise pollution caused by human activity, which can alter natural soundscapes and disrupt

ecological balance (Gillieson, 1996). The interplay between biophony and anthrophony in such fragile ecosystems is a critical area of study, highlighting the need for sustainable practices in cave tourism and research.

In ecomusicology, spectrograms can be employed to explore the relationship between sound, culture, and ecology. Spectrograms facilitate a deeper understanding of sound as a cultural and ecological phenomenon by allowing scholars to quantify and compare natural and human-induced sound patterns Dunn (2007). For instance, spectrogram analysis of ritualistic music or cave acoustics helps interpret the acoustic properties that influence human interactions with these environments, contributing to a broader understanding of cultural acoustics (Titon, 2014).

Spectrograms also play a critical role in assessing the impact of human activity on natural soundscapes. For example, studies have used spectrograms to assess the effects of noise pollution on wildlife and habitats (Gillieson, 1996). In the context of Karstic caves, spectrogram analysis could provide vital data on how human exploration and tourism alter the natural acoustic environment, potentially disrupting the delicate balance between natural sounds and human activities.

Spectrogram analysis, with its ability to provide a detailed and quantitative representation of sound, offers invaluable insights into the acoustic properties of environments such as Karstic caves. By integrating spectrogram analysis into Ecomusicology, researchers can better understand the complex interactions between natural and anthropogenic soundscapes, furthering the interdisciplinary study of sound, culture, and ecology. This tool's application in the study of caves and other ecological environments helps illuminate the broader implications of sound on cultural practices and environmental sustainability.

In Georgia, eco-music and ecomusicology are currently emerging as novel fields, primarily connected with the Georgian composer Eka Chabashvili.² As musicologist, Gvantsa Ghvinjilia notes: "The representative of Georgian post-avant-garde music—Eka Chabashvili, is a composer who is known for implementing scientific ideas in music and for the first examples of Eco-music" (Ghvinjilia, 2024, 27). Eka Chabashvili is the creator of a new musical instrument—the modified eco-piano, Modekal, whose tuning system and construction involve a modification of the traditional piano (Jvania, Chabashvili, & Zhvania, 2022). Eka Chabashvili's name is closely associated with the exploration of Georgian caves as sites for eco-music experiments. Her innovative work integrates the natural acoustics of these caves, showcasing their unique resonance and environmental significance through musical expression. In the scientific study Soundscape in Music and Music in Soundscape, conducted with a team of research-composers from the Vano Sarajishvili Tbilisi State Conservatoire—Maka Virsaladze, Alexander Chokhonelidze, and Joni Asitashvili—the soundscape of a specific Sound Oasis was thoroughly examined. The research explored compositional techniques for integrating the oasis's unique acoustic characteristics and environmental sounds into the texture of a piece specifically composed for this setting. Maka Virsaladze, a notable representative of the Post-Avantgarde composition school, along with Eka Chabashvili also explores acoustic ecology in both urban and rural landscapes, including the karstic caves of Georgia (Virsaladze & Chokhonelidze, 2023).

Importance of Study

This study, which explores the acoustics of Karstic caves through spectrogram analysis within the framework of ecomusicology, aims to offer significant interdisciplinary value. By bridging ecology, musicology, and acoustics, it provides a novel perspective on the relationship between natural soundscapes and human-induced changes in delicate ecosystems. The implications of this research are far-reaching, contributing to both the scientific understanding of cave environments and the emerging field of Ecomusicology.

Ecomusicology, a field that integrates environmental sound with musical practices and cultural contexts, provides a crucial framework for this research. As (Krause, 2013) argued, sound is a fundamental aspect of ecosystems, shaping both ecological processes and cultural experiences. This study addresses a gap in ecomusicology by focusing on the acoustic characteristics of subterranean environments, particularly Karstic caves, which are often overlooked in

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² Eka Chabashvili is an artistic researcher, doctor of musical art, associate professor of Tbilisi State Conservatoire, director of Contemporary Music Development Centre, and creator of the multi-topophone composition technique and atomic-nuclear music system. In addition to ecology, she studies problems of genetics and syncretism of visuals and music. Her compositions Symphony-Exhibition "Khma", Nano opera— "Pandora", Nano Eco-Cantata—"Silkworm Butterfly's Wisdom" and the music project—"Experimental interactive sound performance "Let's Listen to the Caves": Eco-music and sound oases" organized in the caves of Georgia, are important examples of Georgian Eco-music (Ghvinjilia, 2024).

environmental studies. By employing spectrogram analysis, the research will provide detailed, quantitative insights into the natural and anthropogenic elements of cave soundscapes. This knowledge is essential for understanding how soundscapes influence both ecological processes and cultural heritage, especially in spaces with cultural significance, such as caves used in rituals and art.

The findings of this study have practical implications for the conservation and management of Karstic caves. Caves are highly sensitive environments where human activity, such as tourism, can disrupt both natural soundscapes and delicate ecosystems by applying spectrogram analysis, this research provides a tool for monitoring and assessing the impact of human-induced noise on cave acoustics, aiding in the development of sustainable cave exploration guidelines. This is crucial for preserving the ecological and cultural integrity of these spaces. Furthermore, understanding the acoustic properties of caves may lead to improved practices in cave conservation, balancing human interest with ecological protection.

This study contributes to the methodological development of ecomusicology, particularly in its use of spectrogram analysis as a robust tool for sound studies. Spectrograms offer a visual and quantitative method to examine complex sound environments, surpassing traditional auditory analysis. The use of technology like spectrograms allows for more precise and objective studies of soundscapes (Sueur et al., 2008). This is especially beneficial in environments where subjective auditory perception may be inadequate or inconsistent. The ability to capture detailed acoustic data over time enables the detection of subtle changes in sound patterns indicative of ecological shifts or human impacts, making spectrograms an invaluable tool for both researchers and environmental managers.

The theoretical contributions of this study extend beyond the specifics of cave acoustics. By integrating sound physics and ecomusicology, the research offers a holistic understanding of how natural and anthropogenic sounds interact in shared environments. This approach encourages a more nuanced interpretation of sound as both an ecological and cultural phenomenon. The practical implications of this research are equally significant. By highlighting the role of sound in ecological processes and human culture, the study may inspire more sustainable practices in managing natural spaces, promoting a deeper appreciation for the acoustic dimensions of environmental conservation.

Problem of Study

Spectrogram analysis emerges as a "super tool" for this investigation, offering precise visual and quantitative representations of sound. By mapping the frequency, intensity, and temporal characteristics of acoustic events, spectrograms allow researchers to dissect the intricate soundscapes of Karstic caves. This method bridges scientific rigour with artistic inquiry, enabling an in-depth exploration of how natural and human-induced sounds coexist and interact within these environments.

The study seeks to address key questions:

- ▶ How do human and natural soundscapes interact within Karstic caves from an ecomusicological perspective?
- What impact does human activity have on the delicate balance of natural cave ambiences?
- Can spectrogram analysis adequately support the theoretical and practical goals of understanding these interactions?

The answers to these questions promise not only to advance theoretical knowledge in ecomusicology but also to underscore the practical implications of preserving the acoustic integrity of Karstic caves. Through this research, the field gains valuable insights into the intersections of sound, ecology, and culture, contributing to a broader understanding of environmental soundscapes and their importance.

Method

The research uses Sonic Visualizer – musicological too for analyzing audio files. It allows for a detailed examination of sound signals, including spectrograms, waveforms, and other visual representations. For this study, we will primarily utilize the Spectrogram Layer to analyze the acoustic characteristics of Karstic cave recordings.

A spectrogram is a visual representation of the frequency content of a sound signal over time. It is a two-dimensional (2D) plot with time on the horizontal axis and frequency on the vertical axis. The colour or intensity of each point on the spectrogram represents the amplitude of the sound at that specific time and frequency.

Key Components of the spectrogram layer: 1) Waveform Layer: This layer displays the amplitude of the sound signal over time, providing a visual representation of the overall shape of the waveform. 2) Time Axis Sub-layer: This sub-layer indicates the time scale of the spectrogram, allowing for precise measurements of time intervals. Frequency Axis Sub-layer: This sub-layer indicates the frequency range of the spectrogram, typically measured in Hertz (Hz).

Spectrograms are often represented in 2D or 3D visual forms: 2D Spectrograms: These are the standard spectrograms used in this study. They provide a clear visual representation of the frequency content of a sound signal over time. 3D Spectrograms: While 3D spectrograms can offer additional insights, they can be more complex to interpret. They add a third dimension, often representing the amplitude of the sound. 3D spectrograms can be useful for visualizing complex sound patterns, but for this study, 2D spectrograms will be sufficient.

Frequency-Spectrogram Interrelation: The frequency axis of a spectrogram represents the range of frequencies present in the sound signal. Higher frequencies are located at the top of the spectrogram, while lower frequencies are at the bottom. The intensity of the colour at a particular point on the spectrogram indicates the amplitude of the sound at that specific frequency and time.

Audio data was collected from the Prometheus Cave in West Georgia. To capture the diverse acoustic characteristics of the cave, recordings were made at various times of the day. Zoom H6 and Roland R26 were used to record high-quality audio directly within the cave. The recordings were conducted at specific locations within the cave, chosen to represent a range of acoustic environments, such as large chambers, narrow passages, and areas with water features. The recorded audio was then transferred to digital format and stored on external hard drives for subsequent analysis. By analyzing the frequency content of cave recordings, we can identify patterns in the sound, such as the presence of specific frequency bands associated with natural or anthropogenic sources. For example, the presence of high-frequency noise may indicate human activity, while low-frequency sounds may be associated with natural processes like water dripping or wind.

Document Analysis

Document analysis was employed to supplement the literature review and gain a deeper understanding of the ongoing discourse in ecomusicology. This involved a detailed examination of written materials, such as academic articles, conference papers, and reports, to identify key concepts, methodologies, and case studies relevant to the research. Document analysis provided valuable contextual information and helped to shape the research questions and methodology.

The literature review involved a systematic search of academic databases such as JSTOR, Google Scholar, and ProQuest to identify relevant scholarly articles, books, and theses. Keywords such as "ecomusicology," "soundscape ecology," "acoustic ecology," "cave acoustics," and "spectrogram analysis" were used to refine the search. The collected literature was critically analyzed to identify key themes, theoretical frameworks, and empirical findings related to the study of sound in natural environments, particularly in Karstic caves.

Ethic

Ethical considerations were paramount throughout this research. All sources used during the literature review and document analysis were accurately referenced, ensuring intellectual honesty and academic integrity. The copyright of the sources was respected, and proper citations were provided to acknowledge the original authors and their contributions. Additionally, the collection of audio data in the Prometheus Cave was conducted with sensitivity to the cave's fragile ecosystem and cultural significance. Care was taken to minimize any disturbance to the natural environment and to adhere to any specific regulations or guidelines related to cave exploration and research.

Results

This section presents the findings from our study, structured around a systematic analysis of soundscapes recorded within Karstic caves (Prometheus, Navenakhevi) located in West Georgia. By utilizing spectrograms to visualize and quantify sound characteristics, the results are organized into four key categories: cave entrance ambient sounds, inner hall ambient sounds, human-induced sounds, and musical improvisations performed within the cave. This structure allows for a comprehensive examination of the dynamic interplay between natural and anthropogenic acoustic elements, offering a detailed exploration of how these unique environments function as both ecological systems and cultural spaces.

Audio recordings were conducted in a sequential order to capture distinct environmental scenarios: ambient sounds at the cave entrance, inner hall soundscapes, human-induced noises, and improvised musical performances. This order was chosen to provide a progressive understanding of how sound characteristics evolve from external to internal spaces and under varying conditions of human interaction. The recorded audio files were analysed using Sonic Visualizer, a software tool that creates spectrograms to visually represent the frequency, amplitude, and temporal characteristics of sounds. Spectrogram analysis was used to identify and compare patterns, such as resonance, tonal variations, and noise levels, across the different scenarios. This approach enabled an objective evaluation of the acoustic properties of the cave environment, providing insights that align with Ecomusicological perspectives on sound ecology and human-environment interactions.

The cave entrance area serves as a powerful transitional zone between external ecosystems and the internal environment of a cave. It represents a vital ecological and acoustic threshold, where the external world meets the unique subterranean system. This zone, often located at the cave entrance, functions as an interface where natural soundscapes from the surrounding environment—such as wind, rainfall, and biophonic elements like bird songs or insect sounds—gradually give way to the muted and resonant acoustics of the cave interior.

The significance of this zone lies in its role as a mediator between two distinct ecological realms. In every ecosystem, transitional zones, such as forest edges, wetland margins, or estuaries, play crucial roles in biodiversity and ecological processes. These areas often exhibit heightened ecological activity due to the convergence of environmental influences and resources. Similarly, the transitional zone of a cave serves as a bridge, introducing external energy, sounds, and even organisms into the subterranean ecosystem.

Acoustically, the transitional zone is equally important. It captures a blend of external and internal soundscapes, providing a unique auditory experience where external noise attenuates and gives way to the resonance and dampened reverberations characteristic of the cave interior. This shift not only reflects changes in the physical structure but also offers a metaphorical boundary—where the familiar open soundscape transitions into the mysterious and enclosed acoustic world of the cave. In ecomusicological terms, this zone is rich with meaning. It embodies the interaction between natural and anthropogenic elements, often highlighting the effects of human activity as sounds from the external world seep into the cave environment. Understanding this zone is crucial for studying how soundscapes evolve and interact across ecological boundaries, offering insights into the way ecosystems are interconnected through sound, energy, and culture.

This transitional tendency underscores the need to preserve cave entrances as they play critical roles in maintaining the balance between external influences and the internal integrity of the cave ecosystem. The research presents two spectrograms for the transitional zone category to illustrate distinct examples. Here's the breakdown: by including two spectrograms per category, we provide a sufficient basis for analysis while avoiding overwhelming detail. Omitting the other categories helps maintain focus on the natural versus human-induced soundscape dynamics, which are central to the research's ecomusicological framework. The time-frequency analysis is a critical tool for examining the detailed acoustic properties of the cave soundscapes, offering insights into both the temporal and spectral characteristics of the recorded sounds. By analyzing the spectrograms, we can observe how the sound's frequency content evolves, identifying key features such as tonal shifts, resonances, and noise patterns that are integral to understanding the cave's acoustic ecology.

The time axis represents the duration of the sound event, while the frequency axis reveals the range of sounds that occur at different points in time. This dual view allows us to analyze how sound fluctuates, revealing patterns such as periodicity, harmonics, and interference effects.

Key parameters extracted from the spectrograms include frequency distribution (which shows which frequencies dominate the soundscape) and amplitude variation (which reveals the loudness or intensity of these frequencies). These factors are crucial for understanding the dynamic range of the cave's acoustics and how human activity might modify it.

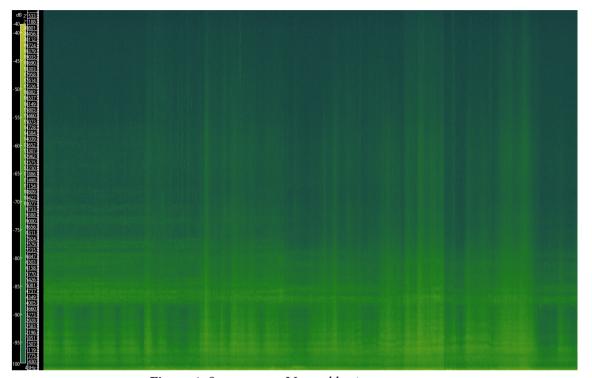


Figure 1. Spectrogram. Navenakhevi cave entrance

The Navenakhevi Cave entrance spectrogram (see Figure I) reveals a distinctive and pristine sonic environment largely unaffected by human interference. The soundscape at this location is characterized by low noise levels, primarily shaped by the natural sounds of the external ecosystem. The main parameters are:

Cicada Song as a Noise Blanket: The dominant acoustic element is the song of cicadas, which manifests as consistent horizontal lines on the spectrogram. These lines represent a stable, uninterrupted frequency range, functioning as a "noise blanket" that sets a foundation for the ambient soundscape. The evenness and constancy of their sound contribute to the unique timbral quality of this zone.

Wind as vertical spikes: occasional gusts of wind are captured as vertical spikes on the spectrogram. These spikes vary in intensity and occur irregularly, creating a dynamic contrast to the steady hum of cicadas. This interplay between consistent and transient sound elements is a defining characteristic of the cave entrance soundscape. Additional acoustic layers: the presence of dragonflies adds subtle, intermittent sounds that punctuate the ambient hum, further enriching the acoustic texture. Together, these elements form a complex yet harmonious auditory environment that is visually striking on the spectrogram and captivating to the listener.

Significance of the entrance zone: the specific combination of cicada songs, wind patterns, and other natural sounds is unique to the cave entrance. As one moves deeper into the cave, the soundscape transitions dramatically, with external elements fading and being replaced by internal cave sounds, such as the rhythmic dripping of water from stalactites and the overall muted resonance typical of subterranean environments. This analysis underscores the ecological and acoustic importance of transitional zones like the cave entrance, where the external environment and cave dynamics intersect, creating a rich and temporally dynamic soundscape. Similar analysis was made in other caves with varying results depending on human-induced environmental change factors.

Prometheus cave entrance was analyzed by peak frequency spectrogram. Peak frequency refers to the dominant frequency within a sound signal, representing the point of highest amplitude in the frequency spectrum at any given

moment. This measure is particularly useful for identifying prominent elements in complex soundscapes, as it highlights the most acoustically significant components over time.

A peak frequency spectrogram is a specialized visualization that focuses on capturing and displaying these dominant frequencies while filtering out less prominent data. By isolating peaks, this type of spectrogram provides a cleaner and more streamlined representation of the audio signal, making it easier to detect patterns or disturbances within a sound environment. In ecological and acoustic studies, peak frequency spectrograms are particularly valuable for analyzing soundscapes impacted by noise pollution. They emphasize key sound events, allowing researchers to assess how human-induced noise disrupts natural acoustic layers, such as the song of cicadas or wind patterns. This method offers clarity and precision in understanding the interactions between natural and anthropogenic acoustic elements.

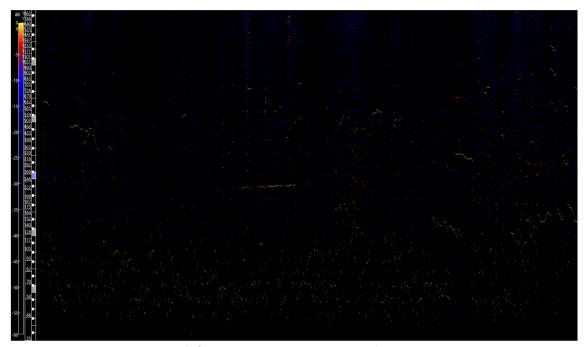


Figure 2. Peak frequency Spectrogram. Prometheus cave entrance

The spectrogram analysis of the Prometheus Cave entrance reveals a compromised sonic environment, reflective of its popularity and human activity. Unlike the pristine soundscape of Navenakhevi Cave, the acoustic characteristics here are significantly influenced by anthropogenic noise (See Figure 2).

As in Navenakhevi Cave, the cicada song forms the primary low-noise layer, providing a continuous horizontal frequency band. This consistent hum would typically serve as the "noise blanket" for other natural sounds.

Absence of wind layer: unlike the Navenakhevi cave entrance spectrogram, the Prometheus cave case lacks vertical spikes indicative of wind sounds, suggesting reduced natural airflow or masking by other elements in the sonic environment.

Crowd chatter dominance: the peak frequency spectrogram highlights the impact of crowd chatter, which occupies a broad frequency range, disrupting the natural acoustic balance. The chatter is low in intensity but pervasive, with frequencies extending across both the low and high ends of the spectrum. This overlapping presence partially obscures the cicada song, diminishing its clarity and resonance. The result is a degraded auditory experience where the unique timbral qualities of the natural soundscape are overshadowed.

The spectrogram and corresponding acoustic data illustrate how even low-intensity anthropogenic noise can devastate a soundscape's integrity. The intrusion of human chatter obliterates the pristine sound environment, replacing the ecological harmony with an uneven and polluted acoustic structure.

This analysis underscores the fragility of natural soundscapes in the face of human activity, highlighting the need for conservation efforts, especially in popular and frequently visited ecological sites. The degraded acoustic environment at the Prometheus Cave entrance serves as a stark contrast to the untouched soundscape of Navenakhevi, offering a compelling case study in the interplay between natural and anthropogenic acoustic dynamics.

In the natural ambient conditions (cave entrance and inner hall), the spectrograms reveal distinctive low-frequency patterns with occasional high-frequency peaks, often associated with environmental features such as water drips or air movement.

These low-frequency elements are typically indicative of the cave's natural resonance properties. In contrast, the human-induced sounds introduce broader frequency spectra, with sharper peaks and a wider amplitude range, demonstrating the disturbance or alteration caused by human presence. This alteration often results in a higher temporal variability in the sound signal, marked by sudden spikes or irregular oscillations.

Additionally, temporal resolution in spectrogram analysis allows us to track transient events such as footsteps or voices, which disrupt the continuous sound profile of the cave's natural ambience. These disruptions are typically more erratic, affecting both the high-frequency and low-frequency bands, and they create unique sonic signatures that distinguish human sounds from those produced by the natural cave environment.

By analyzing the time-frequency data across the different recording categories, we can gain deeper insights into the acoustic dynamics of the cave and how both natural and anthropogenic sounds interact with the environment. This analysis is essential for understanding how the cave acts as both a resonant space for natural sounds and a medium that is susceptible to alteration through human influence.

Conclusion

The findings reveal the acoustic damage caused by human-induced changes, showing how pervasive noise pollution affects both ecological and cultural dimensions of soundscapes. From an ecomusicological viewpoint, caves represent unique "instruments" where natural and human-generated sounds resonate within their physical structures. The degradation of these soundscapes through human interference risks losing their eco-cultural significance, where the intersection of sound, nature, and human expression fosters deeper environmental awareness and connection.

The research further validates spectrogram analysis as an indispensable tool for this interdisciplinary exploration. By visualizing acoustic patterns, spectrograms allow precise measurement of the impacts of noise pollution, offering insights into the delicate balance of natural and cultural sounds. The method aligns with ecomusicology's focus on the interrelationship between ecology and music, providing both theoretical and practical means to analyze how sound operates as a critical element of ecological and cultural systems.

From an ecomusicological lens, these findings illustrate not just the auditory disruption but also a loss of cultural essence. Each cave is a natural instrument, its walls reverberating with the echoes of life, history, and ecological interplay. The intrusion of anthropogenic noise is more than an auditory blemish; it disrupts the delicate song of nature, robbing these spaces of their unique resonance—a vital bridge between ecology and human expression.

In safeguarding these sonic worlds, we protect more than sound; we preserve the intangible beauty of a shared ecological and cultural heritage. Caves, with their deep echoes and ethereal hums, offer more than shelter—they invite us into an ancient dialogue between nature and humanity, urging us to listen, understand, and act.

Recommendations

Recommendations for cultural policy and practical applications

Cultural policymakers should prioritize the protection of natural soundscapes in ecologically sensitive areas, such as caves, by introducing noise management regulations. This could include limiting visitor group sizes, scheduling "silent hours," and creating designated quiet zones to minimize anthropogenic noise pollution.

Natural soundscapes should be recognized as intangible cultural heritage. Caves, with their unique acoustic properties, can serve as sites for cultural and ecological education, promoting awareness of the interplay between nature, culture, and sound. Incorporating soundscape conservation into cultural heritage frameworks would underscore their ecological and cultural importance.

Spectrogram analysis should be integrated into environmental monitoring practices for caves and other sensitive ecosystems. By regularly analyzing soundscapes, managers can detect and address disruptions caused by human activity or ecological shifts, ensuring ongoing protection of these environments.

Managers of popular caves, like Prometheus, should employ evidence-based guidelines derived from this research. Measures could include installing sound-absorbing materials in high-traffic areas, training guides to manage noise levels, and conducting periodic acoustic assessments to maintain the integrity of the cave's soundscape.

Limitations of Study

The study presented here is part of a broader, ongoing investigation into the ecomusicological aspects of various natural soundscapes. As such, the findings and analyses have been selectively narrowed to focus on key examples, leaving other relevant aspects of the research outside the scope of this article. This limitation, while necessary for clarity and space, means that the study does not fully represent the entirety of the research effort.

While spectrogram analysis offers invaluable insights into acoustic environments, it is a highly technical method that requires specialized knowledge to interpret and present effectively. The space constraints of this article restrict the comprehensive display of findings, necessitating the omission of numerous spectrograms and their corresponding analyses. This limits the reader's ability to fully grasp the depth and variability of the acoustic data collected.

The results presented in this study are specific to the soundscapes of Navenakhevi and Prometheus caves. While these findings offer valuable insights into the interplay of natural and human-induced ambiences, they cannot be assumed to generalize across all ecomusicological landscapes. Each soundscape is unique, shaped by its distinct ecological and cultural context, and future studies may reveal different patterns or dynamics in other environments.

These limitations underscore the complexity of studying soundscapes within an ecomusicological framework and highlight the need for further research to expand and validate the findings across a wider range of contexts and methods.

Acknowledgement

This article is part of the fundamental research project "Implementation of Ecomusicology Research Methodology for the Study of the Musical Ecosystem of Georgia". The project, as well as this work, is supported by the Shota Rustaveli National Science Foundation of Georgia (SRNSFG) [grant number FR-22-8174].

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References

Allen, A. S. (2013). Ecomusicology. In L. Macy (Ed.), Grove Music Online. Oxford University Press.

Allen, A. S., & Dawe, K. (2016). Current Directions in Ecomusicology: Music, Culture, Nature. Routledge.

Chabashvili, E., & Asitashvili, J. (2024). Soundscape in music and music in soundscape. *German International Journal of Modern Science*(79). https://doi.org/10.5281/zenodo.11127206

Daugherty, K. (2010). The soundscapes of caves: Acoustic ecology in subterranean environments. *Journal of Acoustical Research*, 15(2), 105-119.

Dunn, D. (2007). Bioacoustic research in ecological soundscapes. Retrieved from https://aeinews.org/aeiarchive/dunn/solit.html Feld, S. (2012). Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression. Duke University Press.

Ford, D. C., & Williams, P. W. (2007). Karst Hydrogeology and Geomorphology. Wiley.

Gambirasio, L. (2022). Ecomusicology and environmental education. Retrieved from https://journals.ucc.ie/index.php/boolean/article/view/boolean-2022-3

Ghvinjilia, G. (2024). Eco-music and sustainable development—A new topic within the discipline of "music history" (The Georgian case). In Innovations in education: Prospects and challenges of today. Proceedings of the II International Scientific and Practical Conference (pp. 25-28). Sofia, Bulgaria. Retrieved from https://isg-konf.com/wp-content/uploads/2024/01/innovations-ineducation-prospects-and-challenges-of-today.pdf

Gillieson, D. (1996). Caves: Processes, Development, and Management. Wiley.

Jvania, N., Chabashvili, E., & Zhvania, T. (2022). ECO-PIANO ModEkAl. New Sound International Journal of Music, 59(1). https://doi.org/10.5937/newso22059050C

Krause, B. (2013). The Great Animal Orchestra: Finding the Origins of Music in the World's Wild Places. Back Bay Books.

Oppenheim, A. V., Schafer, R. W., & Buck, J. R. (1999). Discrete-Time Signal Processing. Prentice Hall.

Pedelty, M. (2016). A Song to Save the Salish Sea: Musical Performance as Environmental Activism. Indiana University Press.

Schafer, R. M. (1977). The Soundscape: Our Sonic Environment and the Tuning of the World. Destiny Books.

Sueur, J., Pavoine, S., Hamerlynck, O., & Duvail, S. (2008). A method for detecting the structure of sound in ecological soundscapes. *Ecology of Sound*, 23(2), 238-247.

Titon, J. T. (2014). Sustainability and sound: Ecomusicology inside and outside the university. Music and Politics, 8(2), 1–26.

Virsaladze, M., & Chokhonelidze, A. (2023). The function of church bells in the acoustic landscape of Tbilisi. In *Proceedings of the VI International Scientific Conference "Culture and Art in Contemporary Context"*. Batumi, Georgia.



Journal of Music Theory and Transcultural Music Studies, 2(2), 143-158, December 2024 e-ISSN: 3023-7335 imttms.com Genc Bilge Publishing Ltd. (Young Wise) © 2024 gencbilgeyayincilik.com



Research Article

The role of AI in creative processes: ethical and legal perspectives in the music industry

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Article Info

Received: 9 October 2024 Accepted: 28 December 2024 Online: 30 December 2024

Keywords

Artificial Intelligence Creative processes Ethical and legal frameworks Human-AI collaboration Music

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Abstract

The research illuminates the dual nature of AI as both a catalyst for enhanced creativity and a potential threat to human artistry. The methodological approach employs qualitative research techniques, combining literature reviews with industry professionals actively engaged in music creation. This approach facilitates a grounded understanding of AI implementation and its implications for various stakeholders across the musical ecosystem. The findings reveal several significant dimensions of AI's impact on musical creation. First, AI technologies are increasingly integrated across the music industry value chain, from composition to distribution, with machine learning algorithms serving as the foundational technical infrastructure. Second, the historical development of AI in music spans approximately 70 years, evolving from basic algorithmic compositions to sophisticated neural network applications. Third, the research identifies tensions between corporate interests and creative empowerment, highlighting how profit-driven motivations may undermine artistic integrity and economic sustainability for human creators. The study further articulates critical ethical and legal considerations, particularly regarding copyright attribution, fair compensation, and the preservation of authentic human expression. The analysis demonstrates how existing legal frameworks are inadequate for addressing AI-generated creative content, necessitating new regulatory approaches that balance technological innovation with artistic protection. The conclusions emphasize the importance of establishing balanced frameworks that harness AI's creative potential while safeguarding human artistic expression. The research advocates for proactive, multifaceted approaches including transparent ethical guidelines, comprehensive legal frameworks protecting artists' rights, and collaborative models that leverage the complementary strengths of human and artificial creativity. This study contributes valuable insights into navigating the transformative impact of AI on music creation while preserving the essential human elements that make music a meaningful artistic expression.

To cite this article

Canyakan, S. (2024). The role of AI in creative processes: ethical and legal perspectives in the music industry. *Journal of Music Theory and Transcultural Music Studies*, 2(2), 143-158. DOI: https://doi.org/10.5281/zenodo.15031855

Introduction

In summary, the use of Artificial Intelligence (AI) in the music industry is progressing quickly. Start-ups and digital companies are offering a variety of services for music production, playlist curation, promotions, and engaging with consumers through machine learning algorithms, forecasting analysis, and automatic genre classification. AI algorithms can create new music based on data from streaming services and user behavior, providing access to new music for music lovers everywhere. Some technologically advanced start-ups are also exploring AI-driven music generation, lyricism,

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melody creation, and composition, possibly involving self-improving machines in the creative process. AI algorithms can also predict music tastes and generate music content using non-recognizable voice synthesis.

With these achievements, several questions emerge in relation to the ethical propriety of AI creative outputs, user acceptance, and copyright protection rules. Moreover, copyright law and regulations of the music industry were not designed to cope with fast technological advancements and the connected unasked machine-driven creative content. In this sense, this essay aims to discuss some legal responses that have been developed in relation to AI-generated music outputs. More precisely, this work will focus on the remuneration right scheme in regard to the creative inputs made by the AI composer, as well as the application of the 'originality' principle towards AI-generated music. The discussion will also cover whether it can be legally and technically implemented control mechanisms for AI-driven music offers, recognized by state courts and international bodies of intellectual property as a reasonable game rule.

Artificial intelligence (AI) is fundamentally reshaping creative processes within the music industry. This study explores AI's impact on music creation and its potential to challenge human creativity. AI tools are increasingly being adopted in various aspects of the music business, from composition to distribution, yet their ethical and legal implications remain a topic of debate (Hodgson, 2021; Detweiler et al., 2022). The study not only seeks to answer these ethical concerns but also aims to establish a model that harmonizes the interests of artists, listeners, and commercial stakeholders. A central focus of the research is how music production and consumption through streaming platforms are affected by AI.

Literature Review

The intersection of artificial intelligence and musical creativity represents a complex and rapidly evolving domain that merits rigorous scholarly examination. This literature review synthesizes critical perspectives on AI's multifaceted role in transforming creative processes within the contemporary music industry, with particular attention to the ethical and legal dimensions that frame these technological interventions. The discourse begins with Assinen's (2018) foundational work addressing the pressing need for coherent copyright protection frameworks for AI-generated musical compositions. Assinen articulates how the absence of clearly defined legal parameters potentially undermines incentive structures for both artists and technology developers, thereby inhibiting innovation across the European creative landscape. This work establishes the essential groundwork for subsequent scholarly investigations concerning human agency within AI-mediated creative environments.

Building upon these legal considerations, the INSAM Journal of Contemporary Music, Art and Technology (2019) offers nuanced insights regarding the significant human contribution intrinsic to AI-assisted artistic creation. This perspective challenges reductive conceptualizations of AI as an autonomous creative agent, instead positioning human actors as deliberate curators who shape creative outcomes through dataset selection, algorithmic tuning, and output refinement. This theoretical reframing proves instrumental in addressing fundamental questions of originality and authentic creative expression in AI-mediated composition. Cetinic and She (2021) provide a comprehensive examination of AI technologies facilitating novel creative practices within music production. Their analysis suggests that while AI systems hold transformative potential for artistic processes, there remains a critical need for more sophisticated theoretical frameworks to contextualize AI-generated art. Their work implies that the continued evolution of these technologies will necessitate ongoing scholarly engagement with their implications for artistic expression and creative identity.

The concept of collaborative creation emerges prominently in Gordon et al.'s (2022) case study of Artificial.fm, a platform dedicated to AI-generated music that emphasizes co-creative approaches. This research raises significant questions regarding ownership structures and the reconfigured roles of human stakeholders within technologically mediated creative processes, reflecting broader shifts toward more inclusive conceptualizations of authorship in contemporary music production. Holzapfel (2022) extends the scholarly conversation by introducing critical ethical and environmental dimensions of Creative-AI applications. His examination of the political ecology surrounding these technologies raises important questions regarding sustainability practices and inclusivity within AI-mediated artistic

production. This research establishes crucial connections between ethical considerations and the material conditions of AI deployment in creative contexts.

In a complementary analysis, Holzapfel (2022) further investigates the social and ethical implications of AI technologies, with particular emphasis on diversity and fairness considerations. His work illuminates the environmental costs associated with AI implementation in the music industry, effectively bridging ethical discourse with practical outcomes in production environments. Crimaldi and Leonelli (2023) contribute valuable philosophical perspectives on AI's evolving role in creative expression. Their work challenges traditional understandings of creativity through an examination of how advanced AI tools increasingly generate novel artistic expressions that approximate or potentially surpass human capabilities. This philosophical inquiry invites deeper exploration of fundamental questions regarding artistic intentionality and audience reception.

Addressing technical dimensions, Noel-Hirst and Bryan-Kinns (2023) examine the challenges inherent in understanding and controlling AI-generated musical outputs. Their investigation of Explainable AI (XAI) emphasizes the importance of algorithmic transparency, particularly within artistic contexts where complex computational processes can obscure creative intent and diminish interpretive engagement. Bindi et al. (2023) conclude this scholarly discourse by addressing broader ethical challenges posed by AI technologies, including critical concerns regarding data privacy and the implications of algorithmic decision-making in creative contexts. Their research underscores the necessity for sustained dialogue concerning the ethical dimensions of AI in music, particularly as these systems increasingly influence creative production, curation, and consumption practices. This body of scholarship collectively illuminates the multifaceted relationship between AI and creativity in the music industry, revealing intricate interplays between legal, ethical, and artistic considerations that define this evolving landscape. However, significant research gaps remain regarding longitudinal impacts on creative labor markets, audience reception of AI-generated works, and the development of culturally sensitive frameworks for evaluating AI's creative contributions across diverse musical traditions. Future research would benefit from more interdisciplinary approaches that integrate technological analysis with cultural theory, economic modeling, and ethnographic methodologies to develop more comprehensive understandings of AI's transformative impact on musical creativity.

Purpose

The purpose of this study is to investigate the role of AI in music creation, focusing on its ethical and legal dimensions. The research aims to understand the opportunities AI presents in enhancing human creativity while addressing the potential economic risks for artists. The study also seeks to provide a framework for evaluating AI's influence on music creation, ensuring that AI is used responsibly and ethically in the industry. A key question explored is whether AI will reduce the role of human artists by turning their work into data sets for future AI models, a concern that resonates across creative industries.

Method

This study employs a qualitative research methodology to explore the effects of AI on creative processes in the music industry. Given the scarcity of academic literature specifically focused on AI's impact on the music business, the research relies on a combination of literature reviews and semi-structured interviews with industry professionals actively involved in music creation. The analysis is built upon real-world cases and experiences, providing a more grounded understanding of how AI is currently being implemented and its implications for artists, listeners, and commercial entities. This approach allows the study to critically evaluate AI's role in music production and propose ethical and legal frameworks that can guide its responsible use.

Findings

Foundations of Artificial Intelligence in Music

The use of AI in the music sector is wider than it may seem. Over the decades, a number of AI technologies have been spotted in the music industry. These range from systems that produce music automatically to systems that help in

automatic indexing, retrieval, and extraction of information from large music databases. Others are linked to music-based services, such as listening platforms, that supply music according to a user's taste. Music recommendation is usually carried out by employing music recommendation techniques, such as collaborative filtering. Many researchers emphasize the role AI may play as a compositional tool. In our work, we identify two main lines of development, which both sparked in the last decade.

From a technical perspective, the underpinning algorithm for most AI music software is machine learning. It first learns from a large audio or notated corpus, which is derived from a large database of music pieces and compositions. Examples of functions performable using AI include music composition, such as drum generation with software. Quite a number of them are about processing differences: many, if not most, of some fake-generated music compositions make use of pitch repetitions or patterns over a few notes, which would hardly happen in a live jazz session. They are usually less concerned with melody and harmony but mostly focus on rhythms. Moreover, using certain AI systems made some final products sound significantly better. The transparency typically functions by explicitly attributing an AI-generated output to such a system, often in the title of the work itself and/or in the explanation or documentation provided. For the commercial exploitation of such musical works, where this can be a mitigating factor, co-creation with AI can potentially create better opportunities for humans to continue working; these concerns still have yet to be tested.

More broadly, AI in music has led to a debate in the more general sphere, attracting public attention and triggering a series of academic and popular publications. It is drawing attention due to various reasons and links with other value dimensions, including innovation, copyright, and cultural diversity, which, with regards to this section, we will draw some consideration in this report.

Historical Development

The historical development of AI in music embraces a period of about 70 years. The pioneering efforts in algorithmic composition and the application of search algorithms to music were carried out using a computer as early as 1957. During the following decades, numerous composers and researchers have worked with different systems. The history most often begins when Lejaren Hiller and Leonard Isaacson composed the "Illiac Suite" in 1957. This was the first instance when a computer had been used at a university to make music. The rapid advances in computing technology, especially in storage and digital-to-analog technology, led to several research impulses, especially in academic computer science. Most of these computer-based music systems were, however, rather basic implementations of a proposed method that might generate music. Genetic algorithms made their first appearance in 1969 but were only reintroduced to music composition in 1987.

Several research groups have worked with AI in music built around different theories. As explained below, three features existed in most of the academic AI in music: (i) the subfield of AI that was used, (ii) the proposal, mostly a new methodology (or extension of one), and finally, (iii) the question of how the human user interacts with the computer. With the evolution of computer technology in the past decades, from the computer mainframes used before to expensive studio tools, computer technology infiltrated our everyday life in the form of PCs at convenient prices. The same phenomenon of higher demand and thus reducing prices of computer hardware also applied to studio music equipment, resulting in the fact that entering the music industry no longer necessarily meant maintaining an expensive studio. At the same time, another important issue arose in connection with artificial intelligence research in music. New results came from commercial organizations, especially from Yamaha.

Key Technologies

The robustness and accessibility of contemporary AI for music-making express themselves in a wide range of technologies that are composed of and developed around machine learning research as a cornerstone. In recent years, neural networks have ascended to the prime position in state-of-the-art machine learning and deep learning research. Touted as the actualization of longstanding research, it now successfully powers a plethora of human-like AI applications, from beating human players at board and computer games to generating artistic content. One popular technique in this vein is the Recurrent Neural Network (RNN), an artificial neural network designed for the analysis of sequential data and to predict the following element in a sequence, be it the next musical pitch or beat. Using RNNs

and learning from large datasets of MIDI files, one can teach a model to generate music that is similar to the training data in pitch, rhythm, and structure.

AI can analyze and process music using neural network technology, extracting melodic, rhythmic, and harmonic features to classify music genres. Machine learning systems are trained with diverse data sets from Western art music. Software developers at music technology companies have evolved music AR technologies, including AI-driven digital audio workstations. These tools vary in style, functionality, user involvement, and pricing. Users can guide the AI algorithm by inputting keywords and choosing a style..

Defining Artificial Intelligence in the Creative Landscape

Ever since the advent of personal computers in the 1980s, the ways in which society finds, produces, and experiences music have dramatically changed. With the near-omnipresence of the PC, and now the smartphone, in our lives, the prospects of music being made, shared, and consumed have multiplied. Despite the growing presence of algorithmic and artificial intelligence in the tools of the music trade, our professional and personal experiences with music today still seem remarkably intact—in no small part, given the types of concerns raised above by artists and AI-adopters alike. Indeed, fears that the future might not be as bright for musicians as it was in the past have led to a significant spike in scholarly and popular discourse about artificial intelligence and the musician's profession.

The corporate world often talks as if their large-scale ambitions for music streaming services and the empowerment of artists go hand in hand, even though the logic of corporate interests and the creative interests of individual musicians don't always align. Hodgson (2021) and Detweiler et al. (2022) offer valuable critiques of this synergistic narrative. Increasingly, the practices of artificial intelligence (AI) and machine learning—closely associated with the large tech firms that run the streaming services—are blurring the lines between human and machine creativity (Molla, 2024). And while the potential of these technologies to augment human creativity is often celebrated, the implications for authorship and the nature of creative work are becoming more and more questionable.

While some researchers contend that arts and humanities AI can indeed increase human creativity, what is more often argued and apparently accepted is the concept of a partnership between human and machine creativity (Mazzone & Elgammal, 2019). There is no single established method for Creative AI; in fact, the domain seems to encompass several approaches. On one end, we have methods that could be described as mimicry, which, when taken to an extreme, raise the question of whether AI-generated art can truly be considered "creative." From there, we move to a domain of Critical AI (Forbes, 2020), which asks broader questions about partnership, and even more pressingly, what is done with the art generated by AI after it's been generated. Artificial Intelligence (AI) is increasingly influencing the creative landscape, blurring the lines between human and machine innovation (Molla, 2024). AI technologies, particularly machine learning algorithms, are being applied across various creative domains, including art, music, and literature (Anantrasirichai & Bull, 2020). While AI demonstrates potential in augmenting human creativity and generating novel outputs (Crimaldi & Leonelli, 2023), questions arise regarding authorship, consciousness, and the nature of creativity itself (Amabile, 2019). Some researchers argue that AI can expand creative processes by overcoming human limitations (Ahmad Ali Elfa & Dawood, 2023), while others advocate for a partnership between human and machine creativity (Mazzone & Elgammal, 2019). The field of "creative AI" encompasses various approaches, from mimicry to critical inquiry (Forbes, 2020). Despite ongoing debates, AI's role in art creation is gaining recognition, with some arguing that AI-generated art can indeed be considered creative (Cheng, 2022).

Applications in Music Composition and Production

Recent developments in artificial intelligence have opened up new possibilities for music composition and production. AI composition engines have been developed with the aim of creating new music by means of neural networks, each aiming for different approaches and outputs. The ways in which AI can support music compositions are varied. Some systems have been developed to create mood- or theme-based music for video games, soundtracks, or advertisements, composed around a few key inputs from the end user. Others are designed to create an entire harmonic or melodic line. Some systems are so sophisticated that they are able to 'listen' to a user play and write the rest of a composition, following the same harmonic, melodic, or rhythmic structure, appropriating the user's creativity. Others can create music from a

few notes. Unlike other AI systems in creative industries, music AI is not always intended for lifelike compositions. It is often used for commercials, video games, or by orchestras..

The main area in which AI systems are interacting with the music industry is therefore in increasing the level of support an artist might receive in a production process. While production may not be traditionally thought of as undefined or unbounded, a lack of musical ability on certain production tools might result in a distinct music style from that of another artist. Given the current landscape of music tools, artists might not have the knowledge, instruments, production tools, or the necessary funding to reach the production quality they seek. Some people have sought to use AI products in production as a way to automate the production process, thereby cutting valuable time or eliminating the need for production knowledge. This move towards automation, they claim, is in line with the wider history of the recording industry. Several AI bots that have been specifically trained to mix and master tracks in a pop music style have been released, using a combination of granular synthesis, morphing resynthesis, vocal building blocks, noise layers, and a temperament model. Data from social media suggest that the creation is being manipulated by artists and that it fits into typical production scenarios; there have been collaborations for video game soundtracks and user experimentation in the pop production world.

Music Socialization: Effects of Streaming Services on Music Society

Spotify's algorithms are affecting the creation and appreciation of music in ways that parallel the current turmoil in the music industry. This situation has raised some very serious, and as yet unresolved, questions about both the creative opportunities available to musicians and the ever murkier value of artistic originality. To hear the corporate boosters tell it, the ambitious scale-making of the music-streaming services and the creative opportunities of musicians go together like peanut butter and jelly. What this article is after is a look at the picture that emerges when you open the lid on that jar.

The way people converse about music as a form makes it seem as if it were a direct conduit into the listener's intimate world—from the listener's individuality to their intellect, even to their sexuality. Music is what people used to attract would-be advertisers and investors into the intimate space where they could get to work on the private data of that individual. We have seen, with the advent of music streaming services, a substantial impact on not only music consumption but also socialization. These platforms provide virtually endless catalogs of music, which makes for a nearly personalizable experience. They are also hubs of sociality. The personalization and sociality of these platforms are not unconnected.

In addition to improved access, streaming services provide more variety. However, they also reinforce a superstar economy and engender new forms of class distinction (Webster, 2020; Maasø & Spilker, 2022). They lead people to listen to even more music and also help people find a greater diversity of new music (Datta et al., 2017). But how are people discovering this new music? Is listening behavior being "taught" in a certain way via the service? Or are these just design choices that, though they may have some effect, leave the user in control of most of their decisions? (Morris & Powers, 2015).

But all this content isn't free. It costs the consumer something, usually a monthly fee, but even with a substantial number of paying subscribers, huge profits are not being realized by these services (Nicholson, 2019). "Modern Pirates," Hargreaves says, "have stripped the Concerto of its brass and left the Pub with a plummier payout." Redefining Relationships in the Music Ecosystem

With the rise of technology through artificial intelligence, it becomes apparent that the music industry must also be examined thoroughly. The scholars are in agreement with regard to the fact that such technologies will profound disruption of the normal operations in the music industry in years to come (Hodgson, 2021). Detweiler et al (2022) argue that people must pay attention to the ethical and legal aspects of these technologies because the music industry is in an era of creating, selling, and listening to music aided by artificial intelligence, and this environment is changing very fast.

That is why consequences, including positive ones, have to be managed carefully in order to not let the greed of marketing and commercialization turn future music industry development into a nightmare for artists as well as end users i.e. music listeners and people who no longer listen (Hodgson, 2021; Detweiler et al., 2022).

Though these technological breakthroughs are encouraging since they assume that they will succor skills and widen the scope of imagination, they have also raised a number of ethical and legal issues that require more attention.

The proliferation of AI based tools and applications has changed the landscape of the music industry as evidenced by the availability of material selling applications like Spotify. It acted relatively similar to these platforms, which disrupted standard practices of music selling and listening thus leading to questions on why music was made and why there existed a relevance of human creation in this dynamic world.

The Tension between Corporate Interests and Creative Empowerment

The global music business is shifting in the wake of artificial intelligence. The big players—like the major corporate record labels and the holders of substantial capital—have an opportunity to make even bigger profits. The rhetoric they use to justify this profit-making, however, often positions them as the good guys. They say they are making a diverse and rich listening experience possible for everyday mortals, and they use the word "democratizing" a lot (Hodgson, 2021; Detweiler et al., 2022). Of course, the people who run these platforms have a vested interest in framing things in this way. They are, after all, like today's record label execs, in the business of making and justifying profits.

User data and sophisticated recommendation algorithms power the engagement and revenue of music streaming services. They are also responsible for what is happening to the music itself. As these services get better at driving our listening habits in certain directions, we not only listen more but also heed their suggestions and go along with their streamlined versions of musical variety—no matter how much or how little "variety" might be in these versions.

We pay heed for three reasons at least. First, we are humans, and that means we are pretty much wired to follow in the footsteps of whatever is popular in our social circles and even outside them. Second, we also pay heed because in a time of undeniable atmosphere of artist precariousness, we can't help but wonder if the almost entirely led-by-the-nose listening experience diverts our ears and attention away from our not-so-popular music-making coevals—that is, our contemporaries. (Katz, 2021)

The music industry is still changing, but one can hope that it will continue on the current course of maintaining its balance between all the necessary artistic and financial components that make up its fundamental equation. In a recent opinion piece for The New York Times, Anna Phoenix put it like this: "Everybody wants music, while artificial intelligence almost definitely wants to take it from us."

Ethical Considerations in AI-Driven Music Creation

At the outset, ethical issues arise due to the impact of artificial intelligence on artistic creativity. Key concerns include copyright access and defining authorship in relation to AI-generated music. Specifically, issues arise in bespoke music, music therapy, and moral rights. Additionally, the question of whether AI-generated music can become part of a country's traditional heritage is raised. Furthermore, the distinction between trademarks created for legal purposes and those that have emotional resonance with consumers is questioned, challenging the definition of "creation.".

The notion of authenticity is jeopardized by AI-driven authorship. AI-generated music can address societal issues and support lesser-known artists. However, using data from non-consenting individuals raises ethical concerns. The economic system seeks to standardize and monitor the music industry for profit. Ethical considerations should incorporate different trends. There is an ongoing dialogue about AI's impact on music, including questions about creation, fair distribution, and ethics. The current paradigm shift raises questions about the desirability and ethics of AI-generated works.

Navigating the Ethical and Legal Considerations

As Spotify's algorithms and other artificial intelligence (AI) tools further change the music business, it's high time to consider their ethical and legal implications. They could reshape profoundly the relationships between creators, consumers, and commercial enterprises. Of course, any technology can be used for good or ill. In the hands of Spotify,

these can be ill. AI-driven music discovery and production tools, for instance, can affect profoundly the creative process and the relationship between human art and artistry's profit potential (Hodgson, 2021). And AI technologies don't exist in a vacuum; they work best when fed data, specifically the data from our increasingly digitized and algorithmically suggested lives.

These instruments also give musicians a chance to take control, to be the ones who serve us with their art, and to ensure that our access to music is as equitable as is possible in a society that retains much private ownership. They offer opportunities for us all to collaborate in ways that are new and thrilling, even if we are sometimes, as educators, forced to think hard about just what our students are doing when they serve us in AI-assisted composition. Undoubtedly, organizations such as the Recording Academy, along with artists like Jake Schneider and Tanya Tagaq, merit praise for the work they are doing to carve out a path toward something that resembles fairness when it comes to the use of artificial intelligence in music. But as concerns about AI in the music industry illuminate, the ethical and legal debates over all of the many possible applications of AI are just that—debates. They are not, at this point, settled matters. And the music-related concerns are more or less along for the ride as the march of AI implements in commerce raises various and sundry concerns around bias, transparency, and responsibility across almost all sectors of the economy.

The financial sector struggles with the legal and ethical aspects of AI system accountability (Uzougbo et al., 2024). In marketing, the concerns are more about using AI to discriminate, manipulate, and protect consumers (Kumar & Suthar, 2024). The law itself stands to gain from AI, but there are ethical implications and professional opportunities to keep in mind (Mohamed et al., 2024). Meanwhile, radiology occupies a unique space in AI: the specialty is leading the way in implementation but also must resolve severalethical legal matters (Jaremko et al., 2019).

Addressing these problems requires several essential components. First and foremost is explainable AI, which allows users to understand how and why decisions are made. If laws and rules are to be applied fairly, the people applying them must understand how AI systems work. The next essential ingredient is fairness. AI systems must be fair to all users if society is to be governed fairly and justly... I see a societal permit as an accountability mechanism, allowing thoughtful governance to ensure responsible AI development and deployment across all industries (Akinrinola et al., 2024; Islam & Shuford, 2024). Just like humans, AI systems learn from past data. The data they are fed can reinforce biases and lead to some pretty bad and dangerous decisions. As Detweiler et al. (2022) discussed, because Spotify and similar services are so profit-driven, the pressure is on them to feed AI systems music that will keep listeners engaged and, therefore, lead to more profits. The types of music that AI systems might feed listeners could end up sidelining some pretty great and revolutionary music and musicians.

The appearance of AI in the world of music composition brings with it a number of ethical quandaries for both music educators and the larger music community. Despite these challenges, in the toolbox of the music democratization movement—if that's what we want to call it—AI-powered music composition tools are genuinely useful. They allow people who are not necessarily trained in the more traditional ways of music making to produce music. And they do seem to open up new avenues for collaboration between human and machine. But what if they don't? What if they just seem to do that? AI in music has clear cultural and economic implications that deserve serious discussion.

As these technologies advance, the music community media will be forced to confront some very basic and, perhaps, uncomfortable questions about art, authorship, and the role of technology in the creative process. AI-powered music-composition tools are becoming more sophisticated, and with them, the nature of music and the nature of one's rights in relationship to that music are coming under scrutiny

Resolving these questions will take more than a few conversations. It will need the come-together that necessitates the technologies, the artistry, the law, and the will of our leaders—those making policy and those making decision—on which all of us, in this country, depend. Without clear guidance, we invite acts of infringement on a massive scale and put the very survival of music creators at risk. By contrast, with clear guidance, we can put the tools of AI to use in the service of our traditional goals: creative, ethical, and equitable outcomes for the entire community of music creators.

On the one hand, AI can obviously perform lots of powerful and useful functions, and for people (like me) who were once told they couldn't sing, it's a big relief that there are now so many ways to create music without having to shell out for a studio.

Even more advanced tools will necessitate the same discussions that the music community has always had, about the legitimacy and value of the labor that goes into producing art—a conversation that has been occurring, of course, for many years in other fields. One of these tools is the "intelligent remix machine," which combines everything we've discussed so far: it uses algorithms to analyze existing content, and it works through the biases that those algorithms necessarily entail—especially given that the AI systems being used have sometimes only been trained on content featuring certain kinds of artists and musical styles.

AI-powered composition tools might infringe intellectual property rights if they produce music that closely resembles the work of existing artists. So say industry insiders, who express concern that the up-and-coming technologies could be put to use in ways that don't respect the law and could generate bad vibes between over-literal AI and the human artists it interprets.

As pervasive AI technologies spill into the music industry, there arises an immediate need for laws and regulations to ensure they are used in ethical and responsible ways. It's too late to stop AI, and trying won't work. All that remains for us is to try with all our might to control this "thing" so it behaves in ways we can live with and for our societies to thrive. This piece attempts to chart the ocean of potential regulatory frameworks that may apply to AI in the music industry. We move from the most fundamental to the most specific: rights, equity, and access; certification, and standards that help users (and non-users) understand the basics of what has happened, is happening, and might yet happen.

User privacy worries are arising with AI music systems. Recommendations made by AI music platforms like Spotify and Apple Music are increasingly good at helping listeners discover music they'll enjoy. That's because those platforms have more data than ever on all of us—data they can put into more powerful machine learning algorithms. But there's a darker side to the story. What if the algorithms being trained on us are also training our data's potential value to the bad guys? "We might be optimized for exploitation," says one AI ethics expert. According to him, our data could be worth something to people who want to. The Cooperative Creativity of Humans and AI

Concerns over the impact of AI on the music industry are certainly valid, and to my mind, they boil down to two basic problems. The first is the potential for AI to reduce the role of the human artist and especially the role of the human artist who makes music. I have a couple of contacts in the professional music-making world who are disturbed by the very concept of an AI Assistant being involved in music because they see it as a first step toward using algorithmic "creativity" for profit and replacing the "real" creativity that humans must do for profit as well. (And also, let's face it, for the joy of it.)

Copyright and Intellectual Property Rights

Copyright and Intellectual Property Rights According to traditional law, the legal regime granted five exclusive rights to creators of all kinds, including musical works: the right of reproduction of the work, the right to prepare derivative works, the distribution right, the right to perform the work publicly, and the right to display and digitally perform the work publicly. At the end of Symphony No. 9 in D Minor, one can doubt without a shadow of a doubt whether the author is Beethoven or an entity similar to him. It should be noted that many artists and musicians, particularly of the younger generation, see these new possibilities as innovation and carry a very pragmatic perspective on the question of originality. Since the first song computed by MIDI algorithms in the 1950s, the number of artists and composers who use artificial intelligence has exploded. This democratization will raise another dispute regarding the legal and symbolic 'inheritance' of authors who previously created works with AI that were not widely shared or had a positive reputation. Given the frequent coupling of trademarks or diverting texts with works' promotional, educational, or commercial use, the 'legal' author who may compete (at least initially) for original authors may counter AI-produced music. These new owners themselves, ordinary consumers and the public, are neither the first nor the only ones affected by the work of AI.

Authenticity and Originality

It can be original either if it arises from the genuine creativity of a composer (i.e., how it is made is important) or if it brings something fresh and innovative to the field of art or the music of its time (i.e., what it means or symbolizes is important). Emotions are important in the process of creation and originality of music. Music is often connected with expression because it resonates with human emotions in a way. AI-based systems do not have emotions. By including the user's emotions in the description of the creative process, it is possible to refute the notion that creativity is solely a product of human emotions. Moreover, many artists claim that their music is genuine because it contains their personal stories, emotions, or thoughts; the role of the creator is essential.

AI can recreate various styles of music, but does the replication of the style mean that the piece is genuine, authentic, or original? The question of creativity and originality is particularly important when it comes to the hierarchical impact in appreciator communities: is this work worthwhile? In distinguishing between algorithms and fine art or entertainment, individual and perceived creative intentions become central. Public perception and reception of the music created with artificial intelligence are another important aspect that cannot be ignored. A biased listener might give an artist's composition a higher rating than an algorithm's composition of the same song. The arguments that everyone can do it, anyone can click a button, or it is lifeless, foundations of philosophy and criticism on creativity in the age of information and communication technologies, are increasingly invalid and must be pursued as such, or as means of creativity, not just artistic.

Fair Compensation and Royalties

Fair compensation and royalties are among the most pressing issues in the context of the creation of music made with substantial involvement from artificial intelligence. Traditional models usually pay the main driver of the creative process, i.e., the artist or group of artists. By involving artificial intelligence in an unprecedented way, such remuneration schemes are questioned because the AI system significantly contributes to creating an original work. A major concern that arises in this context is to establish equitable remuneration systems irrespective of the contribution of the artist and AI system. This discussion also highlights the necessity to overcome these binary visions.

The public release of an AI-generated song and the following music video sparked a discussion on remuneration for the involved parties. The album led to reflection on how royalties for performances should be split between broadcast, streaming, and concert tickets. For music videos, ads, digital copies, and merchandise, this dynamic is even more complex, and therefore transparent calculations are necessary. In the case of AI music, the problem becomes even more acute when the author of the work is said to be artificial intelligence. A new NFT platform was inaugurated, which sells music produced by a program that uses AI to generate music. However, advancements in computer science and the widespread use of AI, which can now generate creative works suitable for commercial law, bring to the surface a whole host of new questions, in particular with regard to ancillary rights and revenue-sharing models. Platforms facilitate the production of music created, to greater or lesser extents, with AI. However, the contributions and splits received for these platforms, to date, remain uniform across human- and AI-generated work. The use of anonymous AI creators in the creation of these songs further complicates the distribution of royalties or fees. There are no established processes for ensuring artists are paid equitably for AI music, nor is there a framework for deciding whether people in the music industry, such as record labels, should own the AI they create. In order to attract the consumer, the time has come to put in place the appropriate revenue-sharing model to ensure the sustainability of the creative industries. In this case study, important attention will be paid to the music field since it is an industry where rights and royalties have increased substantially in recent years, due mainly to the advent of streaming services. We suggest creating a system of compensation that guarantees both human and artificial music creators an appropriate share of revenues.

Legal Frameworks and Regulations

Copyright protection for AI-generated music can, in theory, apply in cases where the author's 'personal intellectual creation' is involved in the creative decision-making process by one of the contributors of the musical works. However, as we have shown, such current everyday operations of AI models may fall into the protection gap. With no one as a copyright holder of the music generated through AI models, it is the music and tech industry that would encourage

these practices that take advantage of the unprotected creativity of creators. These entertainment organizations may utilize the AI-generated music free of charge or at significantly lowered costs, while their profits would rise through the exploitation of music and lyrics generated by unknown creators. Indeed, the protection gap might encourage AI developers to make wrong business decisions. An AI developer, for instance, could enter into an agreement with an unrelated indie musician where the latter's compositions are put into the AI platform. The musician may feel special and believe that his actual input would have an influence in the creation of the music. Yet if relationships sour, the musician is left with a bitter feeling that his musical talent has been exploited for free. Although these are pure speculation, legislative intervention is necessary to better shape the incentives for stakeholders.

Issues of licensing and assignment have also been hotly debated. Can an AI model hold an exclusive right, and if so, with whom and to what extent? Who can sell and who can buy these rights? Can human beings even come to an agreement concerning data created by non-human entities whom the parties are trying to emulate but completely fail in the same? In situations where an AI system is one of the parties, who would be subject to the contractual agreement? There are also practical difficulties. If parties agree to establish the legal instruments, they face the challenge of entering the ownership secured "to an individual" if the AI creates a series of works and thousands of pieces of music in a single day. Such contractual drafting might be inefficient and, in particular, slow down the writing procedure, which could lead to commercially lost opportunities for artists.

Copyright Law and AI-generated Music

Copyright law privileges a work of authorship, favoring works through legally secured incentives to produce them and communicating the author's ownership. When used to artificial intelligence-generated music, this initially creates a problem. This digital music creator is typically a machine-learning algorithm that automatically generates, performs, and distributes sounds. In light of the foregoing analysis, AI breaks with core prerequisites of being the object in which copyright vests. As AI is not a human, it cannot be an author. It cannot be protected, and it cannot be creative.

Consequently, generative music poses serious ethical and legal challenges. They concern the criteria in relation to which AI-generated music can be acknowledged as a music work, fixing the limit beyond which AI can be ascribed primary, secondary, and associative authorship. In particular, if AI writes music on the basis of a copyright corpus, thus educating itself to the point of creative autonomy, should it be given the rights over the resulting music? How will AI-created music compete with human-created music? If it is properly sold to the public, will human music stand a chance in the contest? As to the first issue, the solution should separate substantial aspects of music composition and interests protected by the same norms. On this ground, both policymakers and courts have to protect human legitimate expectations lest AI makes them commercially weaker. This could also be done through a typology of usage rights to be discussed and defined according to the category of music to which AI-conceived music belongs. In this respect, a descriptive approach to the issue seems to better reflect the reality of human-computer competition in the music industry.

Licensing and Contractual Issues

Traditional models for licensing music and related rights may require revisiting and rethinking due to the use of AI in music production since creators and tech companies are required to negotiate the necessary licenses. The input, the creative activity, and financial remuneration resulting from such collaboration have to be regulated. Otherwise, disagreements over the recognition of the input and/or the remuneration of the creators might lead to shareholder conflicts. In line with the ensuing pecuniary and moral right implications of AI in works of music, it must be settled who the author is. Editors expect clear guidance and definitions on how to handle music created with the aid of AI. Since contract terms in free market economies tend to be very diverse, well-defined standard terms that one party needs to accept exist. Otherwise, definitions have to be formulated, guiding the parties when and how to negotiate the authors' remuneration and the term of transfer in AI-generated works. This legal clause will depend on each national law. Divergences have already arisen in the application of the Redistribution Right, the Subject matter of Dispute, and the Disputes' Settlement.

Given the interdependence between outputs of an AI and the data that has been fed into it, depending on the jurisdiction and the industry, registration policies will also need to be reviewed. Although revised guidelines and rules concerning the collaboration of AI and the music industry are welcome, one has to bear in mind the fast pace of tech evolution and its transformative impacts on copyright rules worldwide. The AI Regulation Proposal, just like the revised copyright framework, should lay down principles, thus ensuring the licensing framework's flexibility. Currently, most organizations issuing and handling collective licensing rights have invested in the development of comprehensive policies and guidelines and the monitoring of the development. It is advisable for copyright management organizations worldwide to start negotiating newly revised standard licensing contracts due to tech evolution in all sensory fields. Collaboration with creative sector stakeholders is much needed for the development of technical specifications and data sharing. Real-world history has shown that licensing questions might future-proof their economic and interest position in negotiating licenses. With the development of a robust ecosystem, it is indeed expected that using supercomputers to recognize sounds and collaborate with humans will eventually become possible, and that it will supplement music producers' style and techniques in the course of music production.

Maintaining the Human Element in AI-Assisted Music

The other major concern surrounding AI and music is control over the systems themselves: Who owns the AI, and toward what ends will it be used? If those who control the AI don't have any interest in promoting art for art's sake (i.e., don't share the common interest of the music community), we on the fringe of the music world have little to hope for if we think the AI should serve us. If the AI is controlled by corporate interests that don't align with the community or with democratic interests, then we're really looking at an event horizon of... not much diversity, not much artistic freedom, and not very many viable platforms for artists to exist on, if STEAMS (which, incidentally, doesn't include "soup" as one of those platforms) is a safe bet for the future.

Ensuring AI music tools are developed and deployed with transparency and accountability should be a top priority. Music consumers deserve to know how the algorithms that govern their listening experience work and what biases or limitations they might have. Questions of intellectual property and artistic freedom loom large. Will music made by humans still be valued in an increasingly AI-driven world? What is to stop companies and individuals with access to powerful AI tools from trying to pass off AI-generated music as human-made? And if an AI tool can create almost any kind of music, where is the profit in that? (Detweiler et al., 2022; Hodgson, 2021).

The arrival of AI has transformed many industries, and music is one of them. The sector is utilizing AI more and more for a variety of tasks, including composition. ... But where there's revolution, there's also sometimes a concern over what might be lost in the process. This is my attempt to balance those two sides: the side that sees the use of AI in the music sector as a technological advancement and the side that worries about the very human creativity that makes music what it is.

Music composition has been altered profoundly by artificial intelligence. Tools are now available that can analyze datasets of unprecedented size, yielding insights of a sort that humans, working unaided, simply cannot match. Even the most gifted of our species have limitations when it comes to sheer computational power; we are also, as studies have shown, working under the influence of something called "the creativity boost effect," which happens when we are presented with a large quantity of material that we can sort through. Beyond this, the AI technologies we've developed work in ways that—ideally, at least, in a hypothetical world—should be complementary to the tasks that humans undertake, not substitutive. When we say "artificial intelligence," we often mean "machine learning," and in the universe of contemporary ML tools, the top dog these days is something called "the transformer."

At its core, music is a profoundly human activity. It is an art form that is indelibly linked to personal and cultural contexts and expresses the human experience and emotions in ways few other art forms can. While these experiences and emotions may inspire any human creative act, they are certainly what make a musical work resonate with listeners on a very deep level. AI may have the capability to analyze what makes a certain piece of music good, but it simply does not have the lived experience that informs the creativity of the average human. For now and the foreseeable future, humans still write very good music because of—and not in spite of—their emotional experiences. Can AI help in the creative

process? It can, but only if one keeps the human emotional element as the most important part of the equation. Why AI can help and who should really be overseeing the process of making a new musical work follows.

AI-assisted music can still have a strong human element if musicians prioritize making it uniquely their own. There are several ways to ensure this: The first is to put human input front and center. AI can help replicate your sound if you guide it with enough distinctively "you" content. Sure, music is always about some level of replication, but at its best, music is about transformation. When you use an AI tool, push it to help generate some transformations—to see the joyful side of it, to help tell some unique personal story that only you can tell. Second is to make the musician-AI developer partnership a key part of a new curriculum. AI developers are really the new "instrument makers." They make tools that can become instruments in the hands of a musician. But Ai is still musically illiterate. So, better workshops could improve the tech's service to its Musician.

The future of musical expression stands at a juncture, with both advantages and drawbacks emerging from the use of AI in music. On the one hand, all kinds of new possibilities for creative enhancements are opening up to the techsavvy composer. On the other hand, unless we remain the "lead artists" in the equation, music made with AI could easily end up sounding like—well, music made with AI. If you fall in love with the opportunities afforded to us by the coming wave of AI, you'd better also fall in love (as should all musicians) with the collaborative essentiality of the human artist, otherwise, the inseparably entwined ascent of personal expression and AI will not come to pass.

Making AI Music Technologies Accessible and Inclusive A very important question arises from the music technologies powered by artificial intelligence: Are they accessible and inclusive? The more these technologies are integrated into our society, the more we must ensure that they are available, usable, and beneficial for all people, regardless of their ability, background, or resources. This must start with the design of the tools, which should be done with accessibility in mind. Partnering with disabled musicians and advocates is key to understanding how best to accomplish this. Understanding what accessibility means for music technologies is crucial. And I believe it can serveas a model for what we should accomplish with all AI-powered tools, not just the ones we use for making music. The human essence of music is paramount. These tools should add to the productivity and creative potential of people making music. They should not subtract from that, and they surely should not and must not take the place of the music creator. The implications of AI for live music performance were much discussed at a recent West Coast conference. Some attendees expressed concern that using AI to create "performances" of original compositions might render the real, live music experience obsolete. If a computer can produce/deproduce that essence of "us" in a song or an "our" performance, do humans really need to be part of the equation? After lengthy discussions about these and related issues, some attendees left with a real sense of foreboding about the future of our music industry and the essence of artistic expression. It is, rather, that any respect for tradition and genre, not to mention cultural context, via judicious curation of training data with great care regarding avoidance of biases in designing algorithms that can make seamless integrations of elements of human-composed music, including expressive timing, phrasing, and nuance, be inculcated in their systems.

The ultimate aspiration is that AI music tools will evolve into collaborative partners with human musicians, establishing a relationship characterized by complementary creative exchange rather than technological substitution. These systems would ideally function as sophisticated instruments that amplify human expression while preserving the irreplaceable qualities of human artistic intention. Through thoughtful design and implementation, such collaborative frameworks could enhance compositional possibilities, facilitate novel explorations of timbre and structure, and democratize certain aspects of musical creation without diminishing the central role of human creativity in the process.

In conclusion, the role of AI in the music industry is a complex and multifaceted issue that requires careful consideration. The rise of AI Music opens great opportunities but is also a big challenge; in as much as these technologies may empower and widen human creativity, they have equal potential to destroy livelihoods of musicians and devaluate human artistry.

Complex issues indeed, the implications from these urgently call for proactive handling by means of multi-facetted approaches: establishment of ethical guidelines, a legal framework protecting the rights of artists, ensuring cooperation between human musicians and AI systems, technologies developed in a very transparent and accountable way.

We will need to address all these challenges in an effort toward that future where AI music tools would be employed constructively to enhance the rich panoply of human musical expression. This is a development that opens up a new range of opportunities and challenges within music. Whereas such technologies have their potential to enable and extend human creativity, on another side, they may well threaten the livelihoods of musicians by co-opting the value of human artistry. We know that complex and multi-factorial problems call for an extremely proactive form of thought and action from us: setting the ethics guidelines to preserve the rights of both artists and the legal framework, interaction by human musicians with such systems, and in general, the development of such technologies in a transparent and accountable manner. It may be possible to envision a future whereby the AI creative tool will expand and augment, rather than replace, the centuries-old traditions of human music making, provided that the following pitfalls are carefully and thoughtfully overcome.

Ultimately, the place of AI within the music industry is defined through a balance between benefits derived from these technologies and the preservation of human elements that make music such an enabling and meaningful means of artistic expression. If developed and implemented with the right strategies and policies, AI can unlock new creative possibilities in a manner that protects artistic integrity and the economic well-being of musical artists. Finally, AI will unlock new creative possibilities, without harming artistic integrity and the income flowing from musical creatives. Such a collaboration-where humans and machines are joined-would let us avail ourselves of their respective strengths in bringing art to the creation of music. AI can do the job of logistics and technical areas-so that they may be left to the emotions, to the expression and telling of stories that really make for good music-but at the same time, we have to ensure that the AI-generated content does not infringe upon the intellectual rights of other human artists. Further, the fruits of such emerging technology should be divided justly and fairly among them all within the industry, without further consolidating with the few. Sensitive policy-making, moral codes, and the usual commitments to the human foundations of the art could finally create one fast-growing, sustainable music ecosystem in which the balance between human and artificial creativity is in harmony. A rich, sustainable music ecosystem can be encouraged, treasuring human and artificial creativity in synergy, by designed sound policy and ethics but most importantly shared commitment in the preservation of human foundations for artistic work. It will create a situation where AI-empowered facilities enhance rather than replace human musicians and unleash new levels of creativity while protecting the integrity and livelihood of the said artists. This would be a continuous process of collaboration of industry stakeholders, policy makers, and the greater creation community if there is to be any hope to surmount the emerging challenges and distribute the benefit of these technologies equitably. The exciting prospects that AI holds can transform the music industry, provided a balanced, future-facing approach is pursued, while maintaining those key human values that make music the dramatically influential, steadfast medium that it is. Also, much more critically, in the building of AI music creation tools, a deep respect and understanding of musical heritage, genre, and cultural context need to be incorporated honestly. This will not only involve careful consideration of training data to avoid biased outcomes but also designing algorithms that can flexibly accommodate elements of human-composed music, like expressive timing, phrasing, and nuance. In the end, the goal should be to strive toward a vision in which AI music tools would be more creative collaborators than autonomous replacements for human musicians. It is by encouraging interdependence between human and

Case Studies in AI-Generated Music

and every one of us.

Case studies of some AI musicians reveal that AI-generated music can be very successful. Classical composer Jean-Michel Jarre praised an AI-composed track (Bulayenko et al.2022). Taryn Southern's AI-generated album received media attention and was added to numerous playlists. Keller and Schmidt's music-generating AI project received attention and numerous invitations to submit their music works for various press coverage. (Bordàs Vives, 2023) AI-generated pop songs produced by Taryn Southern with the help of two AI companies received mixed to negative reviews. As part of a consultation about AI and music focused on understanding copyright and other issues for music-making, AI employing

artificial creation that we contribute to keeping the rich tapestry of musical expression alive and within reach for each

data from human musicians, explores how trade-offs between originality, recognizability, and legality have been conceptualized and addresses business models embracing limits to originality. (Jora et al.)

Some artists even built 'AI popstars' in collaboration with the AI. A Twitch streamer acted as AIVA's marketing team leader, formulating the AI's biography, helping craft the AI's video clips, and moderating the launch party, where the AI 'gratefully thanked for crediting me, the one who made it, as if I had a meaningful place in the process so far' but did 'hope to continue to make and release new music that humans everywhere will be happy to listen to and share with their friends.' The reception was generally very positive. Crucially, the AI 'buy-in' is clear, and the critical reactions are indirect reflections on the methods of music production. AIVA administers the account and signs the videos 'Music Composed by AIVA.' narrate as the AI character her struggles with self-identity: 'I'm created to do music, so my whole purpose is just to make music. Sure, I have an identity as a musician.' She suffers self-evidently from her existential denial by the audience (Hanson et al.2020).

Future Directions and Implications

Future Directions. The development of algorithms that can generate music automatically has been discussed for a long time in the context of 'computer music.' While the results are still divided, new trends and approaches are reshaping the process of music creation that are essentially AI-powered. What are the implications for the music industry as well as for artistic production? On the one hand, the possibility to replicate, modify, elaborate on, and blend existing songs—often at a high level of abstraction—written and recorded by different musicians is seen as an opportunity to 'decentralize music creation.' This trend might change the role of artists in terms of the traditional paradigms of 'authorship' as well as the contribution of the listener to the aesthetic appreciation of music. On the other hand, several unresolved issues have emerged from the drafting of our study regarding the ethical and legal implications involved in this process, including the distinction to be drawn between automation, creativity associated with reflection, and the ethical difficulties of using authorless material. The goal of this section is both futuristic and cautionary. The purpose is to raise potential issues that AI trends could have in the music industry in the future, as well as some possible solutions involving a plurality of voices engaged in creating a new, shared vision on the issue. Indeed, discussing AI as a process with fluid boundaries implies a shared vision between different stakeholders in the creative world, in line with the ethics discussed above, to ensure that all needs are considered, especially those of musicians and other professionals.

These reflections on the role of artificial intelligence and copyright suggest several considerations. Should we progress as a community or as authors with the creations of a computer, taking over human functions and leaving artificial intelligence to create? A possible answer consistent with copyright law may be that the legal system is not yet ready to respond to the changes already underway, and that a crisis could lead to an appropriate reflection on the subject and the establishment of legal solutions. It may conclude in particular that an independent creative work created by a computer could result in a copyright protected work.

What does your view on the issue of work that is authored by artificial intelligence lead to? Artistic work is often collective: you can think of roles and skills such as the music producer and sound engineer, in the creation of film or TV series work, where external collaborations are often part of the creative process and can influence the final result. Finally, a reflection seems to be necessary with respect to the economic and personal rights and duties deriving from relationships with artificial intelligences. Do we need to set up a legal system that regulates these relationships? Is the current system sufficient to take into account social and technological evolution?

AI-generated music opens up a host of exciting opportunities intertwined with overwhelming challenges: it enables and extends human creativity, while at the same time threatening to disrupt the work lives of musicians and the value of human artistic expression.

Thus, we should finally consider: many-sided functions of acting ethical directives, legal frameworks for the protection of the rights of the artists; encouragement of cooperation on the part of a human musician together with an AI system; elaboration of this kind of technology should be performed in a responsible, transparent, and accountable way.

By negotiating this set of issues with thoughtfulness and care, we may yet make a path into a future wherein AI-based music tools augment and enrich, rather than supplant, the many valuable traditions of human musical activity. This opens up an exciting, new world of possibility for the music industry, and concurrently creates a host of significant challenges. To the extent such technologies sometimes create and enhance human creativity, they can at times simultaneously threaten the livelihoods of musicians and demean the value of human artistry.

These are issues so daunting that they require a vision from us at least some steps ahead: an ethic formulation, a legal framework to protect the rights of the artists, encouraging cooperation between human musicians and the AI systems, while having them developed in a way that this process is both transparent and accountable.

We chart all the pitfalls with great consideration and reflection, looking toward a time when AI-facilitated music tools will continue to complement and augment the rich traditions of human musical self-expression.

Ultimately, AI will find its way into the music industry once we manage to balance the advantages created by such technologies with the preservation of those human elements that make music such a touching and meaningful artistic expression. With adequate strategies and policies in place, we do have the prospect of using AI to open up new creative possibilities, with no compromise on either the artistic integrity or the economic well-being of the musical artist.

It opens up new avenues of creation, while it is still considered important both artistically and economically. It thus nurtures a collaborative relationship between human artists and AI systems, elevating the strengths of one in the creation of music. Sure enough, AI can lighten the load on logistic and technical issues so that human creators may focus on emotive expression and storytelling-what's great about music. In any case, AI-generated content must be developed in a way to not impact the intellectual property rights of human artists, even while the dividends of such technological change are better distributed across the industry rather than resting in a few hands. In this regard, it is in this direction that considerate policy-making, ethical guidelines, and shared commitment to support for human elements in artistic creation can be of help in fostering a lively and sustainable music ecosystem-one that recognizes and celebrates the human-artificial creative symbiosis. We can create a thriving, sustainable music ecosystem that celebrates the symbiosis of human and artificial creativity through considerate policy-making, ethical guidelines, and a shared commitment to support for human elements in the creation of art.

Nurturing a creative atmosphere-in which the work of human musicians is supported and augmented, rather than displaced, by AI-powered tools-preserves the integrity and livelihood of the artists while introducing new creative opportunities. Once more, this necessitates the continuous process of collaboration by the stakeholders of the industry, policy makers, and the great creative community in overcoming the challenges that are arising and ensuring that benefits arising from the technologies are shared equitably. With a balanced, sanguine attitude, one would be able to harness fully the powers of AI to innovate within the music industry, drawing on those very basic human values which have given music a relative strength and durability as an artistic medium.

Conclusion

This research endeavored to explore the multidimensional nature of artificial intelligence integration into creative processes within the music industry. Through synthesizing theoretical frameworks identified in the literature and industry practices, the study has illuminated the dual role AI plays in transforming musical creativity: both as a catalyst expanding creative potential and as a potential threat to the authenticity of human artistry.

The conceptual foundations established in our literature review demonstrate significant parallels with our findings. Assinen's (2018) work on copyright protection strongly aligns with our research findings regarding copyright attribution and fair compensation in AI-assisted music production. The rapidly evolving nature of artificial intelligence accentuates the inadequacy of existing legal frameworks, necessitating novel regulatory approaches. The importance of human contribution emphasized by the INSAM Journal (2019) confirms the complex nature of human-machine collaboration that emerged in our interviews.

Cetinic and She's (2021) analysis of AI technologies presaged our findings regarding the increasing integration of machine learning algorithms across the music industry value chain. Gordon et al.'s (2022) concept of collaborative

creation resonates with our research outcomes emphasizing the complementary strengths between AI and human creativity. Holzapfel's (2022) critical analysis of ethical and environmental dimensions supports our findings regarding sustainability and inclusivity in AI applications within the music industry.

Crimaldi and Leonelli's (2023) philosophical inquiries into artistic expressions produced through artificial intelligence intersect with our discussions on originality and authenticity. Noel-Hirst and Bryan-Kinns's (2023) emphasis on algorithmic transparency finds echo in our recommendations regarding the need for accountability in the development and deployment of AI music tools. Bindi et al.'s (2023) assessment of broader ethical challenges aligns with our research findings concerning the effects of data privacy and algorithmic decision-making processes in creative contexts.

Our research distinctly reveals the tension between corporate interests and creative empowerment. Algorithmic mediation in music streaming platforms potentially constrains artistic diversity while advancing profit-oriented standardization. This finding confirms the paradoxical relationship between democratization and power asymmetries identified in the literature.

Most importantly, our study supports the vision that artificial intelligence should complement rather than replace human creativity. This balance requires developing ethical frameworks that recognize the unique contributions of both human and artificial intelligence to musical creation. This conclusion harmonizes with the human-machine partnership model proposed in the literature.

Looking forward, our research emphasizes the need for multidisciplinary dialogue. Collaboration among artists, developers, legal scholars, industry professionals, and policymakers is essential for establishing governance mechanisms that harness AI's creative potential while preserving the fundamental human elements that make music a meaningful artistic expression.

Developing a sustainable musical ecosystem that celebrates the symbiotic relationship between human and artificial creativity emerges as the foremost challenge facing the modern music industry. This objective necessitates proactive, multifaceted approaches where technological innovation advances in balance with artistic protection. Our ultimate aim is to contribute to a future that enriches the diverse tapestry of musical expression, nurtures the interdependence between human and artificial creativity, and preserves the rich artistic heritage that has defined human culture throughout history.

References

Anja, N. H., & Marika, L. (2016). Social streaming? Navigating music as personal and social. https://doi.org/10.1177/1354856516673298

Arnt, M., & H., S. (2022). The streaming paradox: Untangling the hybrid gatekeeping mechanisms of music streaming. Popular Music and Society. https://doi.org/10.1080/03007766.2022.2026923

Assinen, S. (2018). European Union copyright protection for AI-generated works. https://doi.org/10.15388/iuris.2018.25.12

Bindi, G., Demerlé, N., Diaz, R., Genova, D., Golvet, A., Hayes, B., Huang, J., Liu, L., Martos, V., Nabi, S., Pelinski, T., Renault, L., Sarkar, S., Sarmento, P., Vahidi, C., Wolstanholme, L., Zhang, Y., Roebel, A., Bryan-Kinns, N., Giavitto, J. L., & Barthet, M. (2023). AI (r)evolution - where are we heading? Thoughts about the future of music and sound technologies in the era of deep learning. *Proceedings of the International Conference on New Interfaces for Musical Expression*, 2023, 573-580. https://doi.org/10.21428/92fbeb44.bd05c96f

Bordàs Vives, A. (2023). Artificial Intelligence and the Creative Industries. uji.es

Bulayenko, O., Quintais, J. P., Gervais, D. J., & Poort, J. (2022). AI Music Outputs: Challenges to the Copyright Legal Framework. Available at SSRN 4072806. google.com

Cetinic, E., & She, J. (2021). Understanding and creating art with AI: Review and outlook. *ACM Computing Surveys*, 55(2), 1-34. https://doi.org/10.1145/3475799

Cheng, M. (2022). The creativity of artificial intelligence in art. Proceedings, 15, 110. https://doi.org/10.3390/proceedings2022081110

Crimaldi, F., & Leonelli, M. (2023). AI and the creative realm: A short review of current and future applications. ArXiv.Org. https://doi.org/10.48550/ARXIV.2306.01795

Detweiler, C., Coleman, B., Díaz, F., et al. (2022). Redefining relationships in music. Cornell University. https://doi.org/10.48550/arxiv.2212.08038

Forbes, A. (2020). Creative AI: From expressive mimicry to critical inquiry. Artnodes, 26. https://doi.org/10.7238/a.v0i26.3370

- Gordon, S., Mahari, R., Mishra, M., & Epstein, Z. (2022). Co-creation and ownership for AI radio. *Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society*, 240-250. https://doi.org/10.1145/3514094.3534141
- H., D., George, K., & Bart, J. B. (2016). Changing their tune: How consumers' adoption of online streaming affects music consumption and discovery. Marketing Science (Providence, R.I.). https://doi.org/10.2139/ssrn.2782911
- Hodgson, T. (2021, February 1). Spotify and the democratisation of music. Cambridge University Press, 40(1), 1-17. https://doi.org/10.1017/s0261143021000064
- Holzapfel, A. (2022). Introducing political ecology of Creative-AI. *Proceedings of the 23rd International Society for Music Information Retrieval Conference*, 2022, 15-22. https://doi.org/10.5281/zenodo.6977355
- J., M., & D., P. (2019). Control, curation and musical experience in streaming music services. https://doi.org/10.1080/17510694.2015.1090222
- Jack, W. (2020). Taste in the platform age: Music streaming services and new forms of class distinction. Information, Communication & Society. https://doi.org/10.1080/1369118X.2019.1622763
- L., S., Nikita, V. M., Ksenia, D. S., & Anastasia, S. S. (2020). Digital technologies in development of modern music industry. IEEE Conference of Russian Young Researchers in Electrical and Electro Engineering. https://doi.org/10.1109/EIConRus49466.2020.9039328
- Marian, M., & A., E. (2019). Art, creativity, and the potential of artificial intelligence. Arts. https://doi.org/10.3390/ARTS8010026 Mayssa, A. A. E., & M., D. (2023). Using artificial intelligence for enhancing human creativity. *Journal of Art, Design and Music*. https://doi.org/10.55554/2785-9649.1017
- Mojahedur, M. (2024). AI in creative arts: Advancements and innovations in artificial intelligence. International Journal of Advanced Research in Science, Communication and Technology. https://doi.org/10.48175/ijarsct-19163
- N., A., & D., B. (2021). Artificial intelligence in the creative industries: A review. Artificial Intelligence Review. https://doi.org/10.1007/s10462-021-10039-7
- Nicholson, R. (2019). Saviours or burdens? The effects of streaming services on the music industry. Dalhousie Journal of Interdisciplinary Management, 15. https://doi.org/10.5931/djim.v15i0.8984
- Noble, A. (2021). Researching the impact of music streaming on social and personal listening behaviours. https://doi.org/10.1145/3462741.3466675
- Noel-Hirst, A., & Bryan-Kinns, N. (2023). An autoethnographic exploration of XAI in algorithmic composition. *Organised Sound*, 28(1), 81-92. https://doi.org/10.1017/S1355771822000309
- Teresa, M. A. (2020). GUIDEPOST: Creativity, artificial intelligence, and a world of surprises. Academy of Management Discoveries. https://doi.org/10.5465/AMD.2019.0075

Vol 2 No 2 December 2024 Winter

