

**Original scientific article**

**THE ELECTRONIC MUSICAL UNIVERSE  
OF THE COMPOSER DIMITRIJE BUŽAROVSKI**

*UDC [781.1:534.861]+78:[004.9+681.84] Bužarovski D.*

**Trena Jordanoska, Viktorija Kolarovska-Gmirja**

Ss. Cyril and Methodius University in Skopje, Faculty of Music – Skopje,  
Republic of North Macedonia

ORCID iDs: Trena Jordanoska

 <https://orcid.org/0000-0002-9548-3919>

Viktorija Kolarovska-Gmirja

 N/A

**Abstract.** *The eighth book of the automusicological project of the composer Dimitrije Bužarovski delves into the innovative world of his electronic and computer music. This analysis navigates in-depth Bužarovski's pioneering use of electronic and computer instruments, from synthesizers and MIDI recording techniques, to Sample Cell Software, and Cpybara/Kyma system, highlighting his evolution as a composer from the 1980s to the early 2000s. The book uncovers Bužarovski's creative process, from conceptualization to performance, shedding light on his unique approach to sonic exploration and thematic development. Through meticulous examination of individual compositions, including ballets *Trains* and *Snow White*, the *Enmeads*, *SynthSon*, and incidental music, the book unveils the intricacies of Bužarovski's musical language, technical expertise, aesthetic vision, and the profound impact of his electronic innovations on the broader landscape of Macedonian music.*

**Key words:** *Dimitrije Bužarovski, electronic music, synthesizers, MIDI recording, computer music, Macedonian music*

## 1. INTRODUCTION

The electronic music compositions of the multifaceted artist Dimitrije Bužarovski were previously explored in Trena Jordanoska's paper "Connecting Tradition and Experiment – Electronic and Computer Music Works by Dimitrije Bužarovski," published in 2014. Building on this foundation, the present text delves deeper into Bužarovski's electronic and

---

Received April 4, 2024 / Revised April 9, 2024 / Accepted May 11, 2024

**Corresponding author:** Trena Jordanoska

Ss. Cyril and Methodius University in Skopje, Faculty of Music – Skopje, Pitu Guli No.1, 1000 Skopje,  
Republic of North Macedonia

E-mail: [trenajordanoska@t-home.mk](mailto:trenajordanoska@t-home.mk)

computer music works as documented in the eighth book of his automusicological project.<sup>1</sup> The works presented in this book are unique in their conception and creativity. Bužarovski begins by referring to his textbook, *Sonology* (2015), where he distinguishes three sound realities: acoustic, psychoacoustic, and electro-acoustic reality. He emphasizes that his electronic music should be viewed through the lens of electro-acoustic reality.

Bužarovski's electronic music is composed with the Roland Jupiter 6, Korg DW 8000 and Yamaha SY77 synthesizers, as well as the Roland TR-707 Rhythm Composer, which he extensively used during the 1980s and 1990s. In 1992, he incorporated Digidesign SampleCell Software and Factory Library into his compositions. Since 2000, he has also utilized Symbolic Sound Capybara 320 hardware and the Kyma system, which he describes as having "a different working principle and being favorite by composers who see it as a continuation of the original coordinates of electronic music" (p. ix).

In the eighth book, Bužarovski presents works that were exclusively composed for electronic and computer instruments, without mixing them with acoustic instruments and voices (p. vii). Previous books have analyzed several of Buzarovski's concertos, oratorios, and song cycles, which feature electronic sound/synthesizer as a solo instrument accompanied by an ensemble of acoustic instruments. Additionally, a complete list of Buzarovski's incidental music, which was almost entirely composed with electronic instruments, is provided.

While working on this book, Bužarovski unexpectedly discovered audio recordings of two significant works of his electronic portfolio – the *Enneads* and the ballet *Snow White*. There was uncertainty about their preservation, and these recordings, along with those of the *Helmet Suite*, the Little Suite on Folk Themes, the 1987 Boston performance of the Five Preludes, the 1996 performance of the *Candy Tale* by the Lyric Opera Theater in Tempe, Arizona, an English interview for the broadcast of "Bosnia Tune" from *Songs of Peace and War*, and *The Skeleton and the Beauty*, were all found in a sealed box that had been untouched for 28 years. Bužarovski has revived these recordings by converting them into digital form. Accompanied by new visualizations and available scores, these recordings have been promptly uploaded to the BuzAr archive's YouTube channel.<sup>2</sup>

Due to the limitations posed by the uniqueness of the instrument models, Bužarovski chose not to create detailed scores for the works. Instead, he used facsimiles (scanned) for the analyses, with reconstructed short examples in Sibelius. This was the case with the ballet score *Trains*, which only exists in the parts necessary for performance during recording. Additionally, if a MIDI file was saved, these works are presented through the MIDI graphic matrix.

There is no score available for the *Enneads*, not even as a MIDI file. Considering the way they were created, Bužarovski emphasized that his electronic compositions reveal a very important dimension in his music: "the rapidity of composing (from which also derives the number of works he has produced so far) with the ability to create in the moment, drawing directly from the musical subconscious" (p. 67). The process of creating the *Enneads* is best described through the following quote:

---

<sup>1</sup> Dimitrije Bužarovski, *Electronic Music* (Skopje: UKIM Faculty of Music, 2022), 109 pp. ISBN: 978-608-66843-1-0

<sup>2</sup> The Electronic music playlist:

<https://www.youtube.com/playlist?list=PLmhLnBvrnmEMQ12A6qMUS6e8pvvAuIIC>

[For] me, the creative process was intellectual – I developed a concept, searched for musical material (without playing an instrument), listened to it internally, and developed it further. Only then did I sit down to check it with an instrument, (the piano, and later using the synthesizers).

This direct improvisational approach became the key to creating my incidental music (for theatre, TV, film, etc.). *Fragmentation* was convenient, meaning that the form was limited to small units, (which also seems to be the case here). After obtaining basic music material through improvisation, (often related to the stylistics of the theater play), I had the opportunity to make corrections in the MIDI and create more variants. This was especially useful in the music for plays, which was based on such leitmotifs.

The principle of composing used in the *Enneads* follows this approach. However, in the next two works, *The Skeleton and the Beauty* and *SynthSon*, I adopted a hybrid approach: I initially structured the work rationally, and then I further shaped it by using improvisations. (p. 64)

Partial scores are available for the ballets *Trains* (staged in 1984) and *Snow White* (staged in 1986), and MIDI files have been preserved for *The Skeleton and the Beauty* and *SynthSon*. However, most of the music for plays also has MIDI files preserved, but they are unusable due to the absence of a metronome during the recording process. Bužarovski chose not to use a metronome to preserve the naturalness and rhythmic freedom of live performances (p. vii).

The author highlights a significant challenge in presenting the instruments, effects, and parameter changes, attributed to the inconsistency in standardization and the unique characteristics of synthesizers and computer instruments, both in terms of sound and terminology. This challenge is exacerbated by the lack of standardization among these instruments, meaning that reproducing the original performance requires the exact instrument model with its factory presets (bank of factory *instruments/colors*). Any deviation, such as using different instruments or software, would result in a completely different sound.

Unlike traditional acoustic instruments, electronic instruments offer extensive customization options, allowing composers to modify various parameters and create unique sounds. Bužarovski prefers to use preset sounds/instruments in synthesizers and then modify them using external effects and processors, rather than altering the fundamental characteristics of the instrument itself. He believes that synthesizers and computer instruments have introduced new instruments characterized by their individuality (p. ix).

Most of these works are not intended for live performance, and Bužarovski extensively discusses the challenges associated with performing with synthesizers in his book, particularly in the chapter on the ballet *Trains*. However, in his previous books, especially those focusing on concertos and song cycles, he advocated for electronic instruments as solo instruments during the 1980s and 1990s.

Nevertheless, Bužarovski acknowledges that the interpretation and use of controllers/keyboards for synthesizers require a unique technical and interpretative approach, distinct from that of the traditional acoustic instruments. This complexity can hinder the reconstruction of live performances of these works, as performance techniques and nuances may vary significantly among different electronic instruments and controllers.

Overall, the distinctive characteristics of electronic instruments offer both opportunities and challenges for composers and performers alike. Successfully navigating these complexities requires specialized knowledge and technical expertise in both interpretation and performance.

## 2. *EXPERIMENT I, TEMA CON REPETIZIONI, POP SUITE*

*Experiment I* Op. 18 (1984) marks Bužarovski's debut in electronic music. Utilizing the Roland Jupiter 6 synthesizer, he premiered the piece at his inaugural synthesizer recital on June 25, 1984, at Daut Pašin Amam in Skopje. By incorporating this synthesizer into his early compositions, Bužarovski demonstrates his keenness to embrace the latest electronic music technology and his ability to harness it to fulfill his creative vision. Reflecting on his experience with the Jupiter 6, Bužarovski describes it as:

a hybrid machine because it had a section with all VC (voltage controlled) components; in other words, it was a much simpler and improved version of the modular synthesizers. It took me some time to grasp the new *philosophy* of the instrument, particularly its digital aspect, but I was so delighted that I devoted myself intensively to familiarizing myself with and memorizing all its possibilities, which were essential for its successful use. (p. 1)

There is also a version of *Experiment I* that includes strings for which a visualization was created by Macedonian Television in the 1980s. The visualization was directed by Stojan Stojanoski, with a screenplay and video mixing by Vencislav Vojdanovski and edited by Kole Jovanovski. Bužarovski describes the visualization as “a demonstration of the creativity and enthusiasm of Macedonian Television producers in the 1980s able to create projects with extraordinary professional depth despite the limited technical means of electronics at the time” (p.2). It is noteworthy that creating a visualization for an electronic music composition was a relatively new concept in the 1980s, demonstrating the innovative approach of Bužarovski and the Macedonian Television staff in promoting electronic music as a legitimate art form. It also adds a visual element to Bužarovski's music, enhancing the audience's sensory experience and offering a new dimension to his creative vision.

*Experiment I* is structured into three parts, each showcasing different thematic materials. The first and second parts introduce two distinct thematic materials, which are then merged in the third part. The first thematic material is characterized by a cascade of harmonics supported by the fundamental frequency, originating from the highest regions of the oscillators (40 kHz). These harmonics produce a glissando effect that shifts both downwards and upwards. To enrich the sound, a LFO (low-frequency oscillator) was utilized to introduce a pulsating effect and alter the tone color. The second thematic material features tones with specific pitches accompanied by a glissando effect. Unlike the first material, the glissando effect in the second material arises from a sliding effect between pitches. In the third part of the composition, the two thematic materials are combined to generate a more intricate and layered auditory experience.

The second composition, *Tema con ripetizioni* Op. 19, also premiered at the 1984 synthesizer recital, comprises 14 repetitions of a single phrase, each executed using a different synthesizer. These repetitions incorporate noises and sounds from various machines and engines. To craft the piece, Bužarovski employed the split keyboard feature, enabling him to partition the keyboard into distinct sections. Despite using multiple sections, the overall number of individual voices (polyphony) remained six. In terms of performance technique, Bužarovski approached the keyboard similarly to how one would play traditional keyboard instruments.

The *Pop Suite* Op. 20 exemplifies Bužarovski's innovative approach to electronic music by blending tonal structures with electronic instruments. He treats these instruments akin to traditional acoustic ones, aiming to create “a powerful and expanded *organ* with new

instruments and sound effects” (p. 7). The passacaglia form, centered on a repeating bass line d-c-b-a (lament bass and major chords above it), forms the foundation of the composition, supplemented by a prelude and postlude. Bužarovski later incorporates this suite into the ballet *Trains*. However, performing the passacaglia live presents challenges due to the complexity of the polyphonic lines and the need for program and effects changes on the synthesizer (p. 36).

### 3. TRAINS

The ballet *Trains* Op. 21 (1984) stands out as a cornerstone in Bužarovski’s electronic music, given its extensive scope and complexity (including the number of movements and the utilization of diverse forms). Written on the eve of Bach’s anniversary in 1985, Bužarovski was inspired by baroque instrumental polyphony, incorporating various forms and techniques such as “the motility of the toccata, the schematicity of the canon, and the linguistic features of the allemande, sarabande, and gigue, combined with Bach’s specific intervals and harmonies, the structure of the fugue, the passacaglia, and the system of doubles in the dances, etc.” (p. 9). The work highlights Bužarovski’s innovative use of electronic instruments to produce intricate polyphonic textures and rhythmic patterns.

Bužarovski’s decision to record the composition was prompted by the challenges of performing it live with synthesizers. The recording took place in the studio of the Music Production of Radio Skopje using a 24-channel tape recorder for overdubbing. Milka Gerasimova played a significant role as the recording engineer, and her experience will be later used in the recording of Bužarovski’s oratorio *We Live – We Remember*. Additionally, choreographer Olga Milosavljeva and director Bogdan Pop Gjorčev contributed to the staging of the ballet.

Bužarovski notes that the movements adhere to the structural scheme of Baroque forms, often presenting them as polyphonic variations. While the titles of movements evoke the characteristics of corresponding Baroque forms, they may not strictly adhere to those forms.

The first movement – Toccata, comprises five thematic blocks, each containing a theme with four variations. In the first variation, *glissando* effects are introduced, accompanied by a shift to a new tonal center. The second variation presents the theme in inversion, while the third variation juxtaposes the basic theme line with its inversion. The fourth variation begins with the theme in inversion and concludes with a sustained chord followed by a sequence of *secco* syncopated chords.

The second movement – Canon, derives from the traditional concept of this musical form. Instead, Bužarovski introduces an ostinato bass line (more like in a passacaglia) that progressively builds throughout the movement, eventually incorporating 16 separate lines, each corresponding to a different action in the ballet’s libretto. This approach bears resemblance to the repetitions with over-structuring of DJ compositions and Ravel’s *Bolero*.

Bužarovski uses the title Allemande tentatively for the third movement, which comprises a theme with four variations reminiscent of the standards of Baroque harmony and ornamentation. In the first variation, the bass line is elaborated upon with minimal changes, while the second variation introduces typical Bach leaps of sevenths. The third variation incorporates melodic diminution, and the fourth variation features free variations, including a shift in the basic harmonic progression from minor to major tonality, the utilization of major seventh and quartal chords, diatonic clusters, and a melody in the high register of a wind instrument with a *glissando* effect, reminiscent of a whistle.

The fourth movement, Prelude (the girls go on vacation), follows a three-part form and is centered around a simple sixteenth-note motif with descending turns that starts on a weak beat and evolves into a theme comprising ascending scales. Alongside the theme, the pizzicato bass line from the Allemande resurfaces, transformed into a jazz pattern (this bass is part of the Roland Jupiter 6 preset instruments).

Continuing from the fourth movement, the same pizzicato bass line persists in the fifth movement, Fugue (the boys go on vacation). This movement is a four-voice fugue, with its theme and countersubjects mirroring the rhythmic combinations found in Bach's music. In the middle section of the fugue, there are imitations in *stretto*.

The sixth movement, Sarabanda (the respected citizen and his daughter), while not strictly adhering to a sarabande in form, shares several characteristics with Baroque and Rococo compositions, particularly in its harmony, melody, rhythm, and articulation. The theme, set in 3/4 meter, is adorned with a plethora of ornamentation, including mordents, and is performed in a *quasi*-harpsichord style. The Prelude, Fugue, and Sarabande are grouped together to form a suite of three movements. This suite concludes with a coda that incorporates elements from all three movements.

The seventh movement is organized into Interludio – Passacaglia – Interludio (the girl and the thugs). The interlude consists of a complex harmonic progression filled with seventh and ninth chords, taking the listener to “a walk through distant keys” (p. 33). The Passacaglia theme, following the standards for such themes, is placed in the bass line and spans eight bars. It includes alterations such as an augmented fourth/diminished fifth, “giving the sequence an octatonic scale character despite the underlying E minor tonality” (ibid.). The Passacaglia features 20 variations, each with its own changes. For instance, the seventh variation utilizes repetitions of fifths and sixth chords in *quasi*-brass instruments with interventions in the envelopes. Bužarovski notes the emergence of a new theme in the tenth variation. The subsequent interlude serves as a cancrizans, bringing the piece to a close.

The eighth movement, Gigue (children go on an excursion), offers a contrast to the Passacaglia with its playful, major theme featuring bell instruments. The movement consists of five parts, with a *wah-wah* effect introduced in the fifth repetition of the theme to impart a more grotesque quality to the musical material. As the movement progresses, the climax builds with imitations of the theme in *stretto*.

Following this movement, the Toccata and the Canon are repeated (the first and second movements respectively). In his analysis, Bužarovski provides insights into how the scenes were visualized and choreographed. He relays on his memory, as there is uncertainty regarding the existence of any video recordings.

#### 4. SNOW WHITE

Bužarovski utilized a variety of electronic instruments and recording equipment in the composition of the music for the ballet *Snow White* Op. 24. These included the Korg DW-8000 synthesizer, Roland TR-707 rhythm composer, Korg SQD-1 MIDI recorder, and Roland Jupiter 6 synthesizer. These instruments constituted his compositional tool kit in 1986, the year in which the ballet was created, (following his postdoctoral studies in Boston). Additionally, he employed a Tandberg tape recorder, and a Korg sequencer for recording on mini floppy disks.

The libretto derived from the famous Brothers Grimm tale and was a result of the success of Bužarovski's children's opera *Candy Tale* and the importance of incorporating fairy tales into music and ballet performances. The libretto was written by the author himself, featuring a narrator role (similar to the *Candy Tale*, portrayed by Vladimir Angelovski-Dadi), with choreography by Olga Milosavljeva. The ballet dancers were from the classes of ballet professor Elisaveta Kuševska, while Dančo Ordev provided the scenic canvases. The premiere performance took place on New Year's Eve in the cinema hall of the Youth Cultural Center in Skopje. It is worth noting that the author performed the entire work by heart, requiring complete memorization of the commands and changes to the synthesizer programs, essentially reprogramming the performance set.

The work is organized into eight scenes, which are further developed across 17 movements based on five musical themes representing the main characters and events. The author explains that, in this case as well, he employs variation form as basic approach. In summary, the features of the themes are as follows:

1) The Snow White theme is characterized by dispersion through the long phase of the envelopes, with a selection of *quasi*-string instruments and marimba/vibraphone. This theme first includes a sustained seventh, which, upon repetition and the introduction of the fourth degree, also resonates like the Lydian fourth (p. 50).

2) The second theme, representing the Evil Queen, features chromatic third-relations between minor chords and rhythmic patterns drawn from popular genres.

3) The third theme, reminiscent of an étude with an allusion to Camille Saint-Saëns' *Carnival of the Animals*, creates the atmosphere for the Dwarfs cottage.

4) The fourth theme features a fugato with a characteristic Baroque articulation, illustrating Snow White's discovery of the Dwarfs cottage.

5) The fifth theme, depicting the discovery of the sleeping Snow White/arrival of the Dwarfs, is once again developed as a fugato, but with a jazzy rhythmic texture.

## 5. ENNEADS

Bužarovski composed *Enneads I, II, and III* Op. 34 between 1987 and 1991, and as mentioned earlier, only recordings of these compositions are available. The title is inspired by the writings of the ancient philosopher Plotinus (*The Enneads*). With reference to the number nine (signifying the Greek word in the title), each of the three *Enneads* is structured into nine movements.

For the recording of *Ennead I*, Bužarovski used the stereo channels separately, allowing him to double the number of instruments. The Tandberg tape recorder features an option for this type of synchronous recording, enabling synthesizers and rhythm machine to be recorded on one channel, followed by overdubbing with a new instrument configuration on the second free channel (p. 60). The music incorporates a combination of instruments and textures from Bužarovski's previous large-scale works, such as *Trains*, *We Live - We Remember*, and *Snow White*. This *Ennead* premiered at the "Europhonia" festival in Zagreb in 1987.

*Enneads II* and *III* were created for poetry evenings organized by the radio stations in Skopje and Moscow in 1990 and 1991. *Ennead II* is accompanied by poetry readings of works by Boris Pasternak and Ana Akhmatova, which took place in Skopje. *Ennead III*, on the other hand, is accompanied by poetry by Kosta Racin and Blaže Koneski, with the

readings held in Moscow. *Ennead II* is tonal, aiming to capture an impressionistic atmosphere. To achieve this, Bužarovski focuses on ostinato accompaniment, the main motif, harmonic progressions, and effects such as repetitive tones, LFO, and *wah-wah* effect. The sixth movement of the *Ennead II* is particularly notable, reminiscent of Erik Satie's *Gymnopédie No. 1* and *Gnossienne No. 1*. It features repetitive accompaniment, theme imitations in different tonal centers, and synthesizer sounds resembling *Japanese traditional* instruments. Equally impressive is the ninth movement, which utilizes instruments simulating wind noises, enhanced with chorus effects, random-generator figures, and tam-tam percussion. In this movement, a motif introduced in the low register was first used by Bužarovski in the music for the television program *Poetic Theater - Justo Jorge Padrón* op. t13 (1990), and later reappeared in 2013 in the second movement of *Trio sonata* op. 63. For *Ennead III*, Bužarovski himself employs the "Elegy" (the first song) from the *Revolutionary* song cycle Op. 26 (1986). The structure consists of a theme followed by eight variations, using the instruments from the Yamaha SY77 synthesizer.

In 2022, upon the appearance of the audio tapes of the *Enneads*, Bužarovski created visualizations using photos of artworks. *Ennead I* is accompanied by nine pictures by Vasko Taškovski. *Ennead II* features various perspectives on sculptures by Meri Anicin Pejovska, edited with Final Cut software using different transition effects. *Ennead III* showcases paintings by Dančo Ordev, chosen by Bužarovski for their landscape and connection with Macedonian rural environments, which enhance the lyrical mood and folklore associations of the third *Ennead*.

#### 6. THE SKELETON AND THE BEAUTY

According to the libretto envisioned by Bužarovski, *The Skeleton and the Beauty* Op. 37 (1993) is a piece designed for one ballerina who manipulates a puppet instead of having a second dancer. At the beginning, the ballerina brings in the skeleton puppet, and at the end, the choreography should depict the skeleton carrying her away. This setup symbolizes the contrast between the principles of love and death. The work is structured in three parts: "an initial and final *adagio*, with a lively diabolical section (*danse macabre*) in the middle" (p. 68). The instruments used include those from Sample Cell software, notably a *diabolical* instrument featuring a mix of noises and metal whip strikes. The piece incorporates characteristic elements of Bužarovski's style, including *secco* chords in brass instruments. Recorded in Pro Tools, he preserved the MIDI recording, provided in the book, to create a visual representation of the work, serving as an alternative to a traditional score. In this, Bužarovski shares his perspective on translating the temporal aspect of music into a spatial one.

The composition can be seen as being programmatically linked to the military conflicts in the former Yugoslavia: "We often watched and listened to TV reports of light and heavy weapons being fired in the background. Therefore, the work symbolically reflects this broader context – the war, which served as the conceptual basis for its creation" (ibid.). *The Skeleton and the Beauty* was commissioned by professor and choreographer Cliff Keuter, who taught at Arizona State University, and it was intended that his wife, Elina Mooney, would perform it.



### 7. SYNTHSON

For the *synthetic sonata*, or *SynthSon* Op. 43 (1997), Bužarovski notes that it is his last piece created using MIDI recording before returning to composing entirely for acoustic instruments in a traditional score format. It consists of three movements, with the first movement structured in sonata form. The primary characteristic of the first movement is a delay effect obtained through the Alesis MIDIVERB III. Within the movement, a polytonal figure is established with three tonal centers in opposition, and the main theme introduces metric ambiguity that can be interpreted as both binary and tertiary. The second theme develops through major sequences ascending in the circle of fifths and concludes with a Lydian fourth.

The second movement stands out for its use of human voice, incorporating both singing and chanting. It consists of three sections, with the first featuring thematic material from the Macedonian folk song “Zajdi, zajdi” played on a computer instrument. The second part consists of multiple units, with the first being constructed bi-tonally. Throughout this section, a drone serves as the foundation, overlaid with multiplied vocal track to simulate singing in an Orthodox Church male choir. This segment was originally created by Bužarovski for the documentary drama “Dičo Zograf”, which aired on Macedonian Television in 1994 and was scripted by Vladimir Plavevski and directed by Dimitar Hristov. In the third section, a voice recites poetry in old Greek.

The author describes *SynthSon* as being conceived with a technique similar to layering, akin to how DJs assemble music during performances (p. 73). This layering is particularly evident in the last movement, where a rhythmic pattern of two sets of drums is passed through a processor that creates delays and accents. Additionally, in the melodic line of the third movement, the composer plays with minor/major ambiguities.

### 8. INCIDENTAL MUSIC AND ARRANGEMENTS

Within the works analyzed in this book, there is music composed for theater plays, TV dramas, and documentary shows, a total of 41 opuses. This includes four television shows, as well as the unique sound essay and aesthetic performance *Music Questions*. Bužarovski’s opus of incidental music spans from 1981, starting with the music for the children’s radio drama *Helmet*, to 2008, when music for the play *A Midsummer Night’s Dream* was composed. During the period when Bužarovski composed music for plays and media, he mainly employed electronic instruments in his compositions. Analysis reveals that six of these compositions evolved into works for instruments/voices, including the music for the plays *Zoika’s flat*, *The Gathering Place*, *Caligula*, and *A Midsummer Night’s Dream* staged in the Drama Theater in Skopje, as well as projects such as *Poetic Theater – Justo Jorge Padrón* and the TV movie “Dičo Zograf”. Particularly, one should notice the music for the cult TV series *Monsters in our city* from 1990, which was also adapted into a play at the Universal Hall in Skopje.

The book also includes arrangements (42 in total), which reinterpret the musical materials by varying levels of intervention in the original compositions. One notable example is the transformation of the main motif of the song “A bre Makedonče”, the signature tune of the Macedonian Radio Television.

## 9. APPENDICES

Additionally, the book includes several appendices, showcasing the diverse activities of its author. It provides an overview of the subjects Bužarovski taught at the Faculty of Music in Skopje, the Faculty of Arts in Niš, and Arizona State University. Furthermore, it discusses the conceptualization of the diploma, master's, and doctoral theses for which he served as a mentor, focusing on areas crucial to Macedonian music history and culture (p. 84). The IRAM/BuzAr archive, established in 2001, is highlighted for its significant contribution to preserving evidence of Macedonia's rich musical culture. Towards the end of the book, the archive's identity card is presented, featuring updated data on the day the book was finished. The archive, now present on social networks and a YouTube channel, originated with the first website about Macedonian music culture in 1997, initially registered as mmc.edu.mk and later changing to <http://buzar.mk> in 2012.

Bužarovski's creative spirit has no bounds, as pointed out by the two dream-inspired songs featured in full in the book's appendices. The second song even comes with an orchestral score, including a comprehensive music analysis.

Concluding the automusicology project with a focus on electronic music is no coincidence. Bužarovski has long been recognized as a pioneer in the use of electronic and computer music instruments, not only in Macedonia but also in the former Yugoslavia. His innovative approach, including the use of score writers and hard disk recording, has left a lasting impact on his opus. Making all of Bužarovski's works available in PDF format would offer a comprehensive overview of his artistic output, through a tripartite approach that integrates scores, recordings, and analyses.

## REFERENCES

- Bužarovski, D., (2022c), *Elektronska muzika*, Fakultet za muzička umetnost – Skopje. [http://buzar.mk/Books/DBuzarovski\\_Elektronska\\_muzika.pdf](http://buzar.mk/Books/DBuzarovski_Elektronska_muzika.pdf).
- Bužarovski, D., (2015). *Sonologija*, Fakultet umetnosti u Nišu i Centar za naučnoistraživački rad SANU i Univerziteta u Nišu.
- Jordanoska, T. (2014), „Povezivanje tradicije i eksperimenta – elektronska i kompjuterska muzička dela Dimitrija Bužarovskog”, U: D. Žunić, M. M. Đurđanović (Ur.) *Balkan Art Forum Umetnost i kultura danas, Zbornik radova sa naučnog skupa (Niš 11–12 oktobar 2013)*, pp. 285–301, Univerzitet u Nišu, Fakultet umetnosti u Nišu.

## ELEKTRONSKI MUZIČKI UNIVERZUM KOMPOZITORA DIMITRIJA BUŽAROVSKOG

*Osma knjiga automuzikološkog projekta kompozitora Dimitrija Bužarovskog istražuje inovativni svet njegove elektronske muzike. Kroz dubinske muzikološke analize Bužarovski predstavlja svoj pionirski rad u korišćenju elektronskih i kompjuterskih instrumenata, od sintesajzera i tehnika snimanja putem MIDI-ja, do softvera SampleCell i sistema Capybara/Kyma, ističući svoju kompozitorsku evoluciju od 1980-ih do početka 2000-ih. Knjiga otkriva kreativni proces kompozitora Bužarovskog, od konceptualizacije dela do izvođenja. Kroz detaljne analize pojedinačnih kompozicija, uključujući balete Vozovi i Snežana, Eneade, SynthSon i primenjenu muziku, knjiga otkriva detalje muzičkog jezika Bužarovskog, tehničku ekspertizu, estetiku i veliki uticaj na širi pejzaž makedonske muzike.*

Ključne reči: *Dimitrije Bužarovski, elektronska muzika, sintesajzere, MIDI sekvenciranje, kompjuterska muzika, makedonska muzika*