

**A STUDY OF BÉLA BARTÓK'S *MIKROKOSMOS*: A TIMELESS AND
TRANSCENDENT PIANO AND MUSIC CURICULA FOR CHILDREN**

by

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INTRODUCTION

Bela Bartok's *Mikrokosmos* is one of the most influential works for 20th-century piano pedagogic literature, covering various styles including contemporary compositional approaches and sonorities. It contains important educational material, and insights into Bartok's musical language. The aim of this essay is to understand—through *Mikrokosmos*—Bartok's broader teaching philosophy, approach to the piano, and overall musical style.

Chapter 1 presents the historical background of *Mikrokosmos*, including facts and features of this substantial work. Compared to other 20th-century composers, Bartok was exceptional in his lifelong interest in developing pedagogic materials and approaches.

Mikrokosmos is a systematic method that best represents Bartok's ideas about piano pedagogy, and illuminating the historical background provides important perspectives to understanding its value.

The following chapters will discuss the stylistic features of the music and explore how these unique compositions illuminate the composer's approach to the art and teaching of the piano. A chapter on the aspect of *Mikrokosmos*' compositional features will include, among other factors, an examination of form, rhythm, and the use of folksong. A subsequent chapter delves into specific pianistic pedagogic elements, including fingering, articulation, and pedal use. It investigates Bartok as a groundbreaking composer and a supreme pianist, and *Mikrokosmos* as a vehicle for not only effective teaching students how to play the piano, but also for helping prepare them to understand and appreciate 20th-century musical language.

Chapter 4 is a brief conclusion about *Mikrokosmos*' significant legacy in the pianistic world. This essay has significantly elevated my understanding of Bartok's pedagogical ideas and musical language. I hope that it may serve as a reference for others who want to learn more about Bartok's teaching philosophy, as well as stimulate additional interest in his great piano method.

Chapter 1: BACKGROUND

Bela Viktor Janos Bartok (25 March 1881–26 September 1945), one of the most influential composers of the 20th century, is the creator of a groundbreaking and innovative piano work known as *Mikrokosmos*. Published in 1940 and consisting of 153 pedagogically focused piano pieces and 33 exercises in 6 volumes, *Mikrokosmos* is a de-facto method that begins at the elementary plane and progresses to the concert-repertoire level. Inspired partly by the scholastic atmosphere that impacted European universities and conservatories at the rise of the 20th century, Bartok created what has become recognized as a timeless and important piano-music curriculum for children¹. Through *Mikrokosmos*, Bartok presents a systematic approach to piano technique that explores a comprehensive array of musical elements, including tonality, rhythm, form, and expression. This essay will thus examine *Mikrokosmos* from the aspects of both compositional features and pianistic pedagogic elements.

While representing an integral component of Bartok's legacy to the musical, keyboard, and pedagogic world, *Mikrokosmos* is also a love gift to Bartok's son, Peter Bartok. When Peter was 9 years old, Bartok agreed to give lessons to him. During the lessons, Bartok often gained inspiration and composed. As Peter reminisced, "In the course of our lessons he sometimes asked me to wait while he sat down at his desk, and I would hear only the scratching of his pen. In a few minutes, he would bring to the piano an exercise, or a short piece, that I was to decipher right away and then learn for our next lesson".² As with his Piano Concerto No. 3 in E major, Sz. 119, BB 127, as a surprise birthday gift for his second wife Ditta Pasztory Bartok, *Mikrokosmos* symbolizes Bartok's eternal love for his son.

¹ Autumn L. Zander, "Bartok's Practical Piano Legacy." *American Music Teacher* (August/September 2019): 27.

² Ibid.

Bartok devoted his entire life to composing piano pedagogic compositions and editing educational works. Although most of Bartok's students were at the advanced level, as he was teaching at the Royal Academy of Music in Budapest³, he had a lifelong interest in the field of piano pedagogy for all levels throughout his career. During his appointment at the Academy, he edited numerous standard keyboard works, and many other important compositions for teaching purposes—including Bach's Well-Tempered Clavier and Scarlatti Sonatas. Bartok composed a collection of pieces “*For Children*” begun in 1908 and finished in 1909. The inspiration behind this composition came from Bartok's desire to create a set of comprehensible and educational works for beginner-level students. In 1913, Bartok and Alexander Reschofsky jointly wrote a method book titled “*Zongora Iskola*”, which is designed for the teaching of beginners. These editorial works and educational compositions helped Bartok build a solid foundation for the later masterpiece in this realm: *Mikrokosmos*.

In this regard, *Mikrokosmos* is his culminating pedagogic work. The title *Mikrokosmos* refers to Bartok's concept of presenting a miniature portrayal of the entire musical universe or “world of the little ones, the children”.⁴ Unlike other traditional method books, which are primarily limited to finger playing, *Mikrokosmos* provides the young learners more opportunities to explore music by designing various exercises for singing. Bartok's son, Peter Bartok, stated that “His teaching programme did not follow an accepted ‘piano school’ technique. At first, I was to sing only. Later, exercises were improvised, directly partly at the independent control of the fingers”.⁵

For example, the first piece of No. 1 *Six Unison Melodies*, is not only intended for playing the piano, but also for singing. The melody line is scale-wise with natural rhythmic

³ Benjamin Suchoff, *Guide to Bartok's Mikrokosmos*. (New York: Da Capo Press, 1983), 5

⁴ Peter Bartok. Preface to Bartók, Béla, *Mikrokosmos: 153 Progressive Piano Pieces = 153 Pièces De Piano Progressives = 153 Klavierstücke Vom Allerersten Anfang an = Zongoramuzsika a Kezdet Legkezdetétől*. New definitive ed. London: Boosey & Hawkes, 1987, 4.

⁵ Ibid.

movement. The phrase is generally finished with a rest, such as the half rest in measure 4 (from here on abbreviated with m.), or a long note, such as whole note, for other pieces, for the student can take a breath before playing or singing the next phrase.

Example 1.1. *Mikrokosmos No. 1-1 Unison Melody.*

Another example is No. 14: *Question and Answer*. It has lyrics under the melody line which clearly indicates that this piece can be sung.

Example 1.2. *Mikrokosmos No. 14: Question and Answer, mm. 1-5.*

The same melody appears in No. 65 *Dialogue*, now with accompaniment.

Allegretto ♩ = 96

Could you would you let me share your rake so fine?
 As tu as tu un beau ra teau comme le mien?
 Dei nen Re chen hat te ich so geru ein mal.
 Van e van e van e ne ked ge reb lyed?

Example 1.3. *Mikrokosmos* No. 65: *Dialogue*, mm. 1–9.

These examples represent Bartok’s belief that a piano method book should be comprehensively developing musicianship instead of remaining limited to exclusively developing piano playing.

Mikrokosmos is consequently a universal method that introduces numerous different styles to the student. Bartok once mentioned that the purpose of the *Mikrokosmos* is to provide an opportunity for students to become acquainted with the simple and non-romantic beauties of folk music.⁶ In fact, *Mikrokosmos*, in its entirety could be viewed as an encyclopedia for various styles—including 20th-century compositional techniques and sonorities.⁷ The books were first published by Boosey & Hawks in London and New York in April 1940 with the subtitle: “*Progressive Pieces for Piano*”. Ernst Roth, editor from the publisher Boosey & Hawks, originally suggested the subtitle: “*Progressive Piano Pieces in Modern Idiom*”, however, this proposal was rejected by Bartok. Bartok replied: “In 20 or let us say in 40 years this work will

⁶ Suchoff, *Guide to Bartok Mikrokosmos*, 7.

⁷ Béla Bartók, *A Memorial Review Including Articles On His Life and Works, Reprinted From Tempo, the Quarterly Review of Contemporary Music; a Chronological Listing of Works [and] Bartók On Records*. New York: Boosey & Hawks, 1950, 68.

cease to be ‘modern’. And what does it mean ‘modern’? This word has no definite sense and can be misinterpreted, misunderstood!”⁸

Though he balked at the idea of labeling *Mikrokosmos* with the term “modern”, the cycle represents idioms from different composers and compositional and stylistic breadth. And he was inspired by different historical styles. A piece from *Mikrokosmos* such as No. 117 *Bourrée*, reflects the French Baroque approach and is a dance rhythm inspired by Couperin.⁹ In this dance, the rhythmic flow is simple and natural with frequent scale-like motives. Another obvious example is No. 80 *Hommage a R. Schumann*. Here Bartok employs several Schumann–inspired 19th–century harmonic features, such as complex chromaticism, harmonious parallel sixths, and expressive diminished chords.¹⁰ Moving to the 20th Century and American musical idioms, we find Gershwin's influence in No. 151 *Dance in Bulgarian Rhythm*. Bartok visited the USA three times in his life, and he spent his last 5 years there.¹¹ Bartok was clearly inspired by Gershwin's jazz–influenced style. In No. 151 *Dance in Bulgarian Rhythm*, Bartok ingeniously blends Gershwin's elements with rigorous Bulgarian rhythm, such as jazz–like tonality, vigorous rhythm, and spontaneous tone color. These examples, provide evidence that Bartok believes it is pedagogically important to study different styles of music.

Additionally, the shadow of J.S. Bach hovers over Bartok’s *Mikrokosmos* cycle. Bartok studied Bach's works before he was aged eighteen.¹² The influence of Bach on Bartok is evident in *Mikrokosmos*. No. 79 *Hommage a J. S. B.*, No. 91 *Chromatic Invention 1*, No. 92 *Chromatic Invention 2*, and No. 145 *Chromatic Invention 3* are the instances with direct Bach's influence

⁸ Benjamin Suchoff, “History of Bela Bartok’s *Mikrokosmos*” *Journal of Research in Music Education*. 7(1959): 190–191.

⁹ Suchoff, *Guide to Bartok Mikrokosmos*, 102.

¹⁰ Suchoff, *Guide to Bartok Mikrokosmos*, 70.

¹¹ David Cooper, “Béla Bartók in America” Yale university press(blog), June 30, 2015, accessed October 5, 2023, <https://yalebooks.yale.edu/2015/06/30/bela-bartok-in-america/>.

¹² Bartók, *A Memorial Review*, 7.

(from the title of pieces). Additionally, Bartok emphasizes the importance of Bach's use of counterpoint, such as imitation, inversion and other counterpoint techniques. In *Mikrokosmos*, the first 21 pieces are mostly in unison, except for the No. 17 *Contrary Motion*. Starting from No. 22 *Imitation and Counterpoint*, Bartok includes interesting counterpoint exercises. No. 22, 23, 25, and 26 utilize imitation and inversion compositional techniques with mostly scale-motion melodies and simple rhythms. It would appear that Bartok's intention is to help students progressively take on the complexity of counterpoint performance, as these *Mikrokosmos* pieces have one active voice while the other is idle or in unison. After these imitation exercises, there are canon exercises, with progressive difficulties from canon at the octave, at the lower fifth and finally to free canon. Through studying counterpoint exercises, Bartok guides students to build finger independence and coordination and to feel more comfortable with multi-voiced works.

These influences are integral to *Mikrokosmos* which Bartok designed with the distinct purpose of offering a comprehensive method from beginning lessons through intermediate levels of study. Bartok himself explained in the preface that "the first four volumes of *Mikrokosmos* were written to provide study material for the beginner pianist—young or adult—and are intended to cover, as far as possible, most of the simple technical problems likely to be encountered in the early stages."¹³

Unlike other conventional piano methods, there are no technical or theoretical instructions in *Mikrokosmos*. Bartok believed that teachers should have sufficient knowledge to address students' needs, hence it is more appropriate to leave the space for them to explain his pedagogic works in their own way. Given the breadth of musical and technical challenges included, it is interesting that Bartok admitted that it is unnecessary, perhaps even impossible for every student to learn all the pieces in *Mikrokosmos*.¹⁴

¹³ Peter Bartok, Preface to Bartók, Béla, *Mikrokosmos: 153 Progressive Piano Pieces*

¹⁴ Ibid.

There are exercises in an appendix to each of the first books for certain problems students may encounter. Bartok suggests teachers should choose them based on the students' skill and need, and these exercises should be studied in advance of learning the pieces in *Mikrokosmos* with related challenges. The numbers in parentheses, next to each exercise, specify the pieces and technical/musical issues with which the exercise connects. For example, anticipating that most beginner-level students will feel less comfortable playing non-stepwise motion, Bartok designed the first exercise in the appendix to address this issue for the first piece that contains this concept (No. 18–21 *Four Unison Melodies*).



Example 1.4. *Mikrokosmos* appendix exercise No. 1-a.

This concept, interestingly, is used similarly in Brahms 51 exercises. For instance, exercise No. 29 is the preparatory exercise for Variation 11, from his *Variation on a Theme of Paganini*, Op. 35 book. 2.



Example 1.5. Brahms 51 exercises No. 29, mm. 1–2.



Example 1.6. Brahms *Variation on a Theme of Paganini*, Op. 35 book. 2 Variation 11, mm. 1–2.

I believe that this approach to providing preparatory drills for pieces is extraordinarily helpful, especially for young students.¹⁵

Knowing that each student is unique and needs a different pace to develop, Bartok reminds us in the preface that, “The progressive sequence of the pieces and exercises as to technical and musical difficulty is only an approximation; the teacher may modify the given order

¹⁵ From my teaching experience, while facing complex pieces, students often lose attention or feel frustrated rapidly, or a combination of the two. Beginning with simplified exercises can help students to build confidence and understand concepts in a manageable way.

taking account, as appropriate, of the student's ability.”¹⁶ Bartok encourages students to regard metronome markings, tempos, and duration only as a guide.¹⁷ In *Mikrokosmos*— “a world of the little ones, the children”—Bartok indeed provides a wonderful life and music lesson by promoting learning that is individual, flexible, and gently progressive!¹⁸

In line with Bartok’s comprehensive approach to musicianship in piano/keyboard training, Bartok additionally includes pieces in *Mikrokosmos* that develop ensemble ability and collaborative skills.

It is evident that Bartok believes students will significantly benefit from ensemble playing at the earliest possible stage. He thus includes four two-piano pieces—No. 43, 44, 55, and 68, and four songs with piano accompaniment—No. 65, 74, 95, and 127.¹⁹ Each of these ensemble pieces promotes student learning from the standpoint of developing aural skills (playing while listening to another player), and vision and music reading (tracking multiple staves simultaneously.)

The breadth of Bartok’s approach is further reflected in his advice to integrate *Mikrokosmos* study with learning material from other sources. After learning the first 3 volumes in the early years of studying, Bartok advised students to work on volumes 4–6 in conjunction with other compositions (such as *Notebook for Anna Magdalena Bach*, some relevant studies by

¹⁶ Ibid.

¹⁷ I personally feel grateful for his permission. As I taught these pieces, I noticed that some students may need an assigned tempo as they do not have opinions or preferences, and others may prefer to play the pieces at a certain pace differently than the suggested tempo.

¹⁸ In no. 40 *In Yugoslav Style*, the quarter note = 120 is suggested. Several years ago, I taught an 11-year-old student this piece and she preferred playing it at this swift tempo. However, a few months later, I taught the same piece to her younger brother, and surprisingly, he insisted on playing in a tempo of about quarter note = 96, even though he had heard his sister's play the piece at her tempo many times. In general, I believe that students’ choosing their own tempo is a positive pedagogic approach: for younger students, a slower tempo may help them to control their fingers better and focus on play musically as they can listen to the details easily under this tempo; while on the other hand, for older students, a faster tempo may be favored, since they have the sufficient ability to execute while listening musical details comfortably and building flowing phrases with care.

¹⁹ Ibid.

Czerny, and other intermediate-level works).²⁰ Similar to the Russian piano school and many other piano methods,²¹ Bartok suggests transposing easier pieces and exercises into other keys. An example of this is when Bartok encouraged students to transcribe proper pieces from volumes 1–3 nevertheless only strict transcription is advised.²²

In *Mikrokosmos*, there are 6 volumes in an order of progressive difficulty, and the first 3 volumes include pieces covering basic musical concepts. Here is a summary of each volume of *Mikrokosmos*:

Volume 1:

This volume includes 36 pieces with 4 exercises in the appendix. Five-finger patterns are mostly used so the students will not feel overwhelmed by hand—shifts and stretches. The pieces in this volume are mainly in unison. Bartok does add simple two-voice counterpoint, (including pieces with canons and imitation) which can help students develop listening and finger independence. Different time signatures are widely used, and modal harmonies are introduced.

Volume 2:

This volume includes 30 pieces with 14 exercises in the appendix. Differing from volume 1, (which helps students to learn to read a score), it emphasizes pianistic technique development including performing legato, staccato, ostinato, trills, sustained notes, chromatic scales and pedal use. We find more complex rhythms compared to volume 1, such as 8th notes, and triplets. Along with piano solo, various settings, other than piano solo setting, are offered, such as 2 piano pieces or vocal pieces with piano accompaniment. Bartok also introduces a challenging key for finger patterns—D flat major with 5 flats (No. 51)

²⁰ Ibid.

²¹ Berman, Boris, *Notes from the Pianist's Bench*. New Haven: Yale University Press, 2002, 58.

²² Peter Bartok, Preface to Bartók, Béla, *Mikrokosmos: 153 Progressive Piano Pieces*

Volume 3:

This volume includes 30 pieces with 13 exercises in the appendix. Assuming the student's hands are bigger and more flexible after studying the first 2 books, exercises with chords and double notes are introduced. Textures are developed into 3 and 4 voice settings. 16th notes, triplets, and other difficult rhythms (such as syncopations) are commonly used. It is noteworthy that in piece No.100, the time signature is changed within the work, so that students can experience transitions to different metric patterns. Additionally, different forms such as variation, scherzo, and invention are introduced to students.

Volume 4:

This volume includes 25 pieces with 3 exercises in the appendix. More piano techniques are introduced such as crossing fingers, hand-crossing technique, overtones (with keys are silently pressed down so that the same notes in a different tone register can be heard), and sostenuto pedal use. Bartok introduces various styles and titles, such as *notturmo*, *folksong*, *intermezzo*, *bourree*, and *Bulgarian dances*. Striking harmonic dissonances can be found in this volume which are presented in a percussive and direct manner.

Volume 5

This volume includes 18 pieces with no exercise in the appendix. This volume as well as the next one are intended for use as concert pieces. More advanced piano techniques are employed, including fast double notes and chords with different positions. Pianists need to have excellent coordination and control to precisely execute all the details in the pieces. Advanced musical concepts are broadly used, such as the whole-tone scale, syncopation, and frequent time signature change.

Volume 6

This final volume includes 14 pieces with no exercises in the appendix. The length of each piece is longer, and structures are more complex than material in earlier volumes. Difficult techniques

utilizing arpeggio passagework, and configurations with the intervals of a 2nd, 7th, and octave, are widely used.

The authoritative *New Definitive Version* from Boosey & Hawkes, and two other more recent Urtext editions from Henle Verlag and Wiener Urtext Edition, are the most widely used editions. Peter Bartok is credited for the New Definitive Version—a six volume set published in 1994. This is a reliable edition with Peter's forward about the origin of the work and two-family photographs of him as a little boy with his father. In 2016, the Wiener Urtext edition was released. This edition, edited by Michael Kube and Jochen Reutter, features Bartok's own fingering and notes on study and interpretation by scholar Peter Roggenkamp. Differing from the previous edition, this edition is organized in 3 volumes rather than 6. This edition includes additional pieces that the previous edition does not offer, such as the early version of pieces which are revised later, pieces which are exclusively revised for Peter Bartok, and several other earlier unpublished pieces. Finally, G. Henle Verlag published a recent edition in 2017 that is also in 3 not 6 volumes. It includes a preface by editor Yusuke Nakahara and the original preface by Bartok. All 3 editions are equally strong from a scholarly perspective without any apparent editing errors. The most significant difference between these editions is the preface and the notes by the different editors and scholars.

Chapter 2: COMPOSITIONAL FEATURES OF

MIKROKOSMOS

1. Tonality

In 1943, Bartok presented a series of lectures at Harvard University featuring the importance of the modes and polymodality, contemporary compositional techniques, and prominent characteristics of the “New” Hungarian art music.¹ In the lectures, he talked about the genesis of the “New” music.

Bartok said: “So, the start for the creation of the ‘New’ Hungarian art music was given, first, by a thorough knowledge of the devices of old and contemporary Western art music: for the technique of composition; and second, by the newly discovered Hungarian rural music—material of incomparable beauty and perfection: for the spirit of our works to be created. Scores of aspects could be distinguished and quoted in regard to the influence exerted on us by this material: for instance, tonality, melody, rhythm, and even structural influence.”² Bartok’s musical aesthetic thus is a synthesis and blend of traditional art music and folk elements from his country.

Bartok began to investigate peasant music in the villages of Hungary in 1906 with fellow composer, Zoltan Kodaly, and he discovered with surprise that most folk melodies were based on the modes of Middle Ages art music.³ It was with this awareness that Bartok incorporated mode scales and harmonies in his music, and in *Mikrokosmos*, various tonalities and modes, which contribute to the diversity and educational value of the collection, are explored.

Harkening back to traditional European art music, Bartok provide students with a solid

¹ Benjamin Suchoff, *Bartok’s Mikrokosmos: Genesis, Pedagogy, and Style*. Lanham, Md.: Scarecrow Press, 2002, 111.

² Ibid.

³ Ibid.

foundation in tonal harmony. Traditional major and minor keys are still found in the collection—though often used innovatively.

No. 29 *Imitation Reflected*, is a stretto canon with both hands moving in contrary motion. The upper part of A melodic minor scale creates a pentachord (E–F sharp–G sharp–A–B) in the right hand, in juxtaposition to the lower part of the A minor scale in the left hand (A–B–C–D–E): E operates as the common note which connects both tone rows.

The image shows a musical score for Mikrokosmos No. 29, *Imitation Reflected*. It consists of three systems of piano music in 4/4 time, with a tempo marking of quarter note = 112. The first system (measures 1-6) shows the right hand playing the upper part of the A melodic minor scale (E, F#, G#, A, B) and the left hand playing the lower part of the A minor scale (A, B, C, D, E). The second system (measures 7-10) continues this pattern. The third system (measures 11-14) concludes the piece. The score is written in a standard piano format with treble and bass clefs.

Example 2.1. Mikrokosmos No. 29 *Imitation Reflected*.

No. 112 *Variations on a Folk Tune*, has a diatonic subject in C major which is a variant of a Slovak melody collected by Bartok in Northern Hungary (now Slovakia) in 1915.⁴ In mm. 1–2 of the fourth variation (*un poco meno mosso*), the opening 4 notes, C–D–E–F transform into the

⁴ Ibid., 137.

first four degrees of a chromatic tetrachord, B–C–C sharp–D in the mm.31–32, with the technique of chromatic compression, a common Baroque contrapuntal device.⁵



Example 2.2. *Mikrokosmos* No. 112 *Variations on a Folk Tune*, mm. 1–2.



Example 2.3. *Mikrokosmos* No. 112 *Variations on a Folk Tune*, mm. 31–32.

The modal sonority is widely applied throughout *Mikrokosmos* in simple, and also extremely complex ways. The use of modes offers different tone colors and harmonic contexts for students to explore. Within the example of No. 32 *In Dorian Mode*, Bartok introduces Dorian Mode, the so-called ecclesiastical mode,⁶ in a simple and clever manner. He seeks to familiarize students with the Dorian mode by using the scale degrees 1(D) and 5(A). These two important

⁵ Ibid.

⁶ Suchoff, *Guide to Bartok Mikrokosmos*, 32.

tones in the mode are emphasized in half notes found in the first phrase. At the end of the piece, Bartok used the Picardy Third, perhaps yet another reference to Bach.

Lento ♩ = 104

The image displays a musical score for Mikrokosmos No. 32 in Dorian Mode. It consists of four systems of piano music, each with a treble and bass clef. The tempo is marked 'Lento' with a quarter note equal to 104. The key signature is one sharp (F#), and the time signature is 3/2. The score shows a melodic line in the right hand and a harmonic accompaniment in the left hand. The piece concludes with a Picardy Third, indicated by a sharp sign and the number 8 in a circle at the end of the final system.

Example 2.4. *Mikrokosmos No. 32 In Dorian Mode.*

In No. 66 *Melody Divided* from volume 2, Bartok uses modal harmonies in a more sophisticated way. Bartok selects a pentatonic scale (E–G–A–B–D) from the G–Lydian mode (G–A–B–C sharp–D–E–F) to construct the melody. Different tetrachords from the modal degrees are used: G–Lydian in the first section, E minor in the second, D–Lydian in the third, and C–Lydian in the fourth. In the end, there is an astonishing postlude where we find a fascinating sound effect

created by the polymodal juxtaposition of E–Phrygian and G–Lydian tetrachords.⁷

Pentatonic and whole–tone sonorities are also frequently used in *Mikrokosmos*. These scales have distinct tonal qualities and represent substantial material for developing aural skills and improvisational artistry. Bartok explained pentatonic as follows: “The scientific name is ‘anhemitone-pentatonic’, which means a scale of five degrees without any semitone, or a minor scale where the second and sixth are missing.”⁸ In Asia, the pentatonic scale is used in all types of music, even popular styles.⁹

No. 61 *Pentatonic Melody* is, per its title, an example of the use of pentatonic compositional techniques. The melody begins with the right hand playing the pentatonic scale, E–

⁷ Suchoff, *Bartok's Mikrokosmos*, 129.

⁸ Suchoff, *Guide to Bartok Mikrokosmos*, 55.

⁹ Jay Chou, a contemporary Taiwanese super idol, has mixed and performs pentatonic harmony with pop music structures successfully, such as *Dong-Feng-Po*, and *Chrysanthemum Terrace* among others.

G–A–B–D, and emerges in the left hand with the same melody line in m. 18. Bartok marks the melody with *forte in rilievo* to help students identify and track it.

The image shows a musical score for Mikrokosmos No. 61, titled "Pentatonic Melody". The score is in 2/4 time and marked "Moderato". It consists of three systems of music, each with a right-hand staff and a left-hand staff. The right-hand staff contains a pentatonic melody, and the left-hand staff contains a rhythmic accompaniment. The melody is marked "in rilievo" starting at measure 18. The score is numbered 9 and 14 at the beginning of the second and third systems, respectively.

Example 2.5. Mikrokosmos No. 61 Pentatonic Melody mm. 1–19.

Bartok extensively utilized whole-tone scales in *Mikrokosmos*, in effect paying homage to their frequent use in 21st-century music.¹⁰

Lacking a leading tone and having the same interval between all tones, the whole-tone scale has a special blurred and misty effect. As the title suggests, No. 136 *Whole-Tone Scale*, is designed to help students connect to and understand the concept. The whole-tone scales of A and C are in juxtaposition, and this method creates a rich sonority and special color. Additionally, Bartok challenges students to work on their touch for achieving the legato and expressive sound

¹⁰ such as Debussy, whom Bartok admired greatly. Several of his works, such as No. 7th movement of *Improvisations on Hungarian Peasant Songs* op. 20, which is dedicated to Debussy), applied massive whole tone scale sound effect in *Mikrokosmos*.

required to play this marvelous piece.

Polymodal chromaticism, which was invented and developed by Bartok, is the superposition of two modes with a common fundamental tone, in which the chromaticized degrees have “absolutely no chordal function; on the contrary, they have a diatonic–melodic function.”¹¹

In No. 70 *Melody against Double Notes*, Polymodal Chromaticism is used with the upper voice in the key signature of 5 sharps and the lower voice in a key signature without accidentals. This setting reflects a half sentimental and expressive mood in the melody and humorous half joking music in the accompaniment. The combined tonality is based on D–E–F sharp–G sharp–A–B–C sharp/D–E–F–G–A–A sharp–C, the D–Lydian/Aeolian decatonic scale (10–note scale).

The image shows a musical score for Mikrokosmos No. 70, 'Melody against Double Notes', measures 1-9. The score is in 3/4 time, marked 'Adagio' with a tempo of 66. It features a melody in the upper voice (treble clef) and a double-note accompaniment in the lower voice (bass clef). The key signature is five sharps (F#, C#, G#, C#, F#). The melody starts with a forte (f) dynamic, while the accompaniment starts with a piano (p) dynamic. The score shows the first two systems of music, with the second system starting at measure 5.

Example 2.6. *Mikrokosmos* No. 70 *Melody against Double Notes* mm. 1–9.

Mikrokosmos is thus a valuable resource for musicians, not only because of its technical studies, but because it also helps inculcate students with a universal range of tonal vocabulary and related experiences. Bartok clearly felt that diversity assists students in developing a well–

¹¹ Suchoff, Bartok's *Mikrokosmos*, 115.

rounded understanding of music concepts and listening, preparing them for the comprehensive exploration of contemporary music beyond the collection.

2. Melody

The influence of Folksong in his music can be found throughout Bartok's career, stemming from fieldwork and his first ten monophonic *Folksongs in Hungarian Villages*, published in 1906. One of Bartok's lifelong commitments was to introduce audiences to indigenous folk songs. To achieve this goal, Bartok believed it is necessary to make modifications of rural folk songs to make them presentable to people in more traditional musical forms and settings. He said: "It is therefore necessary to select the very best songs for adaptation to general taste and provide them with appropriate treatment. When folk songs are brought from their rustic surroundings into town, proper musical attire is needed.... Be it adapted for singing or piano, the accompaniment must attempt to make up for the lost meadow and village."¹²

There are compelling features of Bartok's "urbanization" of folk material. Unlike traditional Western music, Bartok's melodies often have irregular meter structure. In No. 15 *Village Song*, the bar structure is arranged in an astonishing manner 3+3+2+2+3 bars in triple and

¹² Suchoff, Bartok's *Mikrokosmos*, 114.

then duple meter, which can similarly be found in a melody from Bartok's Slovak folksong collection.¹³

Example 2.7. *Mikrokosmos* No. 15 *Village Song*.

Example 2.8. Melody from Slovak folksong collection.

Both melodies have 4 isometric melody sections, and each section is six-syllables (or six notes). The 3rd section of *Village Song* has a double unit because it contains 2 metrically equal parts. With this device, the phrase structure is in a design of 6,6,6+6,6. To fully understand this exceptional design, I discovered that it is extremely helpful to make up lyrics for the melody with students. They can appreciate and encompass this profound phrase structure in a more accessible

¹³ Ibid., 124.

manner.¹⁴

Numerous Bartok's melodies feature a recurring system in which a principal tone is repeatedly recycled. No. 100 *In Folk Song Style*, as an example of this where the melody (mm. 1–3) consists of three A's that function as a primary note.



Example 2.9. *Mikrokosmos* No. 100 *In Folk Song Style* mm. 1–3.

This note is repeated with increasingly augmented time values (8th note–dotted 8th note–quarter note), that fits skillfully in the irregular 5/8 meter. The melody modulates twice to a different key area for the upper voice and follows a similar phrase design for the lower voice.

Similar to his colleague Kodaly's method, Bartok emphasizes the importance of singing in *Mikrokosmos*. He believes learning music through the experience of performing vocal-type lines on the keyboard is an effective way for understanding music. This is especially evident in his writing in *Mikrokosmos* for younger students, where Bartok creates vocal-like melodies.

One way that Bartok affects this is by using repeated pitches to articulate the musical equivalent of different syllables. Melodies in *Mikrokosmos* frequently contain repeated notes. We can also find this feature in folksong which often contains a melody with repeated notes for

¹⁴ Ibid.

different syllables. In No. 112 *Variations on a Folk Tune*, for instance, the melody is 8 measures long, starting with an ascending motif C–D–E, and arrives at the highest pitch F. The F is repeated three times following the descending movement of the previous motif, F–E–D. This pattern is repeated sequentially in a different key, and arrives at a cadence in m. 7 before forming a cyclic phrase finishing with the beginning note C. It is advised to play these repeated notes with a different touch to make the repeated note motif more vigorous. The repeated notes outline a melodic line, F–E–D–C, which can be understood as *Ursatz* (fundamental structure) in Schenkerian analysis, a theoretical approach emphasizing the study of melodies.



Example 2.10 *Mikrokosmos* No. 112 *Variations on a Folk Tune*, mm. 1–8.

Additionally, other vocal characteristics in *Mikrokosmos* are the relatively limited pitch range used as well as very high tones (Typically, it makes young kids uncomfortable to frequently sing high pitches or perform wide intervallic leaps). It is not surprising, given Bartok's fascination with folk songs, that we find the prevalent influence of folk music in his melodies. In contrast to operatic arias, folksong melodies often contain limited pitch range. The pieces in *Mikrokosmos* do contain some high notes but do so with smooth stepwise melodic movement. The melody of No. 116 *Song* (mm. 8–15), includes several singer-friendly scale-like motives following the longer-note motives (e.g., m. 9 C–A–F sharp). (This scale-like vocalized line helps singers sing with less tension, since they usually feel more comfortable with scale-like motives.) The peak note C only appears once in m. 9, and the melodic line drops gradually and finishes at G in the bass clef in m. 15. Throughout the entire melody, the intervals of 2nd and 3rd are

predominantly used in the phrase with the only exception, the 4th between G and C in m. 8–9, illuminating the remarkable following peak note C. This exercise serves as an example for how Bartok utilizes a wide range of song elements in *Mikrokosmos*—for the broader purpose of helping pianists develop their technique and a sense of horizontal movements and linear line.

Example 2.11 *Mikrokosmos* No. 116 *Song*, mm. 8–15.

In summation, the melodic features in *Mikrokosmos* are diverse, stylistically broad, and carefully designed to help students gradually progress with their piano skills (such as legato) and musical understanding.

3. Rhythm

Similar to its influence tonal and melodic factors, folk music of Eastern Europe has a substantial impact on rhythm in *Mikrokosmos*. Probably the most distinguishing rhythmic element that Bartok derived from folk music are “Polyglot” rhythms, the so-called Hungarian dotted rhythm in syncopated patterns.¹⁵ For instance, No. 95 *Song of the Fox*, expresses this exceptional Polyglot rhythm. The 2-measure rhythmic motive begins with a syncopated dotted

¹⁵ Suchoff, Bartok’s *Mikrokosmos*, 115.

rhythmic pattern (an 8th note follows a dotted half note), and a combined figure of the reverse and original rhythmic pattern can be found in the second half of the first measure. Bartok comments: “Good study in syncopated rhythm. Simple melody made interesting by variety in harmony and changes in tempo.”¹⁶ This rhythmic pattern has a connection with Hungarian language, as we can find the similar expression in the language.



Example 2.12. *Mikrokosmos* No. 95, example of Polyglot rhythm from mm. 1–2.

Based on the studies of distinguished Bartok scholar, Benjamin Suchoff, Bartok uses syncopation patterns in more than 40 percent of *Mikrokosmos*. Suchoff, additionally reports that more than 636 different types of syncopation figures can be found in the work.¹⁷ Syncopation is a concept in which rhythmic accents take place at unexpected places to create an interruption of musical flow. No. 122 *Chords Together and Opposed*, is an example of an advanced syncopation

¹⁶ From my teaching experience, many students are struggling with staggered dotted rhythmic patterns. I discovered that being aware of the legato which begins with the second half of the measure helps students execute this tricky rhythm successfully. Students should go “in” the D (the 3rd note in the measure) since that is the center of gravity of the phrase. It is recommended to play the first two notes “up” and light to prepare the following longer motive (from D ascending to A).

¹⁷ Suchoff, *Guide to Bartok Mikrokosmos*, 7.

exercise. From m. 4, there are 3 consecutive measures beginning with the 8th rest belying the traditional presence of a downbeat to create subsequent off-beat syncopated emphasis.

The image shows a musical score for three measures of a piece. The title is "Molto Vivace" with a tempo marking of a quarter note equal to 160. The music is in 2/4 time and has a key signature of one sharp (F#). The score is written for piano, with a treble clef on the upper staff and a bass clef on the lower staff. The right hand (treble clef) starts with a quarter rest, followed by eighth notes and chords. The left hand (bass clef) starts with a quarter rest, followed by eighth notes and chords. The three measures show a syncopated rhythm in the right hand, where the first note of each measure is on the off-beat.

Example 2.13. *Mikrokosmos* No. 122 *Chords Together and Opposed* mm. 4–6.

Bartok also integrates the previously mentioned contrapuntal technique with strong emphasis on different rhythms. This is evident in No. 22 *Imitation and Counterpoint*, where Bartok employs two voices in unison for the first 12 measures, and starting from m. 13, canonically begins a new texture with the upper voice imitating the lower voice a measure later.

This pedagogically creates a coordination challenge for the students and trains them to develop hand independence.

The image shows a musical score for Mikrokosmos No. 22, 'Imitation and Counterpoint'. It is written for piano in 4/4 time. The tempo is marked as quarter note = 136. The score is divided into three systems, each with two staves. The first system begins with a forte (f) dynamic. The music is characterized by intricate rhythmic patterns and hand independence, with various note values and rests in both hands.

Example 2.14. *Mikrokosmos* No. 22 *Imitation and Counterpoint*.

Another rhythmic feature of *Mikrokosmos* is the frequent use of metrical changes. Unlike other conventional piano methods, the initial piece with a time signature change appears relatively early in the six-volume set—No. 12 *Reflection*, from the first volume. It is composed with the time signatures of 2/2 and 3/2, and the change of time takes place at m. 15, close to the

end of the piece.¹⁸

The image shows a musical score for Mikrokosmos No. 12 Reflection. It consists of three systems of piano music, each with a treble and bass staff. The tempo is marked as quarter note = 100. The key signature changes from 3/8 to 2/2. The score is written in a simple, rhythmic style with many slurs and ties.

Example 2.15. Mikrokosmos No. 12 Reflection.

Another more complex and difficult example of the use of metrical changes is No. 40 *Free Variations*. The piece has 37–time changes, including 3/8, 4/8, 5/8, 6/8, 7/8, 8/8, 9/8, and 2/4 meters with the use of tempo expressions such as *Il doppio piu lento* (twice as slow) and *Stretto* (quicker). Both factors contribute to the extremely difficult rhythmic challenges presented to pianists. In Bartok’s view, students need to develop a strong pulse and a full understanding of every time signature used to precisely perform all the requirements, including change of mood and tempo in this technically demanding masterpiece.

Bartok also used various additive or irregular rhythms, also inspired by folk music. No. 48 *In Mixolydian Mode*, is written in 5/4 which can be grouped in 2+3 bar groupings (m. 3), 3+2

¹⁸ It is recommended to explain the concept of meter and the difference between duple and triple before studying this piece.

(m. 4), 2+2+1 (m. 5) 1+4 (m. 7), and 4+1 (m. 11). Students can fully appreciate the versatile character of 5/4 meter by studying this piece carefully. The other more sophisticated example of additive rhythm is No. 152, the 5th piece in the *Six Dances in Bulgarian Rhythm* group from volume 6. The time signature is in 2+2+2+3/8, which appears in 3 basic rhythm schemata: schemata 1 (e.g., upper voice in m. 1), schemata 2 (e.g., lower voice in m. 1), and schemata 3 (e.g., upper voice in m. 27).



Example 2.16. *Mikrokosmos* No. 152 m. 1.



Example 2.17. *Mikrokosmos* No. 152, upper voice, m. 27.

The piece can be analyzed as structured in ABCA form. The A section has a symmetrical bar plan, 4+2+4. It serves as a wonderful exercise and study for appreciating the musical depth provided by additive rhythm.

Polyrhythm, frequently utilized by 20th and 21st century composers, is also explored substantially in *Mikrokosmos*. It is often referred to as cross-rhythm and its definition is the

coincidence of multiple contrasting rhythms with simultaneous use. Near the end of No. 97

Notturmo, Bartok uses polyrhythms in the upper voice in 3 and the other in 2.

The image shows a musical score for Mikrokosmos No. 97, Notturmo, measure 35. The tempo is marked 'Adagio'. The music is in 6/8 time. The upper voice (treble clef) features a melody of quarter notes with a 3-beat rhythmic pattern. The lower voice (bass clef) features a melody of quarter notes with a 2-beat rhythmic pattern, indicated by a '2' above the notes.

Example 2.18. *Mikrokosmos* No. 97 *Notturmo* m. 35.

The other more intricate example is the No. 138 *Bagpipe*, where the accompaniment involves a drone-like pattern (e.g. mm. 1–3.) with the syncopated melodic intervals creating an effect in 3/8 while the melody is metrically in 2/4. Bartok clearly felt that studying the *Mikrokosmos* pieces with Polyrhythm is important for developing students' coordination and sense of timing.

The image shows a musical score for Mikrokosmos No. 138, Bagpipe, measures 1-3. The tempo is marked 'Allegretto' with a tempo of quarter note = 132. The music is in 2/4 time. The upper voice (treble clef) features a melody of quarter notes with a 3-beat rhythmic pattern. The lower voice (bass clef) features a melody of quarter notes with a 2-beat rhythmic pattern.

Example 2.19. *Mikrokosmos* No. 138 *Bagpipe*, mm. 1–3.

Overall, *Mikrokosmos* is a rich resource for musicians to grow rhythmic skills and focus on the importance of related pianistic issues. It offers a universal and progressive system, making it a precious pedagogical asset for pianists of all levels.

4. Form

Just like our universe, *Mikrokosmos* does not limit itself to a regular system, in other words, we can find various forms in the cycle. It can be as simple as the strophic form which we find in volume 1, or the more complicated structure, such as rounded binary form in the later volumes—a form with two sections which often involving contrasting character between sections.

As discussed above, Bartok's music mostly reflects the influence of folk music that he discovered in Hungary, Romania, Slovakia, and Yugoslavia. Thus, most of the melodies and their related forms are associated with their original source from these nationalities. For instance, No. 15 *Village Song*, is in a quaternary structure, a four-part phrase structure with an isometric design, identical to a melody in Bartok's *Slovak Folksong* Collection.¹⁹

¹⁹ Suchoff, Bartok's *Mikrokosmos*, 124.

The image shows the first eight measures of a piano piece in 4/4 time, marked with a tempo of quarter note = 124. The key signature has one sharp (F#). The score is written for piano with treble and bass staves. Measures 1-4 show a simple melody in the right hand and a bass line in the left hand. Measures 5-8 continue the piece with some rests and melodic development.

Example 2.20. *Mikrokosmos* No. 15 *Village Song*.

The image shows a melody in 2/4 time, marked 'Tempo giusto'. The key signature has two flats (Bb, Eb). The score is written on a single treble staff. Measures 1-7 show a simple, folk-like melody with some rests.

Example 2.21. Melody from the *Slovak Folksong* Collection.

The following forms are broadly used in *Mikrokosmos*: architectonic (or rounded form which the material from the first section returns after the second section, such as ABA), non–architectonic (non–rounded form), free form, and other popular forms such as variation and rondo.²⁰

One of the commonly used architectonic structures is the AABA form which can be found in No. 12 *Reflection*. The first phrase (A) is four measures long with scale–like motion between the pitches A and D, and the second phrase (A) is similar to the previous one with the

²⁰ Suchoff, *Guide to Bartok Mikrokosmos*, 10.

expansion to pitch G. The third phrase (B) has a different idea which is a repeated “turn” ornament motive(C–B–A–B). The last phrase is an extended phrase A by alternating the ending with the meter change.

Bartok is fascinated with this architectonic form, or the rounded form, and he used this structure in some of his larger-scale works. For instance, all three movements of his 2nd Piano Concerto are in this form, and the overall form of the entire concerto is also symmetrical with the tempo organization being fast–slow–fast–slow–fast. I believe that this form helps composer organize their ideas effectively and provides them with an expensive template to utilize.

Bartok also used the non-architectonic forms broadly and various structures he employs can be found in the set. No. 53 *In Transylvanian Style*. Here he utilizes the AABB form which contains two contrasting phrases, A (mm. 1–8), and B (mm. 17–24). Each phrase is followed by its varied replica passage in a different register. Another example of the non-architectonic form is No. 79. The form for this piece is AABC. In the design, each section is 4 measures long, except for the last section which has an extra note G sharp in right hand.

The no-architectonic form is freely utilized by Bartok. An example is No. 86 *Two Major Pentachords*. This is a piece in ABCD form with the design that juxtaposes the upper voice in C (C–D–E–F–G) and the lower in F sharp (F sharp–G sharp–A sharp–B–C sharp). The A section is 8 measures long with a melodic motive (mm. 1–4) and a retrograde of the previous melodic motive (mm. 5–8). The B section is from mm. 9–18 and has a more flowing character. The C section, starting from m. 19, accumulates the tension by an 8-measure long crescendo and repeated accents to prepare the final section—which serves as a postlude (mm. 27–36) and finishes with the cadential Lydian tetrachord.

An essential element of Hungarian music is improvisation (the core feature of Gypsy music), a Romani-oriented style that was originally from the greater Hungarian region. In *Mikrokosmos*, several pieces are written in free form with an improvisatory treatment. No. 102 is an innovative example of this type of free form. The melody is in a recitative style and the

accompaniment is an overtone (resonance created by pressing down keys without sounding) which creates an interesting effect reflecting No. 102's improvisatory character.²¹

From the later volumes, variation, rondo, and other major forms can also be found in *Mikrokosmos* as Bartok clearly feels that students have gained the capacity to handle larger forms. No. 87, 112, 133, and 147 are examples of how Bartok deals with the variation form. The ternary form can be found in No. 91, 132, and 153 and the more progressive Rondo-Variation is utilized in No. 138, 140, 141, and 151.

Generally speaking, *Mikrokosmos* provides students with a diverse and extensive array of musical forms and structures to explore. Bartok's approach provides students with a gradual and progressive platform to digest different formal concepts as they make their way through the cycle.

²¹ I was teaching this piece to one of my students several years ago, and my student was struggling with memorization because of the irregularity of the structure. After working with that student diligently, I figured out two things that can help students address the memorization issue. Firstly, fully understanding each main change of harmony can assist them in recognizing the structure effectively. Secondly, making up an imaginary story, even with text as Bartok did for No. 95 Song of Fox, is another helpful way for them, especially for the younger ones. These two tips may aid students in memorizing pieces that are not linked with strict form structures.

Chapter 3: BARTOK'S APPROACH TO PIANO TECHNIQUE IN

MIKROKOSMOS

Bartok's Proficiency as a Pianist

Bartok was not only a significant composer but also a highly skilled and accomplished pianist who truly understood piano technique. He studied piano with Istvan Thoman, a former student of Franz Liszt, and was a top-rated student at the Royal Academy of Music in Budapest. Bartok met Zoltan Kodaly there, who was to become a life-long friend and colleague. Based on Bartok's own article in 1921, which is an autobiography about his musical journey to become a composer and a pianist, he was considered a first-class pianist at the Academy, and later he was appointed as chair of the piano department at the Academy of Music in Budapest.¹

Bartok's Recordings of his own Piano works

Bartok recorded many of his own piano works including selections from *Mikrokosmos*.² From recordings, one can hear that his playing is extraordinarily precise with a great attention to detail. His performance style is analogous and reflective of his teaching style. As his student Erno Balogh recalled: "these recordings are invaluable resources for those who want to comprehend his ideas."³

Bartok's Focus on Finger Touch

From the recordings, an essential character of Bartok's playing is possessing a versatile piano touch for producing a wide variety of sounds. Therefore, the pieces in *Mikrokosmos* are

¹ Bartók, *A Memorial Review*, 8–9.

² Bartók, *A Memorial Review*, 77.

³ Malcolm Gillies, *Bartók Remembered*. 1st American ed. New York, N.Y.: W.W. Norton, 1991, 45.

designed to assist students in progressively learning how to gain precise finger control of the sophisticated nuance necessary for performing his piano works.

Less Focus on Scales, Arpeggios and Other Conventional Piano Technique Development

Unlike other piano methods, *Mikrokosmos* does not focus on scales, arpeggios, and other conventional piano techniques. In fact, Bartok seems to apply those concepts less frequently compared to other contemporary composers, such as Rachmaninoff. Bartok explicitly points out in the preface of *Mikrokosmos* that students should embrace other substantial works for developing their playing in this regard, such as *Notebook for Anna Magdalena Bach* by J. S. Bach, and appropriate studies by Czerny.⁴ He recognized the practical result of those works, such as understanding the fundamental counterpoint principles and mastering the finger dexterity.

Progressive Approach and Developing Self Awareness

Bartok's approach in *Mikrokosmos* does encourage students to acquire a knowledge of musical concepts, such as intervals, chords, scales, and many others at a gradual progressive pace. The subtlety and complexities of *Mikrokosmos* are also gradually illuminated. The Series begins with simpler content, such as a stepwise melody in unison, providing space for students to simultaneously develop physical and mental self-awareness. Bartok later guides students to gradually advance to more complex music with sophisticated textures and multiple details in each voice.

I will further discuss and illuminate this unique progressive process through examining and discussing technical aspects of Bartok's approach: fingering, articulation, and hand independence.

⁴ Bartok, Preface to Bartók, Béla, *Mikrokosmos: 153 Progressive Piano Pieces*

1. Fingering

Bartok believes pianists should operate with flexible hands to adapt to the irregularity of piano topography. At the beginning of the method, Bartok guides students to play black keys with second or third finger. No. 8 *Repetition (1)*, challenges beginning piano students in this way while introducing the issue of hand position change. The first phrase is E position with right hand 2nd finger/ left hand 4th finger on the F sharp while the second one is D position with 3rd finger (both hands) on the F sharp.

The image shows the musical score for Mikrokosmos No. 8 Repetition (1). It is written in 4/4 time with a tempo marking of quarter note = 128. The key signature has one sharp (F#). The score is divided into three systems of two staves each (treble and bass clef). The first system (measures 1-7) features a right-hand melody with a slur over measures 2-4 and a fingering of 2 above the notes. The left hand has a bass line with a slur over measures 2-4 and a fingering of 4 below the notes. The second system (measures 8-11) shows the right hand with a slur over measures 9-11 and a fingering of 3 above the notes. The left hand has a slur over measures 9-11 and a fingering of 3 below the notes. The third system (measures 12-15) shows the right hand with a slur over measures 12-14 and a fingering of 3 above the notes. The left hand has a slur over measures 12-14 and a fingering of 3 below the notes. The piece ends with a double bar line at measure 15.

Example 3.1. *Mikrokosmos No. 8 Repetition (1)*.

No. 17 *Contrary Motion (1)*, is another example of *Mikrokosmos* material that develops hand flexibility as well as reaching black keys. The lower voice in this piece has two positions, both of which require playing the black key with the 5th finger. Students are led to place their

hands forward to the lid as well as shift gently in different positions with the wrist.

The image shows a musical score for Mikrokosmos No. 17 Contrary Motion (1). The score is in 3/4 time with a tempo marking of quarter note = 96. It consists of two systems of piano music. The first system has 8 measures, and the second system starts at measure 9 and has 4 measures. The music features contrary motion between the hands, with various fingering indications (2, 5) and slurs.

Example 3.2. *Mikrokosmos* No. 17 Contrary Motion (1).

The technique of turning fingers, involving the thumb movement (such as crossing a finger over thumb or thumb passing under hand), is an important pianistic technique. Compared to other methods, this technique (changing into the new hand position) is introduced relatively late in the Series with No. 98 *Thumbs Under* in volume 4. This piece necessitates both upward and downward motions of the wrist created by the passing of the thumb.

Mikrokosmos provides many instances of Bartok's insight about playing double notes with different techniques. For instance, No. 134 *Studies in Double Notes*, provides a marvelous preparatory study for fast double-note playing. Bartok suggests that students should practice it in different rhythms, articulation, etc.⁵

2. Articulation and markings

Throughout the *Mikrokosmos* collection, Bartok presents the pianist with a wide range of

⁵ Suchoff, Guide to Bartok *Mikrokosmos*, 117.

articulations and markings that require varied approaches to pianistic finger action. Bartok's indicated markings are very precise about what he dictates in the score in this regard.

Based on Benjamin Suchoff, a Bartok-scholar, one of the prominent articulations that Bartok uses is the "percussive action" (or called "percussive touch" by Suchoff), which is based on how the hammer strikes the string. Direct action of the fingers is necessary to perform this articulation. Suchoff establishes specific interpretative parameters for articulation indicators. For instance, the Tenuto sign for him is more than just requiring a note to be sustained for its full length. Bartok said that: "To such notes a certain color shading must be added by pressing the key instead of striking it."⁶

Suchoff found that, in *Mikrokosmos* and in Bartok's other works as well, finger actions are divided into two categories: percussive touch form and non-percussive touch form. Staccatissimo, staccato, non-legato, legato, legatissimo are prevalent in the category of percussive touch form. The other category, non-percussive touch form, includes tenuto, dotted, tenuto, portamento, etc.⁷ The percussive touch form, in general, requires faster attack and release than the non-percussive touch form.

Bartok's focus on the study of articulation is intertwined with his approach for students to gain more precise finger control or independence. Finger control and, of course, keen listening is necessary for accurately performing articulations, especially as Bartok has specified them.

No. 144 *Minor Seconds, Major Sevenths*, uses a variety of articulations. Both percussive and non-percussive touch forms are presented in this challenging piece. Many different articulations and their combinations, including legato, non-legato, staccato, tenuto, and portamento, are used for distinct tone colors or effects. One compelling example is performing the large interval with tenuto indication: a metaphor for the bell universally used in other Bartok

⁶ Ibid., 13.

⁷ Ibid., 14.

works—such as the 7th movement of *Eight Improvisations on Hungarian Peasant Songs*, op. 20, Sz74. We can find this effect in No. 144 *Minor Seconds, Major Sevenths*. In m. 2, the 2nd chord (E flat and D) creates a similar bell-like effect.



Example 3.3. *Mikrokosmos* No. 144 *Minor Seconds, Major Sevenths*, m. 2.

Additionally in the 7th movement of *Eight Improvisations on Hungarian Peasant Songs*, op. 20, Sz74, m. 10, the 10th in both hands on the 2nd beat again tolls the bell effect.



Example 3.4. Bartok *Eight Improvisations on Hungarian Peasant Songs*, op. 20, Sz. 74, VII, m. 10.

3. Hand Independence

Hand independence or coordination is an essential aspect of piano technique, and it is inevitably well reflected in *Mikrokosmos*. Since this is clearly a pivotal pianistic issue, Bartok

composed numerous creatively conceived *Mikrokosmos* pieces to assist pianists develop hand independence and coordination.

Mikrokosmos is a well-designed source for developing coordination skills because both hands are treated with equal importance. Its premise for this is that pianists can improve their coordination ability by studying polyphony pieces. Skills in this regard are improved by performing multiple tasks simultaneously. *Mikrokosmos*, provides countless examples of requiring coordination (balance) between the hands by alternating the melody-line performance in each one.

Mikrokosmos includes countless exercises involving counterpoint and Bartok probably used *Notebook for Anna Magdalene Bach* as a model. We can also find Bach's influence directly from the title of pieces in *Mikrokosmos*: No. 79 *Hommage a Johann Sebastian Bach*, and No. 91 *Chromatic Invention*.

No. 91 *Chromatic Invention* is an example of counterpoint technique designed for developing hand independence. It is in the form of Invention and is a short chromatic piece in a simple two-voice counterpoint texture. The subject is relatively simple and intended for students to focus on studying more complicated concepts such as imitation and inversion.

Another example that effectively addresses the issue of hand independence is No. 146 *Ostinato*. In this piece, there are multiple hand independence difficulties to focus on. First, a dramatic dynamic contrast between hands challenges students. Students need to work on their coordination for playing intense and loud melodies with one hand, while the other hand continues in a soft volume. Secondly, pianists need to acquire acute control of their hands to deal with combined articulations, broadly used in both hands. Various combinations can be found in *Ostinato*, such as legato in one hand counter to non-legato and tenuto in another, or non-legato performed by one hand in opposition to tenuto, staccato and staccatissimo in a second hand. This piece also challenges pianists to execute sophisticated dynamic details while negotiating its obstacles to work on their coordination.

4. Pedal

Compared to other contemporary works, the pedal is used sparingly in *Mikrokosmos*. Bartok does use the damper or Sostenuto pedals to create particular sound effects.

The first appearance of a pedal mark appears as late as No. 47 *County Fair* and No. 11 exercise in the appendix—preparatory for working on this piece. From mm. 24–34 of No. 47, students can learn various pedal patterns, ranging from 2 beats, and 4 beats to 5 measures!

Example 3.5. *Mikrokosmos* No. 47 *County Fair*, mm. 24–34.

Example 3.6. *Mikrokosmos* No. 11(a) in the appendix.

Students can explore the use of the middle pedal, the so-called Sostenuto pedal in No. 109 *From the Island of Bali*. It is ternary form, and based on Bartok's comments, it is an Impressionistic work, possibly describing a tropical scene.⁸ In m. 30, before returning to the Andante section, a pitch D for both hands with term “prol. ped” marked, which indicates the use of the Sostenuto pedal. Thus, the D should be sustained to create an effect similar to a pedal point, found in the ending of the Fugue in C major from J.S. Bach’s *The Well-Tempered Clavier*, book 1, BWV 846.



Example 3.7. Mikrokosmos No. 109 *From the Island of Bali*, mm. 29–30.

At the m.24 of the Fugue in C major from J.S. Bach’s *The Well-Tempered Clavier*, book 1, BWV 846, there is a pedal point on the C in the bass.



Example 3.8. Bach *The Well-Tempered Clavier*, book 1, BWV 846, C major Fugue, m. 24.

⁸ Suchoff, Guide to Bartok *Mikrokosmos*, 95.

Bartok additionally explores the half-depressed damper pedal technique in No. 110 *And the Sounds Clash and Clang...* This piece offers an unusual opportunity to create appropriate sonic expressive and explore pedal technique, and varied depths of vertical engagement with it.

In its entirety, *Mikrokosmos* is structured in progressive difficulty, from the basic 5-finger pattern to the most complicated technical configurations. Bartok carefully and comprehensively addresses piano technique and musicianship, making it a well-rounded pedagogic resource for pianists of all levels. Each piece introduces a distinctive technique for helping pianists improve their skills and pianistic range.

Chapter 4: CONCLUSION

Mikrokosmos is a complete pedagogic treasure for learning techniques and musicality, and an authentic encyclopedia of 20th-century musical idioms. It is considered as one of the most significant pedagogic works conceived and is extensively used as a teaching tool for pianists from beginning to advanced.

As the title suggests, *Mikrokosmos* is about Bartok's idea of depicting a miniature of the musical world for youth. Bartok gives permission for teachers to use the books freely as he believes that every student is unique and individual. Instructors should make their own selection from *Mikrokosmos* based on students' needs and levels and are encouraged to utilize the pieces in different arrangements, such as singing. Acknowledging that each student is unique with their own learning speed, Bartok believes teachers should design teaching curriculum based on student's needs and talents.

In *Mikrokosmos*, Bartok incorporates various styles from other composers, making it a comprehensive method for those who want to broaden their musical understanding. Bach's music had an enormous impact on Bartok, thus, in *Mikrokosmos*, there are countless counterpoint exercises, helping students train their coordination and deepen their musical comprehension.

The elements of folk songs play an important role in studying the compositional features of *Mikrokosmos*. At the beginning of the 20th century, Bartok embarked on the journey of collecting folk songs in the rural Hungary with his colleague Kodaly. He frequently and innovatively applied folk song components in *Mikrokosmos*.

Mikrokosmos includes and explores inventive musical elements in tonality, melody, rhythm, and form. It is a diverse resource for contemporary facets such as the use of dissonance, modal harmony, irregular meters, unique articulations, and compositional structures.

Furthermore, *Mikrokosmos* invites pianists to traverse an expansive tonal and expressive range and to self-explore their artistry.

Mikrokosmos reflects Bartok's ultimate enthusiasm for both pedagogic and artistic expeditions. It is a significant and noteworthy legacy in the world of piano music for every pianist to explore and learn from.

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