

SOFIA GUBAIDULINA'S CATHEDRALS OF SOUND:
REDEFINING THE BOUNDARIES OF INSTRUMENTAL CONCERTOS

LANA FORMAN

A DISSERTATION SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN MUSIC
YORK UNIVERSITY
TORONTO, ONTARIO

MAY 2025

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ABSTRACT

Sofia Gubaidulina's Cathedrals of Sound: Redefining the Boundaries of Instrumental Concertos

Lana Forman
2025

This dissertation explores Sofia Gubaidulina's artistic vision of music as a spiritual and transformative sanctuary, akin to the creation of a grand architectural masterpiece. The composer's metaphor of the "cathedral of sound" encapsulates Gubaidulina's compositional philosophy, where each work serves as an effort to foster a harmonious and transcendental realm that invites listeners into a space of contemplation and spiritual elevation. We argue that this concept challenges the conventional pursuit of novelty that dominated much of twentieth-century music, positioning her compositions as a reimagining of traditional forms rooted in a personal, deeply spiritual vision.

Our study examines Gubaidulina's redefinition of the boundaries of concerto forms, revealing how the composer blends contemporary practices with the traditions of Western art music. Central to our discussion are her ecumenical understanding of Orthodox Christianity, her philosophically-infused musical concepts of *transfiguration* and *shadow and light*, and her use of various symbolic devices – literary, name-based, and those related to peculiar geometric shapes and numbers. These elements are argued to coexist with the reimagined traditional frameworks of sonata, variations, ritornello, ternary, and various sectional forms. Further, the dissertation explores Gubaidulina's conception of form as a journey full of metaphors and symbols, particularly focusing on the symbol of the *cross*, which holds profound significance for the composer.

This dissertation is the first scholarly work to apply Gubaidulina's theory of the *Rhythm of Form* in a practical analysis of three of her concertos. By examining the scores, sketches, and drafts preserved at the Paul Sacher Foundation in Basel, Switzerland, this study offers an intimate look into Gubaidulina's creative process. The analysis of *Revue Music/Concerto for Two Orchestras*, *Jazz and Symphony*, *Viola Concerto*, and *In the Shadow of the Tree* reveals how Gubaidulina shapes her music using mathematical proportions derived from Fibonacci and Fibonacci-related sequences. These works exemplify her historically progressing architectural approach to form, where each piece embodies a blend of aesthetic beauty and precise, deliberate design. The study also demonstrates how "magic" numbers influence not only the formal structure but also thematic, timbral, and textural development, creating a complex and symbolic framework within each composition.

ACKNOWLEDGEMENTS

We extend our deepest gratitude to all our teachers, past and present, who have contributed in many ways to this project over the years. Without their impeccable professional guidance and enduring encouragement, this dissertation would not have been possible.

We wish to convey our sincere thanks to the Paul Sacher Foundation (Basel, Switzerland) for providing us with a generous research grant, which enabled us to work with and study otherwise unavailable materials. Our heartfelt gratitude goes to our curator, Evelyn Diendorf, and Michèle Noirjean-Linder for their exceptional professionalism and hospitality. We are also deeply thankful to PSS Director-emeritus Dr. Felix Meyer for his insightful conversations and for organizing our meeting with Michael Kurtz, and to current PSS Director Dr. Florian Besthorn for offering a warm welcome during our second visit to Basel. Our sincere appreciation also goes to Michael Kurtz (Dornach, Switzerland) for his time and for sharing otherwise inaccessible resources. Additionally, we appreciate the warm welcome provided by all PSS staff members, as well as their access to great coffee.

We would like to express our heartfelt thanks to our friends and colleagues in Basel and Geneva for their kindness and generosity, especially Irina Litvinenko, Tatiana Baranova-Monighetti, and Ivan Monighetti. In addition, we are immensely grateful to all Toronto-based individuals who have helped with this research: Dr. Manuela Tatilon, whose cordial companionship and boundless inspiration guided us throughout our years of graduate studies at York University; to Mark Dimitroff for his empathetic friendship, outstanding listening skills, and tireless editing help; and to Dr. Micha Fiedlschuster, the head of the York University Graduate Diploma in European Studies, for providing generous financial support for our research. We also wish to thank internationally based colleagues Ekaterina Antokolskaya and Evgeny Tonkha for obtaining and forwarding the Russian-language resources.

As a final note, and of paramount significance, we wish to express our deepest thanks to our supervisor, Professor Michael Coghlan, for his confidence and personal interest during the preparation of this project. His thought-provoking conversations, constant kindness, and vigilant linguistic scrutiny have been an indispensable source of motivation and reassurance throughout our doctoral studies.

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INTRODUCTION

In a 2022 conversation with British musician and lifelong comrade Gerard McBurney, Sofia Gubaidulina, reflecting on the long trajectory of her life and career, remarked with striking simplicity yet utter determination: “I think I have spent my life trying to create a kind of cathedral of sound.”¹ This powerful metaphor underscores Gubaidulina’s approach to the art of musical composition, which mirrors the timeless, harmonious construction of cathedrals – an effort to blend beauty, order, and symbolic meaning through a deep connection to structural proportions. Central to Gubaidulina’s compositional philosophy is her unique concept of the *Rhythm of Form*, a guiding principle in her work since the mid-1980s. This idea incorporates Fibonacci and Fibonacci-derived sequences, which serve as the structural foundation for her music. For the composer, rhythm is not merely a patterned configuration of sound or, in a broader sense, a musical movement ordered in time; it is a profound force that shapes the growth, evolution, and spirituality of her compositions. Through it, she aims to connect her music to a larger, universal sense of structure and form, emphasizing natural progression and a deep connection between art, nature, and the cosmos. With this context in mind, the title of this dissertation, “Sofia Gubaidulina’s Cathedrals of Sound: Redefining the Boundaries of Instrumental Concertos,” aspires to reflect the composer’s artistic mission of creating vast, spiritual soundscapes within the various frameworks of this musical genre, which has a history that spans over half a millennium of illustrious tradition.

¹ Gerard McBurney, “An Introduction to Gubaidulina’s Music,” Boosey & Hawkes Official Website, accessed March 8, 2023), <https://www.boosey.com/composer/Sofia+Gubaidulina?tttype=INTRODUCTION>.

This dissertation explores the evolution of Gubaidulina's unique compositional approach in relation to one of the most significant and prolific musical genres of her work: the instrumental concerto. Throughout her career, Gubaidulina has sought to redefine the concepts associated with this genre, continually transforming its traditional expressive domains and underlying formal prototypes. The aim of the current research is to fill a gap in available literature on Gubaidulina's concerted oeuvre by, first, providing a comprehensive overview of all her concerted works in relation to general tendencies, directions, and trends within the genre since the early 1970s. Secondly, we introduce three case studies on concertos from the composer's earlier and later periods that have not yet been explored in academic writing. These are *Revue Music for Symphony Orchestra and Jazz Band/Concerto for Two Orchestras, Jazz and Symphony* (1976/1995/2002), *Viola Concerto* (1996), and the 1998 composition for Koto, Bass Koto, Zheng, and Orchestra, *In the Shadow of the Tree [Im Schatten des Baumes]*. The analyses of these works provide a broad perspective on Gubaidulina's concerted compositions – not only as part of the avant-garde phenomenon but also as a continuation and redefinition of centuries-long traditions of Western Art Music. Our broad examination of myriad multilingual historical and analytical sources in musicology, sociology, and oral history (including interviews, films, and videos predominantly in Russian and German), previously unexplored in Anglophone academic writing, aspires to add considerable value to the field of Russian Music Studies. The titling of chapters two to four as “Analytical Études” echoes the composer's perception of her creative undertakings as problem-solving; she refers to all her works written since the mid-eighties as études.² Additionally, the concertos chosen for analysis feature the composer's

² Olga Bugrova, “‘What's Given' and 'What's Assigned,’” *Music Academy* 3 (1994): 2. The full text of this interview can be accessed (in Russian) at <https://mus.academy/articles/v-znak-druzhby-dano-i-zadano>.

reimagining of three different formal frameworks traditionally associated with the genre: ritornello/concerto grosso, sonata and sectional form. These works also allow us to trace the development of her idea of the *Rhythm of Form* from the mid-seventies to the late nineties. The methodology of our research incorporates a variety of analytical approaches, as Gubaidulina's concertos engage with diverse elements of musical language. These include an examination of unusual timbres and instrumentation, orchestration, rhythm, pitch organization, micro-chromaticism (use of the twenty-four-tone system), the exploration of string harmonics and the acoustic phenomena of combination and difference tones, as well as, starting from the mid-1980s, the meticulous calculation of formal proportions based on the mathematical series of Fibonacci and its derivatives. The chosen methodology further demonstrates a holistic approach to musical analysis, not limited to isolated topics such as rhythmic phraseology, pitch, melodic content, timbre, temporal proportions, or historiographical data, but rather combining all pertinent aspects for each work discussed. From our perspective, this combination of analytical approaches, appropriate to each particular work, sheds light on the composer's philosophical and theological ideas expressed in many of her interviews and work annotations. The following is an overview of the constituent chapters.

Chapter One, "Searching for Truth: Sofia Gubaidulina's Reimagining of the Instrumental Concerto Genre," provides an overview of the composer's concerted works, organized around four major topics related to the subject. Its objective is to outline the principal themes associated with Gubaidulina's highly personal musical quest and reference relevant scholarly works. The first of these topics explores several idiosyncratic concepts and leitmotifs that have emerged in her work since the early 1970s. These include the composer's unique vision of selected concertos, perceived in the context of the Mass, thus reflecting on her ecumenical understanding

of Orthodox Christianity; inextricably connected to this are the philosophically-infused musical concepts of *transfiguration, shadow and light*, her exploration of string harmonics, and the acoustic phenomenon of combination and difference tones. Secondly, Sofia Gubaidulina's reimagining of virtuosity is discussed in relation to a number of trends that emerged in recent musicological literature exploring the role and significance of the concept of virtuosity during the twentieth and twenty-first centuries. These include three major areas: anti-virtuosity and anti-concertos, collective or collaborative virtuosity, and interdisciplinary virtuosity. Thirdly, the topic of the composer's conception of form and its structural components, as a journey full of metaphors and symbols, is discussed with regard to the contemporary idea of chain forms, peculiar geometric shapes, and word games that coexist with the reimagined traditional frameworks of sonata, variations, ritornello, ternary, and sectional forms. The fourth topic overviews the concerto-related musicological literature concerning Gubaidulina's use of the Fibonacci numbers and her concept of the *Rhythm of Form*.

The first chapter is accompanied by five appendices. The first one presents a list of Gubaidulina's works generally associated with the concerto genre. It is based on the 2018 edition of the Sikorski catalogue.³ The works are compiled in chronological order; their titles, in original versions (in Russian/Italian/Latin/German) and in English translation, are accompanied by an identification of each work's full duration, principal soloist(s), the names of dedicatee(s), and the literary texts used, if any. The second appendix presents Gubaidulina's concerto discography – commercial and non-commercial recordings available on YouTube. The entries are accompanied

³ The Sikorski catalogue did not present Gubaidulina's concertos as a separate genre. Instead, it placed them into three broadly defined categories: Orchestral Works, Works for Chamber Orchestra/Ensemble and Vocal Works. See Hans Sikorski, *Sofia Gubaidulina: List of Works* (Hamburg: Internationale Musikverlage Hans Sikorski GmbH & Co. KG, 2018), 13-61. Gubaidulina's current publisher, Boosey & Hawkes, does not provide any genre-related classification of the composer's works. Refer to https://www.boosey.com/cr/catalogue/ps/powersearch_results.cshtml?search=gubaidulina&x=0&y=0.

by electronic links whenever possible. The third appendix contains a facsimile of Sofia Gubaidulina's handwritten letter to the organizers of the Siberian Art Festival: "Before the Premiere of *Dialogue: I and Thou*." This document regarding Gubaidulina's last concerto, written and premiered in 2018, is accompanied by its typed version in Russian and in English translation. Appendices Four and Five provide diagrams related to the previously unavailable (in English) analyses of Gubaidulina's Violin Concerto, *Offertorium* (1980/1982/1986), and her Bayan Concerto, *Fachwerk* (2009), by Valeria Tsenova and Marina Geller.

Chapter Two presents the first 'analytical étude' dedicated to *Concerto for Two Orchestras, Jazz and Symphony/Revue Music* for Symphony Orchestra and Jazz Band. It provides a comprehensive analysis of this work and compares its original 1976 version with the subsequent revisions of 1995, 1998, and 2002, elucidating the contextual significance of the revisions related to the temporal proportions of this composition. The chapter includes the full text (in Russian and English translation) of Valentina Kholopova's annotation – the only existing analytical source on this work. Taking her description of the work as a starting point, we organize our discussion around three major topics.

The first topic examines the composer's perception of jazz, pop, and rock, and explores her early jazz influences. The second addresses Gubaidulina's reinvention of the concerto grosso framework by discussing a range of genre-related compositional devices, such as the ritornello form, and the roles and types of interaction between the concertino and ripieno. This portion of our text also scrutinizes the concerto's themes, quasi-thematic elements, the use of name-related monograms (those of J. S. Bach and D. Shostakovich), as well as the overall development of the musical texture based on the principle of variation, alongside a wide range of contrapuntal and sonoristic procedures. The composer's application of the Baroque rhetorical devices of anabasis

and catabasis is discussed in relation to various forms of clusters in homogeneous orchestral groups. The final portion of this chapter is dedicated to Gubaidulina's early use of Fibonacci numbers. We argue that the presence of these 'magic' numbers scattered throughout the concerto score pertains to the earliest stages of the composer's numerical evolution. The provided examples of visible/audible Fibonacci numbers relate to the configuration of melodic, harmonic, rhythmic, timbral, and other layers of the texture. Furthermore, based on the revised tempo indications in the 1995 version of the score, we mathematically establish the precise point of the Golden Section. This procedure adopts Tsenova's methodology of converting the composer-notated units of time to an abstract value of a microbeat to perform the calculations based on these numbers.

Chapter Two is supplemented by two appendices. The first one (Appendix 6) provides the summary of Gubaidulina's score adjustments in *Concerto for Two Orchestras/Revue Music*. The four compared scores are abbreviated as follows: OM – original 1976 manuscript; ME – 1985 Moscow edition; PSS 2001 – Paul Sacher Stiftung ME score with Gubaidulina's corrections; SE – 1998 Sikorski edition. Rehearsal numbers (RN) indicated are from the Sikorski printed edition. The summary is structured around three areas: errors and corrections, detail refinement, and time-related adjustments. The second appendix (Appendix 7) presents a summary of quasi-thematic elements: solo passages and static, ascending, descending, and combination clusters.

Chapter Three is dedicated to Gubaidulina's celebrated *Concerto for Viola and Orchestra* (1996). It begins with an investigation of its historical and performance background, examining the work's dedication, premieres, and critical reception. Next, the full text of Gubaidulina's own annotation to the work is presented in Russian and English translation. Following the comments

on the instrumentation of this work, marking the composer's first extensive use of microtonality in an orchestral work, we engage in an argument with various analytical points presented in an article published in 2017 by Russian musicologist Irina Basharova.

These points include an examination of the composer's implementation of her conception of *shadow and light*, worked out through an array of compositional devices related to the work's formal design, pitch, instrumentation, rhythm, dynamics, and melodic elements carrying the function of themes. The reimagining of the idea of the musical 'theme' is discussed with respect to the idea of the cross, the characteristic form-divider dubbed as a "Clock Theme" ("rhythmic theme" in Gubaidulina's drafts), delineating the concerto's sections, as well as other thematic elements that include monograms of Bach, Shostakovich, and other names, along with musical gestures perceived as symbolic by the composer. Further, the concept of 'macro-theme' is introduced as a multifaceted idea stretching throughout the entire work, thereby generating the formal structure of the concerto.

The next section of our text presents an overview of the tonal correlations between two clearly identifiable concerto themes, labeled the "Prayer Theme" and the "Motive of Sorrow," with reference to the traditional functional harmonic interplay inherent to the Classical sonata form.

The final portion of this chapter is dedicated to the numerical mysteries of the *Viola Concerto*. Based on our study of the concerto's sketches preserved at the Basel archive and comparing them to the work's published score, we argue that various Fibonacci and Fibonacci-based series, such as Lucas, Bach, Evangelist's numbers, and Gubaidulina's own numerical sequence derived from Lucas and Fibonacci numbers, underpin the organization of the 'musical matter' of this work on multiple levels. Following the numerous analytically conspicuous

examples of Fibonacci-related expression pertaining to the concerto's instrumentation, the number of sections and themes, the number of notes within the themes and their appearances throughout the work, as well as the values of metronomic indications, we extrapolate the *Viola Concerto*'s possible "numerical plot" unfolding under the model tempo of $\text{♩}=60$. Our application of "Gubaidulina's principle" to each of the seven sections of the *Viola Concerto* results in the emergence of a chain of numbers coming from or approximating those from the Fibonacci series. The resulting numerical approximations are further discussed as attuned to various arithmetical permutations generating other symbolic numbers. Chapter Three is accompanied by Appendix 8, presenting the calculation of the duration of the concerto's transitions (the divider, or the "Clock Theme") measured in the absolute values of microbeats.

As with the two preceding analytical chapters dedicated to selected works, Chapter Four, titled "Analytical Étude No. 3: *In the Shadow of the Tree* [Im Schatten des Baumes] for Koto, Bass Koto, Zheng and Orchestra," begins with the full text of Gubaidulina's own annotation of the work, presented in both Russian and English translations.

Next, we explore four important principles and ideas relevant to shaping the creation of this unique composition, written for Eastern musical instruments and a Western symphony orchestra. The first of these concepts pertains to the 'personification' of an instrument and the personal significance of the relationship between the composer and the work's soloist/dedicatee, Kazue Sawai. Secondly, we provide a preliminary overview of the expanded realm of instrumental extended techniques discovered by the composer and utilized within traditional Koto tunings. Thirdly, we discuss Gubaidulina's approach to her philosophically charged concept of *shadow and light*, realized through the juxtaposition of the standardly tuned Koto and orchestral instruments with the quarter-tone-lower tuned orchestral Second Strings and two of

the soloists, the Bass Koto and the Zheng. Finally, and equally importantly, we address the composer's tree metaphor, which represents the ideas of continuous change and spiritual transformation.

The remainder of this chapter is dedicated to deciphering Gubaidulina's number games. All of our calculations are based on the detailed numerical diagram for the fifth episode, written out by the composer herself and preserved in the Basel archives. Following the annotated translation of this diagram, we complete the score-referenced calculation of this portion of the concerto under the model tempo of $\text{♩}=60$. Further, we map the composer-indicated timbral changes accompanying the corresponding numerical changes. The calculations for the remaining episodes of the work are performed in a fashion similar to that of Gubaidulina herself. These calculations also reveal a multi-layered correlation between the timbral and numerical aspects of the form. We argue that the established numerical proportions of the concerto create an original compositional structure in which multiple garlands of "beautiful numbers" sprout from the integral value of the piece (indicated in Gubaidulina's diagram), thereby consummating a sophisticated contrapuntal texture comprised of Fibonacci, Lucas, Evangelist's, and various Bach sequences. We also establish that the final episode of the concerto bears the composer's personal numerical seal, the number 48.

The final section of Chapter Four, subtitled "The Game Numbers, Part Two: The Other Musical Elements," discusses the composer's numerical treatment of the pitch content of recurrent motives, cluster-type sonorities, and multi-voiced passages, as well as Gubaidulina's numerical underpinnings of certain rhythmic configurations related to the patterns of duration of melodic phrases, timbral blocks, and types of divisi in the orchestral strings. Further, our analysis

reveals several examples of combining the idea of symbolic temporal durations with the pitch organization based on the tuning patterns of the three solo instruments.

All translations from non-English-language sources are ours unless otherwise indicated. References to books, articles, and other web-based sources cited within the body of the text are accompanied by electronic links wherever possible.

CHAPTER ONE

Searching for Truth: Sofia Gubaidulina's Reimagining of the Instrumental Concerto Genre

The concept of the concerto has changed drastically since the 19th century. The soloist is no longer a hero, an outstanding individual [who] knows the absolute truth, knows where to lead the crowd. In the 20th century the situation is quite different: the hero is disappointed in everything, nobody knows what the truth is. And contemporary composers need to search for new concepts, new interpretations of soloist-orchestra relations. I too am searching.

– SOFIA GUBAIDULINA, INTERVIEW WITH VERA LUKOMSKY, 1998⁴

By the fall of 1998, when Sofia Gubaidulina shared her thoughts about an inescapable need for searching out new ways of musical expression within the ever-changing cultural paradigm of the concerto genre, she had already written twelve works falling into this category. The earliest of these creative undertakings reveal the composer's compelling desire to search for new concepts in an attempt to travel new paths reflective of the uncertainties of the modern age.

Fundamentally, as a musician who self-admittedly perceives a concerto soloist as “a person who had[s] crossed the threshold of a temple”⁵ rather than a hero who contraposes himself against the masses, Gubaidulina has envisioned her concerted works as fused with the broadly understood idea and contents of the Mass. As such, this type of musical narrative, or the “particularity and polarity”⁶ of a conversation between a soloist and an orchestra, has always been one of the

⁴ Vera Lukomsky, “‘The Eucharist in My Fantasy’: Interview with Sofia Gubaidulina,” *Tempo* 206 (October 1998): 29, https://www-jstor-org.ezproxy.library.yorku.ca/stable/945505?if_data=e30%3D&seq=1.

⁵ Cited in conversation with Restagno. See Valentina Kholopova, *Sofia Gubaidulina. Monograph. Interview with Enzo Restagno* (Second Ed., revised) [*София Губайдулина. Монография. Интервью Энцо Рестаньо – София Губайдулина* (Второе дополненное издание)] (Izdatel'stvo Kompozitor, 2008), 75.

⁶ The phrase in quotation marks is a subtitle of the second chapter of Joseph Kerman's book presenting his seminal set of Norton Lectures given at Harvard University in 1997-98. See Joseph Kerman, “Particularity and Polarity,” in *Concerto Conversations* (Harvard University Press, 1999), 17-38.

composer's idiosyncratic means of "religious worship for humanity as a whole."⁷ Hence, the composer's post factum announced "[imaginary] instrumental Mass Proper" is comprised of four concertos completed prior to 1998: *Introitus* (1978), *Offertorium* (1981), *From the Book of Hours* (1991) and *Detto II* (1972); each one takes the role of Introit, Offertory, Gradual, and Communion, respectively.⁸ Several other "macro cycles" of concertos were created by Russian musicologists since mid-1990s, for instance, a triptych consisting of "introduction" (*Introitus*), "two culminations, 'split' à la Tchaikovsky"⁹ (*Offertorium, And: The Festivities at Their Height*, 1993), and the "paired epilogue" (*Detto II, Two Paths*, 1998).¹⁰ Another version of the "sacral super-cycle" includes the symphonic works outside of the concerto type. It is built in truly Gubaidulinian non-chronological or 'metaphysical' fashion and includes the five following compositions, constituting the full Mass Proper: Introit as *Introitus*, Gradual as *Stufen (Steps*, 1972) for symphony orchestra; Alleluia as *Alleluja* (1990) for mixed choir, boy soprano, organ,

⁷ Here we refer to another phrase in Gubaidulina's interview of 1992 where she says: "For me, the important thing is not nationality but humanity as a whole." Cited in Michael Kurtz, *Sofia Gubaidulina: A Biography*, ed. Malcolm H. Brown, trans. Christoph K. Lohman (Indiana University Press, 2007), 3.

⁸ See Kholopova/Restagno, *Gubaidulina* (2008), 74.

⁹ The 'split' à la Tchaikovsky refers to a popular concept in post-Soviet musicological discourse, based on the writings of Lev Mazel and Viktor Zuckerman, which describe Tchaikovsky's breaking of the conventional boundaries of the sonata form. Building on their ideas, Moskvina applies this concept to her analysis of the macro-cycles in Gubaidulina's concerted works, arguing that the "dual" or "split" climax is a brilliant innovation by Tchaikovsky. She describes it as based on the proximity of two powerful climaxes, which in Tchaikovsky's early symphonies were presented "at a distance" – in the development and coda of the sonata form. This "dynamic proximity" of the two climaxes – as exemplified in the development of the first movement of Tchaikovsky's Sixth Symphony – enhances, according to the author, their dramatic effect. See Olga Moskvina, "Instrumental'noe Tvorchestvo Sofii Gubaidulinoi v Aspekte Religiosno-Simvolicheskoi Programnosti" ["Sofia Gubaidulina's Instrumental Oeuvre with Regard to the Religious and Symbolic Program"], Kandidat Dissertation, Nizhnii Novgorod Conservatory, 2017), 109, https://nnovcons.ru/upload/files/Dis/dis_moskvina.pdf?ysclid=m68hzv0y7o303511495.

¹⁰ Moskvina, "Instrumental'noe Tvorchestvo," 109. Also see in Shalkova (2015).

and large orchestra; Offertory as her first violin concerto, *Offertorium* (1980/1982/1986); and Communion as *Detto II*.¹¹

With regard to the genre-related dichotomy of soloist and orchestra, Gubaidulina's very first concerto, *Detto II* (1972)¹² for cello and chamber orchestra, deliberately avoids the word 'concerto' in its title because of the "unwelcomed allusions to the long-established tradition of the solo concerto genre."¹³ Instead, the soloist and ensemble are presented as a preacher and congregation – contrasting, yet not confronting one another. Likewise, the 1978 piano concerto, *Introitus*,¹⁴ offers a similar interpretation of this type of interaction between the soloist and the orchestra. The quiet contemplative nature of this work's sonic palette, accompanied by an absence of flashy virtuosity, traditionally associated with the part of the concerto soloist, brings this opus into the realm of so-called anti-concertos, one of the post-modernistic phenomena of anti-genres such as Mauricio Kagel's musical anti-theatre, Alfred Schnittke's anti-symphony, or György Ligeti's anti-opera.¹⁵

Conversely, it appears that some of Gubaidulina's concertos written by 1998 engage with the traditional Latin-based etymological storyline of the genre, that is one of fighting, striving or

¹¹ Moskvina, "Instrumental'noe Tvorchestvo," 149.

¹² A beautiful rendition of this work by Ivan Monighetti is available online at <https://youtu.be/g6QO48wyjYE>.

¹³ Kholopova, *Sofia Gubaidulina* (2008), 136.

¹⁴ The performance of this work by its two original dedicatees, Aleksandr Bakhchiev (piano) and Yuriy Nikolaevsky (conductor), is available online at <https://youtu.be/5s1-rz-KiCQ>.

¹⁵ The topic 'anti-concertos' will be discussed later in this chapter. For information on these pos-modernistic phenomena see, for instance, Makoto Mikawa, "Anarchy in the Unity: Compositional and Aesthetic Tensions in Mauricio Kagel's *Antithese für einen Darsteller mit elektronischen und öffentlichen Klängen* (1962)" (PhD diss., The University of Western Ontario, 2012), <https://ir.lib.uwo.ca/etd/951/>. Ivana Medić, "The Dramaturgical Function of the Improvisatory Segments of Form in Alfred Schnittke's First Symphony," *New Sound* 32 (2008): 210-23, <https://newsound.org.rs/pdf/en/ns32/17.%20Ivana%20Medic.pdf>. Peter Edwards, *György Ligeti's Le Grand Macabre: Postmodernism, Musico-Dramatic Form and the Grotesque* (Routledge, Taylor and Francis Group, 2017).

contending with, i.e., depicting a conflict between the soloist and the orchestra. Among this type of works are a celebrated *Concerto for Bassoon and Low Strings* (1975), a less well-known *Concerto for Two Orchestras, Jazz and Symphony* (1976) and an apocalyptic cello concerto subtitled *And: The Festivities at Their Height* (1993).¹⁶ Viewed from this angle, the implied, or to be more precise, invented by music scholars,¹⁷ narrative of the popular North-American musicological discourse on the *Concerto for Bassoon and Low Strings*, has received many interpretations including an analogy of Gubaidulina's personal struggle with the Soviet regime, or more generally, as mimicking the relationship between the composer and a contemptuous public.¹⁸ It must be noted, however, that Sofia Gubaidulina never assigned any biographical relevance to this work, acknowledging only the conception of the "hero" as an *individual*. By and large, the composer's persistent and unequivocal eschewing of the value-laden connotations of the word "hero" from her concerted musical rhetoric calls forth a different type of instrumental discourse. It can be formulated as a question of her "metaphysical existence as a composer" perceived as *[an individual]-amidst-the world* rather than *[an individual]-against-the-world*.¹⁹ From the composer's perspective, the latter state of existence remains associated

¹⁶ The recordings of the first two of these works featuring the original dedicatee soloists are available on YouTube at <https://youtu.be/YWjJLSzykjA> <https://youtu.be/5Tj1eY6MmIo>.

¹⁷ For instance, Valentina Kholopova's interpretation of this five-movement composition presents a story of the lyric hero (bassoon), a type of Charlie Chaplin's "little man" battling with an aggressive "low-minded crowd" (low strings or the orchestra). Unable to withstand the onslaught of the crowd, the hero succumbs to the hostile surroundings and changes his attitude, becoming entirely degraded and vanquished. The concerto's concept of "moral inversion" of a person resonates with variant story-lines of earlier works written in the twentieth century: Bartok's *Bluebeard's Castle*, Shostakovich's *Five Satires on Texts by Sasha Chorny* op. 109, or Berg's *Wozzeck*. See Kholopova, *Sofia Gubaidulina* (2008), 147-52.

¹⁸ For some titles pertinent to the matter of Anglophone interpretations of the concerto's "extra-musical" components refer to Lyman (1995), Schmelz (2009), Haldey and Kott (2010), Hopkins (2011), and Wilson (2011).

¹⁹ The "I-against-the-world" is a perceptive phrase of Richard Taruskin describing the concertos of Sofia Gubaidulina's compatriot and a fellow composer, Alfred Schnittke. See Richard Taruskin, *The Oxford History of Western Music*, vol. 5 (Oxford University Press, 2010), 466.

with the late Classical- and Romantic-period creators of the earlier prototypes of the genre. In and of itself, each of Gubaidulina's successive concerto soloists appears in continuously changing orchestral surroundings. Every next composition introduces a new constructive task which is implemented by a meticulous crafting of uniquely combined familiar musical elements (such as pitch, melodic content, rhythm or timbre) and the gradual crystalizing of mathematical procedures related to numbers associated with the Fibonacci and Fibonacci-derived series governing the proportions of the form.

It is pertinent to note that starting from the late 1960s, the idea of re-inventing the concerto in terms of the structural components of the music as well as the functions and roles of soloists and orchestra was undoubtedly in the air. Luciano Berio's annotation to the New York premiere of his *Concerto for Two Pianos and Orchestra* (1973) states, for instance, that "today [...] the word 'concerto' can be taken only as a metaphor."²⁰ Around the same time, Gyorgy Ligeti, commenting on his *Chamber Concerto* (ca. 1970), says: "...Creating something that already exists is not interesting for me. If something new has been tried out and a result has emerged from it, it is not worth making the same experiment again."²¹ Sofia Gubaidulina who, at the time, was certainly familiar with many of the twentieth-century works in the concerto genre, appears to be quite aligned with Berio's and Ligeti's thoughts on the matter. Indeed, the compositional vocabulary of her 1976 concerto for percussion, large symphony orchestra and mezzo soprano, *Hour of the Soul*, offers an unusual for the composer quasi-polystylistic blending

²⁰ See Luciano Berio, "Concerto for Two Pianos and Orchestra," in *The New York Philharmonic Leon Levy Digital Archives* (March 15, 1973), <https://archives.nyphil.org/index.php/artifact/218377ea-819e-48d5-bdc2-7c083cd88a19-0.1/fullview#page/2/mode/2up>.

²¹ Josef Hausler, *Gyorgy Ligeti in Conversation with Peter Varnai, Josef Hausler, Claude Samuel and Himself* (Eulenburg Books, 1983), 94.

of ‘high and low’²² musical idioms while the sonic narrative of the first violin concerto, *Offertorium*, pertains to the process of a symbolic ‘sacrifice’ of the Bach’s Royal Theme from his *Musical Offering*²³; the compositional procedure utilized in the latter work aims to implement Gubaidulina’s intent to build the score “on the idea of conversion.”²⁴

This idea of “conversion” – more frequently identified as that of *configuration* [преображение/preobrazhenie in Russian] – received various unique interpretations in the composer’s concerted oeuvre starting from the early 1990s. In several works, it appears in association with another of Gubaidulina’s philosophically-infused musical concepts – that of *shadow and light*.²⁵ For instance, in *Music for Flute, Strings and Percussion* (1994) and the concertos for Viola and Koto, completed in 1996 and 1998, the domain of the ‘shadow’ is represented by a scordatura group of strings; however, the structural and semantic context in which the two distinct sound spaces appear and interact is redefined in each new work. Thus, the ‘searching soul’ of the solo Flute in the *Music for Flute, Strings and Percussion* is accompanied

²² The ‘low’ includes several popular Soviet mass and/or street songs representing the destructive power of the Communist state. See Kholopova, *Gubaidulina* (2008), 182.

²³ The tripartite formal design of this work features the theme being methodically ‘destroyed’ (each new variation on the First Section shortens it by one note from each, the beginning and the end) and then, in the Third Section, ‘brought back to life’ or resurrected in the similar fashion. Yet, it is ‘transfigured’ now as it rebuilt in reverse. The ‘transfiguration’ of the original idea becomes a symbolic requital for the sacrifice offered. As, perhaps, the most famous of Gubaidulina’s opuses, the *Offertorium* has received a lot of musicological attention in the West. Numerous works have addressed this topic. See, for instance, Neary (1999), Schmelz (2009), Smith (2010), Medić (2012), and Regovich (2016).

²⁴ Gubaidulina’s phrase (in English translation) is cited in Steven Ledbetter, “Sofia Gubaidulina: *Offertorium* (Violin Concerto) and *Hommage à T.S. Eliot*, performed by Gidon Kremer (Violin) and Boston Symphony orchestra (conducted by Charles Dutoit) (Deutsche Grammophon, 1998). Compact disc, liner notes: 5. See also Valentina Kholopova, *Sofia Gubaidulina* (2008), 193-98.

²⁵ Pertinent references and explications regarding Sofia Gubaidulina’s conception of *shadow and light* as inspired by the ideas of the founder of analytical psychology Carl Gustav Jung will be presented in the fourth chapter of this dissertation, Analytical Étude No. 3: “*In the Shadow of the Tree*” [“*Im Schatten des Baumes*”] for Koto, Bass Koto, Zheng and Orchestra.

by two equally divided groups of orchestral strings: half of them, in standard tuning, represents the ‘light’ while the other half, representing the ‘shadow’, is tuned a quartertone lower. The ‘transfiguration’ of the soloist, tuned in unison with the ‘light’ part of the strings, occurs as he crosses over to the ‘dark’ side through *glissando* and vice versa.²⁶ In the 1998 concerto for Japanese Koto, Bass Koto, Chinese Zheng and orchestra *In the Shadow of the Tree*, the idea of two differently tuned groups of strings is expanded on by adding the quartertone-lower tuning for one of the soloists. Alternatively, the scordatura string group in the 1996 *Concerto for Viola and Orchestra* is a non-standard string quartet consisting of Violin, Viola, Cello and Double Bass. In these works, the transformation of various musical ideas becomes an allegory of continuous transfiguration.²⁷

The markedly different implementations of the idea of ‘transfiguration’ materialize in two other concertos written on the cusp of a new millennium – the double concerto for two violas, *Two Paths: A Dedication to Mary and Martha* (1998) and the concerto for bayan and large symphony orchestra *Under the Sign of Scorpio: Variations on Six Hexachords* (2003). In the latter, the mechanics of this solo instrument become an inspiration for the compositional procedures utilized. Namely, the idea of transfiguration is linked with the bayan’s ability to change “one spatial dimension into another” by “switching from the single-tone manual where each button corresponds to a particular tone, to the standard-bass manual where each button corresponds to a chord.”²⁸ In the former work, the composer’s interpretation of an interaction

²⁶ Gubaidulina’s annotation to this work is available in Kholopova’s monograph (in Russian). See Kholopova, *Gubaidulina* (2008), 113-14.

²⁷ The subject of transfiguration with regard to Gubaidulina’s *Koto Concerto* will be discussed in Chapter 4.

²⁸ Cited from the composer’s annotation published in Kholopova’s volume (2008), 331-32.

between two matching soloists connected to the Biblical story of Mary and Martha leads to an eventual “attaining their ultimate goals” in the Coda. This is expressed by reaching opposite registers – the highest and the lowest, representing the celestial and the earthly. The composer refers to these timbral transformation of the soloists’ themes as “transfiguration.”²⁹

The variety of the musical concepts utilized in Gubaidulina’s concertos and the multiplicity of divergent pathways to develop them are truly astounding. Starting from the early 2000s, as the composer’s experimentation with quarter-tone tunings appears to have run its course, the sonic narrative of her concertos becomes concerned with new musical actualities related to the word symbolism, and the metaphysical exploration of string harmonics, as well as an acoustic phenomenon of summation (i.e., combination) and difference tones.³⁰ Henceforward, the soloist-orchestra dichotomy inherent in the concerto genre becomes envisioned in a broader sense; that is, not as *individual-amidst-the-world* but rather as *a human being-in-the-universe*.

²⁹ Cited from Gubaidulina’s annotation to the work; *ibid.*, 320-21. Few anglophone attempts to address Gubaidulina’s concertos in terms of her “religious symbolism” emerged since 2007. Those have focused on an arduous task of locating and ‘interpreting’ the composer’s “symbolic metaphors” of “dichotomy, cross and transfiguration” (Young-Mi Lee, “Musical Contents and Symbolic Interpretation in Sofia Gubaidulina’s “Two Paths: A Dedication to Mary and Martha” (DMA diss., Ohio State University, 2007), or establishing a “theological ground” through the aid of interdisciplinary methodologies (such as such as the intertextual approach informed by Heidi Epstein, as cited in Smith (2010). See Jenna Smith, “Sofia Gubaidulina’s Violin Concerto *Offertorium*: Theology and Music in Dialogue” (MA Thesis, University of Montreal, 2010).

³⁰ Combination tone is sound that may be heard when two loud musical tones are sounded together but is not present when either of the tones is sounded separately. If the frequencies of two pure tones are f_1 and f_2 , the frequencies of the combination tones are f_1+f_2 , f_1-f_2 , $2f_1+f_2$, $2f_1-f_2$, f_1+2f_2 , f_1-2f_2 , $2f_1+2f_2$, $2f_1-2f_2$ etc. They are usually attributed to non-linearities in the system through which the sound is being transmitted or reproduced. If the only system involved is the ear, they are sometimes described as ‘subjective tones’; the most prominent are the ‘simple’ difference tone, with frequency f_2-f_1 , and the ‘cubic’ difference tone, with frequency $2f_1-f_2$, where f_1 is the lower frequency. See Clive Greated, “Combination Tone,” *Grove Music Online. Oxford Music Online*, <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.07787>.

Difference tone occurs when two pure tones are sounded, a lower note of frequency equal to the difference of the frequencies of the two individual notes may be heard. This is the simple difference tone (also sometimes called the ‘Tartini tone’). It is usually ascribed to non-linearities in the audio system producing the sounds or to non-linearities in the hearing mechanism, and is one of the combination tones with frequency f_2-f_1 . Another combination tone with frequency $2f_1-f_2$, is also sometimes heard; this is the cubic difference tone. Difference tones are most frequently audible in a musical context when two instruments, e.g. flutes, are played together in the high register. See Clive Greated, “Difference Tone,” *Grove Music Online. Oxford Music Online*, <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.07787>.

Thus, the word symbolism of the third violin concerto *In Tempus Praesens* (2007), for instance, is connected to the concept of “Sophia,” the wisdom and the creative power of the Divine. The reference is made to her world-famous soloist’s name, Anne-Sophie Mutter, as well as to Gubaidulina’s own given name. The composer refers to this as the “double vector of Sophia,” the synergy of divine wisdom and God’s creative energy.³¹ The unspoken narrative of the *Fachwerk*, the 2009 concerto for bayan, percussion and strings, is intensified by utilizing pitch-related musical symbolism: the opening sonority of the slow chord progression in accordion part (F-major chord) coincides with the first letters from the title of the piece – F, A, C.³² Alternatively, the sonic tale of the 2017 *Triple Concerto* for violin, violoncello, bayan and orchestra concerns the “three-ness” as its main organizing principle. It is reflected in the title, the tripartite form of the work, as well as the triadic nature of certain compositional devices such as, for instance, the triads which are used to organize the orchestral texture.³³ Two other universal formative devices at work here are the Fibonacci series and the extensive exploration of string harmonics in which intervals contract as the tones of the series ascend and vice versa. For the composer this symbolizes the revelation of three forces: “the expansion force of widening intervals, the contraction of condensing intervals and the reaction to this cosmological drama.”³⁴

³¹ See Gubaidulina’s annotation to this work (in Russian) in Kholopova, *Sofia Gubaidulina* (2020), 335-36. See also an outstanding music documentary (2008) directed by Jan Schmidt-Garre, titled “Sophia: Biography of a Violin Concerto.” The film captures the creative process behind the composition of Gubaidulina’s second concerto for violin and orchestra and documents the collaboration between Anne-Sophie Mutter, Simon Rattle and the Berlin Philharmonic. Multiple excerpts from the film can be watched on YouTube. See, for instance, <https://youtu.be/oEFnOC15Ufo>.

³² This observation is made in Branko Džinović, “The Composer-Performer Interrelationship in the Bayan and Accordion Compositions of Sofia Gubaidulina” (DMA diss., University of Toronto, 2017), 75. <https://utoronto.scholaris.ca/items/a7c10a84-3b1a-4600-82df-59bd596d282b>. Also, see Gubaidulina’s annotation to this work in Kholopova, *Sofia Gubaidulina* (2020), 341-42.

³³ Refer to Gubaidulina’s annotation to her work. Available in Kholopova, *Sofia Gubaidulina* (2020), 360-61.

³⁴ Kholopova, *Sofia Gubaidulina* (2020), 361.

Contrariwise, the main idea of the concerto for Flute and large orchestra *The Deceitful Face of Hope and of Despair* (2005) is “consistent acceleration and deceleration of the pulse of the sound web” governed by numerical laws of the Fibonacci series.³⁵ Here, both the orchestra and the soloist explore the idea of difference tones. “Every interval,” Gubaidulina explains, “creates a summation tone and a difference tone: an interval in the lowest register creates a difference tone which we recognize not as a tone but a pulsation. At higher registers we hear the pulsation of the difference tone simultaneously with the original interval.”³⁶ On a similar note, the concerto for Violin, Percussion and String Orchestra *The Lyre of Orpheus* (2006) presents the composer-found connections between the general physics of sound and the strings’ tuning of the lyre of the legendary singer Orpheus. Gubaidulina states that she sees the auditory illusion of the summation and difference tones as a metaphor for a correlation between musical processes unfolding in time and processes within a sound itself.³⁷ Further, the central theme of her extraordinary *Glorious Percussion* (2008) is “the agreement of the sounding intervals with their difference tones.”³⁸ The composer states:

[...] the structure of the form [...] results from this as well: the sound movement thrice comes to a standstill. Before this static background, only the respective pulsation caused by the intervals of

³⁵ Ibid., 331. Also cited (in English translation) in Hans-Ulrich Duffek, “Sofia Gubaidulina: *The deceitful face of Hope and Despair*; *Sieben Worte* performed by Sharon Bazaly (flute) and Gothenburg Symphony orchestra/The National Orchestra of Sweden, cond. Mario Venzago (BIS Records, 2006). Compact disc, liner notes: 5.

³⁶ Duffek, “Sofia Gubaidulina,” 5.

³⁷ Refer to Gubaidulina’s annotation to her work. Available in Kholopova (2020), 328-31.

³⁸ See an interview with the composer on the Berlin Philharmonic website, “Sofia Gubaidulina in Conversation with Margarete Zander.” Available at <https://www.digitalconcerthall.com/en/interview/248-3>. For the above citation see Sofia Gubaidulina, “*In tempus praesens* and *Glorious Percussion*: Concertos by Sofia Gubaidulina,” performed by Vadim Gluzman (violin); *Glorious Percussion*: Anders Loguin; Anders Haag; Mika Takehara; Eirik Raude; Robyn Schulkowsky and Lucerne Symphony Orchestra, cond. Jonathan Nott (BIS Records, 2008). Compact disc, liner notes.

the previous chord remains. Such episodes appear at particular structural points, thus subjecting the form to the law of the Golden Section.³⁹

Purportedly, the outlined musical concepts employed in Gubaidulina's concertos, along with the variety of means to develop them, reflect the composer's extraordinary determination to reimagine traditional genre-related ideas and forms, to transform them in an effort to redefine the boundaries of the concerto genre.⁴⁰ From this standpoint, Gubaidulina's musical objectives seem to be comparable to Ligeti's aims and goals of not repeating "the same experiment again," as cited earlier. And yet Gubaidulina, who considers nearly all of her compositions to be "variations on the theme of the cross,"⁴¹ insists that throughout her musical career she has been writing "one and the same song"⁴² over and over again. On multiple occasions she has spoken out against categorizing her works as avant-garde, repeatedly emphasizing that the criterion of newness, or innovation, when accentuated in a work of art, is not essential in her music. She believes that "composers should think about depth [of the music], not about innovations."⁴³ Moreover, in

³⁹ In Helmut Peters, "*In tempus praesens and Glorious Percussion: Concertos by Sofia Gubaidulina*," (BIS Records, 2011). Compact disc, liner notes: 7.

⁴⁰ The full list of Sofia Gubaidulina's Instrumental Concertos is presented in Appendix 1. The works are compiled in chronological order; their titles, in original versions (in Russian/Italian/Latin/German) and in English translation, are accompanied by identification of each work's full duration, principal soloist(s), the names of dedicatee(s), and the literary texts used, if any.

⁴¹ See Sofia Gubaidulina, "Travelling in an Imaginary Space: Meeting with Students and Teachers of the Moscow Conservatory," *Tribuna molodogo zhurnalista* [A Young Journalist Tribune] 1 (2011): 2 (In Russian), <https://tribuna.mosconsv.ru/?p=1950>.

⁴² See Aisylu Khafizova, "I've Been Writing the Same Song All My Life" ["Я всю жизнь пишу одну и ту же песню"], interview with Sofia Gubaidulina, *Tatar-Inform* (November 2, 2016), <https://www.tatar-inform.ru/news/sofiya-gubaydulina-ya-vsyu-zhizn-pishu-odnu-i-tu-zhe-pesnyu>.

⁴³ Vera Lukomsky, "Sofia Gubaidulina: 'My Desire Is Always to Rebel, to Swim Against the Stream!,'" *Perspectives of New Music* 36, no. 1 (Winter 1988): 8, <https://www.scribd.com/document/817120360/toaz-info-sofia-gubaidulina-my-desire-is-always-to-rebel-to-swim-against-the-stream-vera-l-pr-1af883e4d8cbbd1304fc36e0e00dc475>.

many interviews, she expressed her reservations about the very idea of continual innovation in music. “The twentieth century has already had enough innovations, be they timbral, textural or whatever,” – writes the composer in a 1994 letter to Michael Kurtz.⁴⁴ Further in the same letter, a distinctive turn of a phrase captures the essence of Gubaidulina’s attitude towards innovation in music as following: “Perhaps the purpose of our actions today is not to invent more and more novelties; the *filters* need to be turned on, not the *generators*.”⁴⁵

In consequence of the composer’s utterances, the question of her personal “searching for truth” and the concurrent reimagining of the instrumental concerto genre become a subject of semantic parsing within the scope of this study, presented in the form of a condensed summary accompanied by references to relevant scholarly works. Its objective is to break down the principal elements of a concerto into its constituent parts and examine each component in order to understand its role and significance as envisioned by the composer. Thus, the remainder of this chapter aims to distill three fundamental concepts related to the genre: virtuosity, treatment of traditional concerted forms and their structural components and, finally, Gubaidulina’s use of the Fibonacci numbers and her concept of the *Rhythm of Form*.

Virtuosity: Interweaving the Performer into the Fabric of Music and Beyond

Sofia Gubaidulina’s reimagining of virtuosity appears to resonate with a number of trends discussed in recent musicological literature that explores the role and significance of the concept

⁴⁴ See Michael Kurtz, *Sofia Gubaidulina: A Biography*, ed. Malcolm H. Brown, trans. Christoph K. Lohman (Indiana University Press, 2007), 69.

⁴⁵ Kurtz, *Sofia Gubaidulina*, 69. *Our emphasis*.

during the twentieth and twenty-first centuries. Relevant to the current discussion are several concepts: “anti-virtuosity,”⁴⁶ which emphasizes sonic exploration over technical display; “collective virtuosity,”⁴⁷ which focuses on collaboration and the blending of roles between composers and performers; “interdisciplinary virtuosity,”⁴⁸ which refers to the integration of knowledge and skills from various fields. The idea of “non-sonic virtuosity,”⁴⁹ defined as the concept linked to physical gestures or actions within a musical context, appears to be part of an interdisciplinary theoretical framework associated with elements of musical theatre.

It is essential to note that positioning Sofia Gubaidulina within this musicologically constructed compendium of ideas can be meaningful only when rooted in her fundamental understanding of a concerto soloist as a unique individual – someone who is “cast in the image of music.”⁵⁰ As a composer who consciously distances herself from current trends and draws from an introspective metaphysical inspiration, Gubaidulina’s deliberate intention has never been

⁴⁶ Among most recent publications on the topic, see, for instance, Ralph P. Locke, “Anti-virtuosity and Musical Experimentalism: Liszt, Marie Jaëll, Debussy, and Others,” in *Liszt and Virtuosity* (University of Rochester Press, 2020), 346-86; and Jeff Kaiser, “Improvising Technology, Constructing Virtuosity,” *Cuadernos De Música, Artes Visuales y Artes Escénicas* 13, no. 2 (2018): 87-96, <https://revistas.javeriana.edu.co/index.php/cma/article/view/21220/19994>.

⁴⁷ See, for instance, Michael Mauskapf, “Collective Virtuosity in Bartók’s Concerto for Orchestra,” *Journal of Musicological Research* 30, no. 4 (2011): 267-96, <https://doi.org/10.1080/01411896.2011.614167>.

⁴⁸ Refer to Linda Jankowska, “Re-Thinking Virtuosity for the Hybrid Era of Multifarious Approaches,” *Contemporary Music Review* 42, no. 3 (2023): 288-303, <https://www.tandfonline.com/doi/pdf/10.1080/07494467.2023.2277544>. And, for more comprehensive overview: Linda Jankowska, “For the Beauty of the Act. Reflections on the Concept of Interdisciplinary Virtuosity in New Music Performance” (PhD diss., University of Huddersfield, 2021), https://www.academia.edu/85280613/For_the_beauty_of_the_act_Reflections_on_the_concept_of_interdisciplinary_virtuosity_in_new_music_performance

⁴⁹ See Monika Voithofer, “My Material is Not Sound. My Material is Audibility: Notes on Non-Cochlear Music,” paper presented at *Rethinking Sound* (30–31 March 2018, Seoul, South Korea). Cited in Louise Devenish, “Instrumental Infrastructure, Instrumental Sculpture and Instrumental Scores: A Post-Instrumental Practice,” *Music and Practice* 9 (2021): 3-17, <https://www.musicandpractice.org/wp-content/uploads/2021/12/Devenish.-pdf.pdf>

⁵⁰ Gubaidulina’s locution cited in Kholopova (2020), 186.

to entertain or create virtuosic pieces, but rather to profoundly move her audience by offering it a glimpse into the existential depths of a human soul. Strikingly, as the process of ‘interweaving the performer into the fabric of the music’ unfolds, the sounding matter itself tends to reflect the character and personality of the soloist for whom it was composed. Numerous examples can be found in interviews and conversations with the composer herself, with the dedicatees of her concertos, and in other discussions that illustrate how deeply personal and contextual elements influence Sofia Gubaidulina’s concerted compositions. These insights provide a rich understanding of the interplay between the composer’s intent and the unique characteristics of each soloist, highlighting the profound connection between the music and its intended performers.

➤ **Anti-Virtuosity and Anti-Concerto**

In our present discussion, the idea of *anti-virtuosity* is intrinsically connected with the topic of *anti-concerto*. While the former is largely self-explanatory, the latter remains an ever-elusive notion that emerged in musical literature in the early 1970s. In its present condition, the concept of *anti-concerto* lacks a clear definition; the term itself does not appear in music dictionaries, including the Oxford/Grove Dictionary of Music Online. And yet, numerous theses and dissertations, composers’ own descriptions of their works, as well as some of reputable musicological publications use this word with a variety of meanings.⁵¹ Generally, it can refer to a

⁵¹ See, for instance, Mark Evan Bonds, “*Sinfonia anti-eroica*: Berlioz’s *Harold en Italie* and the Anxiety of Beethoven’s Influence,” *The Journal of Musicology* 10, no. 4 (Autumn, 1992): 417-63, <https://www.jstor.org/stable/763644>.
 Jacqueline Leggatt, “Music for a Saxophone Concerto” (DMA diss., University of British Columbia, 1996), <https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/831/items/1.0087299>.

multitude of aspects regarding breaking away from the traditional, predominantly Romantic concerto type. Among its most frequently mentioned features are the following: the absence of dramatic conflict between the soloist(s) and the orchestra, i.e., avoiding traditional concerto rhetoric such as the hero versus the masses; the omission of the word ‘concerto’ in titles; the use of ‘unusual’ soloists; the changing nature of the relationship between the soloist and the orchestra, where the former becomes somewhat disassociated from the latter; as well as the creation of works in mixed or hybrid genres, such as the symphony-concerto and concerto for orchestra, among others. However, the issue that stands out most often is the avoidance of the typical virtuosic writing associated with concerto soloists, favoring instead the creation of ‘mood and atmosphere.’

Considering the broad spectrum of these ideas, one could argue that the overwhelming majority of Gubaidulina’s concertos should be categorized as anti-concertos. Indeed, only four out of twenty-one works are actually titled “concertos”: the *Concerto for Bassoon and Low Strings* (1975), *Concerto for Viola and Orchestra* (1996), the *Triple Concerto* (2017), and the *Concerto for Two Orchestras, Jazz and Symphony* (1976). However, the last work was later renamed by the composer; in its final version, currently listed in the Sikorski/Boosey catalog, it is titled *Revue Music for Symphony Orchestra and Jazz Band*. The majority of the remaining concerted compositions can be considered either works in ‘mixed’ genres or works for ‘unusual soloists.’ For example, the Latin-titled *Introitus* and *Offertorium* as well as her piece for two solo violas and orchestra, *Two Paths: A Dedication to Mary and Martha* (1998), allude to the

Daniel Trueman, “Clapping Machine Music Variations: a composition for acoustic/laptop ensemble,” *Proc. ICMC* (2010), <https://dtrueman.mycpanel.princeton.edu/cmmv.pdf>.

Arnold Whittall, “Barrett,” *Tempo* 67, no. 265 (2013): 100; Anna Nowak, “A New Aesthetic Ideas and the “Memory of Genre” in the 20th and 21st Century Polish Instrumental Concertos,” *Literature and Arts Review/ Science Signpost Publishing* (2023): 1-13, <https://www.ss-pub.org/wp-content/uploads/2023/06/LAR-2023031401.pdf>.

Christian liturgy and the Gospel of Luke. Works such as *Under the Sign of Scorpio: Variations on Six Hexachords* (2003) and *Fachwerk* (2009) are written for an unconventional concerto soloist, bayan (a type of Russian button accordion). The *Triple Concerto* features an unusual trio of soloists: violin, cello, and bayan. *In the Shadow of the Tree* (1998) presents three notably rare concerto soloists – Japanese Koto, Bass Koto, and Chinese Zheng – while *Glorious Percussion* (2008) showcases five percussionists playing thirty-eight instruments, including several not previously used by the composer (e.g., glass chimes, bamboo chimes, and cabasa [an Afro-Brazilian rattle, a shaken percussion instrument]).⁵²

However, acknowledging all of the aforementioned anti-concerto concepts as equally important can be misleading, since nearly all of the listed works present dramatic dynamic climaxes characteristic of Gubaidulina’s larger instrumental forms and challenge the soloists with a wide variety of technical difficulties related to her use of extended instrumental techniques.⁵³ The only work that truly falls into the category of anti-concerto – understood as a work completely devoid of any impressive technical prowess on the part of the soloist and retaining its quiet, meditative character throughout – is Gubaidulina’s piano concerto, *Introitus*. This work, which has received an appreciable amount of musicological attention in the past few decades, is often described as lacking dramatic dynamic fluctuations and as presenting the pianist’s contemplative dialogue with the orchestra and its various soloists, which include the

⁵² Refer to Gubaidulina’s list of instruments in the score. In Sofia Gubaidulina, *Glorious Percussion*, Konzert für Schlagzeugensemble und Orchester (Hamburg: Sikorski Musikverlage, 2008).

⁵³ Curiously, despite the word “concerto” in its title, Gubaidulina’s *Concerto for Bassoon and Low Strings* (1975) is labeled as an ‘anti-concerto’ in Pollard’s thesis; the author’s rationale remains unclear. See Amy Marinello Pollard, “Solving the “Problems” of Extended Techniques: Annotated Performance Guides to Sofia Gubaidulina’s Bassoon Works” (DMA diss., University of Cincinnati, 2012), 35-36.

flute, bassoon, and, towards the end, the violin.⁵⁴ Remarkably, one of the recent papers dedicated to this work is titled “Sofia Gubaidulina’s Non-Concerto for Piano: Introitus.”⁵⁵ In her 1998 conversation with Lukomsky, the composer herself describes the work as follows:

My Piano concerto Introitus [...] is unlike a typical concerto. One could say it is not a concerto at all. The piano part is purely meditative, completely deprived of virtuosity. Everything is meant to sound pianissimo. I do not want either virtuosic or assertive passages; I do not want loud chords. My soloist penetrates into the depth of the sound; he/she listens and invites all the others to listen, too.⁵⁶

With regard to the interconnection between the idea of avoidance of virtuosity in its traditional sense and the soloist who “listens and invites [...] others to listen,” one of the composer’s earlier acknowledgments provides valuable insight into the importance of the performer’s personality during the conceptual part of her compositional process. Gubaidulina’s 1978 concerto for piano and chamber orchestra was composed at the suggestion of two performers: pianist Alexander Bakhchiev and conductor Yuri Nikolaevsky. The former was renowned among Soviet audiences as an exquisite chamber musician whose performance style was noted for its absence of vanity and self-aggrandizement. His interpretations were characterized as chivalrous, reflecting a profound reverence for and respect toward the original scores.⁵⁷ The latter was widely

⁵⁴ Kholopova (2020), 187. The work is mentioned in several Anglophone publications; e.g., the record review by Ronald Weitzman, “Gubaidulina: Chaconne; Sonata; Musical Toys; Introitus; Concerto for Piano and Chamber Orchestra,” *Tempo* 196, New Series (April, 1996): 56-57, <https://www.jstor.org/stable/944470>.

Also: in Rebecka Sofia Ahvenniemi, “Musical Composition as Lingering Reflection. Exploring the Critical Potential of Music” (PhD diss., University of Helsinki, 2021), <https://helda.helsinki.fi/server/api/core/bitstreams/04181157-3cdb-432e-9790-d3c09ee2c6b7/content>

⁵⁵ See Konstantin Pantelidis, “Sofia Gubaidulina’s Non-Concerto for Piano: Introitus” [Ne-konzert dlya fortepiano: “Introitus” Sofii Gubaidulinoi], in *To Sofia with Love* (Scientific Publishing Center of the Moscow Conservatory, 2014), 158-68.

⁵⁶ Vera Lukomsky, “The Eucharist,” 30.

⁵⁷ The Russian pianist and teacher Alexander Bakhchiev was a graduate of the Moscow Conservatory and, from 1990 until his death in 2007, was on its faculty. For over thirty years, he performed in a piano duet with his wife, Elena Sorokina (b. 1940). His name appears on more than a hundred LPs and CDs. An informative and impassioned

acknowledged as a passionate proponent of music created by contemporary composers. The following is Gubaidulina's characterization of Nikolaevsky in relation to his performance of the

Introitus:

Nikolaevsky provokes metaphysical ideas. This doesn't mean he dismisses the 'mood.' He plays complex music and embodies precision and depth. I understand his musical expectations. Beyond evoking the mood and the surface sound layer, he seeks a structural, symbolic, and metaphysical dimension. He perceives music as a transparent polyphony of meanings, which is reflected in his immediate recognition of the score's ambiguity. The specific limitations of the concerto's musical elements mirror Yuri Nikolaevsky's personality; this work is not pathos-laden; rather, it is contemplative and lyrical.⁵⁸

It must be further noted that this exploration of sonic possibilities, which resonate with the unique characteristics of the originally intended performers – the pianist and the conductor – also presents Gubaidulina's singular endeavor to create a concerted work for the solo instrument in which she herself possesses impressive technical proficiency.⁵⁹ The subsequent choices of her concerto soloists beyond the traditional piano, violin, or cello distinctly underscore the composer's artistic inclination to explore new and less familiar sounds, where an intense collaboration with the intended soloist becomes a vital part of Gubaidulina's compositional process.

article about him was written 2008 by Bakhchiev's colleague, pianist Ruvim Ostrovsky. See Ruvim Ostrovsky, "Do Not Forget Your Comrades: An Attempt at an Epitaph (About Alexander Bakhchiev)" [Не забывать товарищей своих... Попытка эпитафии (Об Александре Бахчиеве)], *Music Academy* 4 (2008): 123-26. The full text of this article can be accessed (in Russian) at <https://mus.academy/articles/popytka-epitafii>.

⁵⁸ Kholopova (2020), 186.

⁵⁹ In 1954, Gubaidulina graduated from the Kazan Conservatory with a diploma in piano performance. Her program featured several notable works, including Liszt's *Totentanz* for piano and orchestra and Beethoven's *Appassionata*. See Kurtz, *Gubaidulina*, 30. The majority of her own works for piano – both solo and in various chamber combinations – were written during the early Moscow period; e.g., Piano Quintet (1957); Sonata for Piano (1965); *Musical Toys* (Musikalisches Spielzeug), a collection of piano pieces for children (1969); *Toccata-Troncata* for piano (1971); Sonata for double bass and piano (1975); *Sounds of the Forest* (Klänge des Waldes) (1978) for flute and piano; *Two Ballads* for two trumpets and piano (1976) etc.

➤ **Collective Virtuosity: Creative Synergy in Full Effect**

“No words can fully express my adoration for the performing arts,” says Gubaidulina in an interview from the early 2000s. “It is very important to me when a performer offers his initiative and says, ‘Write a piece for me.’ At that moment, I experience a strange feeling – I see his eyes, his manner of speaking, his way of moving. This was the case with Gidon Kremer, Vladimir Tonkha, Mark Pekarsky, and many other performers who have inspired and animated my work.”⁶⁰ Indeed, the majority of Sofia Gubaidulina’s concertos were the result of creative collaborations with a distinguished array of world-renowned instrumentalists, including Mstislav Rostropovich, Anne-Sophie Mutter, Friedrich Lips, and Kazue Sawai, among others.⁶¹ These works were conceived with a specific performer in mind, enabling the development of her creative ideas through close and sustained interaction with the performer. Throughout her compositional career, Sofia Gubaidulina maintained the conviction that musical composition depends on three essential elements: the composer, the performer, and the audience.⁶² In her view, a successful composition arises from the collaboration between a skilled composer, a talented performer, and an engaged audience; the exclusion of any one of these components undermines the overall experience. As she elaborates on this idea in an interview with Branko Džinović, Gubaidulina states: “Naturally, it is rare, and it is a joy, when they are in accord.”⁶³ In a 1997 interview with Bruce Duffie, the composer states that she believes a composition is not

⁶⁰ Radio podcast: “Composer Sofia Gubaidulina,” Program 6 on *RadioBlago FM 102.3* (n.d.), <https://www.radioblago.ru/vremyakultury/sofya-gubaidulina-6?ysclid=m33txphwc912363692>.

⁶¹ Appendix 1 presents the full list of the concertos’ dedicatees.

⁶² Refer to the interview with the composer conducted and cited by Branko Džinović. In Džinović, “The Composer-Performer Interrelationship,” 16.

⁶³ Džinović, “The Composer-Performer Interrelationship,” 16.

fully complete until she has worked with the performers. She perceives composing as distinct from other art forms, explaining that “the composer does not do the whole work, but he does half of the work. It is absolutely necessary that the performers would be active in this process, that they would not only read the score, but would bring an active input. In this case the real piece can be born.”⁶⁴ Contemplating the breadth of available historiographical data surrounding the composer’s concerted works, one observes that her approach to soloists evolves through two distinct phases. In the 1970s, her focus rested primarily on acquiring and mastering a range of novel instrumental techniques, as well as adapting the notated score to the practical realities of sound production, which were often discovered during rehearsals. By the 1980s, however, her study of the character of the prospective soloist and the specificities of each instrument (including instruments beyond those of the original dedicatees) became a crucial component of her creative process. This shift sought to deepen the integration of the performer’s personality into the very fabric of her music.

The testimony of Natalia Shakhovskaya,⁶⁵ the dedicatee of Gubaidulina’s first concerto, *Detto II* for violoncello and chamber ensemble (1972), offers a glimpse into the composer’s remarkable sensitivity to the suggestions and requests of the soloist for whom the work was originally created. According to Michael Kurtz, during the initial rehearsing, the unfamiliar

⁶⁴ Bruce Duffie and Sofia Gubaidulina, “Composer Sofia Gubaidulina, A Conversation with Bruce Duffie,” April 18, 199, <https://www.bruceduffie.com/gubaidulina.html>.

⁶⁵ Highly regarded for her renditions of Romantic music and selected twentieth-century compositions, Natalia Shakhovskaya (1935–2017) was a prominent Soviet/Russian cellist and pedagogue. She studied cello at the Gnessin School of Music and later at the Moscow Conservatory under the tutelage of Semyon Kozolupov and Mstislav Rostropovich. In 1962, she won the First Prize and Gold Medal at the International Tchaikovsky Competition, which allowed her to pursue an active career as a soloist with top orchestras and conductors worldwide. A recent documentary about this outstanding 20th-century cellist, whose legacy is firmly established in the history of both Russian and world music, was produced by Irina Zaitseva. See “The Russian Rondo of Natalia Shakhovskaya,” directed by Irina Zaitseva. *Film Studio APC*, 2019. Available online (with English subtitles) at <https://youtu.be/QkqBsnwzb5I>

musical language of this piece posed significant challenges for both the cellist and the ensemble.⁶⁶ This prompted the performers, along with the composer, to explore various experimental methods of sound production. In a 1998 interview with Kurtz, Shakhovskaya recalls:

When the *pizzicati* of the violins did not stand out sufficiently, I suggested that the instrument be placed on the knees like a cello – and right away the sound was louder, clearer, and more assertive. The beginning of the second part was technically extremely difficult – virtually unplayable. Gubaidulina confirmed my suspicion that this had been done on purpose and she said: “Do as much as you want with it.” She looked at this difficult passage in terms of colour – it was the expression that mattered to her, the intonation was secondary.”⁶⁷

While working on her *Concerto for Bassoon and Low Strings* (1975), dedicated to the famous Russian bassoonist Valery Popov, the composer, who admitted to being “literally bewitched” by his artistry, attended all of his concerts and classes at the Moscow Conservatory, where Popov taught. “Gradually,” she says, “I began to penetrate the essence of the instrument itself, to understand it as one might understand a character in a play. It was then that the idea came to me to surround the ‘personality’ of the bassoon with low-register strings – double basses and cellos.”⁶⁸ A year later, continuing her exploration of sound, the composer completed her first percussion concerto, *Hour of the Soul*, dedicating it to her friend and colleague Mark Pekarsky – a renowned Moscow percussionist and collector of exotic instruments, many of which are featured in the Percussion Ensemble that he founded in 1976.⁶⁹

⁶⁶ Kurtz, 106.

⁶⁷ Ibid.

⁶⁸ Ibid., 116.

⁶⁹ Kholopova informs us that Gubaidulina created multiple versions of this composition. In 1974, she wrote a poem for a large brass band (without percussion), with a singer participating in the coda. The poem was titled *The Hour of the Soul*. In 1976, the composer reworked it into a concerto for percussion and symphony orchestra, with a soprano soloist, dedicating it to its first performer, Mark Pekarsky, and naming it *Percussio di Pekarski*. Later, without altering the musical text, she changed the title once more to *The Hour of the Soul: Music for Percussion, Mezzo-Soprano, and Large Orchestra*. See Kholopova (2008), 180. Information about Mark Pekarsky’s Percussion

From the early 1980s onward, Gubaidulina placed greater emphasis on the personality of the soloist, rather than on instrumental technicalities or ‘practical’ modifications to the score suggested by a performer. At the time of initial conception of her first violin concerto, *Offertorium*, she had already authored a substantial number of works exploring so-called ‘extended’ techniques of string sound production.⁷⁰ Unlike the previous composer-performer concerto collaborations, where prolonged study periods were dedicated to exploring the instrumental possibilities, Gubaidulina found Gidon Kremer’s request to write a violin concerto in the winter of 1977-78 particularly exciting. Kholopova recalls that this event led to Gubaidulina attending all of Kremer’s concerts in Moscow “with one specific goal” – to immerse herself into his performance style.⁷¹ The composer ‘studied’ Kremer’s stage presence during this musical process, paying close attention to his arm movements, the way he turned his torso, his facial expressions, and more. She was particularly drawn to Kremer’s ability to transition between moods, often diametrically opposed: “[...] from the most delicate, barely audible, and heartfelt emotion to virtuosic, almost ecstatic playfulness; from dramatic expressivity and sorrowful lamentation to lighthearted dance; from demonic aggressiveness to profound, prayerful contemplation.”⁷² For Gubaidulina, this oscillation between extremes was the most fascinating aspect of Kremer’s stage persona. She was also deeply moved by his relationship with sound.

Ensemble is available on the official website of the Moscow Conservatory at <http://www.mosconsv.ru/en/groups/22016>

⁷⁰ Among the works written prior to 1980 are her *Concordanza* and *String Quartet* No. 1 (1971); *Detto II* (1972), written in collaboration with Natalia Shakhovskaya; *Ten Études (Preludes)* for Solo Cello (1974) and *In Croce* (1979), in collaboration with Vladimir Tonkha; and *Sonata for Double Bass and Piano* (1975), in collaboration with Anatoly Grindenko.

⁷¹ Kholopova (2008), 194.

⁷² Ibid. The quoted passage is translated from Russian by Christoph K. Lohmann and edited by Malcolm Hamrick Brown. See citation in Kurtz, 149.

“When his finger touches the string, I feel that his entire life energy focuses on this single point. [...] In this union of the tip of the finger and the resonating string lies the total surrender of the self to the tone. And I began to understand that Kremer’s theme is sacrifice – the musician’s sacrifice of himself in self-surrender to the tone.”⁷³ This perception of Kremer as a musician became the foundation for the concept of sacrifice in the composition itself. The offering of the performing violinist prompted the ‘offering’ or metaphorical transformation of the ‘royal theme’ from Bach’s *Das Musikalische Opfer* and, on a deeper level, influenced the way this theme was treated in the music. One could say that the music of Gubaidulina’s *Offertorium*, reflecting Kremer’s ability to seamlessly shift from the diabolic to the divine, from the lyrical to the cheerful, or, in short, from one extreme to the other, became, in a way, a set of variations on the violinist’s character.

Another performer who has significantly influenced Gubaidulina’s work over several decades is the renowned Russian cellist Vladimir Tonkha. Her second cello concerto, *From the Book of Hours* [*Aus dem Stundenbuch*] (1991), is dedicated to him. The artistic partnership between the composer and the performer, which began in the late 1970s, has always been based on mutual understanding and the view of the music-making process as a religious act – a form of communication with God.⁷⁴ Gubaidulina has described him as “a musician communicating his innermost thoughts and his whole soul through sound.”⁷⁵ It is not surprising that the composer’s

⁷³ Ibid., 80.

⁷⁴ Prior collaborations of Gubaidulina and Tonkha include *Ten Preludes (Études)* (1974) for solo violoncello, *In croce* (1979) for violoncello and organ, and *Seven Words* (1982) for violoncello, bayan, and strings; the last of these works is dedicated jointly to Vladimir Tonkha and Friedrich Lips. Their subsequent collaborations include *Quaternion* for four violoncelli (1996) and *Simple Prayer [Einfaches Gebet]* (2016) for narrator, two violoncelli, double bass, piano, and two percussionists.

⁷⁵ See Vera Teplitskaya, “‘Across the Worlds’ of Vladimir Tonkha,” *Music Academy* 4, no. 728 (2009):10, <https://mus.academy/articles/sredi-mirov-vladimira-tonkha>.

choice fell on Tonkha as the dedicatee for this concerto, for he has unfailingly been the musician uniquely able to identify and empathize with Gubaidulina's own search for the divine – a theme poignantly expressed in Rilke's poems through the persona of a Russian monk conversing with God in times of crisis.⁷⁶ Furthermore, the composer's deep affinity for multi-layered symbolic meaning imbues the Tonkha's instrument with an identity akin to Rilke's confessing monk. In her annotation of Gubaidulina's work, Valentina Kholopova elucidates that prior to its acquisition by the cellist in 1970, this instrument had long resided as an exhibit in the State Collection of Unique Musical Instruments, only regaining its full sonic potential by 1980. A decade later, as Gubaidulina completed her composition, she wove a rich tapestry of symbols reflecting the 'death and rebirth' of the instrument itself – among them, the constructive significance of the numbers ten and eleven, the emblematic register-related ascents and descents, and their abrupt endings.⁷⁷

Sofia Gubaidulina's collaborations with renowned bayanists, notably Friedrich Lips and Elsbeth Moser, have been central to shaping Russian musicological thought over the years.⁷⁸ In Anglophone scholarly discourse, the most comprehensive recent study of the composer's artistic interactions with bayan players was conducted by Branko Džinović, a Toronto-based artist and

The biography of the cellist is available in English on the official website of the Gnessin Russian Academy of Music at <https://eng.gnesin-academy.ru/employees/tonkha-vladimir-konstantinovich/>. A more detailed version (in Russian) is accessible at <https://gnesin-academy.ru/employees/tonkha-vladimir-konstantinovich/>.

⁷⁶ See Kurtz, 70-71, 88, 104.

⁷⁷ Kholopova (2008), 301.

⁷⁸ See, for instance, an extensive recent study by Mironova: Ul'yana Aleksandrovna Mironova, "The Bayan Works of Sofia Gubaidulina," Candidate dissertation (Gnessin Russian Academy of Music, 2008) [Ульяна Александровна Миронова, "Произведения Софии Губайдулиной для баяна," Кандидатская диссертация, Российская академия музыки имени Гнесиных (2008)].

scholar specializing in contemporary music.⁷⁹ His thesis explores Gubaidulina's creative partnerships with four leading bayanists and accordionists: Lips, Moser, Geir Draugsvoll (Denmark), and Alberdi Iñaki (Spain). Džinović examines how these musicians have contributed to the creation and performance of some of Gubaidulina's most significant works for bayan, including her concertos: *Under the Sign of Scorpio* (2003), dedicated to Lips; *Fachwerk* (2009), dedicated to Draugsvoll; and the *Triple Concerto* for Violin, Cello and Bayan, dedicated to Moser. Džinović also traces how Gubaidulina's creative vision has evolved through her dialogues with different performers, highlighting how her music adapted to variations in instruments – such as differences in range and keyboard layout – as well as the artistic personalities of each bayanist. These adaptations of the composer's original works to the specificities of individual instruments, such as, for instance, the 2010 revision of the cadenza for the bayan concerto *Under the Sign of Scorpio*, originally written for Lips in 2003 by Spanish accordionist Alberdi Iñaki,⁸⁰ have always been a distinctive element of Gubaidulina's creativity, aimed at adjusting an existing composition to suit a new, devoted musical artist and their particular instrument.

In essence, this process of performer-driven change can be seen as a form of musical *pentimento*, or 'sonic repainting' of earlier written works, intended to reflect new sounding

⁷⁹ Branko Džinović, "The Composer-Performer Interrelationship in the Bayan and Accordion Compositions of Sofia Gubaidulina," (2017). Among other English-language sources are Kurtz's description of Gubaidulina's collaboration and friendship with Lips, Tonkha (see Kurtz, 132-35), and Moser – the professor from the Music faculty at Hannover University, who played an instrumental role in Gubaidulina's emigration to Germany in 1991 (Kurtz, 217-18); Caroline M. Askew, "Sources of Inspiration in the Music of Sofia Gubaidulina: Compositional Aesthetics and Procedures" (PhD diss., University of Huddersfield, 2002); and Jennifer Denise Milne, "The *Rhythm of Form*: Compositional Processes in the Music of Sofia Gubaidulina" (PhD diss., University of Washington, 2007).

⁸⁰ Džinović (2017), 82-94.

realities.⁸¹ Among the composer's revisions of her concerted works, one notable example is the 2015 revision of the *Viola Concerto* (1996). Originally written for the Paolo Antonio Testore viola (1758), which was played by the work's dedicatee, Yuri Bashmet, the solo part was later revised for the unique Stradivarius viola known as the "Gustav Mahler" (1672), which is now played by the French violist Antoine Tamestit.⁸² At the same time, the astonishing variety of interpretations of Gubaidulina's concertos – an element the composer herself encourages – becomes especially striking when one immerses oneself in the wealth of recordings of her works performed by a broad array of artists. The range of artistic perspectives offers a vivid testament to the depth of connection these musicians share with Gubaidulina's unique musical voice. For example, the 1997 *Sonnengesang*, originally dedicated to the towering figure of Mstislav Rostropovich, was beautifully 'repainted' by two of his exceptional students: David Geringas, in 1999, and Ivan Monighetti, in 2016. Monighetti, the Russian/Swiss cellist, who remains one of the most versatile and dynamic figures in the classical music world today, has performed nearly all of Gubaidulina's works for cello over the past four decades. Geringas, the Lithuanian-born cellist, has been a devoted champion of Gubaidulina's music since the early 1980s, and it was to him that she dedicated her third cello concerto, *And: The Festivities at Their Height* (1993).⁸³

The variance in interpretations of Gubaidulina's notated scores becomes even more pronounced

⁸¹ Incidentally, *Pentimento* (2007) is the title of one of Gubaidulina's pieces. This particular composition is an arrangement of an earlier opus for cello and guitar quartet, *Ravvedimento* (2007), originally dedicated to the renowned Russian-Swiss cellist Ivan Monighetti, and later rearranged for double bass and three guitars at the request of virtuoso bassist Alexander Suslin. It is highly conceivable that this title is a product of the composer's metafictional wordplay related to the titles of some of her works.

⁸² Janine Jansen, "Antoine Tamestit on the 'Mahler' Stradivari viola," *The Strad Magazine* (January 6, 2023), <https://www.thestrad.com/lutherie/antoine-tamestit-on-the-mahler-stradivari-viola/9202.article>.

⁸³ In 1982, David Geringas, in collaboration with the organist Edgar Krapp, recorded the very first album ever released in the West featuring one of Gubaidulina's works: *In Croce* for organ and cello.

when considering the improvised sections and those written in graphic notation. This is strikingly evident in two remarkable recordings of *Glorious Percussion* (2008): one by the Lucerne Symphony Orchestra under Jonathan Nott (2008), and another by the Berlin Philharmonic conducted by Gustavo Dudamel (2009). These recordings stand as eloquent testaments to the creative flexibility and profound musical understanding that Gubaidulina's works continue to inspire.⁸⁴

➤ **Interdisciplinary Virtuosity: Harmonizing the Sound with Geometry of the Soul**

Sofia Gubaidulina's concertos are profoundly shaped by "interdisciplinary virtuosity," a concept that reflects her ability to blend diverse musical disciplines, techniques and conceptual frameworks. This becomes especially evident when examining the remarkable titles of her concertos. In addition to those with Christian connotations, several other titles reference various literary and philosophical sources. Each of these titles seems to tell its own story with striking clarity. For example, the 1976 work, *Hour of the Soul*, and the 1997 *Canticle of the Sun*, draw immediate attention to the eponymous poetic cycle of Russian poet Marina Tsvetaeva and the 13th-century devotional work of St. Francis of Assisi, which praises God's material creations. The title of the 1993 Cello Concerto, *And: The Festivities at Their Height*, is borrowed from a poem by Gennady Aygi in his collection *Time of Gratitude* (1968–78); as one of the composer's most tragic works, it is often associated with the cataclysmic events in Russia during the early 1990s, as well as the bloody events of the 1968 Prague Spring (when Aygi's poems were written) and the earlier 1956 Soviet invasion of Hungary.⁸⁵ In a similar vein, the title of the 2005

⁸⁴ The full list of commercial and non-commercial recordings of Gubaidulina's concerted works is presented in the Appendix 2.

⁸⁵ Kholopova (2008), 303–4. See also Moskvina, "Instrumental'noe Tvorchestvo Sofii Gubaidulinoi," 161–82.

Flute Concerto, *The Deceitful Face of Hope and of Despair*, is taken from T.S. Eliot's poem *Ash Wednesday*, suggesting a profound spiritual struggle as the central theme of the musical narrative. Similarly, the 2006 violin concerto, *The Lyre of Orpheus*, evokes the mythical figure of Orpheus, symbolizing the transformative power of music to shape and elevate the natural world. Furthermore, the title of Gubaidulina's second cello concerto, *From the Book of Hours* (1991), directly references Rainer Maria Rilke's *Das Stunden-Buch* [*The Book of Hours*], subtitled *Das Buch vom mönchischen Leben* [*The Book of Monastic Life*], while her last violin concerto, subtitled *Dialogue: I and Thou* (2018), was inspired by the work of Austrian-Israeli existential religious philosopher Martin Buber (1878–1965), and appears to continue Gubaidulina's exploration of humanity's existential relationship to the universe.⁸⁶

With regard to the multitude of extra-musical connotations, the next logical question arises: are these works programmatic concertos? Alternatively, framed from another perspective, one might ask: how important are the underlying poetic, literary, philosophical, and religious sources to the understanding of her music? Furthermore, if “all Russian music,” according to the preeminent scholar Richard Taruskin, is “about something” – that is, not ‘purely’ instrumental – what, then, are Sofia Gubaidulina's concertos “about”?⁸⁷

The breadth of the composer's philosophical interests alone is extraordinary, even by the standards of the most accomplished contemporary “organizers of sound.”⁸⁸ Among her favorite

⁸⁶ Appendix 3 contains a replica of Gubaidulina's letter to the organizers of the Siberian Art Festival, where the work was premiered on April 2, 2018. The author of this dissertation is deeply grateful to Ms. Irina Lazutina, the Director of ArtProject, for providing a copy of this document.

⁸⁷ Richard Taruskin, “Where Is Russia's New Music? Iowa, That's Where,” in *On Russian Music* (University of California Press, 2008), 383.

⁸⁸ The phrase “organizer of sound” is famously attributed to Igor Stravinsky in an interview he gave to *The New York Times* in 1947. When asked about his profession at U.S. customs upon his arrival in the United States, he replied, “I am an organizer of sound.”

readings are the ancient Chinese divination of the *I Ching*; the religious Taoism of Lao Tzu; the Indian spiritualism of Sri Aurobindo; the German mysticism of Meister Eckhart and Nicholas of Cusa; the existentialism of Søren Kierkegaard and the phenomenology of Edmund Husserl; the religious philosophy of artistic freedom by Nikolai Berdyaev; the culturology of Alexei Losev; and the psychological and religious works of Swiss psychoanalyst Carl Gustav Jung.⁸⁹ Yet, despite the vastness of literary inspirations for her concerto works, the composer insists that her primary concern has always been the “musical and acoustic actualities,” which were “under no circumstances” intended to intensify the expression of any particular literary source.⁹⁰ Thus, when considering the programmatic nature of Gubaidulina’s concertos, the question of its relevance presents yet another ‘Russian dilemma’ – or, more lightheartedly, a situation where listeners, whether familiar with the composer’s sources of inspiration or not, find themselves in an equally ambiguous position. Nonetheless, Gubaidulina’s concerted works, profoundly shaped by her grounding in Christian Orthodox thought as well as other spiritual traditions, resonate with deeply symbolic significance. Her musical concerns consistently engage with the integration of eternal metaphysical concepts – such as the struggle between light and darkness or life and death – thereby adding a rich layer of intellectual and emotional complexity. Having spoken about her understanding of sound as a means of spiritual and emotional transformation, the composer treats sound itself as a tool for expression and catharsis. In many respects, the musical universe of her concertos can be viewed as a kind of sonic philosophy – one that

⁸⁹ Kholopova (2008), 102.

⁹⁰ The programme notes written by the composer for the 1999 UK premiere of the *Canticle of the Sun* are quoted in Robert Stein, “Barbican: Gubaidulina’s ‘Canticle of the Sun,’” *Tempo*, New Series 209 (July 1999): 32, <https://www.cambridge.org/core/journals/tempo/article/abs/first-performances/0310F45F24DD456CF5E68D87EB81E473>.

intertwines the poetic, the intellectual, and the emotional, creating a multidimensional experience for the listener. The meticulous control and exploration of instrumental colour and texture reflect a sophisticated understanding of how music can operate on multiple levels, transcending mere performance to engage with higher conceptual realms, thereby inviting listeners to experience her works through a broader, interdisciplinary lens.

Another aspect of ‘interdisciplinary virtuosity’ in Gubaidulina’s concertos is linked to the ‘hidden’ subjects – those not immediately discernible by ear but rather revealed through serious analytical scrutiny and reflection. These subjects encompass sound-realized word games, such as those symbolizing musical representations of the composer’s own name, Sofia, as well as the names of the concertos’ soloists. The ‘significant’ monograms for the composer, such as DEsCH (D. Shostakovich) and BACH (J.S. Bach), are also present, alongside various literary and rhetorical devices. The use of names and monograms will be examined in greater detail in the analytical chapters of this dissertation.⁹¹ As for literary devices, one concise example of a logogriph is discussed in Valeria Tsenova’s dissertation in relation to Gubaidulina’s first violin concerto, *Offertorium* (1980). According to Tsenova, an impressive logogriph with a gradual reduction, followed by an increase in the number of musical elements, shapes the form of the first and third sections of Gubaidulina’s Violin Concerto, *Offertorium*. She argues that, while the term *logogriph* usually refers to a literary device in which a word is gradually reduced by removing letters from a longer original word, or, in music, to a principle of gradual diminution or reduction, this verbal/musical game can also be played in the opposite direction – by utilizing the

⁹¹ To date, no research has specifically addressed Gubaidulina’s concerted works. However, outside of the concerto genre, this topic has been explored in Jennifer Denise Milne’s dissertation. In her discussion of the 1991 work *Silenzio* (Five Pieces for Bayan, Violin, and Cello [or Double Bass]), Milne identifies the “Elsbeth Set” as a collection of pitches derived from the first and last names of the bayanist. See Jennifer Denise Milne, “The *Rhythm of Form*: Compositional Processes in the Music of Sofia Gubaidulina” (PhD diss., University of Washington, 2007), 103.

principle of addition. In this context, she describes the concerto's form as employing two types of a logogriph: *decreasing* and *increasing*.⁹² Remarkably, Tsenova's graphic representation of the two logogriphs through two geometric figures – the former depicted as a triangle, and the latter resembling a trapezoid – illustrates an additional interdisciplinary phenomenon present in many of Gubaidulina's concerted works: the integration of elements from visual art and graphic design. In *Offertorium*, for instance, the score itself appears to function as a spaced-out, hidden visual map tracing Bach's Royal Theme on a journey of 'sacrifice' and 'resurrection.'⁹³

Similar graphically discernible configurations of increase and decrease have been interpreted as Gubaidulina's application of Baroque rhetorical devices, specifically *anabasis* and *catabasis*. The former generally refers to an ascent or upward progression through layers of musical texture, while the latter signifies its opposite.⁹⁴ In her seminal volume, Kolopova uses these terms on multiple occasions. They can refer to the melodic direction of certain themes, the textural layers of scores, as well as the sound design of an entire composition. For example, when describing the 1981 Sonata for Violin and Violoncello, *Rejoice! [Freue Dich!]*, dedicated to Oleg Kagan and Natalia Gutman, she writes:

⁹² Valeria Tsenova, "Magic Numbers in the Music of Sofia Gubaidulina" ["Числовые тайны музыки Софии Губайдулиной"] (PhD diss., Moscow Conservatory, 2000), 23-25. Tsenova also lists other examples of logogriphs in Gubaidulina's music. Among them are *Music for Harpsichord and Percussion Instruments from Mark Pekarsky's Collection* (1971/1993), a composition originally titled *Logogriph*; the closing section (from RN 18) of part IX [Ich] of *Perception* (1981/1983/1986) for soprano, baritone (speaking voices) and seven string instruments on poems by Francisco Tanzer and excerpts from the Psalms (in German); and No. 13 ["Fisches Nachtgesang"] from the *Gallows Songs [Galgenlieder]* (1996/1998). Refer to Tsenova's FN 36.

⁹³ Appendix 4 presents Tsenova's diagrams depicting the decreasing and increasing logogriphs used in the first and third sections of the concerto. The accompanying brief annotation is an English translation of the relevant text segment from Tsenova's dissertation. Tsenova, "Magic Numbers" (2000), 25-26.

⁹⁴ For more information on Baroque rhetorical devices used in music, refer to George J. Buelow, "Rhetoric and music: Baroque," *Grove Music Online. Oxford Music Online*, 2001, <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.43166>.

The sound space of the work is drawn from edge to edge by melodic lines, which are fundamentally scale-like in structure and easily perceptible to the ear. These lines, in relation to the general opposition of “here” and “there,” acquire symbolic meaning – they reproduce, at a new level, the semantics of the musical-rhetorical figures anabasis and catabasis, which were present in the music of the 16th to 18th centuries.⁹⁵

As in the Baroque context, Gubaidulina’s concerted works similarly engage with binary contrasts that illuminate the human condition. Representing the spiritual journey of an individual, *anabasis* is associated with an upward movement toward the divine,⁹⁶ signifying redemption and salvation through transfiguration. In contrast, *catabasis* pertains to a journey into darkness, characterized by suffering and despair. However, these two ostensibly opposing concepts are also complementary and interdependent, reflecting the nature of their Baroque counterparts, which address contrasting dualities understood as the relationship between the earthly and the divine. The endings of the second and third concertos analyzed in this dissertation can be seen as musical representations of the composer’s metaphorical duality within unity. Both works reflect the prominent concept of *shadow and light*, which is central to Gubaidulina’s music of the 1990s, explored through the use of alternative tunings. The *Viola Concerto* (1996) ends with the soloist wandering between a fixed set of four pitches, accompanied by other musical timbres that gradually dissolve into silence, existing in the space ‘between’ the earthly and the divine. The 1998 concerto, *In the Shadow of the Tree*, ends with a single sound, as if completing its musical journey by reaffirming the unity of an existential multiplicity.

At the point where the two contrasting movements intersect, a new symbol emerges – one that is unequivocally the most significant for the composer: the symbol of the *cross*. In a 1997

⁹⁵ See Kholopova (2008), 235-36.

⁹⁶ One example of such an ascent appears in the closing measures of the *Concerto for Two Orchestras, Jazz and Symphony/Revue Music for Symphony Orchestra and Jazz Band* (1976), which is discussed in detail in Chapter II of this dissertation. The work concludes with a rapid gliding ascent into the high-register pianissimo of the strings, flutes, and Valdaï bells.

interview for the *Christian Science Monitor*, Gubaidulina explains: “Those two lines, horizontal and vertical, make a cross, and I think about that when I compose.”⁹⁷ In her works, this symbol becomes a multifaceted concept, not only from a religious perspective but also within its broader cultural and existential context. The cross can appear in various forms as a result of the convergence of two contrasting polarities, which she refers to as “binary oppositions.”⁹⁸ The idea of the ‘vertical’ representing the divine or spiritual, and the ‘horizontal’ symbolizing the earthly or human, intertwines with several other seemingly opposing pairs that emerge in her musical world. Among these are the concepts of *male* and *female*, *intuition* and *rationality*, and the co-existential pair commonly referred to as *East* and *West*.⁹⁹ Thus, the composer’s process of searching for truth, while reimagining the traditional genre in each of her concerted works, becomes a matter of balancing the Anima and Animus, the Eros and Logos, and the Orient and Occident. Echoing Jungian thoughts on the subject,¹⁰⁰ Gubaidulina states that a man’s thinking is

⁹⁷ See Karen Campbell, “A Russian Composer’s Path to Freedom,” *The Christian Science Monitor* (August 27, 1997), <https://www.csmonitor.com/1997/0827/082797.feat.music.1.html>.

⁹⁸ Kholopova (2008), 340.

⁹⁹ See Gerard McBurney, “Encountering Gubaidulina,” *Musical Times* 129, no. 1741 (1988): 120-25. This article preceded the UK premiere of Gubaidulina’s symphony *Stimmen... Verstummen* with the BBC Symphony Orchestra. McBurney briefly discusses Gubaidulina’s aesthetics and its relationship with religion. One of the composer’s statements, “I am where the East meets the West,” has been quoted by many writers on Gubaidulina during the past three decades. Among the most recent studies, see, for instance, Nadezhda Shiryayeva and Elena Dyganova, “East-West Dialogue in Sophia Gubaidulina’s Work ‘Tatar Folklore Inspirations’: on the Problem of Artistic Bilingualism,” *Rupkatha Journal on Interdisciplinary Studies in Humanities* 9, no. 2 (August, 2017): 273-80, https://www.researchgate.net/profile/Ea-Dyganova/publication/319294165_East-West_Dialogue_in_Sophia_Gubaidulina's_Work_Tatar_Folklore_Inspirations_on_the_Problem_of_Artistic_Bilingualism/links/5b990828a6fdcc59bf8aa05c/East-West-Dialogue-in-Sophia-Gubaidulinas-Work-Tatar-Folklore-Inspirations-on-the-Problem-of-Artistic-Bilingualism.pdf.

¹⁰⁰ Carl Jung’s psycho-philosophical pattern of the *Anima/Animus* (female/male) refers to the truest inner *Self*, the route of communication with the *collective unconscious*. Jungian *Self* is the central, organizing, governing archetype of the *collective unconscious* and template for the *Ego* (the conscious self; the “I”). It contains all the other archetypes; it is the nucleus of the *psyche* (the *totality* of all psychic processes, conscious as well as unconscious). It is the archetype of growth. See Carl Jung, “The Self”, eds. Sir Herbert Read, Gerhard Adler, and William McGuire, trans. R. F. C. Hull, in *Aion: Researches into the Phenomenology of the Self, The Collected Works of C.G. Jung*, Book 9, Part 2 (Princeton, NJ: Princeton University Press), 23-35.

intrinsically “horizontal and linear” or “bright, logical and very clear,” while that of a woman is vertical, i.e., perceiving many events simultaneously and, as such, containing “much darkness [...] not suffused with light.”¹⁰¹ Her own creative process thus seeks the transformation of the “vertical” into the “horizontal,” a difficult task for the undoubtedly cerebral composer for whom “intuition must dominate.”¹⁰²

In recent decades, while some musicological research has explored the symbol of the cross in Gubaidulina’s music, this focus has primarily been limited to her chamber compositions and several large-scale works.¹⁰³ Much of the existing English-language literature examines two often intertwined areas: the first focuses on visible linear or melodic components, often referred to as “cross-motives,” as well as instances where certain timbral layers in the orchestral textures move in a crosswise or opposing manner. In addition to these linear elements, a vertical aspect unfolds, with diatonicism and micro-chromaticism representing the celestial, while chromaticism serves to evoke the earthly. The second area of research explores the symbolic representation of the crucifix through the unique physical characteristics of the participating instruments, with a primary focus on the composer’s use of extended instrumental techniques. However, comparable

¹⁰¹ Kurtz, 70.

¹⁰² “Even in the case when structural support would dominate, still intuition wins; it is more important that intuition would dominate. For me the most important thing is not to interfere with intuition, not to get in the way of intuition.” See Duffie (1997), <http://www.bruceDuffie.com/gubaidulina.html>

¹⁰³ Two of Gubaidulina’s works, *In Croce* and *Seven Words* [*Sieben Worte*], have received a substantial amount of musicological attention worldwide. The former, originally written in 1979 for violoncello and organ, was later recast for violoncello and bayan by Elsbeth Moser in 1991; the latter was written in 1982 for violoncello, bayan, and strings. Among the most original examples of English-language literature addressing the metaphor of the cross in these works, see, for instance, Neary (1999), Askew (2002), Berry (2009), and Peković (2017). Other chamber works discussed with regard to the metaphor of the cross include Williams (2007) and Biber (2016), who present their analyses of Gubaidulina’s String Quartets and *Ten Preludes* (*Études*) for violoncello solo. Medić (2021) addresses the issue with regard to Gubaidulina’s first substantial orchestral work, Symphony *Stimmen... Verstummen...* (1986).

research on the composer's concerted works remains limited, and the interplay of linear and vertical elements with instrumental symbolism in her concertos has yet to receive extensive musicological attention. Among the few exceptions in scholarly research on Gubaidulina's concertos, with a particular focus on the symbol of the cross, are two doctoral dissertations produced during the second decade of the twenty-first century.

One of these, written by Džinović, dedicates considerable attention to an examination of how the unique qualities of the bayan inform the composition of the 2009 concerto *Fachwerk*. The author observes that the title of the work alludes to the image of a cross, since *Fachwerk* framing typically consists of large, prominent beams joined at right angles, forming cross-like shapes. Additionally, he suggests that the use of this architectural reference in the title of a bayan concerto reflects the composer's profound interest in the instrument's construction and its influence on her approach to this particular composition. Many of Džinović's musical examples refer to specific techniques unique to Gubaidulina's works for one of her most beloved instruments, which she refers to as a "breathing monster."¹⁰⁴ Among these techniques are air-sounds, clusters, and pitch-bends, such as: the contrary movement of the hands, which creates a visual representation of the cross (or crossover) (Figure 36); the crossover through the pitch bend of a chord on both manuals (Figure 37); and the group of five cluster *glissandi* in contrary motion, symbolizing the cross (Figure 59).¹⁰⁵ Another interesting piece of scholarship addressing the symbolic shape of the cross is a theoretical study by Moldavian-American scholar Lyudmila

¹⁰⁴ The epithet of the bayan as a "monster" comes from recollections of Friedrich Lips. According to Lips, Gubaidulina once pointed to the bayan and said: "Do you know why I love this monster [bayan] so much? Because it breathes!" Cited in Friedrich Lips, liner notes to *Miserere*, Art Classics, ART-017, CD, 2003.

¹⁰⁵ Džinović (2017), 65-81. The example in Figure 59 refers to the Cadenza (2010) from Gubaidulina's first bayan concerto, *Under the Sign of Scorpio* (2003). A portion of Džinović's text discusses the creation of this new *Cadenza* for this concerto and provides a brief analysis of it. Džinović, 82-91.

Kise, dedicated to Gubaidulina's 1998 concerto for two violas, *Two Paths: A Dedication to Mary and Martha*.¹⁰⁶ Kise examines the metaphor of the cross within the context of the post-tonal concept of pitch centricity. She argues that Gubaidulina's consistent use of certain dyads as referential centric poles, which in turn take on a quasi-cadential function, shapes the overall formal structure of the concerto. Additionally, Kise interprets the cross symbol as realized through an instrumental crossing achieved by string *glissandi*, as a register-related crossing performed by two contrasting parts, and finally, as melodic four-note cross-motives.

Finally, in relation to the metaphor of the cross, interpreted as Gubaidulina's juxtaposition of dualities, the scholarly contributions of Valentina Kholopova, the Grand Dame of Russian Gubaidulinian studies, are indispensable. Over the past nearly six decades, Kholopova has authored an extensive body of work dedicated to the composer's musical art. Her conceptual framework of "parameters of expression," specifically developed to analyze Gubaidulina's oeuvre, has been central to post-Soviet musicological discourse and, more recently, has garnered attention in Western musicological scholarship.¹⁰⁷ Particularly with regard to Gubaidulina's early works, this framework has remained a crucial analytical tool, as it addresses various elements of her musical language that can be understood as interrelated yet opposing forces. These 'binary oppositions,' often perceived as "horizontal" versus "vertical," encompass both linear and vertical components – such as melody and motives on the one hand, and harmony and chords on

¹⁰⁶ Lyudmila Kise, "Sofia Gubaidulina's Application of Centricity and Symbolic Devices in the *Two Paths*, Concerto for Two Violas and Orchestra" (PhD diss., University of Utah, 2011).

¹⁰⁷ In Anglophone musicological discourse, the understanding and application of Kholopova's analytical framework have become increasingly popular following the 2013 translation and commentary by Philip A. Ewell. Refer to Philip A. Ewell, "The Parameter Complex in the Music of Sofia Gubaidulina," *Music Theory Online* 20 (November 3, 2013), <https://www.mtosmt.org/issues/mto.14.20.3/mto.14.20.3.ewell.pdf> Among recent research papers utilizing this concept, see, for example, Birch (2017), Kahrs (2020), and Drozzina (2020).

the other – as well as chromatic tonality, micro-chromaticism, pentatonicism, and other scale systems. Furthermore, aspects such as timbre, range, dynamics, register, texture, movement direction, tempo, rhythmic patterns, articulation, and modes of instrumental sound production are all considered capable of generating symbolic opposites – such as ascent versus descent, *staccato* versus *legato*, *arco* versus *pizzicato* or *col legno*, and *vibrato* versus harmonics, etc.¹⁰⁸

Kholopova's analyses of several of Gubaidulina's early concertos make full use of this conceptual framework, yielding insightful results. For instance, in her description of the first section of *Detto II*, she identifies the musical material as the embodiment of two dramaturgical themes: continuity and fragmentation. These themes differ in their modes of expression: continuity, associated with the timbre of the soloist, is "consonant," whereas fragmentation, linked to the timbres of the winds, is "dissonant." These two thematic strands also diverge in their articulation, rhythmic and melodic presentation, and textural qualities, resulting in contrasting and often intersecting pairs such as *legato* versus *staccato*, rhythmic uniformity versus rhythmic "chaos," melodic smoothness versus melodic disjunctness, and continuity versus discreteness in texture.¹⁰⁹

Timbral dichotomies, emblematic of the cross metaphor, are also integral to Kholopova's analysis of Gubaidulina's *The Hour of the Soul* and *Introitus*. In the former work, the timbres of the percussion and orchestral strings represent the "positive and lyrical sphere," while the brass

¹⁰⁸ Pondering the question of 'the inner space of sound,' the composer says: "Sound can have an earthly, only too 'human' expressiveness. And yet if you touch the same spot of a string in another way, if you change a bit your attitude, you are carried away from earth to heaven. The ordinary, the trivial becomes heavenly, if not sacred. [...] I sense the passage from expressive sound to flageolet as a miracle, which is just here, is close to us." In Kholopova/Restagno (2008), 38. Translated from Russian by Hakobian. Levon Hakobian, *Music of the Soviet Era: 1917-1991* (Routledge, 2017), 277.

¹⁰⁹ Kholopova (2008), 136-39.

are cast as “negative and aggressive.”¹¹⁰ In *Introitus*, the contrast – lying between the timbre of the solo piano and the orchestral parts – is further reinforced by the distribution of textural elements; while the orchestral group is characterized as ‘horizontal’ – entrusted with melody, heterophony, and imitative polyphony – the piano is assigned “vertical” harmonies, primarily in thirds and fifths, enriched by overtones. Additionally, Kholopova analyzes the pitch organization of *Introitus* as a juxtaposition of four harmonic systems: the micro-chromatic, representing sensuality or “the highest tension”; the chromatic, denoting expressiveness; the diatonic, which “balances tension and calm”; and the pentatonic, associated with the “ascetic spiritual.”¹¹¹ Kholopova frequently aligns this heightening of musical expression with the concept of a “theatre within the orchestra.”¹¹² She posits that, while Gubaidulina’s instrumental concertos remain purely musical works, they have the potential to transform into “true theatrical drama on the concert stage.”¹¹³ Although such assertions are certainly valid from an academic perspective, the dichotomized timbres and the associated pitch-related content she describes may remain imperceptible or of little significance to many listeners, whether in live performances or recorded formats. Nevertheless, the very notion of theatricality highlights another crucial aspect of our

¹¹⁰ Ibid., 181.

¹¹¹ Ibid., 190-91.

¹¹² Ibid., 149. See Kholopova’s description of the *Concerto for Bassoon and Low Strings*. It is also important to note that the concept of musical theatre extends beyond Gubaidulina’s concerted works. Numerous compositions outside the concerto genre invite similar interpretations. For example, in her description of Gubaidulina’s 1979 work for four percussionists, *Jubilatio*, Kholopova states: “The percussion ensemble, more than any other instrumental combination, encourages the introduction of theatrical elements – due to the more tangible, material nature of the percussion instruments (clinking bells, waving a bunch of bells, etc.). This is not ‘instrumental theater,’ but rather, ‘theater in instruments,’ which is inclined toward both seriousness and parody, even comedy.” Ibid., 224.

¹¹³ Ibid. 149.

current discourse on interdisciplinary virtuosity – namely, the identification of musical theatre elements as “non-sonic” virtuosity.

❖ “Non-Sonic” Virtuosity: Illuminating the Choreography of Light, Space, and Gesture

In recent musicological discourse, the concept of “non-sonic” virtuosity has been linked to a range of theatrical elements associated with observing or experiencing the live performance of Gubaidulina’s works. These elements generally pertain to the physicality of sound production, the variety of instrumental and vocal techniques that generate sounds beyond conventional musical tones, as well as choreographic considerations, spatial factors and the performers’ expressive techniques, including silent acting, facial mimics, and other bodily gestures. For instance, in his 2009 article, Michael Berry analyzes several passages from Gubaidulina’s works for low strings, focusing on the physical and gesturally symbolic bodily movements involved in their sound production.¹¹⁴ Further, a 2011 article by Russian musicologist Vladislav Petrov examines the theatrical elements in several of Gubaidulina’s compositions, briefly mentioning her 1975 *Concerto for Bassoon and Low Strings*. In broad terms, Petrov identifies three key aspects of the theatricalization of the performance process: the specific stage arrangement of instruments and the movement of performers within the stage and concert hall (referred to as “spatial music”); the use of “acting techniques” (such as pantomime, facial expressions, gestures, etc.); and the inclusion of spoken words within Gubaidulina’s instrumental works.¹¹⁵ While the

¹¹⁴ Michael Berry, “The Importance of Bodily Gesture in Sofia Gubaidulina’s Music for Low Strings,” *Music Theory Online* 15, no. 5 (October 2009), <https://www.mtosmt.org/issues/mto.09.15.5/mto.09.15.5.berry.html>

¹¹⁵ Vladislav Petrov, “The Instrumental Theatre of Sofia Gubaidulina,” *Current Issues in Higher Music Education* 4, no. 20 [published by Nizhny Novgorod Glinka State Conservatory] (2011): 49-55. Accessible online (in Russian) at <https://cyberleninka.ru/article/n/instrumentalnyy-teatr-sofii-gubaydulinoi?ysclid=m4by8g08u9978039522>

referential examples presented by both Berry and Petrov primarily focus on non-concerted works by Sofia Gubaidulina, the semantic framework they establish proves equally applicable to the analysis of the composer's concertos.

Characteristically, within Gubaidulina's concerted works, various theatrical elements are intricately interwoven, resulting in a rich sonic and visual experience during the live performance. Several examples can be found throughout her concertos and quasi- concerted compositions. For instance, *The Canticle of the Sun* (1997), dedicated to Mstislav Rostropovich, explores many ways of string sound production (e.g., playing on the bridge and fingerboard, retuning during the performance, multiple harmonics, etc.), as well as the use of unusual instrumental timbres, such as 'musical' glasses, finger cymbals, the bass drum played legato with a friction stick and bowing a flexatone with the double bass's bow. The work's choral text is drawn from St. Francis of Assisi's 13th-century devotional opus, which glorifies God's material creations. Throughout the piece, the soloist assumes the role of a pilgrim journeying toward God. At times, however, the soloist abandons the instrument to perform on a flexatone, play a bass drum with a rubber bowl, or engage in symbolic gestures toward the choristers, percussionists, and audience.¹¹⁶ These elements introduce a fascinating theatrical dimension to the live performance, further enriching the overall experience.

Curiously enough, a recent article by Olga Moskvina, published in a Russian music journal, presents an intriguing interpretation of the concept of "religious cinema" in Sofia

¹¹⁶ See Gubaidulina's own annotation to this work as quoted in Kholopova (2008), 317-18. This composition has been performed multiple times all over the globe and, therefore, received numerous reviews. The program notes written by the composer for the 1999 UK premiere of *Canticle of the Sun* are quoted (in English translation) in Robert Stein, "Barbican: Gubaidulina's *Canticle of the Sun*," (July 1999): 32.

Gubaidulina's *Canticle of the Sun*.¹¹⁷ Moskvina suggests that a cinematic idea is embedded within the work's dramatic structure, thereby enriching the visualization of sacred themes through the lens of St. Francis of Assisi's individuality. However, the majority of her suggestions lack empirical support and are primarily speculative. For instance, Moskvina posits that Gubaidulina may have been inspired by Roberto Rossellini's 1950 film *Francis, the Minstrel of God* in developing her own "religious cinematic" vision.¹¹⁸ Therefrom, she draws hypothetical parallels between Rossellini's and Gubaidulina's opuses, citing similarities such as "chamber performance of the genre, aphoristic speech, conventional language (symbolism), and, at the same time, *documentary accuracy*¹¹⁹ in the narrative."¹²⁰ However contrived, these ontological assumptions remain original, if not somewhat intellectually entertaining. Another such musicological 'discovery' by the same author involves comparing Gubaidulina's musical metaphor of upward and downward movement in the parts of the two soloists in her 1998 concerto for two violas and orchestra, *Two Paths: A Dedication to Mary and Martha*, to one of

¹¹⁷ See Olga Moskvina, "Sonnengesang" by S. Gubaidulina: Movement from Sound to Frame," *Aktualnye problemy vysshego muzykhnogo obrazovaniya* [Current Issues of Higher Musical Education] 1, no. 72 (2024): 9-25, <http://doi.org/10.26086/NK.2024.72.1.004>.

¹¹⁸ The Italian title of Rossellini's film is *Francesco, giullare di Dio*, which literally translates to 'Francis, God's Jester.' Its English title, *The Flowers of St. Francis*, refers to the anonymous 14th-century Italian novel *Little Flowers of St. Francis*, which was adapted for the screenplay. The Russian translation of the film's title is somewhat peculiar, if not emblematic of the contemporary Russian 'novoyaz', the equivalent of George Orwell's 'newspeak' in his 1949 dystopian novel *1984*. Or perhaps, in the context of Moskvina's concept of "religious cinema," the word *minstrel* was considered more fitting?

¹¹⁹ *Our emphasis*. The question of "documentary accuracy" is rather debatable, among other considerations. Peter Brunette, a well-known American film historian who authored a biography of Roberto Rossellini, indicates that *The Flowers of St. Francis* is neither a historical portrayal of Saint Francis nor a depiction of Franciscan spirituality. He writes, "Rossellini decenters Saint Francis as the main focus [...] in order to recenter the film on 'the spirit of Franciscanism' itself." Thus, *The Flowers* emphasizes the more joyful side of the Franciscan existence, highlighting the playfulness and freedom the spirit finds in embracing poverty and complete detachment from material possessions. See Peter Brunette, *Roberto Rossellini* (University of California Press, 1996), 134.

¹²⁰ Moskvina, "Sonnengesang" by S. Gubaidulina: Movement from Sound to Frame" (2024): 9.

Johannes Vermeer's early paintings, *Christ in the House of Martha and Mary* (ca. 1655).¹²¹ In this comparison, Gubaidulina's intention to musically represent two different psychological types – one devoted to the divine (the upward movement in Viola I [Mary]), and the other focused on the earthly (the downward movement in Viola II [Martha]) – is juxtaposed with the biblical scene depicted by the Dutch master. The rationale for this analogy is based on the fact that in the painting, Mary is looking up at Christ, while Martha is looking down.¹²²

Regarding the two works discussed by Moskvina, as well as other concertos composed by Gubaidulina over the course of more than five decades, we can also add, in more general terms, that the composer's use of instrumental techniques aimed at creating distinctly unusual timbres and textures often resulting in sounds that verge on the 'non-sonic.' These techniques appear to emphasize the physical aspects of performance, such as bowing on the bridge of an instrument or producing sounds that are more about the friction of the bow or fingers against the instrument than about producing clear pitches. Also, concerto performers may be required to play at extremely soft dynamics or execute gestures – such as the whispering of poetic text in her 1976 *Concerto for Two Orchestras/Revue Music* – that are barely audible yet crucial to the piece's overall expressive power. Furthermore, although Gubaidulina's concerted works are purely musical pieces rather than staged productions, her sense of theatricality frequently extends to the live presentation of her works. Quite often, her compositions are performed in a way that

¹²¹ Moskvina, "Instrumental'noe Tvorchestvo," 193, https://nnovcons.ru/upload/files/Dis/dis_moskvina.pdf.

¹²² It must be noted, however, that the direction of the two women's gazes is determined by their physical placement in the painting. Of the three characters situated around the table, Mary is seated on a small stool at the feet of Jesus and, therefore, looks up at him, while Martha, standing on the left behind the table and offering him food, looks down at him. The painting can be viewed at <https://www.grandspeintres.com/le-christ-dans-la-maison-de-marthe-et-marie-vermeer/>.

highlights the dramatic potential of the music. For example, in some of her concertos, the musicians are asked to move around the stage, as in *Hour of the Soul* (1976), where the percussionist “circles around the orchestra during the performance, completing his journey in the coda by arriving at the center of the stage and standing next to the mezzo-soprano.”¹²³ The visual element of *Glorious Percussion* (2008) is undoubtedly “of equal importance,” as one virtually “attends” (by visiting the Philharmonic’s website) a performance of this concerto by the Berlin Philharmonic with Gustavo Dudamel conducting.¹²⁴ Leslie Wright notes that “the percussion ensemble contributes a theatrical element – almost balletic at times – that adds a whole other dimension to the work.”¹²⁵ Remarkably, Wright’s observation regarding the balletic qualities inherent in Gubaidulina’s stage-related theatricality is not without historical precedent. Although the composer did not specifically write ballet music, several of her works, including two full-length concertos, were staged as ballet productions. An early example of this can be found in the late 1970s, when her *Concerto for Two Orchestras, Jazz and Symphony* (1976), originally commissioned as music for ice dancing to mark the opening of a new city hall, was performed on two occasions – once in Moscow, Russia, and once in Tartu, Estonia.¹²⁶ Another instance of choreographed staging of Gubaidulina’s music occurred in the early 1990s, when three of her works – *Lauda* (1991), for alto, tenor, baritone, speaker, mixed choir, and large orchestra; *Pro et Contra* (1989), for large orchestra; and *Alleluja* (1990), for mixed choir, boy soprano, organ, and

¹²³ See Ivana Medić, “Gubaidulina, misunderstood,” *Musicology* 13 (2012): 110, https://www.academia.edu/6783611/Gubaidulina_Misunderstood?email_work_card=view-paper

¹²⁴ See Leslie Wright, “Classical CD Review: Recording of the Month,” February 2012, https://www.musicweb-international.com/classrev/2012/Feb12/Gubaidulina_percussion_BISCD1752.htm

¹²⁵ Leslie Wright, “Classical CD Review: Recording of the Month,” February 2012.

¹²⁶ Further discussion on this subject will be provided in Chapter 2.

large orchestra (with optional colour organ) – were presented as a ballet in Italy on December 27, 1991, under the title *Prayer for the Age of Aquarius: Oratorio-Teatro-Balletto*.¹²⁷ Finally, Gubaidulina's *Viola Concerto* (1996) received its balletic premiere on April 12, 2008, at the Bavarian State Opera in Munich. Choreographed by the Swiss ballet master Martin Schlöpfer, the work was performed by German violist Dietrich Cramer, with the Bavarian State Orchestra conducted by Lithuanian Robertas Servenikas.¹²⁸

In conclusion, we must emphasize that the interpretation of ideas associated with “non-sonic” virtuosity in Gubaidulina’s concerted works is deeply linked to her philosophical and spiritual concerns. Much of her music, shaped by her profound interest in metaphysical matters, Christianity and Eastern philosophies, reflects the concept of transcendence. In this context, the “non-sonic” aspects of virtuosity can be viewed as metaphors for the ineffable, the divine, or the spiritual dimensions of life and existence that extend beyond the audible. This perspective opens a distinctive realm of musical expression, one that invites both the performer and the listener to engage in a more tactile, textural, and spiritual experience of sound.

Sofia Gubaidulina and the Reimagining of Concerto Forms and Their Structural Components

Gubaidulina describes her musical material as a living organism that has its own history and evolution. She compares it to soil, to nature, and to a child who has needs, desires, and

¹²⁷ Kurtz, 221-22.

¹²⁸ See the performance review by Horst Kögler, “*Cambio d’abito, Adagio Hammerklavier, and Violakonzert/II* at the Bavarian State Ballet National Theatre Munich, Germany,” *The Dance View Times online magazine* (April 12, 2008), <https://www.danceviewtimes.com/2008/04/bavarian-state.html>.

dependencies.¹²⁹ It is quite conceivable that, as a result, the composer perceives any musical form as a *path, journey, or quest aimed at reaching new sound spaces* within the ever-changing sonic reality.¹³⁰ The area of form is also the most important part of Sofia Gubaidulina's philosophy of music. In her analysis of the concept of form in the 2007 violin concerto *In Tempus Praesens*, Svetlana Sarkisyan notes that by identifying form with the spiritual act of transformation, the composer asserts the possibility of controlling spiritual energy – its movement, intensity, tempo, and rhythm. Sarkisyan further adds that, for Gubaidulina, form becomes neither a transition of musical matter into crystalline formulae, nor a transference of sound material into a pattern, because these destroy the natural spontaneity of musical energy, affecting the much-needed “de-crystallization” of the form. Instead, the composer prefers to observe the mutation of matter, which, due to its internal potential for development, self-motion, and transformation, forms itself on multiple levels throughout a work.¹³¹ Two specific topics discussed by the distinguished Armenian scholar merit attention, as they have not yet appeared in anglophone musicological discourse. The first concerns the connections identified by Kholopova in relation to Gubaidulina's interpretation of musical form and the Aristotelian concept of *entelechy*.¹³² The second explores the conceptual parallels between Lutosławski's “chain

¹²⁹ See “Sofia Gubaidulina: On Musical Material, Form, and Time,” in *A Reader on Composers on Contemporary Composition*, ed./comp. Tatiana Kugeryan and Valeria Tsenova, rev. Alexander Sokolov and Elena Chigareva (Scientific Publishing Center Moscow Conservatory, 2009), 354.

¹³⁰ Our emphasis. These words of Gubaidulina herself, speaking on the subject, are cited in Natalia Brugger, “Sofia Gubaidulina's *Glorious Percussion*: Interpretation of Percussion, Composition, and the Substantive Aspect,” in *To Sofia with Love* (Scientific Publishing Center of the Moscow Conservatory, 2014), 139.

¹³¹ Svetlana Sarkisyan, “The Concept of Form in Sofia Gubaidulina's Violin Concerto *In Tempus Praesens*,” in *To Sofia with Love* (Scientific Publishing Center of the Moscow Conservatory, 2014), 49.

¹³² *Entelechy* (from Greek *entelecheia*), actuality; the distinction between matter and form, or the potential and the actual. Aristotle treats *entelecheia* as a near synonym of *energeia* when it is used in this sense. *Entelecheia* figures in Aristotle's definition of the soul as the first actuality of the natural body (*On the Soul* II.1). This is explained by analogy with knowledge: first actuality is to knowledge as the second actuality is to the active use of knowledge. In *The Cambridge Dictionary of Philosophy*, general ed. Robert Audi (Cambridge University Press, 1999), 267.

form”¹³³ and Gubaidulina’s compositional procedures. Sarkisyan argues that, in a certain sense, Gubaidulina’s view aligns with Aristotle’s notion of form as the active essence of the being of matter. In this conception of form, potential, energy, cause, and purpose in movement or development are unified. The polysemy of Aristotle’s term *entelechy* is thus interpreted as the manifestation of developmental energy, the unity and indivisibility of the essence of the soul and its matter, and the synthesis of the internal and external. Sarkisyan posits that these ideas are closely related to Gubaidulina’s approach to the process of form-making in her music, particularly her avoidance of repetitive patterns within individual compositions and, as we must add, across works within the same genre. Viewed from this perspective, continues the author, Gubaidulina’s entire creative process could be conceptualized as the actualization of the potential idea of form, that is, similar to the foundational concepts of *eidos* and *morphe* in Aristotle’s metaphysics.¹³⁴ The scholar further adds that this does not preclude the preservation of several fundamental principles, particularly in large-scale forms, such as the phasing of development, the golden ratio, the *Rhythm of Form* reflecting the harmony of time, and the multi-step ascent to the climax – the work’s central peak, symbolizing a state of revelation, enlightenment, ritual or

¹³³ Lutosławski’s own definition of his “chain form,” found in his conversations with the Russian-Polish musicologist Irina Nikolska [*alias* Nikolskaya], is as follows: “What I call chain form is an important element of my music. Historically, a musical construction has been made up from a series of sections, each having a cadence at its end. I wanted to break this convention. So, I put forward an alternative conception of leaving one musical thought for another; namely, the method of asynchronous superimposition of two layers passing on to another section independently. This device freshens the dramaturgic quality of the musical form... This method is conducive to an ambivalent perception of music; after all, I can initiate a new musical thought against the background of a different one, carrying - why not? - an antithetic sense. Suppose you have a dream. You see something, and suddenly you realize that it is something quite different.” Irina Nikolska, *Conversations with Lutosławski*, trans. Valeri Yerokbin (Melos, 1994), 102.

¹³⁴ In Aristotle’s view, *morphe* is the actual manifestation of a thing’s potential to be what it is, as it interacts with *hyle* (matter). While *eidos* speaks to the essence and the ideal of a thing, *morphe* is the realization or the specific shape in which the form is expressed. For example, the *eidos* of a tree would be its essence as “tree,” while the *morphe* would be its actual appearance – its branches, leaves, and trunk. For more on the subject, see, for instance, Mark Sentesy, “Aristotle: Movement and the Structure of Being” (PhD diss., Boston College, 2012), https://www.academia.edu/64506800/Aristotle_Movement_and_the_structure_of_being

religious ecstasy, or a transition into another state, thereby providing the composition with conceptual integrity.¹³⁵

With regard to the concept of chain or phase form, Sarkisyan observes that in Gubaidulina's larger forms, this principle is related to the level of 'thematic concentration' or the multiplicity of ways the musical idea can develop. She states that within this type of form, it is not motives but larger syntactic units or links that form chains of continuing constructions. This leads to the formation of expanded block structures based on the principle of stage-like development, where "the entire formal process appears to be likened to movement around a certain axis in some curvilinear spiral space."¹³⁶ While the concept of musical form unfolding in a spiral space is more directly related to the Fibonacci-based organization of Gubaidulina's 'sound material' – the subject of the final section of this chapter – an implicit reference to form as a *geometric shape* appears in some of the composer's annotations for her concertos, as well as in several perceptive analytical interpretations. For example, when discussing her second Violin Concerto *In Tempus Praesens*, Gubaidulina describes its general outline as a geometric figure resembling a pyramid. The following is an excerpt from her reflections on this idea:

Art always stands between sleep and reality, between wisdom and madness, between the static and dynamic of everything that exists. In everyday life, we never experience the present moment, only the eternal transition from the past to the future. I believe that this is precisely what the musical form in this work serves as. In its course, it undergoes numerous events. Some of them turn out to be the most important. I call them the architectural nodes of the form. And they can form a generalized figure, for example, a figure resembling a pyramid. At the top of this pyramid in the concerto stands the episode of a ritual sacrifice. The holistic experience of this pyramidal form precisely represents the ongoing present – *In Tempus Praesens*, für jetzt [for now].¹³⁷

¹³⁵ Sarkisyan, "The Concept of Form in Sofia Gubaidulina's Violin Concerto *In Tempus Praesens*," 49-51.

¹³⁶ Sarkisyan, "The Concept of Form," 52-53.

¹³⁷ Kholopova (2020), 335.

Similarly, explaining the formal conception of her 2009 bayan concerto *Fachwerk*, the composer refers to geometric patterns of the Fachwerk architectural style.¹³⁸ Gubaidulina's detailed references to its structural elements, such as braces for securing the walls (*Verstreibungen*), window and door latches (*Riegeln*), and ceiling beams (*Balkendecken*), show a profound immersion in the subject-related pre-compositional research. Moreover, her purely technical aspirations remain connected with the existential and philosophical musings about the metaphysical interpretation of names of Germanic cultural phenomena related to the Fachwerk style, such as 'Schwäbisches Männle,' 'Schwäbisches Weible,' 'Wilder Mann,' or 'Stehendes Andreaskreuz.'¹³⁹

In 2014, an article published by Israeli scholar Marina Geller presented an ingenious analysis of Gubaidulina's *Fachwerk*, in which the author visualizes the semantic construction of this composition as a geometric shape resembling a triangle.¹⁴⁰ Geller posits (or rather, confirms the composer's statements) that purely structural elements – the cross beams of the supporting walls, window and door frames – essentially transform into elements of art and aesthetics. She

¹³⁸ Ibid., 341.

¹³⁹ To clarify the cultural background of German titles, the diminutive forms of the nouns in 'Schwäbisches Männle' and 'Schwäbisches Weible' (translating to English as 'Swabian Little Man' and 'Swabian Little Woman') may refer to stereotypical characters from Swabian culture, often depicted as humble, down-to-earth individuals with strong ties to the regional culture and traditions of Swabia, a region in southwestern Germany. The term 'Wilder Mann' (Wild Man) can refer to a mythical or folkloric figure found in various European myths, legends, and artistic traditions. Finally, 'Stehendes Andreaskreuz' (Standing St. Andrew's Cross), or a diagonal/X-shaped cross, has many symbolic meanings, including Christian martyrdom and sacrifice, as well as the connection between faith and community. The upright, 'standing' form of the cross may also add a connotation of strength and resilience in religious and cultural contexts. Among various sources on the subjects, see, for instance, Richard Bernheimer, *Wild Men in the Middle Ages: A Study in Art, Sentiment, and Demonology* (Harvard University Press, 1952), and Peter J. Huxley-Blythe, *Under the St. Andrew's Cross: Russian & Cossack Volunteers in World War II, 1941-1945* (Europa Books Inc., 2004).

¹⁴⁰ Marina Geller, "Architecture and Music: Formative Principles in Gubaidulina's *Fachwerk*," in *To Sofia with Love* (Moscow, Russia: Scientific Publishing Center of the Moscow Conservatory, 2014), 68-86.

argues that Gubaidulina transforms the properties of architectural style in relation to a specific compositional concept by describing how the composer converts the elements of Fachwerk architecture into principles that form the basis of the musical structure. This, according to the author, is expressed both in the exposition of thematic elements in the bayan and orchestra parts and in the separation of the sections of the work using unique cadences (based on the principle of architectural frames or beams), often ending with a General Pause.¹⁴¹ Further, according to Geller, the work's form is built around certain symmetries. For example, she argues that Sections 1 and 5 mirror each other and act as the “wings of the building,” while Section 3, placed centrally, serves as the pivotal point. Sections 2, 4, and 6 provide structural development, with Section 6 representing the emotional core of the piece. The final Section 7 crowns the work, symbolizing the completion of the architectural structure.¹⁴² Geller maintains that the concept of “variant reprise” is central to the work's construction, with material introduced in the first section being developed and transformed throughout the composition. This results in a dynamic yet cohesive form, reflecting the recurring design elements in a Fachwerk building.¹⁴³ The triangular shape of Geller's diagram, with its symmetries mirroring the architecture of a building – featuring stable foundations, a central part, and a culminating roof – is presented in Appendix 5.

¹⁴¹ Geller, “Architecture and Music: Formative Principles in Gubaidulina's *Fachwerk*,” 72.

¹⁴² Ibid., 73.

¹⁴³ Ibid., 79.

➤ **Deconstructing Classical Frameworks in Gubaidulina's Concertos**

The remarkable feature of Gubaidulina's re-envisioning of concerted forms is that, alongside her philosophically infused and irrefutably idiosyncratic search for 'new sound spaces,' the traditional, classical references to the wealth of musical forms persist, albeit in a subordinate role. In her compositional drafts as well as in the published composer-written annotations of the concertos, we frequently encounter terms such as sonata form, variations, strophe, period, coda, et al. This testifies to the fact that, time and again, the composer, herself, tends to use traditional terminology to describe her works. It is somewhat curious that within the body of analytical writings addressing the question of Gubaidulina's forms, two diametrically opposed views have emerged. One side of the argument assures us that, in a strict sense, a "set of classical forms is not used, as the composer prefers to follow her own principles."¹⁴⁴ On the other hand, some researchers insist that "Sofia Gubaidulina has gained worldwide acclaim for her use of unique sounds and techniques within the structure of traditional forms."¹⁴⁵ The idea of 'freely interpreted' classical forms, frequently expressed by the composer, appears to occupy the middle ground. Table 1 presents a list of the freely interpreted classical forms associated with particular concertos, as identified by Gubaidulina herself or posited by music scholars.

¹⁴⁴ Valentina Kholopova, "The Spiritual Content Complex in the Music of Sofia Gubaidulina," in *To Sofia with Love* (Scientific Publishing Center of the Moscow Conservatory, 2014), 30.

¹⁴⁵ Jefferson T. Campbell, "The Duo Sonata for Two Bassoons by Sofia Gubaidulina: A Formal and Performance Analysis with Comments on Extended Techniques, Contemporary Notation and Gubaidulina's Style" (DMA diss., University of Nebraska, 2003), i.

TABLE 1: List of concertos' forms identified by the composer or/and posited by scholars

Concerto Title	Form	Identified by the composer	Posited by scholars
<i>Detto II</i>	Sectional (11 episodes)		✓
<i>Concerto for Bassoon and Low Strings</i>	Sonata		✓
<i>Hour of the Soul</i>	Sonata		✓
<i>Concerto for Two Orchestras, Jazz and Symphony/Revue Music for Symphony Orchestra and Jazz Band</i>	Ritornello ¹⁴⁶ (with introduction and coda)		✓
<i>Introitus</i>	Sectional (3 sections and coda) (with elements of sonata form)		✓
<i>Offertorium</i>	Variations/ Sonata		✓ ✓
<i>From the Book of Hours</i>	Strophic/ Sonata		✓
<i>And: The Festivities at Their Height</i>	Sectional: 6 episodes and coda (with elements of sonata form)		✓
<i>Music for Flute, Strings and Percussion</i>	Period (consisting of 5 sentences)	✓	
<i>Concerto for Viola and Orchestra</i>	Sonata	✓	
<i>The Canticle of the Sun</i>	Sectional (4 episodes)	✓	
<i>In the Shadow of the Tree</i>	Sectional/ (6 sections)	✓	
<i>Two Paths: A Dedication to Mary and Martha</i>	Variations	✓	
<i>Under the Sign of Scorpio (Variations on Six Hexachords)</i>	Variations	✓	
<i>In Tempus Praesens</i>	Sectional (5 sections)	✓	
<i>Glorious percussion</i>	Sonata		✓
<i>Fachwerk</i>	Variations	✓	
<i>Triple Concerto</i>	Ternary	✓	
<i>Dialogue: You and I</i>	Variations	✓	

¹⁴⁶ Gubaidulina's interpretation of ritornello form associated with the Baroque concerto grosso will be discussed in Chapter Two of this dissertation. At present, it is pertinent to note that in her analysis of this work, Kholopova suggests that the form of the second of the five *attacca* movements of the 1975 *Concerto for Bassoon and Low Strings* resembles a slow concerto grosso, where the 'ritornello' is represented by the compact, homorhythmic sound of seven strings, while the episodes are marked by bassoon solos: R1 – solo1 – R2 – solo2 – R3 – solo3 – R4 – solo4 – R5 – solo5 – R6. She further associates the compact, homorhythmic sound of the 'ritornellos,' played in 3/4 time with an emphasis on the second beat, with the rhythm of a sarabande, thus evoking some neoclassical associations. See Kholopova (2008), 150.

As one can see from the list above, the overall formal design of Gubaidulina's concerted works falls into three major categories: sectional forms, sonata forms, and variations. Although essentially disconnected from the original frameworks of their historical prototypes, these forms seem to remain an important symbolic link between the composer and the rich heritage of Western Art Music. It should be emphasized that, despite the ostensive differences in the composer/scholar-defined forms of each work, one principle has remained dominant throughout Gubaidulina's more than fifty-year-long career. Conventionally, this is referred to as the principle of variation, which generally involves modifying an original idea rather than adhering to a traditional Classical form based on the elaboration of melody and/or its accompaniment, i.e., the form pattern called "theme and variations." It appears, however, that the term could be adjusted to "the principle of developing variation," as this updated version of the term reflects not only its idiosyncratic importance for the composer's creative thinking but also provides a link to the eponymous concept associated with a paramount musical figure of the first half of the twentieth century – Arnold Schoenberg. For her, much like for Schoenberg, music has a "life" that requires "a second reflection,"¹⁴⁷ or in Gubaidulina's terms, music acts as a living organism that carries within it its own needs, aspirations, and interconnections. Viewed from this angle, the principle of "developing variation" demands the composer's inherent avoidance of literal repetition, while the "consequences derived from the basic idea and remaining within the boundaries of human thinking and its demands of logic"¹⁴⁸ stand as conceptually, if not sonically, perceivable. Much like Schoenberg, Gubaidulina tends to associate this aspect of

¹⁴⁷ See Jonathan Dansby, "Thematic and Motivic Analysis," in *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (Cambridge University Press, 2002), 912.

¹⁴⁸ Schoenberg's words as cited in Dansby, "Thematic and Motivic Analysis," 912.

musical composition with creating greater potential for deeper meaning and, consequently, the need for a more profound auditory experience and reflection.

This principle of “developing variation,” working in tandem with other ideas of structuring in her musical works, generates a remarkable array of original approaches, where each composition utilizes a form’s basic organizing idea, but reinterprets and reshapes it in accordance with the unique demands of the musical material. For instance, Kholopova’s description of the form of the *Concerto for Bassoon and Low Strings* as a “dispersed sonata,” in which the traditional sections of exposition, development, and reprise are interspersed with interludes, has become a recurrent analytical approach in subsequent writings on the subject.¹⁴⁹ Two other early concertos written in the 1970s – *Hour of the Soul* and *Introitus* – offer two markedly different approaches to sonata form. In the former, a large and dramatic work featuring the conventional juxtaposition of active versus lyrical ideas, the compositional blueprint is defined not by a conventional recapitulation but by the expansive extension of the coda, which includes the human voice.¹⁵⁰ This alteration shifts the piece’s trajectory toward a reflective, almost cyclical conclusion, in which the formal design drifts away from traditional expectations. In the soft-hued and meditative *Introitus*, the three-sectional design¹⁵¹ has also been interpreted as retaining fundamental features of sonata form, particularly in the relationship between contrasting themes and their developmental treatment.¹⁵² The celebrated *Offertorium* merges sonata form with variation techniques, presenting three sections that follow a quasi-sonata

¹⁴⁹ Kholopova (2008), 148. In terms of form, all subsequent publications on this concerto have remained derivative of the Kholopova-Restagno volume; e.g., Hopkins (2011) and Wilson (2011).

¹⁵⁰ Ibid., 181.

¹⁵¹ Ibid., 192-93.

¹⁵² Pantelidis, “Sofia Gubaidulina’s Non-Concerto for Piano: Introitus,” 161-68.

trajectory, with the first section functioning as an Exposition, followed by a Cadenza and a Reverse Recapitulation.¹⁵³ The work's structure is thus a hybrid, where the sonata framework is enriched by the complexity of variation, and its shape is marked by constant thematic transformation. Further, in *From the Book of Hours*, Gubaidulina constructs a quasi-sonata form with seven strophes, where the first three strophes form the exposition, the next two are developmental, and the sixth and seventh serve as reprise and coda. The overall shape of the work mirrors that of a sonata, but with a more episodic character, as the thematic material evolves through gradually unfolding transformations.¹⁵⁴ The *Concerto for Viola and Orchestra* adheres to a traditional *concerted* sonata form, with its seven sections, including a double exposition, a three-part development, and a coda. However, the absence of a full recapitulation leads to a more open-ended conclusion, resulting in a structure that favors contrast and development over a return to the original thematic material.¹⁵⁵ Finally, *Glorious Percussion* radically deconstructs the sonata form, with the majority of the piece dedicated to development. This extensive developmental section, which includes multiple animated episodes and static moments, results in a composition where the exposition and reprise are reduced to mere frames, and the central developmental narrative becomes the primary structural component of the work.¹⁵⁶

¹⁵³ See Medić, "Gubaidulina, misunderstood," 113. Kholopova does not indicate the presence of sonata form elements and generally interprets the structure as a set of variations, framed within an overall large ternary form. See Kholopova (2008), 193-98.

¹⁵⁴ Irina Shevtsova, "Sofia Gubaidulina's *From the Book of Hours*: Confession of the Cello," in *To Sofia with Love* (Scientific Publishing Center of the Moscow Conservatory, 2014), 116. Kholopova's brief annotation to this work identifies its form as "seven large strophes." See Kholopova (2008), 301-2.

¹⁵⁵ See Chapter 3 of the current dissertation.

¹⁵⁶ Brugger, 139-46.

Likewise, Sofia Gubaidulina's use of variation and sectional forms in her concertos is fundamentally driven by conceptual ideas that shape the development of musical texture. Each of the works in these categories evolves not through the transformation of recognizable melodic ideas, but rather through a dynamic exploration of the specific underlying concept, which dictates the flow of the music. In this context, Gubaidulina's approach to the variation form diverges significantly from traditional models, where variations typically arise from an immediately apparent musical theme. In her works, instead of recognizable melodies, an abstract, extra-musical idea informs the structure and evolution of the piece. For instance, in *Two Paths: A Dedication to Mary and Martha*, there is no musical theme in the conventional sense. Instead, the thematic concept emerges from the contrasting characterizations of love embodied by two Biblical figures, Mary and Martha. According to the composer, the composition is constructed as seven variations that explore the dynamic relationship between the soloists and the orchestra, reflecting the evolving nature of this symbolic idea rather than a particular melody undergoing transformation.¹⁵⁷ In *Under the Sign of Scorpio (Variations on Six Hexachords)*, Gubaidulina builds the work around the technical properties of the bayan, using the instrument's unique capacity to shift between sound dimensions. The piece is structured around six hexachords, serving as the foundational material, with variations arising as the hexachords evolve throughout the piece.¹⁵⁸ Similarly, in *Fachwerk*, the 'theme' is conceptual, as it is linked to the architecture

¹⁵⁷ See the composer's annotation for this work on Kholopova (2020), 315-16. Among other sources discussing the form of this concerto are Lee (2007), Kise (2011), and Moskvina (2017).

¹⁵⁸ In her annotation for this work, Gubaidulina writes: "I am particularly drawn to the qualities of certain instruments that allow a transition from one dimension of the sound space to another without altering the position of fingers on a string or keyboard. In the bayan, this ability to transform one dimension into another occurs when switching the selected keyboard, where each button corresponds to a single note on the standard keyboard, and each button can also correspond to a chord. I utilized this feature of the instrument in the central section of the composition: three melodic notes from the selected keyboard, when switched, transform into seven- or five-note chord complexes. However, the main feature for me was another possibility of the standard keyboard. By pressing two buttons (corresponding to the major and minor triads) and gradually moving up or down across the entire range

of the Fachwerk style; the variations unfold as the music explores and transforms structural ideas inherent to the architectural style, rather than a melodic gesture.¹⁵⁹ In *Dialogue: You and I*, Gubaidulina's focus is on the expansion and contraction of intervallic structures, which emerge and transform across the seven variations, forming a dialogic interaction between the soloist and the orchestra.¹⁶⁰

With regard to the composer-identified sectional forms, existing musicological literature frequently delineates a range of ternary sub-forms, in which multiple episodes are grouped into larger 'blocks' based on the thematic functions of their musical components, such as motives, textures, timbres, etc. This approach recurrently leads to the construction of another formal sub-layer associated with the sonata form. Velikovskaya, for instance, posits that the contours of ternary form bring aesthetic harmony and balance, contributing to greater logical clarity in the listener's perception of extended compositions, while the sonata form offers an opportunity to embody the conflict-driven dramaturgy that is typical of Gubaidulina's works.¹⁶¹ Viewed from this perspective, the symbiosis of these forms is understood as a phenomenon of poly-structure, involving the existence of several levels of musical composition within a work: on a larger scale,

of the instrument without changing finger positions, you can generate six different hexachords. These six hexachords provided the entire composition with a structural foundation for both the material and form: variations on six hexachords. This is the subtitle of the composition." Kholopova (2020), 326-27.

¹⁵⁹ See the composer's annotation in Kholopova (2020), 341-42; an analysis in Geller, 71-86; also discussed in Džinović, 71-81.

¹⁶⁰ The full text (in English translation) of Gubaidulina's annotation for this work is available in Appendix 3.

¹⁶¹ Irina Velikovskaya, "Sofia Gubaidulina's Compositions for Cello: Issues of Musical Content, Composition and Instrument Interpretation," Candidate diss., Moscow Tchaikovsky Conservatory (2013), 210, http://www.mosconsv.ru/upload/images/Documents/DiserCand/schevcova_dissertaciya.pdf?ysclid=m5q1zbygi5168487004.

the predominance of ternary and sonata forms; and on a smaller scale, continuous structures and cycles.¹⁶²

For example, Pantelidis suggests that in Gubaidulina's early piano work, *Introitus* (a "non-concerto"), the reappearance of the two opening themes in the third section and the coda alludes to sonata-like features.¹⁶³ Shevtsova (née Velikovskaya), in revisiting Kholopova's interpretation of Gubaidulina's second cello concerto, *From the Book of Hours*, which she describes as consisting of "seven large strophes,"¹⁶⁴ presents the form of this composition as a sonata-like construction. In her analysis, the consecutive grouping of the seven episodes into 3+2+1+1 leads to the labeling of these larger formal blocks as "exposition, development, reprise, and coda."¹⁶⁵ Furthermore, in her description of the seven-part form of the third cello concerto, *And: The Festivities at Their Height*, Shevtsova states that the structure has "the contours of a ternary form," where the first three episodes constitute the "exposition of the material," sections four to six represent the "development," and section seven serves as the "reprise-coda."¹⁶⁶ In summary, all the analytical writings in contemporary Russian-language discourse over recent decades tend to align with the influential concepts established by Valentina Kholopova, a prepotent figure in musicological studies on Gubaidulina. These analyses consistently reaffirm

¹⁶² Velikovskaya, "Sofia Gubaidulina's Compositions for Cello: Issues of Musical Content, Composition and Instrument Interpretation," 54, 55, and 210.

¹⁶³ Pantelidis, "Sofia Gubaidulina's Non-Concerto," 168.

¹⁶⁴ Kholopova (2008), 302.

¹⁶⁵ Velikovskaya, 120.

¹⁶⁶ *Ibid.*, 129.

that “the most important, and perhaps fundamental, characteristic of Gubaidulina’s musical thinking is ‘dichotomy, paired contrast, and antinomy.’”¹⁶⁷

➤ **Beyond the Theme: Redefining Melodic Identity in Gubaidulina’s Concertos**

Along with reinterpreting structural outlines of the classical form concepts fundamental in Gubaidulina’s concerted works, she – like many contemporary composers of her generation – reshapes the concept of a theme as a basic idea in its melodic, motivic, and harmonic contexts that form a cohesively organized musical structure. Although a few rare examples of traditional, singable, and ‘memorable’ melodies (such as, for instance, the “Prayer Theme” in her 1996 viola concerto discussed in Chapter 3) can be found in her concertos, the musical thematicism in these, and essentially in all of Gubaidulina’s works, originates predominantly from brief melodic ideas. These range from short motifs and symbolic monograms to merely a single sound; they can also be derived from distinct timbral, textural, rhythmic, and sonoristic sources.¹⁶⁸ Various combinations of these ideas are termed “complex thematicism,” which, in Russian-language literature, is frequently described as an intermixture of several elements of the composer’s musical language “united within the framework of consonant or dissonant expression.”¹⁶⁹

Velikovskaya argues that Gubaidulina’s melos often draws on a range of psychological concepts in shaping the forms of her compositions. These include intrigue, anticipation, predictability, ambiguity, shifts in attitude, impulse, energy, tension, relaxation, and the interruption and renewal of momentum.¹⁷⁰ Further, she describes Gubaidulina’s ‘melodies’ as

¹⁶⁷ In Brugger, “Sofia Gubaidulina’s *Glorious Percussion*,” 139.

¹⁶⁸ See also Velikovskaya, 58.

¹⁶⁹ Ibid., 58.

¹⁷⁰ Ibid., 56.

being associated with a variety of intonations of the human voice, each carrying different semantic meanings: moans, screams, expressions of joy, and intonations of a question. Through this approach, she delineates several distinctive features of the composer's melos, related to the characteristic openings and endings of Gubaidulina's works, the importance of pauses or rests, and the repeated use of the same sound. With regard to the analyses of the three concertos presented in this dissertation, the validity of Velikovskaya's key points cannot be overstated.

Hence, they are summarized as follows:

- The characteristic openings of the compositions – motifs consisting of several notes interrupted by pauses – contain a powerful impulse for subsequent development. Here, the psychological principle of expectation is at work: the pauses, by concentrating the listener's attention, become a semantic element that contrasts the sound.
- In large-scale works, the idea of the ending becomes particularly important. In Gubaidulina's music, the solution to the problem of the finale is often linked to the psychological principle of novelty, creating a eureka moment by introducing a new, unprecedented timbre or sound production technique into the score.
- A crucial component of the musical thematicism in her composition is the use of pauses, which the composer treats with equal importance as the sounding material. Pauses are not merely breaks in the sound; they carry the meaning of anticipation, always associated with a certain psychological tension.
- The repeated use of the same sound in Gubaidulina's compositions carries a psychological significance related to the mechanisms of music perception and memory. According to the composer, "A brief sounding of a single tone at first may not lead to its memorability for uniting the form. However, repeated use, in the form of a whole 'sonic field,' will achieve the desired result."¹⁷¹

Remarkably, one other thematic element appears consistently in Sofia Gubaidulina's concerted works since the early 1990s. It carries the function of the 'divider' as it marks the end of episodes or other significant structural segments of the composition. These dividers play a

¹⁷¹ Ibid., 56-57.

crucial role in shaping the overall structure of the work, helping to define transitions and create points of dramatic focus. For example, in *Aus dem Stundenbuch* (1991), Velikovskaya notes the prominence of a “clock-bell theme,” which recurs multiple times throughout the work, becoming a “leitmotif.”¹⁷² Similarly, in *And: The Festivities at Their Height* (1993), the sound of two harps paired with bell ringing marks the end of each of the six “strophes” and the coda.¹⁷³ In *Music for Flute, Strings and Percussion* (1994), the sections of the form are delineated by the appearance of major and minor triads juxtaposed within the alternative tunings, and “resolving through a ‘neutral’ triad that “reconciles the opposites at the end of each section.”¹⁷⁴ Further, in the 1996 *Viola Concerto*, the composer uses a characteristic rhythmic figure that marks the transitions from one sections to the next,¹⁷⁵ while *Sonnengesang* (1997) features overtone series as structural dividers that not only mark transitions between the four episodes but also divide the entire composition into two larger parts. Within each of these dividers, reaching the eleventh overtone in the part of the soloist serves as a final point of the symbolic crossing over into the next section.¹⁷⁶ Lastly, in *Fachwerk* (2009), the bayan’s solo statements punctuate key moments

¹⁷² Ibid., 121-22.

¹⁷³ Ibid., 128.

¹⁷⁴ Kholopova (2008), 314.

¹⁷⁵ Refer to Chapter 3 of the current thesis.

¹⁷⁶ Gubaidulina’s own description is very specific. She states that the structure of the composition is divided into 4 episodes. However, there are also four moments in the composition that further divide the form. And this is related to the motif of the overtone series, with the achievement of the 11th overtone on all four strings of the cello.

1. RN 70: on A string – correlation of standardly tuned D# with D# tuned a quarter-tone lower; as if producing the sound of an 11th natural harmonic on A string. This occurs the beginning of an episode “Glorification of Life.”
2. RN94: on D string – correlation of standardly tuned G# with G# tuned a quarter-tone lower; as if producing the sound of an 11th natural harmonic on A string. This occurs after the climax of the “Glorification of Life” episode.
3. RN 107-110: on G string. This is standardly tuned C# and C# tuned a quarter-tone lower. This occurs at the end of the “Life” episode.

of the work, either before or after cadenzas, acting as dividers that underscore the most important moments in the composition's formal structure.¹⁷⁷ Through these recurring 'dividers,' Gubaidulina crafts a meticulous and deeply expressive musical narrative, guiding the listener through the emotional and yet highly structured journey of her concertos.

On the Question of Numbers in Sofia Gubaidulina's Concerted Works

From an analytical standpoint, the role of numbers in Gubaidulina's formal structuring of her concertos emerges as arguably the most compelling aspect of her compositional process. To date, aside from Valeria Tsenova's comprehensive exploration of this topic in relation to several of the composer's smaller-scale works,¹⁷⁸ no substantial efforts have been made to address the numerical mysteries in Gubaidulina's concerted works. In general terms, the question of numbers has been discussed in the context of the composer's inner dichotomy between the intuitive and

4. RN 141-143: on C string. This is This is standardly tuned F# and F# tuned a quarter-tone lower. This occurs in the episode "Glorification of Death," that is, just before the coda of the composition. This same motif of the overtone series divides the entire form as a whole into 2 parts in RN 111-113. This is the episode when the cellist leaves his instrument. See Kholopova (2020), 313.

¹⁷⁷ Geller, 77.

¹⁷⁸ Tsenova presents analyses of four compositions written in 1993. These are: *Early in the Morning, Right Before Waking...* for three 17-stringed Japanese bass kotos and four 13-stringed Japanese kotos; *Meditation on the Bach Chorale 'Vor deinen Thron tret ich hiermit'* (BWV 668) for harpsichord, two violins, viola, violoncello, and double bass; *String Quartet No. 4* (with tape and colour organ ad lib.), commissioned by and dedicated to the Kronos Quartet; *Jetzt immer Schnee* [Now Always Snow] for chamber ensemble and chamber choir, set to verses by Gennadi Aigi (in Russian); and *Der Seiltänzer* [Dancer on a Tightrope] (1993) for violin and piano. Tsenova (2000), 78-181.

rational aspects of her music,¹⁷⁹ her desire to avoid squareness and rhythmic regularity,¹⁸⁰ and finally, the symbolic and mystical significance she assigns to the Golden section and to the Fibonacci sequence.¹⁸¹ Additionally, some publications identify the Fibonacci and Fibonacci-derived numbers¹⁸² pertaining to the surface-level elements in Gubaidulina's scores; among these are the durations of sound versus silence, the length of melodic elements, the peculiar combinations of rhythmic patterns, the number of pitches in the themes and/or motives, the number of their appearances throughout the work, et al.¹⁸³ Remarkably, in her analysis of the 1976 percussion concerto, *Hour of the Soul*, Kholopova identifies one of the earliest examples of Gubaidulina's use of the Fibonacci *sequence* in her concertos. In this instance, the rhythmic

¹⁷⁹ In her monograph, Kholopova, for instance, quotes the composer saying: "I am an intuitive, who envies rationalists, that is, an intuitive who hopelessly dreams of being a rationalist." Further in the volume, the author presents another quote describing Gubaidulina's fascinating relationship with the 'magic numbers': "I really think a lot about proportions in the form of a musical composition since 1983. I am gradually forming a particular view on the beauty of artistic works depending on the structural purity in fulfilling the 'numerical' commitments taken. But this is a very difficult task. And very dangerous, as it could lead to the suppression of the spontaneity of intuitive hearing..." Kholopova (2008), 170 and 299.

¹⁸⁰ In addition to multiple mentions in Kholopova's volume, his topic has been addressed in various sources. See, for instance, Velikovskaya (2013), 56, 182, 205, and Moskvina (2017), 146-47, 165.

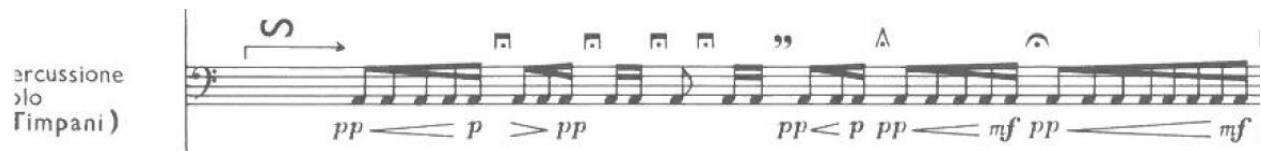
¹⁸¹ In the Fibonacci sequence, every number following the first two is the sum of the two preceding ones: 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, etc. The Golden Section (also known as the golden ratio, golden mean, golden number, divine proportion, divine section, or golden proportion) is a special number approximately equal to 1.618. It appears in geometry, art, architecture, and various other fields. The ratio of any two successive Fibonacci numbers approximates the Golden Ratio, with the approximation becoming more accurate as the numbers increase. For the most comprehensive coverage of the number symbolism, refer to Tsenova (2000), 7, 9-49, 111, 129 et al.

¹⁸² The Lucas series, named after the 19th-century French mathematician Édouard Lucas, follows the Fibonacci principle but omits the second value (the 2): 1, 3, 4, 7, 11, 18, 29, 47, 76, 123, etc. The Evangelist series (série évangélique), proposed by the French researcher Georges Arnoux, is defined by the following additive sequence: 2, 5, 7, 12, 19, 31, 50, 81, 131, 212, 343, etc. Bach Row I proceeds as follows: 1, 4, 5, 9, 14, 23, 37, 60, 97, 157, etc. Tsenova (2000), 34 and 113.

¹⁸³ In his thesis, Džinović, for instance, provides several examples referring to the organization of rhythm according to the numbers of the Fibonacci, Evangelist, and Lucas Series – e.g., the Fibonacci numbers (Figure 3) in 1986 *Et Exspecto* (incidentally, misspelling the name of the solo bayan piece and providing an incorrect year of its completion) and Evangelist numbers (Figure 28) in 1991 *Silenzio*, five pieces for bayan, violin, and violoncello (or double bass). Džinović (2017), 31 and 61.

groupings in the solo timpani part that opens the work follow the Fibonacci sequence: 5, 3, 2, 1, 2, 3, 5, 8, as shown in Example 1.¹⁸⁴

EXAMPLE 1: One of the earliest ‘local’ uses of the Fibonacci sequence in Gubaidulina’s 1976 concerto, *Hour of the Soul*; identified by Valentina Kholopova

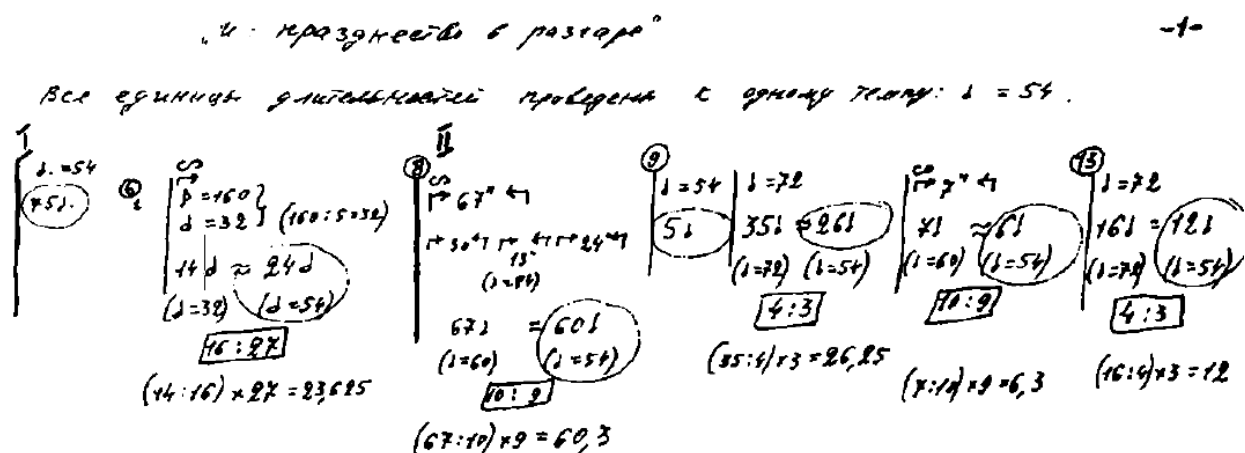


Regarding Gubaidulina’s concertos composed since the early 1990s, no comprehensive research has yet been conducted on the integration of Fibonacci and Fibonacci-derived sequences that shape the implementation of the composer’s concept of the *Rhythm of Form* – a time-related, stratified structuring of her works. This task is undoubtedly impossible without access to the composer’s sketches and drafts, some of which are preserved at the Paul Sacher Foundation in Basel, Switzerland. Reconstructing even a partial version of Gubaidulina’s compositional process is a challenging endeavor for any musical analyst interested in such a unique approach to musical form. As a result, very few discussions – or rather, citations – of the composer’s “numerical plots” in her concertos have been published in recent decades. One of these publications is part of the fourth chapter in Kholopova’s volume, where she discusses new trends in Gubaidulina’s oeuvre from 1999 to 2006. In her description of the composer’s newly established compositional method, Kholopova notes that for many of these works, Gubaidulina wrote a pre-compositional theoretical justification, often spanning dozens of pages. Referring to the 1993 cello concerto, *And: The Festivities at Their Height*, she adds that the composer “undertook the arduous task of bringing all the variable meters, fluctuations in tempo, and free

¹⁸⁴ Kholopova (2008), 181.

constructions *senza metrum* to a common denominator, calculating them with a single temporal unit. In doing so, she placed the temporal relationships under strict rational, mono-metric control [...].” Presenting a facsimile of a page from Gubaidulina’s drafts, Kholopova elaborates on the composer’s calculations. At a composer-indicated ‘absolute unit of measure’ of $\text{♩}=54$, the total number of units within the piece is 1364. The image of Gubaidulina’s draft printed in Kholopova’s volume is reproduced in Plate 1 below.

PLATE 1: First page of Gubaidulina’s calculations for the 1993 cello concerto *And: The Festivities at Their Height*, originally published in Valentina Kholopova’s volume



Kholopova further states that the main division of the piece is calculated according to the principle of the Golden Section: the number 1364, derived from the Lucas sequence, is broken down into two Fibonacci numbers: $1364 = 987 + 377$. However, it is currently impossible to verify the accuracy of these observations, as the fragment of the draft appears to refer only to the first two of the seven sections of the concerto. Notably, the three numbers cited do not appear to represent a golden section relationship ($1364 \div 987 = 1.38$ and $987 \div 377 = 2.62$). Since

Kholopova does not explain how these numbers are calculated in relation to the actual score, the reader is expected to accept subsequent statements – such as “the main culmination of the piece is placed at the point of the golden section (m. 94)” or “by positioning a prominent, well-balanced episode exactly in the center of the form (from m. 63), the composer creates the proportion $1364 = 660 + 44 + 660$, where the quarter note equals 54” – at face value.¹⁸⁵

Another citation of Gubaidulina’s “numerical plot” in her violin concerto *In Tempus Praesens* (2007) appears in a 2009 publication by renowned German musicologist Dorothea Redepenning.¹⁸⁶ The author presents several facsimile pages of the composer’s number-related plan for the work. Since a detailed analysis lies outside the scope of Redepenning’s article, these numbers remain without commentary or score references. A quick look at these numbers, which indicate the durations of each of the five episodes of the work, alludes to the pyramid reference mentioned earlier: the temporal lengths of the sections increase from the first to the third episode and then decrease in each of the following episodes, thus creating a virtual image of two sloping lines meeting at the ‘apex’ point in the third episode. Additionally, at an absolute beat value of $\text{♩}=84$ indicated by the composer, the proportional durations from one section to the next approximate the golden section. Refer to the Figure 1, below.

¹⁸⁵ Kholopova (2008). 298-99.

¹⁸⁶ Dorothea Redepenning, “Reflexiones sobre la estetica de Sofia Gubaidulina,” [Reflections on the Aesthetics of Sofia Gubaidulina] in *Carta blanca a Sofia Gubaidulina* (Cortés Santamarta, 2009), 51-53.

FIGURE 1: Summary of the first page of Sofia Gubaidulina’s “numerical plot” for her 2007 violin concerto *In Tempus Praesens*

Total number at ♩=84 as indicated by the composer				
2636				
Durations of each of the five episodes				
1	2	3	4	5
301	488	789	675	383
The proportional values from one section to the next approximate the golden section				
$488 \div 301 = 1.621$	$789 \div 488 = 1.617$	$789 \div 675 = 1.169$	$675 \div 383 = 1.762$	

Gubaidulina’s numbers presented above also receive a brief mention in Paul Bagley’s impressively titled yet equally outstandingly succinct DMA paper, summarizing established scholarship with minimal deviation.¹⁸⁷ Taking his referential numbers from the 2011 documentary *Sophia: Biography of a Violin Concerto* directed by Jan Schmidt-Garre, Bagley reaffirms that “Gubaidulina uses this mathematical principle [Fibonacci numbers] as ‘a way out of an uncontrollable wave,’ a way to structure her works and shape her intuitive, subconscious musical ideas into a work of art.”¹⁸⁸

Two final examples addressing the topic of numbers come from the previously cited collection of papers, compiled from a conference dedicated to Sofia Gubaidulina’s 80th anniversary and published by the Scientific Publishing Center of the Moscow Conservatory. One of them, dedicated to the 2009 bayan concerto *Fachwerk*, attempts to interpret the number-related proportions in this work using a surprisingly misguided approach. Referring to Tsenova’s volume, which describes the procedures for calculating the value of Gubaidulina’s ‘absolute beat’ in works with multiple time-related changes, including unmeasured episodes whose

¹⁸⁷ Paul Michael Bagley, “Mysticism in 20th and 21st Century Violin Music” (DMA diss., University of Maryland, 2014), <https://api.drum.lib.umd.edu/server/api/core/bitstreams/71039217-13fe-47e2-88f3-33ce7afcc2ee/content>.

¹⁸⁸ Bagley, “Mysticism in 20th and 21st Century Violin music,” 11.

duration is marked in seconds, Geller, for reasons eluding any explanation, presents her findings by counting the actual number of bars in the work. She states that the dynamic climax of this concerto – “a jubilant sound at *fff*” – occurs at the point of the golden section in measure 444. As the total number of bars is conveniently calculated as 714, juxtaposing the durations of the whole to the larger and the larger to the smaller parts of the work produces the ‘desired’ numerical value of approximately 1.6, obtained as follows: $714 \div 444 \approx 444 \div 270 \approx 1.6$.¹⁸⁹ Geller’s further interpretations of the number 3 are questionable, as they rely on dubious quasi-academic sources related to number symbolism.¹⁹⁰ Lastly, some calculations related to the central structural idea in the 2008 *Glorious Percussion* – “the agreement of the sounding intervals with their difference tones”¹⁹¹ – are presented in Brugger’s article.¹⁹² The author pays special attention to the computational methods of the composer, where the differences in pitch tones (in hertz) and overtone/undertone series are found to have equivalents in rhythmic units. It should be noted, however, that the overwhelming majority of Brugger’s numbers come from the composer’s own annotation to her work. Additionally, Brugger’s numerical analysis – which glosses over the

¹⁸⁹ Geller, 84.

¹⁹⁰ One of such sources is Geller’s reference to the *Dictionary of International Symbols and Emblems*, compiled by a Soviet quasi-Renaissance man, William Pokhlyobkin. The author of over fifty voluminous books (including his perhaps most famous (or infamous?) *A History of Vodka*, translated into a number of languages, including English) and a large number of articles on Scandinavian studies, heraldry, diplomacy, international relations and culinary arts, Pokhlyobkin provides an enormous amount of gratuitous wisdom regarding symbols and emblems in his weighty 541-page tome. Refer to his brief biography, which occupies the last two pages of the above-mentioned book. See William Pokhlyobkin, *Dictionary of International Symbols and Emblems* (International Relations, 2001), 562-63. Available online (in Russian) at [https://www.e-reading.life/bookreader.php/137170/Slovar' mezhdunarodnoii simvoliki i emblematiki.pdf](https://www.e-reading.life/bookreader.php/137170/Slovar%20mezhdunarodnoii%20simvoliki%20i%20emblematiki.pdf).

¹⁹¹ For the above citation, see Sofia Gubaidulina, *In Tempus Praesens* and *Glorious Percussion: Concertos by Sofia Gubaidulina*, performed by Vadim Gluzman (violin); *Glorious Percussion*: Anders Loguin, Anders Haag, Mika Takehara, Eirik Raude, Robyn Schulkowsky and the Lucerne Symphony Orchestra, conducted by Jonathan Nott (BIS Records, 2008). Compact disc, liner notes. Also, see an interview with the composer on the Berlin Philharmonic website, *Sofia Gubaidulina in Conversation with Margarete Zander*, available online at <https://www.digitalconcerthall.com/en/interview/248-3>

¹⁹² Brugger (2014), 147-56.

composer-explained intervallic combinations related to the computed fragments of the music, strategically placed at key moments in the form – does not provide a comprehensive interpretation of the concerto’s time-related form, despite offering some explanation of how the composer derives rhythmic patterns and proportions from intervals and chords. Further research is needed to uncover the workings of Gubaidulina’s concept of the *Rhythm of Form* in this work, to understand how these pitch and rhythm ‘computed’ episodes “appear at particular structural points, thus subjecting the form to the law of the Golden Section.”¹⁹³

To conclude our overview of the various aspects of Sofia Gubaidulina’s reimagining of the instrumental concerto genre, it is important to note that while the majority of the analytical writings discussed in this chapter provide valuable insights into two fundamental concepts related to the genre – virtuosity and the treatment of traditional concerted forms and their structural components – the topic of Gubaidulina’s use of the Fibonacci and Fibonacci-derived series, which constitute her concept of the *Rhythm of Form*, remains to be sufficiently explored. The following three chapters of this dissertation aim to address this gap by offering in-depth analyses of one of Gubaidulina’s earlier works, *Revue Music for Symphony Orchestra and Jazz Band* (originally titled *Concerto for Two Orchestras, Jazz and Symphony*, 1976/1995/2002), as well as two compositions from the 1990s: *Concerto for Viola and Orchestra* (1996) and *In the Shadow of the Tree [Im Schatten des Baumes]* for Koto, Bass Koto, Zheng and Orchestra (1998). In addition to exploring traditional form-related and historiographical topics, these chapters specifically focus on how Gubaidulina’s concept of the *Rhythm of Form* is manifested in her music.

¹⁹³ Sofia Gubaidulina, *In Tempus Praesens and Glorious Percussion: Concertos by Sofia Gubaidulina*, (BIS Records, 2008). Compact disc, liner notes.

CHAPTER TWO

Analytical Étude No. 1: Concerto for Two Orchestras, Jazz and Symphony/Revue Music for Symphony Orchestra and Jazz Band

One of the earliest complete manuscript versions of this concerto (1976)¹⁹⁴ preserved at the Paul Sacher Archives in Basel, Switzerland, presents the title of the work as *Konzert dlya Dvukh Orkestrov, Estradnogo i Simfonicheskogo* [*Concerto for Two Orchestras, Jazz and Symphony*].¹⁹⁵ The composer revisited this work in 1995 and provided a new title in German, *Revuemusik für Sinfonieorchester und Jazzband* [*Revue Music for Symphony Orchestra and Jazz Band*]. There are currently two published editions of the concerto. The first one is by *Soviet Composer* [Vsesoyuznoe Izdatel'stvo Sovetskii Kompozitor], Moscow (1985); the second one is by *Sikorski* [Internationale Musikverlage Hans Sikorski], Hamburg (1998/2002). The contents of these scores, along with the two unpublished manuscripts – including another copy of the 1985 edition with Gubaidulina's own corrections –¹⁹⁶ raise several questions regarding the reasons for the composer's amendments and changes, as well as the rationale behind the Moscow publication's timeframe.

The revisions pertain to three general areas: firstly, multiple error corrections (missing accidentals, misspelled notes, rests, and clefs); secondly, significant detail refinement (score

¹⁹⁴ Paul Sacher Foundation (Basel). Sofia Gubaidulina Collection. Manuscript.

¹⁹⁵ The conventional English translation of the title is somewhat ambiguous since in Russian the word *estrada* (noun; *estradnyi* – adjective) does not refer to jazz exclusively, but rather to a variety of forms of popular stage entertainment such as singing, dancing, stand-up comedy, circus etc. In other words, the English expression *show business* or the German *Unterhaltungsmusik* [light music] would be closer in meaning to the word *estradnyi*.

¹⁹⁶ We refer to the PSS collection folder 62 GUBA 10 which arrived to PSS on September 9, 2001.

layout, dynamics, and articulation); and thirdly, adjustments of certain temporal components (the length of sections, phrases, values of metronome marking, and explicit timing of aleatoric episodes in seconds).¹⁹⁷ This third type of revisions appears to be the most intriguing in light of Gubaidulina's interest in the numerical aspects of the compositional process. Various examples of her employing Fibonacci numbers have been detected by Gubaidulina scholars starting from the works written in the early 1970s.¹⁹⁸ Therefore, the time-related revisions of the *Revue Music* completed in the mid-1990s raise the issue of whether the composer attempted to "perfect" the temporal structure of this work to create a desired proportionality between its sections that were constructed intuitively back in 1976. The effect of these changes will be discussed later on in this chapter. With respect to the first two areas of revisions, comparing the original 1976 manuscript with the Moscow edition reveals a curious absence of certain errors in the original handwritten score and their incomprehensible emergence, nine years later, in the first printed score.¹⁹⁹ Was this due to a sloppy music engraver's human error? Could it be a deliberate act of sabotage of the integrity of the score by the regime-stigmatized composer implemented by the chief publishing

¹⁹⁷ Appendix I summarizes these adjustments. The four compared scores are abbreviated as follows: OM – original 1976 manuscript; ME – 1985 Moscow edition; PSS 2001 – Paul Sacher Stiftung ME score with Gubaidulina's corrections; SE – 1998 Sikorski edition. Rehearsal numbers (RN) indicated are from the Sikorski printed edition.

¹⁹⁸ Tsenova, for instance, discovered the earliest employment of Fibonacci numbers in Gubaidulina's electronic composition of 1970, *Vivente – non vivente*. According to her, the lengths of the phrases in *non vivente*, calculated in measure-units, constitute the Fibonacci sequence: 3 – 5 – 8 – 13 – 21 – 34 – 55. Following the principles of this progression, the duration of the artificial sound-fragments increases throughout the piece. The synthesiser-produced "phrases" are divided by rests, the duration of which is equal to the first three numbers of the sequence. The duration of the sustained vocal 'chords' (in *vivente*), calculated in measure-units, is 1 to 5. Thus, throughout this short piece, the Fibonacci sequence is utilized simultaneously on three different levels, creating a peculiar kind of rhythmic counterpoint: in the "sounding" fragments of the *non vivente* layer – 7 units: 3 – 55; in the "silent" fragments of the *non vivente* layer – 3 units: 1 – 3; in the sustained "chords" of the *vivente* layer – 4 units: 1 – 5. See Valeria Tsenova, "Magic Numbers in the Music of Sofia Gubaidulina" ["Числовые тайны музыки Софии Губайдулиной"] (PhD diss., Moscow Conservatory, 2000), 61-63.

¹⁹⁹ Refer to The Summary of Gubaidulina's Score Adjustments (Appendix 6); e.g., RN 1, m. 16; RN 7, m. 7; RN 13, m. 129.

house of Soviet Composers?²⁰⁰ Or rather, was there perhaps another version of the score compiled towards the end of 1978? Listening to the first and only LP record of this work²⁰¹ produced in 1979 reveals a substantial number of discrepancies compared with the 1985 score; this certainly confirms the hypothesis that another version exists, albeit impossible to locate thus far. Perhaps it only existed in the form of orchestral parts that were adjusted by the composer during the rehearsals or after the first performance on January 16, 1978.²⁰² Furthermore, the conjecture about the deliberate printing bungles of 1985 seems to be inextricably connected with the fact that the concerto was published nearly a decade after it was written. Remarkably, the first Concerto Grosso of Gubaidulina's comrade and colleague Alfred Schnittke written in the same year (1976), was promptly published by the *Soviet Composer* two years after its final revision of 1977. Following the "divide and rule" policy of the Composer's Union,²⁰³ the publication of Gubaidulina's work was delayed until the year Mikhail Gorbachev came to power. The ideas of Perestroika and Glasnost were in the air. However, in 1985 no attempts to re-

²⁰⁰ In 1979, Gubaidulina was infamously blacklisted as one of the "Khrennikov Seven," a group of seven composers denounced at the Sixth Congress of the Composers' Union by its Head, Tikhon Khrennikov who described their music as "a frenzied torrent of noise, harsh outcries and unintelligible muttering." Selected passages from Khrennikov's official speech at this meeting first published in *Sovetskaya Kultura* on November 23, 1979 of are cited (in English translation) in Levon Hakobian, *Music of the Soviet Era*, 203.

²⁰¹ This recording is currently available on YouTube at <https://youtu.be/8VqSvBtp77Q>

²⁰² The dates are cited in Michael Kurtz (2007) who provides many interesting historical details in a section dedicated to this work subtitled 'Financial Strains and a Commission for a "Music Hall."' See Kurtz, *Sofia Gubaidulina*, 123-26.

²⁰³ Dmitri Smirnov, one of the composers the Khrennikov's Seven list, writes: "This victimisation came in connection with their participation in the Cologne festival. An administrative punishment was made, preventing them from being performed on the radio and television, and prohibiting the publication of their scores. The leaders of the Composer's Union also proclaimed the policy of 'divide and rule', and Schnittke, who previously had been harshly criticized, was suddenly given official recognition." See Dmitri Smirnov, "Song from Underground," Booklet of the Festival *The Masterpieces of Russian Underground*, 2003, <http://research.gold.ac.uk/16096/>

evaluate the communist regime were made – no new guiding principles by the upper echelons²⁰⁴ of the Union of Soviet Composers were established and, needless to say, no reshuffling occurred in the Union’s chief publishing house, Vsesoyuznoe Izdatel’stvo Sovetskii Kompozitor. Hence, there could have been some trivial yet spiteful reminders – in the form of score typos – to the composer who decidedly refused to comply with the prescribed norms of Socialist Realism in music.

In the updated Sikorski edition, the instrument list of the *Revue Music*, shown in Figure 2 in its original Italian version and its English translation, calls for two clearly separated orchestras – the Symphony and the Jazz. The former notably lacks oboes and bassoons in the woodwind group. The score is supplemented by three batteries of percussion, piano, electric organ, harp, and three sopranos. The latter, resembling the traditional combination of Dixieland band, omits clarinets and adds two more percussion batteries as well as two additional French horns. Curiously, the keyboard instruments and harp, placed into the jazz section in all earlier versions of the score, are moved into the symphony group.²⁰⁵

FIGURE 2: Instrumentation list of the *Revue Music for Symphony Orchestra and Jazz Band* in Sikorski edition (1998/2002)

Orchestra Sinfonica

3 Flauti
3 Clarinetti in B

4 Corni in F
3 Trombe in B
3 Tromboni
Tuba

Symphony Orchestra

3 Flutes
3 Clarinets in B $\flat$

4 French Horns in F
3 Trumpets in B $\flat$
3 Trombones
Tuba

²⁰⁴ The epitome of such musical hegemony was Tikhon *Khrennikov* (1913–2007). This General Secretary of the Union of Soviet Composers, appointed by Joseph Stalin in 1948, remained at the helm of State’s musical creative minds from the time of the infamous Zhdanov Doctrine until the collapse of the Soviet Union in 1991.

²⁰⁵ The Sikorski edition also presents a new distribution of the instruments within the percussion batteries as well as substantial changes/increases of their members.

Batteria I: Timpani, Campanelli di Valday, Tam-tam
 Batteria II Triangolo, 5 Piatti, Tam-tam
 Batteria III: Gran Cassa, Xilofono, Campane

2 Arpe
 Piano
 Organo elettrico

3 Soprani (con microfono e rimbómba)

Archi

Orchestra da Jazz

3 Saxofoni (alto in Es, tenore in B, baritone in Es)
 2 Corni in F
 4 Trombe in B
 4 Tromboni

Batteria IV: Batteria da jazz
 Batteria V: Hi-hat, 5 Temple blocks, 3 Tomtoms

Chitarra
 Chitarra bassa

Battery I: Timpani, Valdai bells, Tam-tam
 Battery II: Triangle, 5 Cymbals, Tam-tam
 Battery III: Bass Drum, Xylophone, Chimes

2 Harps
 Piano
 Electric Organ

3 Sopranos (with a microphone preamplifier)

Strings

Jazz orchestra

3 Saxophones (alto in Eb, tenor in Bb, baritone in Eb)
 2 French Horns in F
 4 Trumpets in Bb
 4 Trombones

Battery IV: Jazz Battery
 Battery V: Hi-hat, 5 Temple blocks, 3 Tom-toms

Guitar
 Bass Guitar

Currently, the only scholarly article written about the *Concerto for Two Orchestras/Revue Music for Symphony Orchestra and Jazz Band* is authored by Valentina Kholopova, a life-long comrade and colleague of the composer. Since the Kholopova/Restagno book has not been translated into English, the full text and the translation of her annotation are presented below.²⁰⁶

Concerto for Two Orchestras, Jazz and Symphony

Concerto for Two Orchestras, jazz and symphony (1976) is a one-movement work which includes vocalization for three sopranos and reciting of a poem by Afanasy Fet (on pre-recorded tape). Initially, Gubaidulina called the work *Concerto Grosso*, but then she renamed it because of the concurrence of her title with that of Alfred Schnittke's *Concerto Grosso No. 1*

Концерт для двух оркестров, эстрадного и симфонического

Концерт для двух оркестров, эстрадного и симфонического (1976) — одночастное произведение, включающее вокализ трех сопрано и чтение стихов Афанасия Фета (на пленке). Первоначально Губайдулина назвала его “Concerto grosso”, но затем переименовала в связи с совпадением названий ее сочинения и сочинения

²⁰⁶ Kholopova (2008), 177-79.

(1976). *Concerto for Two Orchestras* stands out sharply in Gubaidulina's style thanks to its reliance on rock music. Such an unexpected departure into a new style was caused by a commission received from the principal conductor of the Moscow Jazz Orchestra, Alexander Mikhailov who intended to form a new, contemporary music hall. This music hall never opened, yet Gubaidulina's score sparked the interest of two choreographers, Vakil Usmanov, who staged a ballet on Gubaidulina's music at the Stanislavsky and Nemirovich-Danchenko Moscow Music Theatre, and Yury Puzakov, who carried out the production of the ballet in Tartu. Both choreographers found that the ballet required a slow-music section and, at their request, Gubaidulina wrote a large-scale symphonic *Adagio*. This section was not included in the final version of the *Concerto's* score and has been performed on its own. Later, Alexander Mikhailov, the principal conductor of a large variety orchestra who premiered the *Concerto*, commissioned Gubaidulina to write several other compositions for his orchestra, including a capriccio *Te salutant (Тебя Приветствую)*. Thus, an islet of Gubaidulina's 'high style' pop music was formed.

In her *Concerto for Two Orchestras*, which is oriented towards the concerto grosso genre, Gubaidulina offers the following juxtapositions: the style of serious symphonic music versus light jazz music, and tutti versus ensemble playing. Since the work was intended for the music hall, jazz-rock music takes a central place in it. It occupies the main section of the composition which is framed with a brief symphonic introduction and a synthetic culminating reprise-*coda*, the latter colligating the main musical material of the entire work.

In the brief introduction, the timbres of the bells stand out, as well as the melodic layer presented by a descending "scale" of polyphonic dissonance in the strings. The main jazz-rock section is equipped with all attributes of this music: instrumental, technical, and rhythmic. The composer uses a drum kit with the addition of temple blocks, tom-toms, and hi-hat in combination with a guitar, bass guitar, electronic organ, three saxophones, trumpets, trombones, and three sopranos with microphones. A syncopated ostinato formula creates the rhythmic foundation of this section, and the development is expressed in variations on this ostinato spiced up with tart dissonant harmonies.

Альфреда Шнитке "Concerto grosso" №1. Концерт для двух оркестров резко выделяется в стиле Губайдулиной благодаря опоре на рок-музыку. Столь неожиданный уход в иное стилевое русло был связан с заказом, поступившим от московского дирижера эстрадного оркестра Александра Михайлова, намеревавшегося вместе с балетмейстером создать новый, современный мюзик-холл. Этот мюзик-холл так и не открылся, а музыка Концерта для двух оркестров заинтересовала балетмейстеров Вакиля Усманова, поставившего на нее балет в Музыкальном театре имени Станиславского и Немировича-Данченко в Москве, и Юрия Пузакова, осуществившего постановку в Тарту. Балетмейстеры нашли, что для балета необходима медленная часть, и Губайдулина написала по их просьбе развернутое симфоническое *Adagio*, которое не вошло в партитуру Концерта и исполняется отдельно. Александр Михайлов — руководитель большого эстрадного оркестра, первый исполнитель Концерта — заказал Губайдулиной и некоторые другие сочинения для своего музыкального коллектива, в том числе каприччио "Te salutant" ("Тебя приветствую"). Так образовался "островок" губайдулинской эстрадной музыки высокого стиля.

В Концерте для двух оркестров, ориентированном на жанр concerto grosso, Губайдулина предлагает следующие противопоставления: стилистику симфонической, серьезной музыки и джазовой, составов tutti и ансамблевых. Поскольку сочинение предназначалось для мюзик-холла, центральное место занимает в нем джаз-роковая музыка. Ей отведен главный раздел в композиции, который обрамляется небольшим симфоническим вступлением и синтетической репризой-кодой, обобщающей в кульминационном проведении основной музыкальный материал всего Концерта.

В кратком вступлении выделяются тембр колоколов и мелодический пласт в виде нисходящей "гаммы" многозвучного диссонанса струнных. Основной джаз-роковый раздел оснащен всеми атрибутами этой музыки — инструментальными, техническими, ритмическими. Использована ударная джазовая установка с добавлением темпле-блоков, том-томов, хай-хета в соединении с гитарой, бас-гитарой, электро-органом, тремя саксофонами, трубами, тромбонами, тремя сопрано с микрофонами. Ритмическую основу составляет оstinatно повторяемая синкопированная ритмоформула, а развитие выражается в вариациях на это оstinatно,

украшенных терпкими диссонирующими гармониями.

The sound of this music, zesty and aggressive, only at first glance appears to be alien in the context of Gubaidulina's compositional style. Here we can see Gubaidulina's characteristic "principle of avoidance": in her jazz-rock composition she refuses to use the style-characteristic smash-hit melodies thereby saving herself from vulgar phrases. Variations on the two-bar rhythmic formula align themselves into a sustained buildup accompanied by overlaying new orchestral layers and leading to the first of two culminations – tutti for two orchestras. Variety in this development is introduced by the concerto grosso principle, which is realized in the alternation of tutti and solo. Interludes appear; during those, the rhythmic ostinato stops and various groups of two orchestras perform solo: 4 trumpets, 4 French horns, 3 flutes, 3 sopranos, etc.

In the final reprise-coda section, the music of the introduction is repeated. Here, the thematic elements of the entire concerto are united: the music of interludes from the main section of the composition appears, the sound of the three sopranos and the main rhythmic formula of the work is recalled. And all this happens during the last climax before the very end of the Concerto. However, the reprise-coda also contains some completely new emotional and stylistic colours. One of them, romantically enchanted, brought in by reciting a poem (prerecorded tape) of Afanasy Fet: "O, What a night! The diamond dew so bright rivals in liveliness the starry shimmer." Another emotional nuance appearing unexpectedly at the very end of the "rock-concerto" by Gubaidulina is the elegiacally sad sound of a B-minor triad.

Звучание этой музыки, смачное и агрессивное, только на первый взгляд кажется чужеродным в контексте композиторского стиля Губайдулиной. Здесь присутствует свойственный Губайдулиной "принцип избегания": в джаз-роковом сочинении она отказывается от соответствующих шлягерных мелодий, спасаясь, тем самым, от вульгарных оборотов. Вариации на двухтактовую ритмоформулу выстраиваются в линию длительного нарастания, наложения все новых оркестровых пластов, приводящего к первой из двух кульминаций — tutti у двух оркестров. Разнообразие в это развитие вносит принцип concerto grosso, реализующийся в чередовании tutti и solo. Появляются интермедии, во время которых прекращается ритмическое остинато и солируют различные группы двух оркестров: 4 трубы, 4 валторны, 3 флейты, 3 сопрано и т.д.

В заключительном репризно-кодовом разделе повторяется музыка вступления. В нем обобщается также тематизм всего Концерта: появляется музыка интермедий из основного раздела композиции, звучание трех сопрано, напоминает главную ритмоформулу произведения. И все это — в генеральной кульминации перед окончательным завершением Концерта. Однако реприза-кода содержит и совсем новые эмоциональные и стилистические краски. Один из оттенков — романтически-восторженный, который придают музыке читаемые здесь стихи Афанасия Фета (записаны на магнитофонную пленку): "Какая ночь! Алмазная роса живым огнем с огнями неба в споре." Другой оттенок неожиданно появляется в самом конце "рок-концерта" Губайдулиной — элегически грустное звучание трезвучия *h-moll*.

Kholopova's valuable article touches upon many pertinent issues; however, it does not provide any specific references to the score. Moreover, some of her opinions and evaluations regarding the style, form and elements of the composer's musical language are rather controversial and, thus, deserve further argumentation as well as contestation. Therefore, taking Kholopova's description of the work as a point of departure, the following points will be discussed:

- 1) Gubaidulina's "departure into a new style": her perception of jazz, pop, rock; her early jazz influences
- 2) Concerto grosso: reinventing the form and function of its components – melodic, harmonic, and contrapuntal
- 3) Time and Numbers: on the question of their meaning and significance

Prior to embarking on a discussion of these issues, a few more points must be made regarding the work's title. The fact that the work was initially renamed, as mentioned in Kholopova's annotation, requires further reflection and explanation of possible underlying reasons.

Gubaidulina's intense search for a unique compositional voice during the 1970s required an earnest and individuated separation from Alfred Schnittke, the fellow non-conforming composer of the so-called "Big Three."²⁰⁷ In a 1991 conversation with Enzo Restagno, Gubaidulina describes the Seventies as a period of hopeless and desperate struggle to hear any of her and several other "underground" composers' music performed, as the official musical establishment of the Brezhnev era had methodically tightened the screws on those "displaying immaturity" regarding the Soviet values of Socialist Realism doctrine.²⁰⁸ Yet even within this small group of like-minded composers, Gubaidulina strived to attain her individual, personal freedom, which for her has always been a "possibility to fully realize one's essence, to perceive one's own self, the

²⁰⁷ The third member of the group was Edison Denisov (1929–1996) who received international recognition with his *Le soleil des Incas* (1964), dedicated to Pierre Boulez. Mentioned by Taruskin as "Big Troika," in the early 1990s, the Big Three have also been dubbed as a "Three-Headed Monster" by Gubaidulina's former composition professor, Nikolai Peiko. At the time, Peiko was the head of the composition department at the Gnessins' Institute (since 1992, the Russian Academy of Music) where the author of this thesis studied composition and music theory. Even after the collapse of the Soviet Union (notwithstanding the appointment of a new head of the composition department, Kirill Volkov), students' attendance at concerts "of sorts" was closely monitored by faculty informants and had serious repercussions for those who did not comply with an unwritten proscription, thereby, immersing themselves in the "gathering of rubbish from the bourgeois dumpsters" [собирать гниль на буржуазной помойке] (verbatim, N. Peiko, 1991). Regarding Schnittke's Symphony No.1 and his first *Concerto Grosso* see Richard Taruskin, *The Oxford History of Western Music*, vol. 5 (Oxford: Oxford University Press, 2010), 164-72.

²⁰⁸ Kholopova (2008), 78.

role assigned to a person by the historical situation.”²⁰⁹ In 1976, the concurrence of two titles would certainly have invited an immediate comparison between the two works. And while the music of both composers was always emotionally charged and remarkably idiosyncratic, the former has often garnered more immediate appeal from Russian audiences due to the more straightforward nature of the readily recognizable juxtaposition of its opposites: direct quotations and unambiguous stylistic allusions to Baroque, Classical, Romantic etc. periods with popular Soviet pop/folk songs and jazz.²¹⁰ Those, perceived as the timeless opposition of “good” versus “evil,” i.e., “classical” and “pop” had taken on a definitive meaning of freedom versus oppression idiom in a country struggling behind the Iron Curtain. This is not to say that Gubaidulina, who never fully embraced Schnittkean *polystylism*,²¹¹ would have suffered a loss through this comparison, but rather to indicate her reluctance to be compared to anybody expressed in the steadfast following of her “incorrect way” with unrelenting conviction and tenacity.²¹²

²⁰⁹ Kholopova (2008), 340.

²¹⁰ The term *polystylism* was coined by Schnittke to describe blending modernist techniques with direct and implied quotations from various musical styles, creating a pastiche of juxtaposed historical references. His *Symphony No.1* (1972) was a milestone in that direction. The Moscow premiere of this extraordinary work took place in 1986, twenty-two years after its first performance in Gor’kiy (now Nizhniy Novgorod), a city ‘closed’ to foreigners, notorious in the 1980s as a place of exile of the Nobel Prize winner (1975), Russian physicist and dissident, Andrei Sakharov (1921–1989). See Valentina Kholopova, *Composer Alfred Schnittke* (Arkaim, 2003), 89-91, and 107-111.

²¹¹ A few rare examples of polystylism in Gubaidulina’s music can be found in her early concerto *Chas Dushi (Hour of the Soul*, second version of 1976) for percussion, mezzo-soprano and large orchestra. A polystylistic episode in the climax of the work features several Soviet popular mass/street songs representing the destructive power of the Communist state. See Kholopova, *Sofia Gubaidulina. Monograph. Interview with Enzo Restagno*, 182. Another example is her *Answer without Question*, collage for three orchestras (1988), based on music of Ives, Prokofiev, and Shostakovich. See the Sikorski Catalogue at https://www.sikorski.de/475/en/0/a/0/orchestral_music/1008009_answer_without_question.html.

²¹² “Be yourself. Don’t be afraid to be yourself. My wish for you is that you should continue on your own, *incorrect way*.” (Our emphasis). These words of encouragement from Dmitry Shostakovich have remained precious to Sofia Gubaidulina. In 1959, her compositions presented for the final examination at the Moscow Conservatory became a subject of controversy as they exhibited some undesirable signs of “formalism,” a dangerous epithet for a young composer during the ongoing ideological deep-freeze of the late 1950s. Quoted in Kurtz, *Sofia Gubaidulina*, 45. Remarkably, in 1988, Gubaidulina wrote music for an animated film, “The Cat Who Always Walked by

On the Question of Jazz, Rock and Pop

In Kholopova's article, the words jazz, rock and pop seem to express the same idea: light music. Her underlying message is that the *Concerto for Two Orchestras* is anomalous because of its unusual venture into a musical idiom so uncharacteristic for this composer, whose works are unanimously associated with the highly intellectual and rather cerebral artistic trends of the mid-to late-twentieth century. Kholopova implies, and not without reason, that the categories of rock, jazz and pop, perceived as mimetic versions of North-American popular music or German *Spasskultur*, are representative of Gubaidulina's modern-age cultural "imbalances," "trivializing tendencies" against which the composer fought passionately and persistently.²¹³ At present, we have to bear in mind that Gubaidulina's third renaming of the work in 1995 was very explicit in terms of identifying this "light" genre as jazz. Apparently, it was very important for her to portray this particular musical category as being distinct and divergent from other types of light music. In an interview with Aleksei Munipov Gubaidulina clarifies her position in regard to popular music and mass culture in the modern world.²¹⁴ She says:

I don't dislike popular music, and, as for jazz, I am greatly deferential to it. When I talk about the preponderance of popular music, I do not say that we don't need it. I believe that we do. And at the time when jazz was banned [in the Soviet Union], I welcomed it enthusiastically. Yet, there has to be a correct balance. And today the main emphasis is on entertainment, fun. [...] But men have never lived without higher ideals, the spiritual dimension of their existence. In essence, without those, a human wouldn't be able to become humane.

Herself" [Кошка, которая гуляла сама по себе], based on Rudyard Kipling 1902 story "The Cat That Always Walked by Himself." The film can be accessed at <https://ok.ru/video/800693226210>.

²¹³ Among Gubaidulina's more recent statements on the subject see Thea Dirks, "Sofia Gubaidulina: "Artists Must Fight the Trivializing Tendencies in Society," *Contemporary Classical WordPress* (March 22, 2018), <https://theaderks.wordpress.com/2018/03/22/sofia-gubaidulina-artists-must-fight-the-trivializing-tendencies-in-society/>.

²¹⁴ See Aleksei Munipov, "Today a Person Has no Right to Be a Pessimist: Interview with Sofia Gubaidulina," in *Inde, Internet-Journal Dedicated to Life in Kazan and Other Cities of Tatarstan* (November 05, 2016), <http://inde.io/article/2063-kompozitor-sofiya-gubaydulina-seychas-chelovek-ne-imeet-prava-byt-pessimistom>.

Thinking along these lines with the composer who affirms that “all her works are religious,”²¹⁵ the *Revue Music* can be considered as a continuation of her search for divinity in *jazz*, a phenomenon distinct from other types of popular entertainment.²¹⁶ This search, to use the composer’s words once again, is her mission and her “sacred duty” to give voice to the spiritual through the art of sound, to “restore the *legato*” between herself and, by extension, her audiences and the divine.²¹⁷

In discussing Gubaidulina-related jazz influences it is important to separate indisputable facts from speculation, and the latter from the consequences occurring in musical scores. These manifestations will be addressed later on in the text, in the analysis of the formal structure of the work. The first of the facts can be seen in the form of inevitable comparisons or the marked connection of Gubaidulina’s “jazz” concerto with the contemporaneous North-American trend aimed at synthesizing “the essential characteristics and techniques of contemporary Western art music and various ethnic or vernacular musics.”²¹⁸ Indeed, Alexander Mikhailov’s commissioning of Gubaidulina was prompted by the idea of combining “popular and serious music” following the existing American models.²¹⁹ Michael Kurtz provides multiple pieces of evidence (quotations from letters, reminiscences and various interviews) confirming that Sofia

²¹⁵ Lukomsky, 31.

²¹⁶ Our emphasis.

²¹⁷ In an interview with V. Lukomsky, Gubaidulina says: “I understand the word ‘religion’ in its direct meaning: *as re-ligio (re-legato)*, that is, a restoration of *legato* between me (my soul) and God. By means of my religious activity [creative output] I restore this interrupted connection. Life interrupts this connection: it leads me away, into different troubles, and God leaves me at these times [...]. This is unbearable pain: by creating, through our art, we strive to restore this *legato*.” See Lukomsky, “The Eucharist,” 31.

²¹⁸ Gunther Schuller, “Third Stream,” *The Grove Dictionary of American Music*, vol. IV, ed. Charles Hiroshi Garrett (Oxford University Press, 2013), 377.

²¹⁹ Kurtz, 124.

Gubaidulina, always uncompromisingly scrupulous in choosing her commissions,²²⁰ was very enthusiastic about the project that provided her with an opportunity to personally explore an uncharted territory of jazz.²²¹

Her familiarity with the genre, however seemingly “alien in the context of Gubaidulina’s compositional style,”²²² was deeply rooted in her early Kazan years. Mark Liando, the composer’s first husband, writes in his autobiography about their youthful romantic infatuation with “Shanghai” jazz in the early 1950s: “We were wild about dancing to “Chattanooga Choo-Choo,” “Saint Louis Blues,” and “Caravan” on the squeaky old parquet floor of the former Nobles Club, later the Officers Club, on Ploschcad’ Svobody [Liberty Square].”²²³ Kazan-native Russian novelist Vassily Aksyonov recalls the Shanghai jazz as “the sounds of heaven, but coming not from New York or Paris but from Kazan.”²²⁴ Indeed, the city of Kazan, where Sofia Gubaidulina spent the first twenty-two years of her life, was the “Jazz Capital” of the Soviet Union after the end of World War II. The famous *Shanghaitsy* was an eighteen-piece big band lead by a repatriate from China, Oleg Lundstrem. Nicknamed by the Russian émigré press the “King of Jazz in the Far East,” Lundstrem and his group dominated the Shanghai jazz scene from 1934 to 1947, working alongside Buck Clayton and Teddy Weatherford during their two-

²²⁰ Gubaidulina’s attitude to artistic compromise has always been brutally blunt: “You prostitute yourself once, and you’ve lost everything.” Quoted in Kurtz, 66.

²²¹ Kurtz, 123-27.

²²² Kholopova (2008), 178.

²²³ Quoted in Kurtz, 29.

²²⁴ Quoted in Stephen Frederick Starr, *Red and Hot: The Fate of Jazz in the Soviet Union, 1917–1991* (Oxford University Press, 1994), 228.

year stay at the Canidrome Ballroom.²²⁵ In 1948, following the establishment of Mao Zedong's regime and the end of nightlife of China's most open and cosmopolitan city, Lundstrem's band returned to the Soviet Union and settled in Kazan, the capital of the Tatar Autonomous Republic.²²⁶ During her years as a student at the local College of Music and later at the Kazan Conservatory, Sofia Gubaidulina must have heard many masterful arrangements of Duke Ellington, Fletcher Henderson, Louis Armstrong, Glenn Miller, George Gershwin et al. played by Lundstrem's orchestra in the open air of the city's public squares as well as on extremely popular Tatar Radio broadcasts.²²⁷ Moreover, Lundstrem's and Gubaidulina's personal acquaintance appears to have been inevitable, as both of them attended the composition class of Albert Leman (1915–1998), the former graduating one year earlier, in 1953.²²⁸ Undoubtedly, any conjecture on

²²⁵ An interesting recent article about the Chinese years of Oleg Lundstrem's musical life was written by Yuanyan (in Russian). See Xiao Yuanyan, "Creativity of Jazz Maestro Oleg Lundstrem in China," *Arts and Culture* 3, no. 27 (April 2017): 34-38, <https://rep.vsu.by/bitstream/123456789/28671/3/%D0%BF%D0%BE%D0%BB%D0%BD%D0%B0%D1%8F%20%D0%B2%D0%B5%D1%80%D1%81%D0%B8%D1%8F.pdf>.

²²⁶ Russian-language academic sources on Lundstrem are numerous. Among the most recent is an impressive two-volume publication edited by Kirill Moshkov and Anna Filil'eva, *Russian Jazz [Российский джаз]* (St Petersburg: Planet of Music, 2013), vol. 1, 156-229. The only source available to the English-language reader (with the exception of a short chapter in Starr quoted earlier) is Walter Ojakäär, "Oleg Lundstrem," *Grove Music Online*, *Oxford Music Online*, <https://doiorg.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.J276800>. Curiously, this internationally acclaimed musician whose orchestra was in the Guinness Book of World Records as the oldest working jazz group by the time he died in 2005, remains practically unknown in North America. Yet, his international recognition began in the early 1970s with his many appearances in Europe and the US. Some of the finest jazz musicians in the Soviet Union and in the post-Soviet period were members of the ensemble during its long history, including tenor saxophonist Igor Butman, who has worked in the US with Dave Brubeck, Pat Metheny, Eddy Gomez, and others; and his celebrated teacher Gennady Goldstein, who became so devoted and expert a disciple of Charlie Parker that he was even nicknamed Charlie. See William Minor, *Unzipped Souls: A Jazz Journey Through the Soviet Union* (Temple University Press, 1995), 36, 47-53, 58, 70-71, 203, and 206.

²²⁷ See John Fordham, "Obituary: Oleg Lundstrem," *The Guardian* (October 2005): 2, <https://www.theguardian.com/culture/2005/oct/28/russia.jazz>

²²⁸ Entering the Kazan Conservatory in order to become useful members to Soviet society was one of the conditions for Lundstrem's settlement. This talented musician, who also was a person of great enterprise, wrote many jazz-inspired arrangements of Tatar folk songs as well as works by Tatarstan's leading composers in the process earning the attention of Moscow official concert organizers. Sofia Gubaidulina moved to Moscow to pursue her compositional studies at the Moscow Conservatory in 1954. Lundstrem relocated to the capital city two years later, in 1956, when the Ministry of Culture of the Russian Soviet Federative Socialist Republic officially approved the

the nature of an artistic/musical interaction between the two, should it ever have occurred, would remain nothing more than unprovable hypothesis; one can speculate that Gubaidulina who was very shy as a girl may have found it difficult to handle the brassy assertiveness of a worldly male student, fifteen years her senior.

The composer's move to Moscow in 1954 opened up access to many new jazz-related experiences as Stalin's ban on jazz was lifted during the Khrushchev's Thaw. Several famous American jazz musicians visited the USSR in the 1960s. Among them were Benny Goodman (1962), Earl Hines (1966), and Charles Lloyd (1967). Presently there is no evidence as to whether Gubaidulina attended any of those events. However, we know from Restagno's source that she did attend the Moscow concert of Duke Ellington's orchestra in October of 1971, thanks to Evgeny Murzin, who was able to obtain the tickets.²²⁹ In a 2007 interview with Svetlana Polyakova, Gubaidulina also recalls the event and expresses her admiration for the individual, unpredictable, and nonquantifiable creativity of jazz as the music that promoted freedom of expression – a right that had remained forbidden in the totalitarian state.²³⁰

Throughout the 1970s, another important venue frequented by Gubaidulina was the Moscow Jazz Club established in 1960 by renowned Russian jazz critic Alexei Batashev.²³¹ Her

creation of the All-Russian State Concert Orchestra, appointing him as principal conductor. See Moshkov, *Russian Jazz*, vol. 1, 202.

²²⁹ Kholopova, *Gubaidulina* (2008), 46-48.

²³⁰ She also mentions her admiration for Lennie Tristano, Ella Fitzgerald as well her interest in free jazz of the 1960s and heavy metal. See Svetlana Polyakova, "Sofia Gubaidulina: The Sound of the Unknown," *Novaya Gazeta* 6, January 2007), <https://www.novayagazeta.ru/articles/2007/01/29/35048-sofya-gubaydullina-kak-zvuchit-neizvestnoe>.

²³¹ Aleksei Batashev (1934–2021) was a remarkable figure in the history of Soviet/Russian jazz. His passion for music allowed him to pioneer his seminal book of 1972 entitled *Soviet Jazz: A Historical Survey* just one year after his doctoral defence in Engineering Physics at the Moscow Lomonosov University where he studied under the top Russian academics such as Lev Landau, Peter Kapitsa and Andrei Sakharov. Throughout the past six decades he has written hundreds of articles/reviews etc. on jazz, organized and participated in numerous jazz festivals all around the

improvisational group *Astraea*²³² – founded by Suslin,²³³ Artyomov²³⁴ and Gubaidulina in 1975 – was a welcomed guest at the Club, often sharing the stage with other musicians: Vyacheslav Ganelin’s Jazz Trio, Aleksei Kozlov’s jazz-rock fusion ensemble *Arsenal*, Mark Pekarsky’s Percussion Ensemble, Dmitry Pokrovsky’s Folk Ensemble, performing folk groups from Siberia, Chukotka et al. At the time, Batashev was preoccupied with a Coltrane-inspired idea that was later termed ethno-jazz. *Astraea*-member, Vyacheslav Artyomov recalls a celebration of Gubaidulina’s forty-sixth birthday on October 24, 1977 at the Moscow Jazz Club:

We had rolled up our instruments on a carpet and arrived by taxi. During the first part of the program a big band had played in the style of Glenn Miller. Then it was our turn, and we unrolled our carpet on stage. There were as many as eight hundred people in the audience. The lights were turned down so that we could concentrate. We played without warming up. Our music was light and soft in contrast to the big band. We had a few girls who were singing without text in the

globe, led lectures, seminars and masterclasses on jazz journalism and jazz aesthetics in over twenty American universities alone. He also wrote an autobiographical novel *Batash* (2002) based on nearly half-a-millennium’s worth of archive materials describing the history of his kinsmen. It appears that Frederick Starr’s book *Red and Hot* first published in 1985 is an English-language expanded adaptation of Batashev’s work of 1972. See Vladimir Feiertag, *Encyclopedia of Russian Jazz* [*Dzhaz Entsiklopedicheskij Spravochnik*] (St Petersburg: Skifia, 2001), 278.

²³² The name of the group came from *Astraea*, the name of an early-nineteenth-century Freemason lodge in Russia. Gubaidulina’s collaboration with *Astraea* became a “compositional laboratory” for the composer who had a fascination with sound itself. Inspired by the natural spontaneity of folk music, the three fellow composers explored endless acoustic possibilities of rare Russian, Caucasian, and Asian traditional and ritual instruments, collected from different regions of the country. The group dissolved in 1981, the year Suslin emigrated and settled in West Germany.

²³³ Nearly twenty of Gubaidulina’s letters to her close friend Viktor Suslin, dated from 1882 to 1990, are preserved at the Paul Sacher Foundation in Basel. These valuable documents shed a light on Gubaidulina’s private personality: her sharp tongue (often quite wicked in confidential peer evaluations), her great sense of humour and her incredible humility as a human being. Grove Music Online presents a biographical entry on Suslin published in 2001 by Valentina Kholopova. See Valentina Kholopova, “Suslin, Viktor Yevseyevich,” *Grove Music Online. Oxford Music Online*, <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.44342>.

²³⁴ The *Oxford Companion to Music* contains a short biographic entry on the composer written in 2011 by Jonathan Walker. See Jonathan Walker, “Artyomov, Vyacheslav Petrovich,” in *Oxford Companion to Music*, ed. Alison Latham (Oxford University Press, 2011), <https://www-oxfordreference-com.ezproxy.library.yorku.ca/display/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-426> <https://www-oxfordreference-com.ezproxy.library.yorku.ca/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-426>.

A slightly longer article by Svetlana Savenko (2001) can be found in Grove Music Online. See Svetlana Savenko, “Artyomov, Vyacheslav Petrovich,” *Grove Music Online. Oxford Music Online* (Oxford University Press, 2001), <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.44440>.

background, and I had given an Indian text to a journalist friend to read aloud. We were well received, and the concert was a big success.²³⁵

It would be impossible to overestimate the immense influence of these jazz-related experiences and *Astraea*'s get-togethers on Gubaidulina's evolving sound world. The musical freedom of improvisation, an essential part of her compositional philosophy and arguably the most precious and quintessential part of jazz, has always remained a gateway to her deepest inner self. To put it another way, the composer's personal and indefatigable search for the balance between *intuition* and *rationality* was to be realized in the form of the "controlled freedom" of notated musical score.²³⁶ Many of Gubaidulina's works written in the 1970s, such as *Ten Preludes for Solo Cello* (1974) provide "ample opportunities for the performer's imagination, especially in the bits specially designated for improvisation."²³⁷ The improvisational elements along with the standard jazz-related technical idioms (e.g., walking bass, boogie-woogie, comping, bent pitches, cross-rhythms, etc.) have been pointed out by several Gubaidulina researchers while describing her early compositions including *Chaconne* for solo piano (1962), *Piano Sonata* (1965), *Musical Toys* for solo piano (1969) and *Tatar Folklore Inspirations* for small, alto and bass domra and piano (1977).²³⁸ The following examination of Gubaidulina's *Revue Music* score presents a

²³⁵ Quoted in Kurtz, 122.

²³⁶ The phrase "controlled freedom" is generally associated with the music of Witold Lutosławski. It refers to his personal interpretation of aleatoric technique first demonstrated in his *Jeux Venitiens* (1961). In this work, the performers have *freedom* within certain *controlled* parameters. See, for instance, in Zbigniew Skowron, "On Witold Lutosławski's Artistic Self-Awareness. A Survey of Very Recent Research," *Musicology Today* 13 (2016): 21-30, https://www.researchgate.net/publication/313624640_On_Witold_Lutoslawski%27s_Artistic_Self-Awareness_A_Survey_of_Very_Recent_Research.

²³⁷ The composer's words as cited in Boris Mukosey, "Sofia Gubaidulina Collection" (Melodia Records CO 0847, 2021): 9. Compact disc, liner notes.

²³⁸ See, for instance, Seong-Sil Kim, "A Pedagogical Approach and Performance Guide to *Musical Toys* by Sofia Gubaidulina" (DMA diss., University of Iowa, 2015); Kadisha Onalbayeva-Coleman, "Sofia Gubaidulina: *Chaconne* for Solo Piano in the Context of Her Life and Work" (DMA diss., Louisiana State University, 2010); Shiryayeva and Dyganova, "East-West Dialogue," 273-80,

broad spectrum of jazz-related devices utilized within her chosen framework of a concerto grosso.

Reinventing the Concerto Grosso: Themes and Variations

In regard to the specificities of the concerto grosso genre, Gubaidulina's boundless inventiveness allows her to go far beyond the more discernible surface-level realities of juxtaposing "the serious and the light" types of music, as noted by Kholopova, or *solì* and *tutti* segments of the formal design. An entire range of genre-related compositional devices, such as the ritornello form, the roles and types of interaction between concertino and ripieno, as well as the overall construction of the development within each section, becomes the subject of sophisticated reinvention that manages to keep the traditional stylistic guideposts in the background. Unlike many of the twentieth-century composers recreating this type of form prior to 1976, Gubaidulina avoids any explicit references to the idiomatic language of its Baroque prototypes.²³⁹ Despite giving the appearance of motivic multiplicity, the work is based on only four prominent thematic ideas that undergo constant melodic, rhythmic, contrapuntal, and timbral transformations. The first of these themes, a five-note melodic pattern in the chimes, opens the concerto:

[https://www.researchgate.net/publication/319294165_East-West Dialogue in Sophia Gubaidulina%27s Work Tatar Folklore Inspirations on the Problem of Artistic Bilingualism](https://www.researchgate.net/publication/319294165_East-West_Dialogue_in_Sophia_Gubaidulina%27s_Work_Tatar_Folklore_Inspirations_on_the_Problem_of_Artistic_Bilingualism).

²³⁹ Among many well-known and rather obscure early twentieth-century neo-Baroque concertos are Ernest Krenek's first (op.10) and second (op.25) concertos written between 1921 and 1925; Ernest Bloch's *Concerto Grosso no. 1* (1925); Vincent d'Indy's *Concert* (1926) for piano, flute, cello and strings, making references to Rameau and the French Baroque; Erwin Schulhoff's *Concerto doppio* (1926); Igor Stravinsky's *Dumbarton Oaks* (1937), quoting in its first movement J. S. Bach's second *Brandenburg Concerto*; Samuel Barber's *Capricorn Concerto* (1944), which has the same instrumentation as Bach's aforementioned *Brandenburg Concerto* (flute, oboe, trumpet and strings); and Paul Hindemith's more eclectic *Concerto for Flute, Oboe, Clarinet, Bassoon, Harp and Orchestra* (1949).

EXAMPLE 2: *Revue Music*: Theme of Introduction (mm. 1–3)



Curiously, the five notes of this theme present the possibility of forming two musical monograms, both initially appearing at different pitch-levels: J. S. Bach's (BACH as A $\flat$ -G-B $\flat$ -A $\flat$) and Dmitry Shostakovich's (DEsCH as A-B $\flat$ -G-F $\sharp$). The constructive potential of the former, undoubtedly carrying a sacral-mystical meaning for Gubaidulina, will become a linear motivic nucleus for the tonal development throughout the work. The role of the second cryptogram is less pronounced; perhaps it was conceived in reverence for the master who had just passed away a year prior to the completion of the *Concerto for Two Orchestras*. Nevertheless, some of the constructive ideas related to the pitch-range (diminished fourth) of Shostakovich's monogram become utilized by the composer in various cluster-like layers of texture, predominantly in group solos of homogeneous timbres.

The second theme of significance is the ostinato formula. Its syncopated rhythm and distinct melodic line featuring blues-associated “bent” pitches create a definite jazzy flavour which is intensified timbrally: the ostinato is carried by two guitars accompanied by various percussion of the Jazz Orchestra. The presence of this ostinato is associated with the ritornello theme of the fast movement in the Baroque concerto grosso. Thus, the overall form of Gubaidulina's concerto grosso appears as follows:

TABLE 2: Overall form of the *Revue Music for Symphony Orchestra and Jazz Band*

Rehearsal Number/Measures	Section ²⁴⁰
mm. 1–11	Introduction
RNs 1–7	Ripieno 1
RN 8	Concertino 1
RNs 9–16	Ripieno 2
RNs 17–19	Concertino 2
RNs 20–32	Ripieno-Concertino Combination (3)
RNs 33–41	Introduction Return and Semi-aleatoric Episode
RNs 42–6	Coda/Tutti of Two Orchestras

An unusual feature of this ritornello theme is its placement within the lowest layer of the orchestral texture functioning as a melodic, rhythmic, and harmonic *background* above which the development of other thematic elements unfolds. Multiple versions of the ostinato formula carried though the three ripienos and the coda act as a Baroque continuo model in which two guitars are used to ‘realize the harmonies’ by repeating a clearly tonal melodic segment which identifies the key of each corresponding section. Gubaidulina’s tonal planning of these sections is fairly rigid; it presents the first and final appearance of the “ostinato formula” in the key of B minor, perhaps as a nod to the late Baroque models in which the opening and closing ritornellos are always in the same key. Their subsequent entries are organized by Gubaidulina in chromatically ascending order from B minor to B minor, missing only two version, in A and B $\flat$ minor. Thus, the B minor triad at the very end of composition, perceived by Kholopova as an unexpected surprise (regardless of its “emotional nuance”), becomes not unexpected at all, but rather a logical conclusion of the tonal development carefully designed by the composer.

²⁴⁰ The ripieno-concertino designations in this table are preferred to the solo-tutti terms used by Valentina Kholopova since the work’s “tuttis” are never full tutti until the final section of the concerto where the two orchestras, jazz and symphony are combined.

Continuous subtle changes in the ostinato formula throughout the concerto demonstrate Sofia Gubaidulina's incredible compositional ingenuity as well as her predilection for the variation principle as a preferred method of developing her musical ideas. Comparing the consecutive appearances of the ostinato formula in the first two ripieno sections reveals a steady pattern consisting of three variants: the original two-bar figure, the first variant in which the order of melodic elements is rearranged and the second variant that starts off in "straight sixteenths" and switches to triplets towards the end of each ripieno section. For a side-by-side comparison of these variants see Table 3, below.

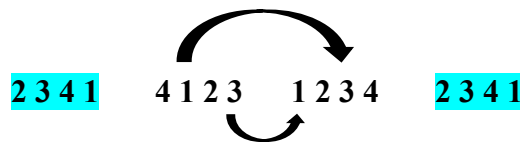
TABLE 3: *Revue Music*: ostinato formula variants in Ripieno 1 and Ripieno 2

Ripieno 1 (R1)		Ripieno 2 (R2)	
Original Ostinato Formula			
mm. 12– 13 (R1) and 94–5 (R2)			
First Variant			
mm. 46–7 (R1) and 138– 9 (R2)			
Second Variant			
mm. 62– 76 (R1) and 142– 58 (R2)			

The principle of variation also affects the number of repetitions of the first two versions of the ostinato formula. While both the original ostinato and its first variant occupy the same number of bars (48) in both ripieno sections, the primary pattern is repeated eight more times in Ripieno 2; conversely, the number of repetitions of the first variant is decreased from sixteen to two. Remarkably, the second variant, occupying the same number of bars (16) in each section, becomes the subject of yet another melodic variation. Its opening segment (mm. 62–9 in R1 and 142–50 in R2) creates five waves of a climbing and then falling chromatic scale, which consistently returns to the mediant and tonic notes (marked with a red bracket in Table 2) of the corresponding “home key” of each ripieno, B minor and C minor. The overall ascent results in a gradual expansion of the pitch range from the original six notes to twelve within the nearly three-octave gamut. The next segment continues this ascent, yet in different guises. The entry of the guitar in the first ripieno coincides with a new chromatic scale fragment (mm. 70–1), embellished (mm. 71–73) by a sequential repetition of a two-note cell (C-B, D $\flat$ -C, D- D $\flat$, etc.), then switches to a similar pattern in triplets (mm. 74–76). The same idea of two- and three-note cell transpositions is used in the closing measures of Ripieno 2 (mm. 155–58). An interesting change occurs in the bass guitar part (R2, mm. 151–2). By cutting down the length of the upcoming guitar solo by one measure, the closing melodic fragment in the bass guitar emphasizes four pitches, marked with accent signs: C, D $\flat$, D, and E $\flat$. The following entry of the guitar, marked *sola*, presents an elaborate manipulation of the four pitches constituting the BACH monogram. Assigning each letter a number from 1 to 4 (B $\flat$ =1, A=2, C=3, B $\natural$ =4), the four permutations used in bars 151–52 are as follows: 2341; 4123; 1234; 2341. Incidentally, what appears to be a free interplay of these permutations can be interpreted as a carefully constructed

quasi-symmetrical pattern.²⁴¹ Within it, the first and last of the four sets are identical in terms of the order of their members, while the second set performs rotational swaps to produce the next higher/next lower numerical value of its odd members in the third set. See the schematic presentation below:

FIGURE 3: *Revue Music*: quasi-symmetrical pattern in BACH monogram permutations (mm. 151–2)



The composer’s insertion of the BACH monogram in various orchestral layers occurs several times throughout the concerto, as will be seen in the further analysis. In this case, however, it remains unique, as it is the only occurrence detected within the ostinato formula transformations. These transformations, consistently carried out until the end of the work, result in one of Gubaidulina’s thematic metamorphoses, in which the melodic range of the ostinato formula is gradually reduced to a single sound, marking both its very start and its end.²⁴²

²⁴¹ A few other instances of symmetrical constructs will be discussed later in the text. The issue itself has been investigated by many Gubaidulina scholars. See, for instance, Janice Ellen Hamer, “Sofia Gubaidulina’s Compositional Strategies in the String Trio (1988) and Other Works” (PhD diss., City University of New York, 1994); Berry (2009); Kise (2011); Sul Sookyung, “Symmetries and Asymmetries in Sofia Gubaidulina’s Quasi Hoquetus and Ode to the Broken Things for Clarinet, Cello and Piano” (PhD diss., University of Pittsburgh, 2015).

²⁴² Gubaidulina’s violin concerto, *Offertorium*, produced four years later (1980, first version) utilizes this idea in a far more elaborate fashion. This work, based on the famous Royal Theme from Bach’s *Musikalisches Opfer*, features the theme being methodically shortened by one note from both the beginning and the end, and then rebuilt in reverse.

The earliest example of such a melodic contraction presents itself in the opening segment of the next ripieno section (Ripieno-Concertino Combination 3). A brief reappearance of the previously described variant two (in “straight sixteenths,” mm. 200–211) features a gradual reduction of its number of notes from five to one; the last one (G $\sharp$) is sustained as tremolo for eight bars.

EXAMPLE 3: *Revue Music*: Gradual reduction of the melodic segment in bass guitar (mm. 200–5)



In Bach-like fashion,²⁴³ Gubaidulina extracts the maximum possible from her original thematic material. In this particular case, the idea of the gradual *reduction* of a *descending* melodic line transforms into the reversal or, in contrapuntal terms, an inversion of the previously described procedure (mm. 62–9 and mm. 142–50), involving a gradual *expansion* of the pitch range of an overall *ascending* melodic line.

In the Coda section, the melodic element of the ostinato formula, routinely carried by the guitars, is utterly abandoned. Instead, the bass guitar doubles (in “straight” quarter notes) the bass line of the concluding chorale, played by an electric organ, three trombones, and the tuba of the symphony orchestra, occasionally doubled by the trombones of the jazz orchestra. The

²⁴³ In various interviews, Gubaidulina expressed her admiration and devotion to J. S. Bach’s music, which has remained “a great source of learning” throughout her life. See, for instance, Vera Lukomsky, “The Eucharist,” 27.

harmonic motion of this bass line presents a descending fifths sequence (perhaps a nod to the concerto style of Vivaldi et al.), completing a full circle from and to B minor, the “home” key of Gubaidulina’s concerto. The differing number of bass note repetitions in each two-chord segment of the sequence is accompanied by unchanging rhythmic patterns in the accompanying parts of percussion batteries IV and V, as well as guitar; the latter is notated in the German popular music system (e.g., Em, A⁷, D, etc.). Here, the rhythmic invariability in the percussion parts is very audible, particularly when compared with the jazzy accoutrements of the ostinato formula prior to RN 33. Figure 4 illustrates a case in point, using the first three sequential links as examples.

FIGURE 4: *Revue Music*: ostinato formula in the Coda: sequential links 1-3.

Mm.	Sequential links/ Bass notes	Number of repetitions of each Bass note	Guitars and Percussion/Score Excerpts
320–22	B-E	4-4	
322–3	A-D	3-1	
324	G#-C#	2-1	

It is important to note that prior to this point, all rhythmic, melodic, and timbral changes in the ostinato formula have involved the entrances of new thematic elements, or new timbres, whether as soloists or groups thereof. Thus, it is logical to assume that these unchanging rhythmic

patterns in the jazz percussion are sustained throughout an entire coda section, as they accompany only one preeminent theme stated *fortissimo*.

This idea of complementary changes becomes increasingly pronounced in the Ripieno-Concertino Combination section, where the ripieno fragments are consistently interrupted by various soloists. Note, for instance, a series of immediate changes in rhythm, melody, timbre, and method of sound production (Batt. IV), caused by the solo entrance of the tenor saxophone in measure 204:

EXAMPLE 4: *Revue Music*: Complementarity of changes in Ostinato Formula and the entrance of the new thematic elements in the upper layers of orchestral texture (mm. 203–5, solo sax. ten.)

The musical score for measures 203-205 of 'Revue Music' illustrates the complementarity of changes in the Ostinato Formula and the entrance of new thematic elements. The score is written for a large ensemble, including a tenor saxophone soloist, strings (Violins V and VI, Viola, Cello, Double Bass), woodwinds (Flute, Clarinet, Bassoon, Trumpet, Trombone), brass (Horn, Tuba, Euphonium, Trombone), and percussion (Batteries IV and V, Chimes, and Chimes b). The percussion section is particularly prominent, with Batt. IV and Batt. V playing a complex, rhythmic pattern. The Chimes and Chimes b are also active, providing a harmonic and rhythmic foundation. The score is marked with dynamics such as *mf* (mezzo-forte) and *ff* (fortissimo), and includes performance instructions like 'solo', 'frull.' (frullato), and 'simile'. The tenor saxophone soloist enters in measure 203, playing a melodic line that contrasts with the rhythmic patterns of the percussion. The overall texture is dense and complex, reflecting the 'complementarity' of the different elements.

As we can see from the example above, the jazz percussion – an integral part of the ostinato formula – begins to lose its rhythmic independence as a result of its increased interaction with the rhythmic ideas within the thematic material written above it (e.g., Batt. V and guitar

rhythmically doubling the solo saxophone). This idea continues to develop in all ten ripieno segments of this section; they span eight new keys, from C# minor to G# minor. Yet, unlike the first two ripienos, the appearance of a new key in loosely ascending chromatic order does not always coincide with the next ripieno segment. Moreover, the length and duration of the constituent fragments vary greatly, with the former also affected by the switch from duple to triple meter. These changes are summarized in Table 4.

TABLE 4: *Revue Music*: ostinato formula fragments in the Ripieno-Concertino Combination Section

Fragment no.	Measures	Length in bars	Key(s)
1	188–211	24	C# minor
2	224–233	4 4 2	D minor Eb minor E minor
3	236–237	2	E minor
4	241	1	F minor
5	246–247	2	G minor
6	250–251	2	F# minor
7	254–255	2	F# minor
8	257–258	2	F# minor
9	260	1	F minor
10	264–273	10	G# minor

Despite the seemingly disorderly fragmentation of the musical texture, built on the antiphonal exchanges between the two orchestras, the sonic result that transpires is a cohesive dynamic build-up in which the ostinato formula serves to unify the opposing sides of the battle *concertante*.

The next two distinct thematic ideas pertain to the upper layers of the orchestral texture. The first one, assertive and somewhat pugnacious, makes its initial appearance in RN 6 (mm. 60–75) in the jazz orchestra's three saxophones and two French horns. The second one, a

mournful solo by the symphony orchestra's first trumpet, originally comes at the end of the first Concertino episode (mm. 78–83). See Examples 5 and 6.

EXAMPLE 5: *Revue Music*: opening measures of Theme 3, RN 6

EXAMPLE 6: *Revue Music*: Theme 4, RN 8 (mm. 78–83)

Throughout the work, the function and role of these two themes can be seen through the prism of one of Gubaidulina's favourite technical and dramaturgical devices: the use of binary contrasts, to which she refers as "binary oppositions."²⁴⁴ Here, this type of duality – noted in

²⁴⁴ Kholopova, *Gubaidulina* (2008), 340.

Kholopova's annotation regarding the juxtaposition of the styles of [serious] symphonic music versus [light] jazz music, as well as *tutti* versus ensemble playing – takes on another meaning; namely, that of the striving and contending of the two opposing ideas: dramatic and lyrical.²⁴⁵ The former, always presented by a solo *group*, retains and gradually strengthens its character with each new arrival, eventually leading to the first substantial climax of the work – a *tutti* of two orchestras (RNs 30–2).²⁴⁶ The latter, initially appearing as a wistful *solo* by a single instrument, transforms into a powerful (or desperate?) outcry, insistently repeated by the symphony trumpets (a 3) and jazz trumpets (a 4) in the Coda. This final modification of Theme 4 marks the second culmination of the concerto. Remarkably, this theme serves the closing or concluding function in its three full appearances in the concerto. In each of these, the timbre of the trumpet reigns supreme. The First Trumpet of the symphony orchestra introduces the theme in RN 8, where it is echoed by the unison solos of violoncello and a French horn. At the end of the second Ripieno section, the trumpet answers an initial call of violins I and II (RN 19). In the Coda, all seven trumpets of the two orchestras, announcing the theme in RN 42, are answered (RN 43) by four jazz trombones, doubled by the alto saxophone and four French horns (two from each orchestra). Thus, the dualistic collocation of the jazz and symphony orchestral groups results in the final amalgamation of the two previously opposing forces. In other words, in Gubaidulina's *re-ligio*-defined musical existentiality, the two become one, albeit for a brief time. In the process of this becoming, the trumpet timbre continues to dominate in several shorter

²⁴⁵ Gubaidulina develops various versions of this idea in two other concertos created in the mid-seventies: *Concerto for Bassoon and Low Strings* (1975) and her early percussion concerto, *Hour of the Soul* (1976).

²⁴⁶ The first climactical episode occurs in the Concertino-Ripieno Combo Section (RN 24). It is based on the inverted version of the Theme 3 (Strings and Sopranos a 3).

versions of Theme 4, taking the shape of quick solo descending passages in the Ripieno-Concertino combination section (mm. 256, 259, 261–3) and in the Coda (mm. 332–5).²⁴⁷

Prior to this, another interesting unification of the two opposites – dramatical and lyrical, or the themes three and four – takes place in RN 24. The quasi-new theme in the strings (violins, violas and cellos) is an attempted, yet failed, first climax of the concerto. Its final two measures, outlining a descending minor triad in the second inversion, along with the frequent use of a triplet figure throughout, introduce definitive motivic and rhythmic similarities to Theme 4. At the same time, its opening motive resembles the inverted version of the opening idea of Theme 3. This semblance is amplified by the composer’s use of musical devices analogous to those employed in the third theme: syncopation and sequence. These become an unbidden accessory to the motive’s insistent, even somewhat urgent character. Remarkably, the length of this “new” theme (8 bars) is as ‘square’ as the length of Theme 3 in its first two appearances in RN 6 and RN 15 (16 bars). Returning to the full versions of Theme 4, its entries are accompanied by a curious variation in size, creating a symmetry in the length of the corresponding sections measured in bars: 12-10-12. Since the time signature changes from duple to triple in the coda (as well as the metronome markings for a quarter: from 96 to 72), this new symmetry appears to be only surface-level. However, its presence here is significant when compared to the three full appearances of Theme 3 (RN, 6, 15, and 30): their corresponding lengths are 16, 16, and 12 measures. What might seem like a dry and inconsequential manipulation of numbers might have

²⁴⁷ Exploring the technical possibilities and perhaps semantic meanings of the trumpet has been an important feature of Gubaidulina’s works written in the mid 1970s. Within roughly one year (1976/1977), she also wrote *Trio for Three Trumpets* (1976), *Two Ballads for Two Trumpets* (1976), and *Lied Ohne Worte for Trumpet and Piano* (1977). Remarkably, the idea of a Trumpet announcing a short falling phrase has become a prominent attribute of her numerous symphonic works. Among the most recent ones is *Der Zorn Gottes* (The Wrath of God), live streamed from an empty concert hall in Vienna on November 6, 2020 – amid the coronavirus pandemic.

had a certain symbolic meaning for Gubaidulina; namely, as the confrontation of two opposites – jazz and symphony, dramatical and lyrical, square and odd – leading to different outcomes at various stages of the musical process. These are the defiance of the former, the compliance of the latter, and the final non-victory of either. In the end, neither the first nor the second climax of the work becomes a triumphant or cataclysmic conclusion; there is neither a victory nor a final pronouncement of any truth. Sofia Gubaidulina, who has never been in the business of providing the answers but only in that of asking questions, yet again, *looks up into the sky*²⁴⁸ as the work ends in a high-register *pianissimo* of strings, flutes, and Valdai bells.²⁴⁹

The Gubaidulinian inclination to “gaze at the sky” is expressed as yet another symbolic gesture within the score, particularly in the register placement of the BACH monogram. Undoubtedly perceived by the composer as the highest standard of musical art, Bach’s name reappears in the first two appearances of Theme 3. Twice, it sounds in three clarinets presenting Bach’s name homorhythmically in major triads, partially doubled by the first flute and the top

²⁴⁸ Born into a world of grim poverty, Gubaidulina recalls her first attempts to escape the wretched surroundings of her childhood by sitting in “that bare courtyard, staring at the sky. [...] The earth disappeared somewhere, and I seemed able to walk across the sky.” See Sofia Gubaidulina, “Moya Zhizn’ Sostoit iz Voprosov” [My Life Consists of Questions], *Izvestiya Tatarstana Press Digest* (1992): 6 (quoted in Kurtz, 11). In the early 90s, Simon Rattle, recalling his first meeting with Gubaidulina, described her as “a flying hermit, because she is constantly in orbit, only occasionally touching terra firma.” Later in the same interview, a sharp-tongued and witty Rattle observes: “Although her palette of colours is very dark, very Russian, she is preoccupied with light. After all, you need dark glasses when you look at the sun during a solar eclipse.” Quoted in Kurtz, 229-30.

²⁴⁹ Gubaidulina’s use of the Valdai bells (a type of Russian sleigh bell) may be attributed to the instrument’s legendary symbolic association with freedom and independence. According to the so-called legend of the Valdai bells, around 1470, Tsar Ivan the Third ordered the Novgorod bell to be taken down and sent to Moscow, so it would sound in harmony with the other Moscow bells and no longer preach the independence of the free city of Novgorod. However, the Novgorod bell did not survive the journey. During its transportation, it fell and broke near a town called Valdai. Countless pieces turned into small bells. Local residents collected them and began casting their own bells in the model of the original, carrying the glory of the Novgorod freemen around the world. See Jason Kaminski, “Kolokol: Spectres of the Russian Bell” (PhD diss., Sydney University of Technology, 2006), <https://opus.lib.uts.edu.au/bitstream/10453/20075/2/02whole.pdf>.

part of the first violins *divisi*. Refer to RN 7, mm. 69–71 (B-B $\flat$ -D $\flat$ -C) and RN 16, mm. 151–3 (C-B-D-D $\flat$). Furthermore, the continuing chromatic ascent of the major triads in the clarinets spans the range of Shostakovich’s monogram (a diminished fourth). It is filled out in five sequential steps in RN 7. In RN 16, however, the last segment of the sequence breaks this pattern by placing the final sequential link a semitone higher and highlighting this change by altering the mode of the last two triads from major to minor. Refer to the example below.

EXAMPLE 7: *Revue Music*: BACH monogram and the following sequential ascent in RN 16, mm. 151–7

The image displays a musical score for Example 7, which illustrates the BACH monogram and a sequential ascent in RN 16, mm. 151–7. The score is presented in two systems. The left system (mm. 151–154) features the BACH monogram in the first violins (VI.1) and the sequential ascent in the clarinets (CL). The right system (mm. 155–157) shows the continuation of the sequential ascent in the clarinets and the first violins. The score includes dynamic markings such as *f*, *cresc. poco*, and *a poco*.

Incidentally, the second part of the BACH monogram and the first measure of the following sequential ascent coincide with an appearance of Bach’s name in the guitar solo (mm. 153–4) described earlier.

The idea of encrypting the names of Bach and Shostakovich – two composers continuously present in Gubaidulina’s musical subconscious – in the musical texture develops further in the Ripieno-Concertino Combination section. There, the dotted motivic element of Theme 3 undergoes various rhythmic and melodic transformations. The antiphonal exchanges

between four jazz trumpets and four jazz trombones in RN 22 present a fusion of the two melodic ideas derived from the aforementioned monograms. For instance, the sequential chromatic descent (in block chords) of a falling whole-tone motivic cell²⁵⁰ (B-A, B $\flat$ -A $\flat$ etc.) from B to E (mm. 210–11) is followed by a whole-tone ascending pattern of the next three-note motive (E $\flat$ -E $\sharp$ -G, F-G $\flat$ -A, etc.) from E $\flat$ back to B (B=Bach?).

EXAMPLE 8: *Revue Music*: antiphonal exchanges and sequential links in RN 22

The image displays a musical score for Example 8, titled "Revue Music: antiphonal exchanges and sequential links in RN 22". The score is divided into two systems. The first system (mm. 209-211) shows a chromatic descent from B to E. The second system (mm. 212-214) shows a whole-tone ascending pattern from E-flat back to B. Handwritten red and green annotations identify the motivic cells and their corresponding block chords.

First System (mm. 209-211):

- Handwritten red annotations: B, B $\flat$, A, A $\flat$ (top staff, m. 210).
- Handwritten red annotations: G, F $\sharp$, F, E (bottom staff, m. 211).

Second System (mm. 212-214):

- Handwritten green annotations: F, G, C (top staff, m. 212).
- Handwritten green annotations: A, B (bottom staff, m. 213).

²⁵⁰ Each motivic cell is identified by the top note of its corresponding block chord.

In the second half of m. 214, the four trumpets break the whole-tone pattern of transposition by adding two extra sequential links (C-C $\sharp$ -E and D-E $\flat$ -G $\flat$). These continue to remain within the range of Shostakovich's monogram (diminished fourth/major third) and curiously result in its final sequential cell starting with D (D=Dmitry?). Further, in mm. 215–23, the two ideas appear to be combined in a new and much more audible fashion. Following a rapid antiphonal ascent of a four-note motive (again, in the diminished fourth/major third range, e.g., E $\flat$ -E $\natural$ -F-G in the trombones, mm. 215–16), the rhythmically compressed BACH idea appears in four trumpets in m. 219. There, its melodic shape is identical to that of the introduction (m. 1). It is preceded and followed by a quick four-note chromatic ascent (within the BACH monogram's range) in the four trombones, leading into a homorhythmic tutti of the two groups in RN 23. The four measures of this section highlight the idea of counterbalance, which is important to the composer. The gradual reduction of the initial motive (E-E $\flat$ -D-D $\flat$ -C, within the Shostakovich monogram's range) from five to three notes, explicitly marked by the composer with the accent signs, appears to counterbalance the previously employed idea of gradual size increase of the motivic cells. Extraordinarily, the last statement of the BACH idea, appearing three times in RN 23 – simultaneously in ascending and descending versions in the corresponding groups – features a motive that descends from F to D. This final pitch (D) overlaps with the beginning of next thematic idea, a hybrid of Themes 3 and 4 (RN 24), which starts off in the key of D minor (D=Dmitry?).

EXAMPLE 9: *Revue Music*: BACH and DEsCH monogram-related ideas in RNs 22 and 23

The image shows a handwritten musical score for Example 9, spanning measures 215 to 223. The score is written in red ink on a white background. It is for a woodwind ensemble (Tr. and Trbn.) and brass (Bar. IV and Bar. V). The score features a 'BACH variant' section with handwritten annotations including 'D', 'BACH variant', '5', '4 =', '3', '4', 'poco rit.', and 'cresc.'. The score is written in red ink on a white background.

➤ Quasi-thematic Elements Based on Scales

Alongside the four principal themes, other types of quasi-thematic elements prominently featured in Gubaidulina's concerto are based on various scales. Predominantly chromatic on the surface, these melodic components form three distinct groups: solo virtuosic passages; homogeneous

orchestral group solos, which appear either as ‘static’ or ‘moving’ (ascending or descending) clusters; and a combination of the two. Each of these components appears in specific sections of the form. Furthermore, each of these components is characterized by specific idiosyncratic structuring ideas, including timbre, size/duration, types of motivic cells, overall melodic range, and the specific vertical/harmonic underlay associated with the last two groups. Thus, the majority of the solo virtuosic passages and the descending clusters are set against the syncopated marching rhythms of the ostinato formula within the ritornello/ripieno sections, while the ascending clusters, perceived as “full disruptions” of the “stop-time choruses,” always appear in the concertino sections.²⁵¹ The single solos and static clusters tend to be connected with jazz-associated instruments such as trumpets, saxophones, guitars, and percussion, while the moving clusters favour the symphony orchestra instrumental timbres such as flutes, clarinets or strings. With regard to duration, the single solos and the majority of descending clusters gravitate towards the square size in terms of their actual length in bars (2, 4 or 8) or the perceived length within a four-bar single-timbre unit; at the same time, the ascending and static clusters take a role of an “odd” agent as their lengths are always non-square (3, 9 or 12 measures). Melodically, the single solo passages often begin with a motif revolving around an interval of a fourth (perfect, diminished, or augmented) and ending with either a quick chromatic run or a trill. These jagged solo passages, accentuated by drums creating irregular syncopated subdivisions of beats with a closed hi-hat cymbal, have a certain flavour of Charlie Parker/Dizzy Gillespie’s bebop instrumental virtuosity. The melodic range of these solos often exceeds an octave, which is quite large when compared to that of the static clusters. The range of the latter remains within a major sixth at most. The static clusters are created by using small melodic cells, usually consisting of

²⁵¹ Those are reminiscent of the sound of the early New Orleans Jazz recordings featuring Freddie Keppard and King Oliver, Sidney Bechet, and Ferdinand “Jelly Roll” Morton.

two to four notes. This idea of short motives repeated sequentially in both ascending and descending clusters often leads to the emergence of a whole-tone sublayer within an overall chromatic context of the musical texture. Appendix 7 presents a full list of these quasi-thematic elements grouped into five categories: solo passages and four types of clusters: static, ascending, descending and combinatory. Below are some detailed examples illustrating the points discussed.

The first xylophone solo passage that appears in RN 4 (mm. 44–51) is based on the descending chromatic scale and set within a square eight-measure phrase. Curiously, it presents several irregular non-symmetrical rhythmic patterns that change the inside-the-bar accents from one measure to the next.

EXAMPLE 10: *Revue Music*: xylophone solo (mm. 44–51)



The accelerated chromatic descent at the end of this solo exemplifies another motivic signature-pattern frequently used by the composer to conclude single solo passages (e.g., flute in RN 11; alto saxophone in RN 25) as well as nearly all of the descending chromatic clusters. For instance, the nine-pitch cluster in Strings (RN 3) slides slowly to its own replica a perfect eleventh below. Or, a fugacious cluster in three flutes (RN 14) ends in a falling chromatic *frullato*, which targets the three original pitches of the initially static/trilled cluster an octave lower. Remarkably, the

actual sonic range of its opening (mm. 134–35) is a minor third (G-B $\flat$), i.e., the melodic span of the BACH monogram.²⁵² The rapid *frullato* descent also concludes two block-chord clusters in RN 20 and RN 21. The former is set in four jazz trumpets; the latter, which starts as its inverted or ascending version in two jazz French horns and four jazz trombones, ends again with the same falling pattern. The harmonic implications of the second ending are reminiscent of those in Charlie Parker’s concept of “chromatic targeting” at the end of his solos.²⁵³ Yet, in the absence of “functional” dominant-like waymarks, Gubaidulina’s final five-note chord (C $\sharp$ -E-G $\sharp$ -B $\flat$ -D $\sharp$) targets its own opening version (m. 200) at exactly the same pitch.

Another ingeniously constructed descending cluster concludes the third Concertino-Ripieno Combination Section (RN 32). Two distinct elements making up this full orchestra polyrhythmic ‘fall down’ into the return of the Introduction (RN 33) are the chromatic scale and the ‘white’ diatonic scale. The ‘chromatic role’ is assigned to the jazz band instruments and symphonic woodwinds; the remaining members of the symphony orchestra receive a ‘diatonic role.’ A small number of chromatic intrusions into the diatonicism (e.g., D $\flat$ in the first trombone, first violins, and electric organ at the top of the otherwise fully “white” opening sonority in measure 274) appear to create multilayered and often spatially separated four-note chromatic cells in the range of the BACH monogram. For instance, four French horns of the symphony orchestra slide down the ‘white’ scale in four-note clusters. Markedly, the first and last of these clusters, when combined, form the complete C major scale: CDEF – GABC. The chromatic intrusions into the white diatonic descent of three symphony trumpets create three-layered,

²⁵² All of Gubaidulina’s trills are indicated to be a half-tone above the written pitch.

²⁵³ Corey Christiansen, *Essential Jazz Lines: The Style of Charlie Parker* (Mel Bay Publications, Inc., 2015), 15-17.

spatially separated BACH-range cells: $D\flat CBB\flat - BB\flat AA\flat - GG\flat FF\flat$.²⁵⁴ The first of these is also present in the first and second violins parts (m. 274, first two pulses combined). In measure 275, a similar figure in the parts of two symphony trombones results in another BACH-range cell: $A\flat GG\flat F$. At the same time, the flutes and clarinets slither down the chromatic scale, each group in the form of a three-note cluster. After the initial diatonic sonority, the pattern of the whole and half steps within the cluster in clarinets is inverted, thus creating a symmetrical relationship similar to that described in Figure 3.²⁵⁵ Finally, four jazz trumpets and four jazz trombones take their chromatic descent in the form of block chords. The structure of these sonorities (vii^{o7} with an added major second on top) is identical to that used in Theme 3 (RN 6, 15, and 30).

The solo of three flutes in RN 19 (mm. 166–74) exemplifies a tight chromatic cluster ($F\sharp$, G , $A\flat$) rapidly ascending two octaves. The three-note melodic segments of flute I part follow the whole-tone transposition procedure, e.g., m. 169: $A\flat$, $G\flat$, $G - B\flat$, $A\flat$, $A - C$, $B\flat$, B , etc., resulting in “misalignment” of its motivic and rhythmic components. The second flute plays an ascending chromatic scale, while the pitch content of the flute III part is a combination of the motivic cell transpositions and the chromatic scale. Several other compositional devices utilized by the composer in this ascending cluster, which, incidentally, is part of the quasi-aleatoric episode of an entire work, can be related to the idea of “collective improvisation” comparable to

²⁵⁴ In other words, a whole tone plus a semitone in flutes is switched to a semitone plus a whole tone in the clarinets (e.g., $A\flat B\flat B\flat$ versus $D\flat D\sharp E$ as the second pulses of the sextuplets and quintuplets of the corresponding groups). Refer to the first two pulses of m. 274 and the last two pulses of m. 275.

²⁵⁵ A few missing accidentals in the parts of the first and second clarinets must be the result of notating those parts on the same staff. These parts were notated correctly in all earlier printed versions. Refer to Appendix 6: Summary of Gubaidulina’s Score Adjustments.

that of the early New Orleans Dixieland in terms of treatment of timbres. In this episode, Gubaidulina's separation of the timbral colours is similar to the "setting apart" technique found, for instance, in the 1917 recordings of the *Original Dixieland Jass Band*, where three melodic voices – clarinet, trumpet, and trombone – have their separate functions; each of them presents different layers of the texture in unmixed timbres and different registers.²⁵⁶ In RN 19, the "controlled chaos" allows a certain degree of freedom in interpreting rhythmic patterns in the piano, harp and Valdaï bells (percussive role). Yet, the harp's *glissandi* are to be played on a predefined pitch set (Locrian on G $\sharp$), while the unmeasured piano pattern is built on contrasting black and white keys (G, F, E, D, C in the RH and D $\flat$, E $\flat$, G $\flat$, A $\flat$ in the LH). The given set is repeated while keeping a consistent gradual reduction in the number of notes in each hand (RH: 5, 4, 3, 2; LH: 4, 3, 2, 1). The written-out timbral block of three flutes (melodic role) is built, as noted earlier, on a three-note ascending cluster that fills out a whole-tone space from A $\flat$ 5 to A $\flat$ 7 (flute I), an ascending chromatic scale (flute II), and a combination of the two methods (flute III). See Example 11 below.

²⁵⁶ See Katherine M. Leo, "Early Blues and Jazz Authorship in the Case of the 'Livery Stable Blues,'" *Jazz Perspectives* 12, no. 3 (2020): 311-38, https://www.researchgate.net/publication/347317069_Early_Blues_and_Jazz_Authorship_in_the_Case_of_the_Livery_Stable_Blues.

EXAMPLE 11: *Revue Music*: ascending cluster in three flutes, RN 19

The image displays a musical score for Example 11, titled "Revue Music: ascending cluster in three flutes, RN 19". The score is divided into two systems. The first system (measures 19-21) is marked "rubato" and shows three flutes (Fl. I, II, III) playing an ascending cluster. The second system (measures 22-24) shows the same three flutes continuing the cluster, with other instruments (Batt. I, II, III, Pno, VnI, VnII, Arpe) playing a wavy line. The score includes various musical notations such as notes, rests, and dynamic markings like "cresc." and "p".

A further intriguing feature of this ascending cluster is the likely presence of another Bach-related symbol. The seemingly simple polyrhythmic organization of the passage (quintuplets against sextuplets against quadruplets, etc.) conceals the “Bach” number in the parts of the first and third flutes. In these parts, the total time value of the passage, measured in eighth notes (excluding the final ‘convergence’ point in measure 174), adds up to 41, which corresponds to “Johann Sebastian Bach” in its gematria version.²⁵⁷ The total time value of the part of the second

²⁵⁷ J.S. Bach’s name, when converted into numerals assigned to the letters of Latin alphabet, produces the numbers 14 and 41, or their reduction, 5. Thus, B = 2, A = 1, C = 3, H = 8; 2 + 1 + 3 + 8 = 14; when J and S are added (9 +

flute, an ‘imperfect’ centre of the three-part texture, adds up to an “imperfect” number of 40.

Thus, a sort of ‘textural’ symmetry (41-40-41) acts as an organizing force with the ascending three-flute cluster in the first semi-aleatoric episode. See the Table below.

TABLE 5: *Revue Music*: rhythmic groupings in the flute parts, RN 19 (mm. 166–74)

measure	166	167	168	169	170	171	172	173	174
Flute I	5	5	5	5	5	5	5	6	(1-2)
Flute II	4	4	4	6	6	6	6	4	(1-2)
Flute III	6	6	6	4	4	4	6	5	(1)

The idea of using a three-note segment to build a cluster is used again in RN 37. Here, however, once the full twelve-tone field is created, it undergoes two upward shifts, resulting in a change from a tight twelve-tone chromatic space to a registerally dispersed version of itself. The original cluster is built by adding the overlapping cells, starting from VI. II (F $\sharp$ GA $\flat$) to VI. I (G $\sharp$ AB $\flat$), etc., until the full twelve-tone field (A $\sharp$ – A $\flat$) appears in m. 304. Within it, the four corresponding segments are orderly distributed according the registers of the four groups of strings, each *divisi a 3*. After being held for three measures (mm. 304–6), the cluster starts shifting up. Its lower segments methodically replace those immediately above until a new

18 = 27) the total is 41. For more on Bach’s Numbers refer two comprehensive volumes of a British-Swedish musicologist, Ruth Tatlow. See Ruth Tatlow, *Bach and the Riddle of the Number Alphabet* (Cambridge University Press, 1991) and *Bach’s Numbers: Compositional Proportion and Significance* (Cambridge University Press, 2015).

twelve-tone cluster is formed. Positioned a minor third above the original, it undergoes the second shift in the upper strings only: violas exchange places with the second violins, the second violins with the first violins, and the first violins with the violas, transposed an octave higher. See Example 12 below.

EXAMPLE 12: *Review Music*: ascending cluster in strings, RN 37 (mm. 303–10)²⁵⁸

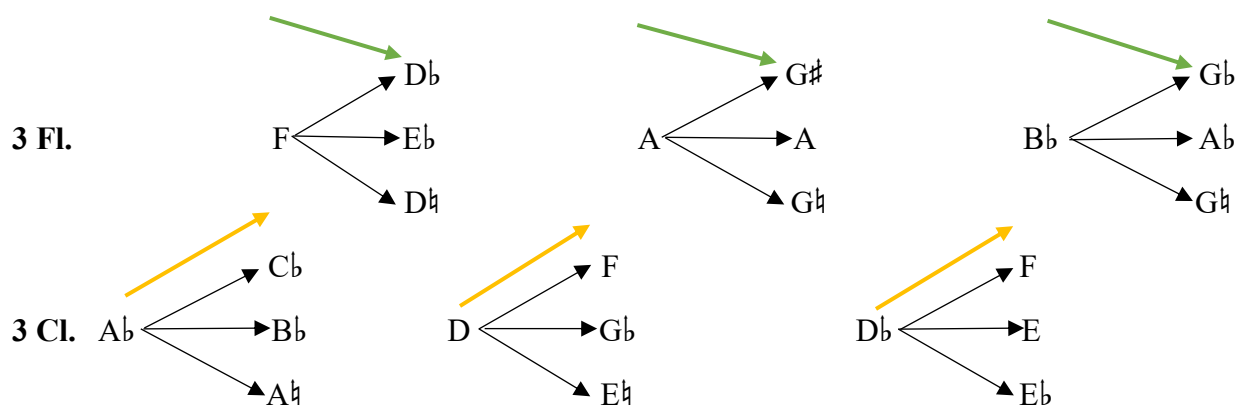
The image displays three systems of musical staves, likely for a string quartet or orchestra. The first system shows a cluster of notes in the upper strings, with a box highlighting a specific segment. The second and third systems show the progression of this cluster, with arrows indicating the movement of individual notes between staves, illustrating the 'shifts' mentioned in the text. The notation includes various musical symbols such as clefs, notes, rests, and dynamic markings like 'p' (piano) and 'mf' (mezzo-forte).

Another cluster-like layer of texture, unfolding concurrently with the one just described, is set in the upper woodwinds. This concurrence of the prolonged build-up of a full twelve-tone space in the strings and the narrow-range short passages in flutes and clarinets can be perceived as one of Gubaidulinian “binary oppositions” – this time, as a contrast between shorter and longer

²⁵⁸ Each of the three full twelve-tone clusters is placed in the box. The arrows point at the three-note segment exchanges within the corresponding ascending shifts.

durations of musical elements. The idea of working with three-note cells takes a new turn within the contrasting timbres of the flutes and clarinets. All of the quickly ascending and descending undulating passages, both in the flutes and in clarinets, sprout from a single sound and blossom into a three-note cluster throughout this section.²⁵⁹ The conglomeration of these tripartite endings in the flutes and clarinets creates yet another twelve-tone space, gliding over the cluster in the Strings. A schematic presentation of this process in measures 303 to 306 is shown in Figure 5.

FIGURE 5: *Revue Music*: three-note clusters in flutes and clarinets in mm. 303–6 (beats 1 and 2)²⁶⁰



This section transitions smoothly into the second semi-aleatoric Episode (RNs 38–41), which, in turn, features a variety of static clusters in different orchestral groups. Here, the previously precise rhythmic coordination is almost entirely abandoned. Yet Gubaidulina, who

²⁵⁹ The only deviation from this pattern occurs in m. 306, beat 3. The first clarinet starts with Gb while the second and the third clarinets start with G#. The following cluster adheres to the established three-note pattern (D-Db-C). Incidentally, it is the *first descending* cluster in the clarinets; it appears to *signal* the inversion of the melodic direction for the flute passages that come after. Hence, breaking the established pattern in clarinets (m. 306, beat 3) might have been necessary to mark this change.

²⁶⁰ The yellow and green arrows indicate the overall ascending and descending movement of the cluster, respectively.

believes in a clear delineation of duties between the composer and performers, still coordinates the texture. In a similar manner to that of the first “controlled” collective improvisation in the first semi-aleatoric episode (RN 19), there is a clear timbral separation of narrow-range chromatic clusters: first, in the piano (RN 38), then in gradually added timbral blocks of three flutes (RN 39), three clarinets, and three saxophones (RNs 39–40). As the *glissando* ‘waves’ of the whole-tone flavoured passages in the harp become continuously regular, the new, now measured and gradually assembled twelve-tone cluster in four trumpets and four trombones (RN 41) is set against the surging *tremolando divisi* in the strings. Overall, this jazz-like extemporization seems to hold the sonic status quo akin to György Ligeti meeting Miles Davis, insofar as it unfolds over two other ostinato layers in the strings and percussion (jazz battery, hi-hat, temple blocks, and tomtoms). Further scrutiny of the cluster-type layers in the orchestral score reveals the composer’s frequent use of another compositional device characteristic of her contrapuntal polymorphism, namely, canonic imitation, which we will now discuss.

➤ **Canons and Other Contrapuntal Devices in the *Revue Music***

The majority of Gubaidulina’s canons, obscured through the texture and Webern-like instrumental pointillism, are difficult, if not impossible, to perceive aurally or intellectually. Others, found in the ‘thematic’ portions of the work, are more straightforward and easier to grasp by ear. Regardless of the type, the canonic episodes of the concerto reveal Gubaidulina’s contradictory (or complementary?) predilections for musical construction and its concealment. For instance, the Introduction section presents two canonically formed clusters unfolding concurrently. The first of these is based on the opening five-note theme initially sounded in the

tubular bells. The imitative technique used here is reminiscent of the early Ars Nova *prolation* canon *ad unison*. The five pitches of the original melody, continuously sounding in the chimes, line up in augmentation in three clarinets and two flutes, entering precisely at the half note (*canon ad minimam*). They suspend the five-pitch sonority for the next six measures (mm. 6–11), thus forming the first static cluster of the work. Simultaneously, another realization of the canonic idea unfolds in the strings (mm. 6–9). Here the five-pitch contour (F-A $\flat$ -G $\flat$ -A $\natural$ -C) formed by the top notes of the three-pitch clusters in the corresponding orchestral groups, each divided by 3, is extended in range, resulting in a full twelve-tone cluster (C $\sharp$ -C $\flat$) formed by the end of measure seven. Its lowest segment in the cellos remains static, while the upper parts' clusters gradually replace those above them. In other words, the violas exchange places with the second violins in m. 8, and the second violins take on the three-pitch cluster of the first violins in m. 9. Finally, in measure 9, the first violins take on the violas' cluster transposed up an octave, thus creating the registerally displaced three-note cell of the overall static-sounding twelve-tone cluster. The timing between the entries of these three-note chromatic cells in the strings is shortened to a quarter note, compared to that in the woodwinds' canon, thus changing this construction to a *canon ad semiminim*. See Example 13.

EXAMPLE 13: *Revue Music*: canonically formed clusters in woodwinds and strings;
Introduction (mm. 1–8)

The musical score for the Introduction of *Revue Music* (mm. 1–8) is presented in two systems. The first system includes staves for 2 Flauti, 3 Clarineti (B), Batteria I, Batteria II, and Batteria III. The second system includes staves for Fl. I, Fl. II, Cl. I, Cl. II, Batt. I, Batt. II, Batt. III, VI. I, VI. II, Vcl. I, and Vcl. II. The tempo is marked as quarter note = 48. Dynamics include *pp*, *p*, and *cresc.* (crescendo). Performance instructions include "P-mo sosp." (first movement suspended), "T-t." (tutti), "l.v." (lento), "l.v. simile" (lento simile), "cresc. poco a poco" (crescendo poco a poco), and "div. a 3" (divisi a 3).

Analogous imitative devices are used to organize the texture in RNs 33–7, where the material from the Introduction returns. In this episode, two of Gubaidulina's essential compositional techniques – canonic imitation and variation – merge once again. The extended opening solo in tubular bells is now accompanied by a newly augmented *prolation* canon in three sopranos and,

starting from m. 283, by an ingenious ‘verbal’ canon. The second quatrain of Afanasy Fet’s poem (“Silvery Night, How Languorous You Are,” 1865), presented as a pre-recorded declamation, is whispered by the musicians of the jazz orchestra. The text gradually enters in five parts and gradually fades as the quatrain ends. An English translation of the poetic excerpt used by the composer is provided below in Figure 6.

FIGURE 6: *Review Music*: English translation of Afanasy Fet’s Poem²⁶¹

Какая ночь! Алмазная роса
Живым огнём с огнями неба в споре.
Как океан, разверзлись небеса,
И спит земля – и теплится, как море.

O, what a night! The diamond dew so bright
Rivals in liveliness the starry shimmer.
The heaven like an ocean opens wide,
And sleeps the Earth – and like a sea it glimmers.

Transitioning to the “starry shimmer” of the aleatoric episode (RNs 38–40), the opening timbral combination of two clusters in the woodwinds and strings returns in RN 37. The idea of the layered canons²⁶² receives a new interpretation as the prolonged cluster in the strings shifts upward twice while the short overlapping passages in the flutes and clarinets (both *divisi a 3*) are constructed as loose *mensuration* canons, ending with a three-pitch chromatic cell.²⁶³

²⁶¹ Alexander Pokidov, *Gentle Call: Masterpieces from Fet’s Treasury* (Lyric Russia Series, 2012), 60, http://pokidov-poetry.ru/%D0%90.Fet_Gentle_Call.pdf

²⁶² The tubular bells part is absent in this section.

²⁶³ A detailed description of these two clusters was provided earlier in the text. Refer to Example 11 and Figure 5. Two other instances of quasi-mensuration canons occur in the ascending cluster in three clarinets (RN 12) and the static cluster in three symphony trumpets (RN 13).

EXAMPLE 14: *Revue Music*: Canonically formed clusters in woodwinds and strings, RN 37
(mm. 303–5)

The image shows a musical score for Example 14, titled 'Revue Music: Canonically formed clusters in woodwinds and strings, RN 37 (mm. 303–5)'. The score is written for a woodwind and string ensemble. The woodwind parts include Flute (Fl.), Clarinet (Cl.), and Bassoon (Bass. II). The string parts include Violin I (Vl. I), Violin II (Vl. II), Viola (Vla.), Violoncello (Vcl.), and Contrabass (Cb.). The woodwinds play a canonically formed cluster, with the flute part starting at measure 303. The strings play a supporting part, with the cello and contrabass parts marked 'div. a 3' and 'p'.

Several of the concerto's clusters are built using another contrapuntal device related to the fourteenth-century mensural notation: the technique of *colour* and *talea*. It refers to the idea of a conceptual separation of the melodic and rhythmic aspects within a single part, whether vocal or instrumental. For instance, the part of the first flute (RN 19), mentioned earlier in the description of an ascending cluster in three flutes, is created by using three-pitch motivic cells that rise sequentially. These are set forth against the cyclically repeated eight-note quintuplet, which results in incongruity or 'misalignment' of the melodic and rhythmic patterns. A similar procedure is implemented at the end of the 'antiphonal exchanges' section in RN 23. The principle of nonconcurrency between the rhythmic and melodic components in the homorhythmic parts of four jazz trumpets and four jazz trombones is complemented by two new

elements: the gradual size reduction of motivic cells (5-4-3) and the two accompanying recurring yet asynchronous rhythmic patterns.²⁶⁴

Last but not least, an important contrapuntal technique featured prominently in the *Concerto* is that of melodic inversion. Its various applications are present in multiple layers of Gubaidulina's capacious orchestral texture (e.g., antiphonal exchanges between four jazz trumpets and four jazz trombones in RN 22; rising and falling (inverted) scalar passages in various orchestral groups accompanying the final appearance of Theme 4 in the coda section, RNs 42–6; and the block-chord clusters in two jazz French horns and four jazz trombones in RNs 20–1 (mm. 200–3), melodically inverting the preceding segment in in four jazz trumpets (mm. 192–5). An interesting example of the composer's favoured symmetrical constructions can be found in the group solo of three saxophones in RN 21. The linear structuring of this six-measure solo episode presents a compact symmetrical figure unfolding in a mono-rhythmic setting. A prime version of the melodic line (in Tenor, mm. 204–5) is built on a three-pitch pattern ascending along the whole-tone scale (Ab, Bb, C, D). In the next two measures, it is inverted as the Alto Saxophone, now doubled by the tenor a whole tone below, enters an octave above, in augmentation. The prime version, transposed a whole tone up, returns with the entrance of the baritone sax (mm. 208–9) accompanied by the alto and tenor, and retains the original whole-tone underlay of all its segments. Refer to Example 15.

²⁶⁴ Refer to Example 9.

EXAMPLE 15: *Revue Music*: melodic inversion in a group solo of three saxophones RN 21 (mm. 206–7)

The musical score for Example 15 is presented in two systems. The first system begins at measure 206 and includes staves for Sax. ten., Cr., Trbn., Bat. IV, Bat. V, Chit., and Chit. b. The second system begins at measure 209 and includes staves for A., Sax. Ten., Bar., Bat. IV, Bat. V, Chit., and Chit. b. The score features various musical notations including notes, rests, and dynamic markings such as 'solo', 'ff', 'mf', 'cresc.', and 'simile'. The notation is complex, with many beamed notes and rests, indicating a fast and intricate solo.

The solo for three saxophones, like the various aforementioned examples of Gubaidulina's constructivism, reveals another vital aspect of her musical language: the use of Fibonacci numbers. The opening members of this sequence (1, 2, 3, 5, and 8), strikingly conspicuous and often clearly audible, permeate the musical texture on many levels – form-shaping, timbral, motivic (linear), harmonic (vertical), and more. Others, often hidden from view and imperceptible to the ear – at least on a conscious level – form the proportional foundation of the work. Thus, the final segment of this chapter will present the numerical ideas implemented in Sofia Gubaidulina's 1976 work.

Magic Numbers in the *Revue Music*²⁶⁵

Valeria Tsenova states that all of Gubaidulina's works *from the beginning of the 1980s up to the present*²⁶⁶ “possess more or less developed numerical ideas.”²⁶⁷ In light of this undoubtedly well-informed assertion, the presence of visible Fibonacci numbers scattered throughout the concerto score serves as a remarkable example of the earliest stages of the composer's numerical evolution. What seems extraordinarily astounding is the existence of hidden numbers related to the application of the Fibonacci sequence in the construction of the entire work's formal proportions that were discovered during the current investigation. Yet, upon further reflection, the astounding nature of this discovery no longer seems surprising or unexpected, especially when considering Gubaidulina's lifelong fascination with numbers. With regard to deciphering her early scores, it can be said that (recasting a famous quote attributed to Galileo Galilei) they are easy to understand once the key is discovered. After all, the composer herself states that her “early period (the 1970s) is very difficult for musicologists to talk about,” as during that time, she was not always able to fully explain the intellectual side of her compositional process.²⁶⁸

The examples of visible/audible Fibonacci numbers in the score of the *Revue Music* are manyfold. Starting with general observations, this single-movement (**1**) concerto,²⁶⁹ comprised of **8** sections, is based on **5** distinct melodic elements: four prominent themes and various scales.

²⁶⁵ The title of this section bears a reference to the outstanding pioneering research on the subject conducted by a Russian musicologist Valeria Tsenova (1960–2007).

²⁶⁶ My emphasis.

²⁶⁷ Valeria Tsenova, “Magic Numbers in the Music of Sofia Gubaidulina,” *Musicology* 2 (2002): 254, https://www.researchgate.net/publication/47368962_Magic_numbers_in_the_music_of_Sofia_Gubaidulina.

²⁶⁸ See Lukomsky, ‘The Eucharist,’ 35.

²⁶⁹ All Fibonacci-related numbers will be presented as bold numerals throughout this portion of the text.

The latter melodic group forms **3** types of clusters – static, moving, and a combination of both. Further, the opening theme is based on **5** pitches. In the first two Ripieno Sections, the initially **2**-measure-long ostinato formula (Theme 2) appears in **3** melodic versions (refer to Table 3). The number of different keys it goes through in the Ripieno-Concertino Combination Section is **8** (refer to Table 3), as is the number of antiphonal exchanges between the jazz and the symphony orchestras in the same section (RNs 25–9). Furthermore, both Themes 3 and 4 have **3** full appearances in the concerto. The **8**-measure-long Theme 3 is consistently harmonized with **5**-note block chords and appears in combinations of either **2** or **3** timbres: **3** saxophones and **2** jazz French horns (RN 6 and 15), symphony brass (**3** trumpets and **2** trombones), electric organ, and **3** groups of the upper strings (RN 30). In the **3rd** and final appearance of Theme 4 in the coda, the opening motive is repeated **3** times by each of the **2** orchestral groups (jazz and symphony) in unison (**1**): the seven trumpets of both the jazz and symphony orchestras in RN 42, and **2** French horns of the symphony orchestra, doubled by the alto saxophone and **2** brass groups (French horns and trombones) from the jazz orchestra (RN 43).

Proceeding with more detail-oriented observations, the opening members of the Fibonacci sequence permeate the organization of the group and single solos with respect to the number of soloists involved, the type of linear and vertical components of these passages, as well as the type of irregular and polyrhythmic groupings frequently used by the composer. In particular, the majority of the group solos feature **3** or **5** usually homogeneous timbres; the number of pitches in the motivic cells used to create these passages is predominantly **3**; the block-chord sonorities associated with the original Theme 3 and all its variants consist of **5**

notes.²⁷⁰ Five (5) is also the number of parts in the ‘verbal’ canon in RNs 33–6. In addition, numbers 3 and 5 appear as the number of timbral layers in the composite or combination clusters, as well as in the sections featuring the four principal themes. The opening measures of the concerto present a good case in point. Here, the 3 layers of the orchestral texture are woven from the woodwinds (2 flutes and 3 clarinets; Σ 5), percussion (batteries I, II and III; Σ 3), and the strings (each of the groups is *divisi* a 3). Next, 5 distinct layers of texture are clearly distinguishable in the Coda (RNs 42–5). In RN 42, these include: Theme 4 in trumpets; the descending fifths (5) chordal sequence in the low brass, doubled by piano and electric organ (Σ 3 timbres); rapidly ascending and descending scalar passages in woodwinds and strings accompanied by occasional intrusions of two (2) saxophones; and finally, 2 distinct groups of percussion – symphonic and jazz. Similar five-tiered (5) timbral organization of the above structural components is utilized in RN 43. The Theme 4 is now carried by French horns, jazz Trombones and Alto Saxophone (Σ 3); the instrumentation of the chordal sequence, percussion and scalar passages in flutes and clarinets remains unchanged. However, the strings transform the continuously ascending scale into a distinct quasi-thematic element.

The question of Fibonacci numbers in relation to the irregular rhythmic groupings, whether within single melodic lines or as juxtaposed in multi-layered passages, seems to be a controversial one. That is to say, the use of triplets, quintuplets, and so on is not an indication of the composer’s intention to purposefully apply specific numbers from any numerical sequence. For much of the so-called ‘new music’ since the late nineteenth century, the use of irregular meters and polyrhythm has opened up multiple possibilities for deviating from the rhythmic

²⁷⁰ Refer to Appendix 7 for specific examples.

regularity and the predominant ‘squareness’ of the compositional structures in ‘tonal’ music. In Gubaidulina’s *Revue Music* we encounter numerous examples of both types. Refer, for instance, to the previously described solo of xylophone in RN 4 (Example 10), which demonstrates the avoidance of rhythmic regularity within a square **8**-measure frame and ends with an accelerated passage of irregular rhythmic groupings (**3:2** and **14:8**). Similar procedures are used in the group solo of the upper strings (RN 5), three symphony trumpets (RN 13), four jazz trumpets (RN 20), and so on. The characteristic accelerated endings in triplets (**3**), quintuplets (**5**), and octuplets (**8**) appear in the endings of both single and group solos (e.g., flute I, RN 10; four jazz trumpets, RN 20; alto saxophone, RN 25; trumpet I, RN 29, mm. 262–3). They also occur in both square (4 or 8 measures) and non-square-long passages.²⁷¹ Along with other examples of rhythmic periodicity and its avoidance, they evince the opening numbers of the Fibonacci series. However, it remains equally true that all of the above observations regarding these numbers have been based on certain informed assumptions.²⁷²

In the final section of this chapter dealing with Fibonacci numbers, these assumptions are supported with concrete evidence from Sofia Gubaidulina herself. Consequently, it can be said with absolute certainty that the metronome markings – and thus the formal proportions of the *Concerto for Two Orchestras* (1976) – were adjusted in its 1995 renamed version (*Revue Music*)

²⁷¹ For more examples refer to Appendix 7, the Length in Measures column.

²⁷² One of such seemingly valid and doubtlessly amusing observations is presented by Valeria Tsenova. It concerns Beethoven’s “super-cycle” of String Trios op. 3 and op. 9. Tsenova notes that the sum of sharps and flats in the key signatures of these two opuses create a ratio of 6:3 or 2:1. The same ratio (2:1) exists with regard to the number of movements in the corresponding opuses. (NB: op. 3 is in E♭ major and consists of six movements; op. 9 includes three four-movement trios in G major, D major and C minor). The author concludes: “It is unlikely that such manipulation with number three happened by chance.” The immediate and inevitable query that may arise is: “Was it a fortunate stroke of serendipity, or wasn’t it?” Or perhaps, one shall find what one seeks? In all likelihood, this question is bound to remain unanswered. See Tsenova, “Magic Numbers” (2000), 47.

to approximate the Golden Section at the point of the work's conceptual climax. It arrives at the point of the striking return of the material of introduction (RN 33). Opening with a *fortissimo* strike of timpani and tamtam, it immediately transitions into the mysterious softness of chimes and human voices – both singing and whispering. The conceptual substance of this soft climax is amplified by the presence of the composer's own symbolic number – 48, which corresponds to the revised metronome marking of this episode ($\text{♩} = 48$). Incidentally, it represents the composer's name, Sofia, in its gematria version.²⁷³ Thus, in the midst of the unfolding drama concertante, the impassioned return of Gubaidulina's most cherished contemplative inner self gives us another example of the teleological directionality of the composer's "binary oppositions," the core of her compositional philosophy of the 1970s.

The precise point of the Golden Section can be mathematically determined by using the revised tempo indications in the 1995 version of the score. As the work consists of both unmeasured and measured sections (the latter containing changing time signatures and metronome markings), simply counting the bars will not suffice.²⁷⁴ However, reducing all composer-notated units of time to an *absolute unit* or *microbeat* and performing the calculation based on these values yields a number that closely approaches the divine proportion. Adopting Valeria Tsenova's methodology,²⁷⁵ the calculation of the *absolute* length of the work and its proportions is performed as follows:

²⁷³ Assigning numerical values to the letters of the alphabet that make up the name 'Sofia' results in $48=18+14+6+9+1$.

²⁷⁴ An attempt at such a calculation, involving the division of the length of the greater part (175 measures) by the smaller (69 measures) and comparing it to the ratio of the total number of bars (344) to the larger segment (175), results in a complete fiasco.

²⁷⁵ Tsenova (2000), 93.

- The following scheme depicts lengths of the Concerto sections in absolute values, rounded to the nearest tenth. The Golden Section at the point of return of the Introduction is thus approximated by dividing the length of the whole piece by the length of the larger portion (sections 1 to 6) – $648.6 \div 403.8 = 1.61$, as well as by dividing the length of the larger section by that of the smaller one – $403.8 \div 244.8 = 1.65$.

Section	1	2	3	4	5	6	7	8
Number of microbeats	41.3	80	22.5	80	37.5	142.5	182.3	62.5
			Σ 403.8					Σ 244.8
	Σ 648.6							

Table 6 provides detailed calculations that establish the correlation between varying time signatures, the number of bars and beats in measured sections, the time in seconds in unmeasured sections, and the corresponding microbeat value of each segment.

TABLE 6: *Review Music*: recasting the Concerto's time values into the *absolute* values of *microbeats*

Section number	Section name	RN	Number of bars	Time signature and M.M.	Value of a microbeat	Number of beats	Number of microbeats
1	Introduction	N/A	11	9/8 ♩ = 48	1.25	33	41.25
2	Ripieno 1	1-7	64	2/4 ♩ = 96	0.625	128	80
3	Concertino 1	8	18	2/4 ♩ = 96	0.625	36	22.5
4	Ripieno 2	9-16	64	2/4 ♩ = 96	0.625	128	80
5	Concertino 2	17-19	30	2/4 ♩ = 96	0.625	60	37.5
6	Ripieno-Concertino Combination (3)	20-32	88 [36+52]	2/4 ♩ = 96 (RNs 20–3)	0.625	72	45
				3/4 ♩ = 96 (RNs 24–32)	0.625	156	97.5
7	Introduction Return	33-36	23	9/8 ♩ = 48 (RNs 33–6)	1.25	69	86.25
	and Semi-aleatoric Episode	37-41	21 [12+(3)+6]	3/4 ♩ = 48 (RN 37)	1.25	36	45
				Time indicated in seconds (RN 38-40): 10+20+15=45	1.25	N/A	36
				3/4 ♩ = 72 (RN 41)	0.833	18	15
8	Coda/Tutti of Two Orchestras	42-46	25	3/4 ♩ = 72	0.833	75	62.48

It should be noted, however, that since no sketches or drafts of *Revue Music* exist, there is no documentary evidence to confirm that the method presented above for calculating the Golden Mean is identical to that employed by the composer. Yet the numbers speak for themselves, offering us a glimpse into one of Gubaidulina's early endeavors to "arrange all things in good number and measure."²⁷⁶ Moreover, the concerto as a fragment of her musical universe "ordered in a mathematically satisfying way," appears to carry "upon it the 'signature' of its creator."²⁷⁷ Sofia's number (48) unites the entire work, as the remaining tempo indications in the score can be factored using her first name: $96=48\times 2$ and $72=48+(48\div 2)$. This amalgamation of the constructive and the symbolic, as the fundamental principles of Gubaidulina's creative process, has undoubtedly been formed and tested since the early 1970s and verbalized by the composer in various interviews. One of the earliest examples of such testimonies is a letter she wrote to Victor Suslin in October 1982. Characterizing the work of the fellow Moscow composer Vyacheslav Artyomov, she writes: "[It is] a very pleasant thing in the so-called relaxed style. Extremely enjoyable to listen to, even though I kept thinking that in this style it would be nice to have something *tougher* inside, for example, a strict design or some sort of compositional idea. Well, if, at the same time, it also turned out to be a *symbol*²⁷⁸ of something else, then what? Then I would be delighted."²⁷⁹

²⁷⁶ Wisdom of Solomon 11:20. Apocrypha.

²⁷⁷ Copernicus' and Kepler's citations as quoted in Christopher Butler, "Numerological Thought," *Silent Poetry: Essays in Numerological Analysis*, ed. Alastair Fowler (Routledge and K. Paul, 1976), 16.

²⁷⁸ Our emphasis.

²⁷⁹ Paul Sacher Foundation (Basel). Sofia Gubaidulina Collection. Correspondence. Letter to Viktor Suslin.

CHAPTER THREE

Analytical Étude No. 2: Concerto for Viola and Orchestra

The last page of Gubaidulina's autograph score of *Concerto for Viola and Orchestra*, published by Schirmer in 1997, indicates its place and date of completion as Appen, 2.12.96 (December 2, 1996).²⁸⁰ Less than five months later, this substantial work receives its world premiere by the acclaimed Chicago Symphony Orchestra with Yuri Bashmet as soloist. The prompt delivery of a live performance was not surprising. By the mid-1990s, Gubaidulina, who had accepted many distinguished international awards and was considered one of the most important living composers,²⁸¹ undertook multiple, often years-ahead planned commissions from leading soloists, ensembles and orchestras.²⁸² Her 1996 Viola Concerto was one of them. Commissioned for the Chicago Symphony Orchestra by the Mrs. H. C. Smith Commissioning Fund, the concerto was premiered on April 17, 1997, by Yuri Bashmet – the Russian violist and concerto dedicatee – playing under the baton of the CSO guest conductor Kent Nagano. Like Nagano, the forty-four-year-old Bashmet was making his subscription-series debut at the Chicago Orchestra Hall, one of

²⁸⁰ In all her manuscripts, the composer uses the traditional Russian date and time notation format, which places the numbers in day/month/year (DMY) order.

²⁸¹ Among them are Koussevitzky International Record Award (1987), Prix de Monaco (1989), Premio Franco Abbiato (1991), Heidelberger Künstlerinnenpreis (1991), Ludwig Spohr Prize of the City of Brunswick (1995), et al.

²⁸² An impressive list of Gubaidulina's commissions of the early- to the mid-90s includes large orchestral and concerted works, such as: *Alleluja* (1990) by Berliner Festspiele; *Aus dem Stundenbuch* (1991) by Helsinki Festival, dedicated to Vladimir Tonkha; *And: The Festivities at Their Height* (1993) by Festival de Música de Canarias, dedicated to David Geringas; *Zeitgestalten* (1994) by the City of Birmingham Symphony Orchestra, dedicated to Simon Rattle; and *Music for Flute, Strings and Percussion* (1994) by Radio France for the music festival 'Présences 95,' dedicated to Pierre-Yves Artaud. Among the chamber music commissions are: *...Early in the Morning, Right Before Waking...* (1993), dedicated to Kazue Sawai and her Koto Ensemble; *In Erwartung* (1994) by Svenska Rikskonserter and dedicated to the Raschèr Quartet and the Kroumata Ensemble; and *Impromptu* (1996) by KölnMusik for the 'Schubert Anniversary Year 1997,' dedicated to Irena Grafenauer and Gidon Kremer.

the best and most prestigious concert venues in the United States.²⁸³ Immediately after the premiere, both musicians, recognizing the technical and interpretational challenges of the work, appeared to be both satisfied and relieved.²⁸⁴ In 2015, Chicago-based journalist Lester Jacobson, apparently recalling the conversations with his former viola teacher Milton Preves (at the time, the retired principal violist of the CSO), remarks that during the rehearsals some of the orchestra members were neither receptive nor enthralled by Gubaidulina's music, calling it the "latest viola joke."²⁸⁵ The composer, who was in attendance at the premiere, seemed to be pleased with the result, however, and enjoyed, according to von Rhein, the "warmly positive reaction" of the audience.²⁸⁶ Also pleased were the city's main music critic and the CSO's president, Henry Fogel. The former called the concerto "a masterpiece of the late twentieth-century – a major addition to the all-too-slim repertory of modern viola concertos."²⁸⁷ The latter hailed

²⁸³ Refer to the concert review by a distinguished classical music critic of *The Chicago Tribune*, John von Rhein, "Chicago Symphony: Gubaidulina Viola Concerto (premiere): The Record Connoisseur's Magazine," *American Record Guide* 60, no. 4, *Music and Performing Arts Collection* (July/August 1997): 44, <https://www.proquest.com/docview/223404856?parentSessionId=3hlakQ%2BmlKSnd1hM3%2FWLVICYPi2RlsUch5kbDFhpeUQ%3D&pq-origsite=primo&accountid=15182>.

²⁸⁴ Bashmet, for instance, confessed that Gubaidulina's concerto was a "difficult piece" and that he was "a little nervous" because of a lack of practice due to the numerous performing engagements. See Lester Jacobson, "Bashmet Premieres New Viola Concerto by Gubaidulina," *Journal of the American Viola Society* 13, no. 2 (1997): 73, <https://americanviolasociety.org/wp-content/uploads/2022/02/JAVS-13.2.pdf>. Nagano described the special challenges of conducting Gubaidulina's work as those relating to the composer's "very personal aesthetic and understanding of how her music should sound." "Sofia Gubaidulina: Her Life and Music: Her Collaborations," Boosey and Hawkes, March 2020. Accessible online at <https://www.boosey.com/cr/news/Sofia-Gubaidulina-Her-Life-and-Music/101560#:~:text=Kent%20Nagano%20describes%20conducting%20Gubaidulina%27s,carefully%20is%20a%20special%20challenge.%22>.

²⁸⁵ Jacobson, "Bashmet Premieres New Viola Concerto," 73.

²⁸⁶ Von Rhein, "Chicago Symphony: Gubaidulina Viola Concerto," 44.

²⁸⁷ Von Rhein, 44.

Gubaidulina's work as "deeply moving, extremely dramatic and virtuosic [...]; a major addition to the viola repertoire."²⁸⁸

A few days after the Chicago premiere, the work was presented in Boston where Bashmet played it with the Boston Symphony Orchestra conducted by Bernard Haitink.²⁸⁹ In July of that year, the concerto's European premiere took place at the BBC Proms concert at the Royal Albert Hall in London. Playing with Nagano once again, Bashmet's rendering of Gubaidulina's score was welcomed as "moving and impressive."²⁹⁰ Following many other North American and European performances, the Russian premiere of the Viola Concerto at the concert hall of the freshly rebuilt Moscow Cathedral of Christ the Saviour was aptly timed to celebrate Gubaidulina's 70th anniversary. In a nascent Muscovite fashion of the early aughts, the grand show at the symbolic temple of national glory with Bashmet and Valery Gergiev, conducting the Mariinsky Theatre Orchestra, was likely deemed very fitting for the composer, who was declared a Russian national treasure²⁹¹ (albeit far removed from her no longer existing homeland [USSR])

²⁸⁸ Jacobson, 73.

²⁸⁹ Refer to the BSO archives: Performance History Search at <https://archives.bso.org/Search.aspx?searchType=Performance&StartTime=04/23/1997&EndTime=04/23/1997>. Also mentioned in Kurtz, 237.

²⁹⁰ See Annette Morreau, "Proms: Gubaidulina Viola Concerto, European premiere Royal Albert Hall, London/Radio 3," *The Independent*, July 30, 1997, para 4, <https://www.independent.co.uk/arts-entertainment/proms-gubaidulina-viola-concerto-european-premiere-royal-albert-hall-london-radio-3-1253447.html>.

²⁹¹ The official website of the Kremlin contains the text of a telegram (dated October 24, 2001) from the newly-elected Russian President, Vladimir Putin, congratulating the composer on her 70th birthday (in Russian). Accessible online at <http://www.kremlin.ru/events/president/news/40547>.

As it happens, prior to the full-scale military invasion of Ukraine on February 24, 2022, Gubaidulina had expressed a rather disconcerting (for a composer residing in Germany since 1991) appreciation for Putin and his politics. For instance, in her 2017 interview for the pro-Putin Russian World Foundation (Russkiy Mir), Gubaidulina's narrative revolves around one of the main postulates of Russian propaganda, namely, the depreciation of Western cultural values. She says, for instance: "In most recent events, Russia offered alimentary aid to Eastern Ukraine so that people there wouldn't die of hunger. I think this fact will be recorded in the annals of history: a state forbids giving a piece of bread to the hungry. This is a fact that one cannot imagine, and this follows from a doctrine that considers itself to be devoted to Western values. And are those Western values? Then, I have great doubt about Western values [...]. And when a truce is offered by the Russian president, no less, and this is happening, there is at least

as she had emigrated to Germany nearly a decade earlier).²⁹² In the 2000 interview with Michael Kurtz, the soloist of this truly remarkable artistic duo which delivered several European premieres of Gubaidulina's new work prior to its Moscow performance, acknowledged that he enjoyed immensely his collaboration since Gergiev "has the same fire, the same "wild" temperament" and has been tremendously gifted in finding "something new in her [Gubaidulina's] music that he [Gergiev] or she likes to bring out."²⁹³ Today it is pertinent to note that owing to Bashmet's and Gergiev's wild temperaments or, more likely, because of their tremendous giftedness in the collaborative performance with Putin's regime, their artistic activities undertaken within the first two decades of the new millennium have become yet another example of a harmonious blending of musical genius and villainy.²⁹⁴ Be that as it may, in

hope... In response we are seeing another round of stricter sanctions." See Sofia Gubaidulina, "I Care about Universal Human Values, Not Eastern or Western Values," *Russkiy Mir Foundation* December 23, 2017, <https://russkiymir.ru/en/publications/235491/>.

It must be noted, however, that since the early 2000s, the composer has experienced a series of personal losses (the death of her daughter in 2004, her husband in 2006, and her close friend Viktor Suslin in 2012). These events left her extremely vulnerable and, perhaps, naively susceptible to the material world around her. Much of her sentiment in this interview mirrors the long-standing dictums of Russian state propaganda, emphasizing conservative values, nostalgia for the empire, a distinction between Russia and the West, and outlining Russia's 'special path.'

²⁹² Incidentally, the year 2001 also marked the 70th anniversary of the infamous 1931 demolition of the very same cathedral by the Soviet Stalinist regime. For the brief history of the Moscow Cathedral of Christ the Saviour refer to Kathleen E. Smith, "An Old Cathedral for a New Russia: The Symbolic Politics of the Reconstituted Church of Christ the Saviour," *Religion, State & Society* 25, no. 2 (1997): 163-75, <https://www.tandfonline.com/doi/abs/10.1080/09637499708431774>.

²⁹³ Kurtz, 237.

²⁹⁴ For more information on this issue, refer to the Alexei Navalny's team video investigation ("Conductor of Putin's War") into the life and financial crimes of Valery Gergiev, Vladimir Putin's cultural ambassador. Available online (in Russian, with English subtitles) at <https://youtu.be/g9BOyC37JGU>. The latest Anglophone article on the subject published by Alex Ross in *New Yorker* magazine also provides multiple video links including those related to Gergiev/Bashmet campaign ads for Putin 2012 re-election. See Alex Ross, "Valery Gergiev and the Nightmare of Music Under Putin," *The New Yorker*, March 3, 2022, <https://www.newyorker.com/culture/cultural-comment/valery-gergiev-and-the-nightmare-of-music-under-putin>.

The 2014 blog by Peter Culshaw is one of more informal sources presenting the subject matter that has been covered intermittently in the international social media during the last two decades. See Peter Culshaw, "Vodka, Groupies, and Private Jets: Partying with Classical Musicians is Cooler than Hanging Out with Rock Stars," *Noisey: Music by Vice*, October 6, 2014, <https://www.vice.com/en/article/rk4qe6/vodka-groupies-and-private-jets-why-classical-musicians-are-more-hardcore-than-rock-stars>.

On December 1, 2023 Mr. Gergiev has been appointed General Director of Moscow's Bolshoi Theatre and the co-chairman of the Union of Theatre Workers of Russian Federation. Currently, he holds these positions alongside his current

the year 2002, the two charismatic maestros *sans frontières*, who seemed to be doing everything, everywhere all at once,²⁹⁵ produced their first record with the Deutsche Grammophon label.

It featured two viola concertos dedicated to Bashmet – *Styx* (1999) by Giya Kancheli and Sofia Gubaidulina's *Concerto for Viola and Orchestra*.

In recent decades, Gubaidulina's concerto has been gaining ground in popularity among the new generation of talented violists born in the 1970s. Among them are a British musician Lawrence Power (b. 1977) and a French virtuoso Antoine Tamestit (b. 1979). Both of them made the work part of their standard repertoire. Owing to their outstanding musicianship and technical brilliance, Gubaidulina's viola masterpiece has remained enthusiastically received by the audiences in the US, Great Britain, Sweden, Spain, Germany, et al.²⁹⁶ In 2015, the second

role as the General Director of another Russia's biggest ballet and opera theatre, the Mariinsky in St Petersburg. Refer to the Bolshoi Theatre official website at <https://bolshoi.ru/en/news/obyavleniya/6664-appointment-2023-12>.

²⁹⁵ In 2002, numerous articles and journalistic press releases in Russia and in the West marveled at the prodigious energy level and the exceptional musicianship of maestro Bashmet. At the time, he was holding a full-time professorship at the Moscow Conservatory and participated in many prestigious classical music festivals such as the 45th Festival Casals in San Juan, Puerto Rico (June, 2001) or Verbier Festival in Switzerland (July, 2002). In addition, he actively toured in Russia and abroad, performing to sold-out audiences with world's best orchestras and conductors (e.g., 2002 Carnegie Hall, London Philharmonic with Kurt Masur). At the same time, he was conducting and playing as a soloist with two of his orchestras: the Moscow Soloists Chamber Orchestra and the New Russia State Symphony Orchestra. Furthermore, he taught numerous viola masterclasses and recorded programs broadcasted by Russian television. See, for instance, the link to Bashmet's 2002 masterclass (in Russian) at the Gnessin Moscow Special School of Music on the *Kultura* TV channel: <https://youtu.be/7Ec5L8zVifA>. The year 2002 also brought Yuri Bashmet the Order of "Merit to the Fatherland III Class" from the President of Russia as well as an appointment to the Presidential Council for Culture and Art. The Kremlin website provides fifty-one search results of the maestro's official interactions with Putin's regime. See <http://www.kremlin.ru/search?query=%D0%91%D0%B0%D1%88%D0%BC%D0%B5%D1%82>.

In March of 2014, Bashmet's *alma mater*, the Lysenko Lviv National Music Academy stripped him of the title of honorary professor after his signing of an open letter supporting Russia's annexation of Crimea. On June 12, 2022 (Russia Day), i.e., less than four months after the beginning of the Russo-Ukrainian War, Yuri Bashmet was awarded the Gold Medal of the Hero of Labor by Vladimir Putin at St. George's Hall of the Grand Kremlin Palace. See <http://www.kremlin.ru/events/president/news/68650/photos>

Currently, all major concert halls around the world have cancelled Bashmet's (and Gergiev's) performances; both men are under EU sanctions. Refer to [https://acf.international/acf-media/Contributors to the war pdf LnBD36C.pdf](https://acf.international/acf-media/Contributors%20to%20the%20war.pdf)

²⁹⁶ During the 2017/2018 concert season, Powers, for instance, played it with at *Berwaldhallen* with the Swedish Radio Symphony Orchestra as well as with the BBC Philharmonic at Salford (UK). His performance with *Orquestra Simfònica de Barcelona i Nacional de Catalunya* is available on YouTube at <https://youtu.be/kBj25KJpmUU>

commercial recording of the concerto was released by the EMCD label featuring Antoine Tamestit and the *Junge Deutsche Philharmonie* conducted by Jonathan Nott.²⁹⁷ Tamestit's most recent performances include those at the *Concertgebouw*, Amsterdam, Netherlands (April 24, 25, and 28, 2024),²⁹⁸ as well as at the Lincoln Center for the Performing Arts on May 24, 2024. The violist performed under the baton of the current music director of the New York Philharmonic, Jaap van Zweden.²⁹⁹ Lawrence Power delivered Gubaidulina's work on February 23, 2024 at the Herkulesaal der Residenz, München, Germany with the Symphonieorchester des Bayerischen Rundfunks, led by a young British conductor, Duncan Ward (b. 1989).³⁰⁰

Presently, despite ongoing interest in Gubaidulina's Viola Concerto from the viola virtuosos and concert-goers alike, the work has not yet been given due consideration in international musicological discourse. Aside from occasional brief mentions, predominantly in DMA dissertations written by viola players,³⁰¹ the only article that attempts to provide a formal structural analysis was published in 2017 by Irina Basharova (in Russian).³⁰² Basharova's paper is somewhat based on the composer's own annotation to the concerto written in 1996 and

²⁹⁷ This recording is currently available on YouTube at <https://youtu.be/tklvXU6Ibng>.

²⁹⁸ Refer to the Boosey & Hawkes official website: https://www.boosey.com/cr/calendar/perf_results?musicid=15298.

²⁹⁹ Refer to the New York Philharmonic 2023/2024 events at <https://nyphil.org/about-us/artists/antoine-tamestit/upcoming-2223-performances>.

³⁰⁰ Refer to the Boosey & Hawkes official website: https://www.boosey.com/cr/calendar/perf_results?musicid=15298.

³⁰¹ See, for instance, Jordan Warmath, "The Contemporary Revolution – Evolution of Viola Repertoire" (DMA diss., University of California, Santa Barbara, 2017), https://escholarship.org/content/qt8wb9x9rw/qt8wb9x9rw_noSplash_38660928306609fdaccfb33eaffd4ae.pdf.

³⁰² See Irina Basharova, "Konzert dlya al'ta s orkestrom Sofii Gubaidulinoi: ot konceptzii mikrotonov k zvukoobrazu mira" [Sofia Gubaidulina's Concerto for Viola and Orchestra: from the Concept of Microtones to the Sound Image of the World], *Music Academy* 4 (2017): 32-39, <https://mus.academy/articles/kontsert-dlya-alta-s-orkestrom-sofii-gubaidulinoi-ot-kontseptsii-mikrotonov-k-zvukoobrazu-mira?ysclid=margsmkvag478617515>.

published in the second edition of Valentina Kholopova's monograph.³⁰³ To amend any ambiguities of multiple abridged versions of English translations available online, the original text (in Russian) and its translation are presented below.

Концерт для альты с оркестром (1996)

Сочинение посвящено великому альтисту нашего времени – Юрию Башмету. Исполнителю, который обладает удивительным богатством красок и громадным диапазоном эмоциональных состояний – от крайней экспрессии до глубочайшей мистики звука.

Но сочинение посвящалось не только исполнителю, но и его инструменту.

Особая таинственность и приглушенность тембра альты всегда была для меня некоей акустической загадкой и предметом восторга. Именно это свойство альты побудило меня включить в исполнительский состав еще один персонаж, который создавал бы отличное от оркестрового, совершенно другое звуковое пространство — солирующий струнный квартет, настроенный на $\frac{1}{4}$ тона ниже, с тем, чтобы солирующий альт мог время от времени погружаться в тень этого второго пространства и затем вновь возвращаться к более светлому (то есть настроенному на $\frac{1}{4}$ тона выше) пространству оркестра: переход из одного, как бы реального пространства, в другое — виртуальное.

Для этого я выбрала очень простые интервальные соотношения: малая секунда в одном из этих пространств превращается в большую секунду в другом при противоположном движении голосов на $\frac{1}{4}$ тона; большая секунда превращается в малую терцию; малая терция — в большую терцию; тритон — в чистую квинту.

Это соединение интервальных пар приводит музыкальную ткань оркестра в вибрирующее, иногда в мерцающее, а иногда в огненное состояние. И как следствие этой вибрации возникает определенная ритмическая фигура, которая затем несколько раз повторяется и отчленяет разделы формы: вступление, двойная

Concerto for Viola and Orchestra (1996)

The composition is dedicated to the great violist of our times – Yuri Bashmet, a performer who possesses an astonishing richness of colours and an enormous range of emotional states – from extreme expression to the most profound mysticism of sound.

However, this work was dedicated not only to the performer, but also to his instrument.

The peculiar mysteriousness and hushed quality of the viola's timbre has always been something of an acoustic enigma to me, and an object of delight. It was precisely this attribute of the viola that led me to include one additional personage in the list of instruments that would create a contrasting and completely different sound dimension from that of the orchestra – a solo string quartet tuned a $\frac{1}{4}$ tone lower. Every now and then, this allows the solo viola to slip into the shadow of this second dimension and then, to return once again to the brighter dimension of the orchestra (i.e., the one tuned a $\frac{1}{4}$ tone higher): the transition from one, real dimension, as it were to another – virtual one.

To accomplish this, I chose very simple intervallic relationships: a minor second in one of these dimensions transforms into a major second as the two parts move $\frac{1}{4}$ tone in contrary motion; a major second, thus, turns into a minor third; a minor third – into a major third; a tritone – into a perfect fifth.

This combination of intervallic pairs brings the orchestral texture into a state of vibration which sometimes resembles shimmering and sometimes a bright flame. As a result of this vibration, a distinct rhythmic figure emerges; it then repeats itself several times and delineates the sections of the form: introduction, double exposition, development (consisting of 3 episodes), and coda. There are seven

³⁰³ Kholopova (2008), 316.

экспозиция, разработка, состоящая из трех
эпизодов, и кода — всего 7 разделов.

sections in all.

16.11.1996

16.11.1996

Another peculiar piece of information coming from the composer herself concerns the addition of three Wagner tubas to the instrumentation of the concerto. In her pre-concert talk preceding the Chicago premiere,³⁰⁴ Gubaidulina noted that she had been keenly aware of the superb quality of the CSO's brass section and took the opportunity to explore new timbral combinations.³⁰⁵ An impressive list of brass instruments utilized in the concerto includes three French horns in F doubling three Wagner tubas (the first and second playing two tenor tubas in B $\flat$, the third playing bass tuba in F), three trumpets (the first and second in B $\flat$, the third in E $\flat$), two trombones, bass trombone, and contrabass tuba. Equally large is the concerto's percussion section. It requires five percussionists to play eleven instruments.³⁰⁶ The otherwise standard woodwind section prominently features another of Gubaidulina's favored instrumental timbres: the flute. In addition to three standard flutes and piccolo, the score calls for the alto and bass flutes.³⁰⁷ The keyboard section of the *Viola Concerto* presents yet another of Gubaidulina's best-

³⁰⁴ Mentioned in Kurtz, 236.

³⁰⁵ It appears that the timbre of Wagner tubas became one of the composer's favorites after their initial usage in the *Viola Concerto*. She utilized both tenor and bass varieties of the instrument in many concerted and orchestral works written after 1996; e.g., *three Wagner tubas in Johannes-Passion* (2000) and *Johannes-Ostern* (2001), *The Rider on the White Horse* (2002), the second Violin Concerto *In Tempus Praesens* (2007); two Wagner tubas in the *Glorious Percussion* concerto (2008); four Wagner tubas in *O Komm, Heiliger Geist* (2015), *Über Liebe und Hass* (2015/2018), and in *Der Zorn Gottes* (2019).

³⁰⁶ The percussion instruments listed on the Instrumentation page of the score include timpani, bass drum, suspended cymbals, tam-tam, vibraphone, marimba, xylophone, tubular bells, glockenspiel, crotales and finger cymbals.

³⁰⁷ Various non-standard flutes have attracted Gubaidulina's attention since the 1970s. Among her works including this type of instruments are *Quartet for Four Flutes* (1977); her first flute concerto *Music for Flute, Strings and Percussion* (1994); *Impromptu* (1996); concerto for two violas *Two Paths* (1998); koto concerto *Im Schatten des Baumes* (1998); *Feast During a Plague* (2005); *Warum?* (2014) et al.

loved timbral combinations, that is piano, celesta, and cembalo (amplified).³⁰⁸ Remarkably, the addition of the scordatura string quartet³⁰⁹ to the strings section of the score marks the composer's first extensive use of microtonality in an orchestral work.³¹⁰ Further, Gubaidulina's idea of a dramatic interplay between the 'light' and the 'shadow' or the 'real' and 'virtual' dimensions, perceived as symbiotically interrelated through the use of 24-tone equal temperament, is very similar to that of a mastermind behind this manifold artistic quest – Sofia's close friend and colleague, Victor Suslin.³¹¹ With regard to the microtonal conception of the *Viola Concerto*, the importance of the Gubaidulina-Suslin connection cannot be overstated. The first sketches³¹² of the work were created soon after her emigration to Germany where she and Suslin became neighbours in Appen-Unterglinde, a small village near Hamburg.³¹³ One can say that Gubaidulina's juxtaposition of microtonal 'shadow' and twelve-tone 'light' originates from Victor Suslin's symbolic "[wandering] around in a 'diatonic land beyond the looking-glass', before returning to our 'sinful', well-tempered earth" in his *Grenzübertritt* [Crossing Beyond] for

³⁰⁸ The composer used this keyboard "trio" in *Stuffen* (1972/1986/1992); *Pro et Contra* (1989); *Alleluja* (1990); both the second and the third cello concertos: *Aus dem Stundenbuch* (1991) and *And: The Festivities at Their Height* (1993); her second flute concerto *The Deceitful Face of Hope and of Despair* (2005); and her third violin concerto *In Tempus Praesens* (2007).

³⁰⁹ The quartet is unconventionally scored for violin, viola, cello, and double bass.

³¹⁰ Several of Gubaidulina's works written in the 1990s and beyond feature comprehensive symbolic plots based on the relationship between the 12-tone and 24-tone musical space; e.g., *Music for Flute Strings and Percussion* (1994); *Quaternion* for four cellos (1996); koto concerto *Im Schatten des Baumes* (1998); *Risonanza* for three trumpets, four trombones, organ, and six string instruments (2001). Among other examples are a brief episode of retuning the cello's C string in *Sonnengesang* (1997) and piano scordatura in the *Fantasia on the Theme of S-H-E-A* (2008) for two pianos (Piano II is pitched a quarter-tone lower than Piano I).

³¹¹ See Valentina Kholopova, "Muzyka Sofii Gubaidulinoi: mikrotony vysotnosti i velichie smysla" [Sofia Gubaidulina's Music: Concept of Microtones and Greatness of Meaning], *Muzykal'naya Akademiya* [Music Academy] 2 (2005): 34-40, <https://mus.academy/articles/muzyka-sofii-gubaidulinoi-mikrotony-vysotnosti-i-velichie-smysla?ysclid=marh9b9oxj987335775>.

³¹² Paul Sacher Stiftung (Basel). Sofia Gubaidulina Collection. *Concerto for Viola and Orchestra*. Drafts.

³¹³ Kurtz, 222.

viola, cello, and double bass, composed in 1990.³¹⁴ With regard to re-inventing the ‘traditional’ Classical/Romantic concerto form in the *Viola Concerto* (1996), Suslin’s ‘crossing beyond’ is transformed by Gubaidulina into a convergence of the ‘light’ and the ‘shadow.’ Realized as a combination of intervallic pairs in which smaller intervals become a semitone larger as a result of their quarter-tone expansion in opposite directions, this merger, in the composer’s terms, is accompanied by a “distinct rhythmic figure” that serves as a divider amongst the seven sections of the work. To map out these sections, the following portion of the text aims, firstly, to detect the areas of “shimmering” or/and “fire” accompanied by corresponding intervallic transformations; and secondly, to identify the recurring “rhythmic figure” delineating these sections.

Formal Design of the *Concerto for Viola and Orchestra* (1996)

The analysis of the score, confirmed by the markings in Gubaidulina’s compositional drafts,³¹⁵ reveals the delineation of the sections as follows:

FIGURE 8: Delineation of the *Viola Concerto* sections

Form as identified by the composer	Introduction	Double Exposition		Development			Coda
Section Number	1	2	3	4	5	6	7
Section name	Introduction	Orchestral Exposition	Solo Exposition	Episode 1	Episode 2	Episode 3	Coda

³¹⁴ Refer to Suslin’s description of his work as cited in Tatjana Frumkis, “Across the Borders” (BIS Records AB 2146, 2014): 7. Compact disc, liner notes, https://www.eclassical.com/shop/17115/art80/4866880-1fbe05-BIS-2146_booklet.pdf.

The recording of Suslin’s *Grenzübertritt* can be accessed on YouTube at https://youtu.be/_0o6I_KyyTI.

³¹⁵ Paul Sacher Foundation (Basel). Sofia Gubaidulina Collection. *Concerto for Viola and Orchestra*. Drafts.

Composer's marking in the drafts	N/A	Episode 1	Episode 2	Episode 3	Episode 4	Episode 5	"Kontsovká" (Ending)
Rehearsal Number (RN)	Up to RN 1	RNs 2–18	RNs 19–33	RNs 34–53	RNs 54–93	RNs 94–148	RN 149–54

The first example of the convergence of 'light' and 'shadow' presents itself at the end of the Introduction. The solo viola's soft trill-like repetition of the high overtones of D and E $\flat$ (minor second) becomes slightly agitated in the first measure of RN 1, even as *tremolando* and a slow *glissando* from one overtone to the next is accompanied by both *crescendo* and a gradual movement of the bow to the bridge. At its loudest point (RN 1, m. 2), the viola's 'light' meets the 'shadow' when the *sfp tremolo* of a major second (*D -*E)³¹⁶ appears in the same register in the harmonics of the violin and viola of the scordatura string quartet. As noted by several Gubaidulina scholars,³¹⁷ such a change of the sound production method in the strings (from *ordinario* to *sul ponticello*) has often been associated with a certain symbolic gesture. The physical repositioning of the bow (nearing the bridge, that is, literally, a place of crossing from one area to another) becomes, in Gubaidulina's musical terms, the locus of acoustic slipping into

³¹⁶ The asterisk symbol is used to indicate the scordatura pitches.

³¹⁷ See, for example, Valentina Kholopova, "Symbolik in der Musik Sofia Gubaidulinas," in *Symbol die Suche nach dem Spirituellen in der sinnlichen Erscheinung*. Dornach, Switzerland: Sonderbeilage der Wochenschrift "Das Goetheanum." 2/22 (Mai 1999): 35-42; Dorothea Redepenning, "Symbole und Symbolisches in Sofia Gubaidulinas religiös inspirierten Werken, insbesondere in *De profundis*," *Symbol die Suche nach dem Spirituellen in der sinnlichen Erscheinung*, Sonderbeilage der Wochenschrift "Das Goetheanum" 2 no. 22 (Mai 1999): 49-58; Among most recent Anglophone studies touching upon this subject see, for instance, Caroline M. Askew, "Sources of Inspiration in the Music of Sofia Gubaidulina: Compositional Aesthetics and Procedures" (PhD diss., University of Huddersfield, 2002); Julia A. Biber, "Ten Études for Solo Cello by Sofia Gubaidulina" (DMA diss., City University of New York, 2016); Noah Kahrs, "Consonance, Dissonance, and Formal Proportions in Two Works by Sofia Gubaidulina," *MTO The Journal for the Society for Music Theory* 26, no. 2 (September 2020), <https://mtosmt.org/issues/mto.20.26.2/mto.20.26.2.kahrs.html>.

the ‘second dimension’; i.e., from the bright earthly twelve-tone space to the shadowy celestial realm of micro-chromaticism. As the two dimensions meet, the minor second is ‘transformed’ into a major one: *D-D-E $\flat$ -*E. Starting in m. 4 (RN 1), the “rhythmic figure” announcing the end of the Introduction is tapped out by the crotales. Their pellucid sound floats in the musical space of seven bars filled with prolonged rests. Refer to Example 16 below.

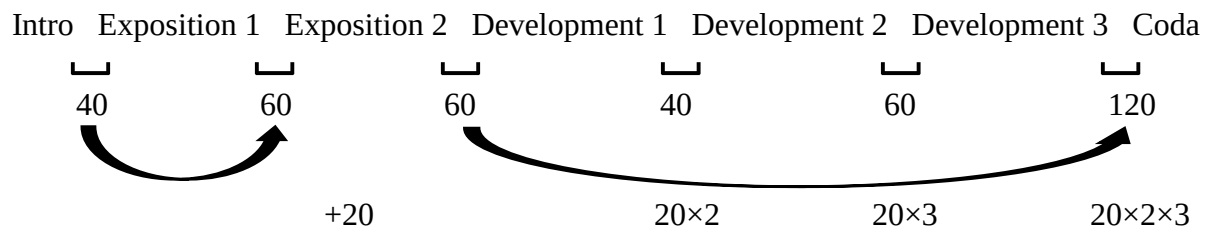
EXAMPLE 16: *Viola Concerto*: intervallic transformation and the “rhythmic figure” at the end of the Introduction, RN 1

The musical score for Example 16 shows the end of the Introduction of the Viola Concerto. It includes staves for Percussion (Perc.), Cymbals (Cimbal), Viola (V-la), and Viola Soli (V-la Sola). The percussion part features a rhythmic figure in the crotales. The Viola part has a melodic line with a 3/4 time signature. The Viola Soli part has a melodic line with a 3/4 time signature. The score is marked with dynamics such as p, sf, and pp.

The subsequent transitions from one section to the next develop the original model described above. True to her preferred method of developing musical ideas, the composer applies the principle of variation to all constituent elements of the orchestral texture – the duration of the transitions and their instrumentation, the type of intervals and the number of intervallic pairs as well as the rhythm, the arrangement and the situating of the dividing rhythmic figure dubbed

“rhythmic theme” (“*ritmo-tema*”) in Gubaidulina’s drafts. For instance, the intensity of the transitions increases from one section of the form to the next (i.e., the introduction to the exposition, the exposition(s) to the development, the development to the coda) with regard to their duration and the number of instruments involved. As these transitioning episodes include both unmeasured and measured sections with various time signatures, their outward length in the score appears to be rather haphazard. However, when measured in microbeats rounded to the nearest tenth, the continuance of these episodes creates a harmonious pattern of gradual increases by multiples of twenty.³¹⁸

FIGURE 9: *Viola Concerto*: duration of the transition section in microbeats.



The idea of growth can also be observed with respect to the increasing number of orchestral timbres and players partaking in the subsequent transitioning episodes. Refer to Figure 10 below.

FIGURE 10: *Viola Concerto*: full list of instruments in transitioning episodes 1-6³¹⁹

Transition Number	List of partaking instruments	Total number of orchestral parts
1	V-la sola; V-no (Q); V-la (Q); Dita-cimbali; Cimbali antichi	5

³¹⁸ The explication of these calculations is provided in Appendix 8.

³¹⁹ Gubaidulina’s notation and abbreviations for the instruments (in Italian) are retained in this table. The instruments are listed in order of their appearance in each of the corresponding episodes.

2	V-la sola; Cl; V-no (Q); V-la (Q); V-c (Q); C-b (Q); Cel; V-ni I; V-ni II; V-le; V-c; Dita-cimbali; Cimbali antichi	13
3	V-la sola; V-la (Q); V-c (Q); C-b (Q); V-le; V-c; C-b; Dita-cimbali; Camp	9
4	Dita-cimbali; Cimbali antichi; Campanelli; Triangolo; V-no (Q); V-la (Q); V-c (Q); C-b (Q); Cel; V-ni I div. a 2 (solo 1, solo 2); V-ni II div. a 3; V-le div. a 2; Fl. 1, 3, and 4; V-la sola	20
5	V-la sola; V-no (Q); V-la (Q); V-c (Q); C-b (Q); Campane; P-tti sosp.; 3 Tr-be; 3 Tr-ni; V-le div. a 2; V-c div a 2; C-b div. a 2; Timpani	20
6	V-la sola; Dita-cimbali; Camp; G.C.; V-la (Q); V-c (Q); V-le; 5 V-c soli; 5 C-b soli; Tam-tam; W-Tube 1, 2, and 3; Tuba	22

In addition, the composer's conception of the intensity of 'vibration' appears to undergo a continuous register-related descent from the light 'shimmering' associated with high and clear timbres (e.g., sting harmonics, celesta, finger and antique cymbals) to the 'bright flame' correlated with the use of the lower registers of strings, the brass (e.g., trumpets, trombones, and Wagner tubas), as well as percussion (e.g., tubular bells, timpani, and bass drum).

The twofold process of concurrent growth and descent receives yet another interpretation with respect to the intervallic pair transformations within the subsequent transitioning episodes. As the work progresses, the number of these intervallic pairs tends to increase while their registral position tends to shift down. For instance, the second transitioning episode (RNs 16-18) features a series of perfect unisons and two tritones changing into minor seconds and perfect fifths, respectively; transition four is based on the transformations of a tritone, a perfect fifth, a minor sixth, a major seventh, and the corresponding inversions thereof. Remarkably, starting from the third transition leading into a Development, the next large conceptual section of a form, Gubaidulina introduces a new type of intervallic transformation where an interval becomes larger not by expanding outwards but rather by shifting down in quarter-tone increments. For instance, in RN 33, a minor second (D-E $\flat$) transforms as following: *C $\sharp$ - *D - D - *E $\flat$ - E $\flat$. This procedure is reintroduced in the fourth transition in the form of a quarter-tone 'shadow' cast over

a five-pitch sonority in celesta (G-D-A-D $\sharp$ -B) doubled by strings and campanelli (RN 51); it appears in Gubaidulina's drafts as a "thematic chord." Its two versions (the second one appearing in celesta in RN 52) create a series of chord-derived intervals doubled by their microtonal shadows, executed by the scordatura string quartet. In the final transition to the Coda (RNs 138–44), the composer brings in both types of intervallic transformations – those created by contrary motion and by direct descending motion.³²⁰

The combinatory procedures used by Gubaidulina in structuring the successive intervallic transformations bear a striking resemblance to the Schoenbergian technique of developing variation.³²¹ This *modus operandi* becomes reconceived once again when applied to the elemental "distinct rhythmic figure" emerging "as a result" of sonic vibrations. The three basic elements of this "rhythmic theme" – repetition, pitch and percussive timbre – undergo their own transformations as the musical space unfolds. Thus, the original idea presented in finger cymbals and crotales (refer to Example 16) is restated in the next two transitions featuring the same minor second, D-E $\flat$. Yet in its second appearance, instead of sounding alone, it is laid over a gradually disappearing quarter-tone shadow of a perfect fifth (*E $\flat$ -*B $\flat$) in the quartet's violin and viola. In the third transition, the unchanged rhythmic figure is delivered by the tubular bells three octaves lower. In addition, it is carried on simultaneously (rather than at the end) with the intervallic transformation of the minor second which becomes major by a downward quarter-tone shifting. In contrast to the predominantly external nature of the changes to the "rhythmic theme" in the

³²⁰ For more detail refer to Appendix 9. It provides a full list of intervallic transformations in the concerto's six transitioning episodes.

³²¹ The most coherent and succinct exposition of Schoenberg's ideas of developing variation can be found in Walter Frisch, *Brahms and the Principle of Developing Variation* (University of California Press, 1984), 1-18.

first three transitions, its modifications in the following episodes are largely internal. In other words, all of its primary elements – pitch, type of rhythmic figure repeated, and the timbral colour – vary significantly from one appearance to the next. For instance, a minor second as an interval associated with the section-delineating rhythmic figure remains in place, yet it is different in each of the last three transitions. Further, these harmonic changes are accompanied by a constantly varying thickness of percussive timbres as well as by an alteration of the theme’s rhythmic configuration. In the fourth transition, the latter becomes more intricate and multilayered with elements of simultaneous rhythmic augmentation (in celesta) and diminution (in antique cymbals); these are accompanied by the ostinato quintuplet (in tubular bells). In transition five, the only recognizable feature of the “rhythmic theme” is audible as an unpitched ostinato figure in the suspended cymbal (RN 93), joined (in m. 4) by a repeated quintuplet in the timpani. In the final transition, the theme blends completely with the concurrent intervallic transformations. It appears in a free augmentation in the finger cymbals and tubular bells (RNs 138–43), followed by unpitched resonant strokes of tam-tam (RN 144). The summary of changes regarding the pitch-content, the formal placement, and the type of percussion used in Gubaidulina’s “*ritmo-tema*” is presented in Figure 11.

FIGURE 11: Summary of changes in the “rhythmic theme” delineating the sections of the *Concerto for Viola and Orchestra*

Transition number	RN mm.	Pitch content	Placement	Percussion used
1	1	D7-Eb7	Following the IT ³²²	Dita-cimbali Cimbali antichi
2	18	D7-Eb7	Overlapping with the end of the IT	Dita-cimbali Cimbali antichi
				Dita-cimbali

³²² IT abbreviation is used for Intervallic Transformation(s).

3	33	D4-E♭4	Simultaneously with the IT	Campanelli
4	51-52	A♯7-B7	Simultaneously with the IT	Dita-cimbali Cimbali antichi Campanelli Triangolo
5	93 from m. 4	Unpitched F2-G♭3	Following the IT	Piatti (sospesi) Timpani
6	138-143 144	C♯4-D4 Unpitched Unpitched	Simultaneously with the IT Following the IT	Dita-cimbali Campanelli Gran cassa Tam-tam

With reference to the overall concerto structure, several points made by Irina Basharova are worth mentioning here. The results of her study present a curious phenomenon of heuristic musical analysis in which the composer's conception of "shaping sound matter into a form"³²³ is duly acknowledged and then disregarded in its entirety in order to fit a preconceived model of a concerted sonata form. As a result, the number of sections identified by Basharova amounts to eight. Those are: an introduction (up to RN 1); a double exposition – orchestral (RNs 2–12), its variant (RNs 19–34), and solo (RNs 12–19); three episodes in the development (RNs 34–53, 53–94, 94–138); a "condensed" reprise (RNs 138–53) with the Viola's cadenza (RN 147); and a coda (RN 153).³²⁴ The author provides no justification, comments, or explanation for the constant overlap between the end of one section and the beginning of the next. According to Basharova, the concerto's coda occupies the last six measures of the work. Furthermore, her identification of the transformational intervallic pairs participating in the demarcation of the corresponding

³²³ The phrase is a direct quotation from a short interview with the composer recorded in 2016 (in Russian, with English subtitles) by BBVA Foundation Frontiers of Knowledge Awards, 9th Edition. See Sofia Gubaidulina, "Music is Capable of Approaching Mysteries and Laws Existing in the Cosmos:" Interview with Sofia Gubaidulina by Frontiers of Knowledge Award Laureate in Contemporary Music" (2016), video film, <https://youtu.be/vaT3ksqDsqY>.

³²⁴ The last rehearsal number (154) is left out for an unspecified reason. See Basharova, "Sofia Gubaidulina's Concerto for Viola and Orchestra" (2017): 35.

episodes offers no relation to those identified by the composer with the exception of the first transition in RN 1. For instance, the intervallic transformation of two tritones in RN 17 are labeled as those occurring at the end of the “second exposition,” while those occurring in RN 26 belong to the “variant” of the first exposition, etc.³²⁵ Thus, the most striking and apparently deliberate feature of Basharova’s analysis, which is an absence of any consideration to the composer-stated “rhythmic figure” delineating the sections of the form, results in the grand structural befuddlement amplified by a lack of musical examples, as well as a paucity of accurate score references to the particular melodic ideas, i.e., the concerto’s themes as identified by the author.³²⁶ Summarized from their rather haphazard appearances in Basharova’s text, they emerge as following: firstly, the “main theme of the strings” (RN 2); secondly, the “main theme of viola [sola] (RNs 3–12); thirdly, the bass flute “motif of sorrow” (RN 6); and finally, the “pendulum-clock” theme (RN 1) – a fortuitous nod to Gubaidulina’s “rhythmic theme.”³²⁷ With regard to the overall pitch content of the first theme (B-C-D-E $\flat$), the author aptly notes its similarities to both Shostakovich’s monogram and one of J.S. Bach’s famous cross motives coming from the C-

³²⁵ Ibid., 33.

³²⁶ The examples of such inconsistencies are numerous. See, for instance, the first five short paragraphs on page 37 discussing the thematic transformations in the “condensed reprise.” The author states the “main theme” of the viola sola (apparently referring to RN 3?) reappears in the three Wagner tubas and the contrabass tuba in RN 144 (no melodic or rhythmic connection, however transformed, is present); or, yet another “main theme” of the strings reappears in RN 148 which, in fact, is the last RN of the viola’s cadenza. Further, Basharova’s statement regarding the link of an exposition (unspecified which one – the first or the second, or both?) of Gubaidulina’s concerted sonata form with the fugue (p. 36) receives no explanation aside from labeling the four-pitch motif of the bass flute in RN 6 as the “countersubjects” of the opening theme in the strings. The latter is frequently referred to as a “ritornello” theme which brings in certain indeterminate allusions to the Baroque form of a concerto grosso/solo. See Basharova, “Sofia Gubaidulina’s Concerto for Viola and Orchestra,” 35-37.

³²⁷ Ibid., 35-37.

sharp minor fugue of the first book of the Well-Tempered Clavier (C♯-B♯-E-D♯).³²⁸ Taking the notion of the musical symbol of the cross further, we must add that all recurring melodic ideas of the *Viola Concerto* realize a metaphorical symbol of the crucifix. All of them are comprised of *four* notes shaping or capable of shaping a cruciform and thereby corroborating one of the composer's most peculiar statements: "[...] almost all of my compositions are variations on the theme of the cross."³²⁹

Viola Concerto's Themes and the Idea of the Cross

In the *Viola Concerto*, the presence of multiple cross-realizing melodic and motivic combinations results in the transformation of the idea itself into a "macro- or super-theme" governing the entire composition.³³⁰ At the beginning of the work, its metaphorical multiplicity within unity materializes in a rather transparent fashion; that is, the pitch content of the openings of all five themes – the introduction, the transitioning rhythmic theme, the theme of the strings, the viola's

³²⁸ For more examples of Bach's cross motives see, for instance, Hye Eun Yoo, "J. S. Bach's WTC Book I Prelude and Fugue in B-flat Minor BWV 867: An Analysis and Study of Related Works" (DMA diss., Arizona State University, 2020), https://keep.lib.asu.edu/flysystem/fedora/c7/224664/Yoo_asu_0010E_19957.pdf.

³²⁹ See Sofia Gubaidulina, "Traveling in an Imaginary Space: Meeting with Students and Teachers of the Moscow Conservatory," *Tribune of a Young Journalist* 1 [*Tribuna molodogo zhurnalista* 1] (2011), <https://tribuna.mosconsv.ru/?p=1950>.

³³⁰ The notion of "macro-themes," alternatively termed "super-themes" or "dramaturgical themes," was introduced in the late 1970s by a Soviet music theorist Viktor Bobrovsky (1906–1979). He presents it as a multifaceted idea that stretches throughout an entire work thereby generating the formal structure of the piece. See Viktor Bobrovsky, *Funktsional'nye osnovy muzykal'noi formy* [The Functional Bases of Musical Form] (Muzyka, 1978) and *Tematizm Kak Faktor Muzykal'nogo Myshleniya: Ocherki* [Thematicism as a Factor in Musical Thinking: Essays] (Muzyka, 1990), published posthumously in two volumes). Tatiana Kyuregian notes that at the time, Bobrovsky, a prominent specialist in the works of Shostakovich, also supported the younger generation of Soviet composers, Sofia Gubaidulina among them. See Tatiana Kyuregian, "Bobrovsky, Viktor Petrovich," in *Grove Music Online. Oxford Music Online*, <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.48249>.

theme, and the theme of the bass flute in the second exposition – is contained within a single five-pitch chromatic gamut: B-C-C $\sharp$ -D-E $\flat$. At the same time, despite the minimal self-imposed pitch resources, the concerto's themes remain easily recognizable as they reappear in different sections of the form.

➤ **The Introduction Theme**

The striking opening monologue of the solo viola, for instance, initiates exploration of the composer's idea "to make something very diverse out of a single note."³³¹ Thus, the sound D ascends five octaves from its lowest position on the viola's C-string to its highest position (D7) on the A string. This unmeasured crescendo movement is marked off by micropauses of different lengths and recommences three times after the appearance of a new sound, E $\flat$. As a single pitch turns into a minor second, the two of them, spelled out in German transliteration (D and Es) produce the opening musical symbol of the work: the first two letters of Dmitry Shostakovich's monogram. See Example 17, below.

³³¹ Cited from Gubaidulina's conversation with Stefan Schickenhaus, "'The Viola is a Completely Different Animal'; Sofia Gubaidulina: Concerto for Viola and Orchestra," transl. Nick Morgan (EMCD-029, 2015): 18. Compact disc, liner notes.

EXAMPLE 17: *Viola Concerto*: Introduction theme, viola sola



True to her favourite principle of developing musical ideas, Gubaidulina varies the Introduction Theme in all its subsequent returns within the work. These changes pertain to several structural components of the original idea such as its duration, the number of pitches involved, the number and type of “vertical” ascents,³³² as well as the theme’s full range and its timbral surroundings. For instance, the first reappearance of the Introduction Theme in RN 14 features only two octaves-separated ascents of F#; it occupies a range of three octaves (instead of the original five) and concludes with two different minor-second outcries, thus expanding the total pitch content to a three-note chromatic cell, F#-G-Ab. The next version of the theme in RN 69 and RN 72 is preceded by a viola monologue and “interrupted” by a brief return of two other thematic ideas. Here, the first version of the introduction theme spotlights a single ascent of three major

³³² Basharova dubs it “*crescendoing* sonic verticality” which “apparently embodies a dramatic image-emotion.” In Basharova, 34.

sevenths, which creates a full descending cross pattern, G-F $\sharp$ -F $\flat$ -E. In RN 72, the idea of a single ascent in major sevenths persists, yet each time, a new four-note pitch combination forming a cross motive is used: F $\sharp$ -F $\flat$ -E-D $\sharp$ and D $\sharp$ -D $\flat$ -C $\sharp$ -C $\flat$. Momentarily leaping forward to the upcoming discussion of the use of Fibonacci numbers in the *Concerto for Viola and Orchestra*, it is curious to note that when spaced out within a three-and-a-half octave range, the resultant pitch-class set brings the total number of pitches to an abstract range of a perfect *fifth*, or *eight* different pitches (C to G). Unlike all previous appearances of the Introduction Theme, its final return in RNs 138–42 unfolds simultaneously alongside the final set of section-delineating intervallic transformations, i.e., it is accompanied by the resonant sounds of percussion and participating strings. At this time, the thrice-initiated four-octave ascent of C $\sharp$ is consistently quelled by a *fortissimo* of the ensuing minor second, C $\sharp$ -D. Strikingly, the omission of an adjacent minor second allowing to create another cruciform, results in a semantic arch connecting the first and the last “unfinished” cross motives of the concerto’s opening theme.

➤ Theme 1 or the “Prayer Theme”

The next theme appearing at the beginning of the first exposition (RN 2) in the low register of the strings presents a new melodic objectification of the idea of the cross. This time, the theme’s head motive rotates within a B-C-D-E $\flat$ tetrachord, identical to that of Shostakovich’s full motto, DEsCH. Gubaidulina preserves its two-and-a-half-tone range throughout the work.³³³ Irina Basharova describes this theme as an “image of a stern prayer,” reminiscent of “ancient monastic

³³³ Meanwhile, the implicit cruciforms created within the theme of the introduction are consistently restricted to a smaller range of a minor third, thus falling into melodic category of the BACH monogram, another well-known version of a cross motive.

chants performed by a two-part male chorus.” This type of tentative allusion to the sacred chants of the Orthodox Church could hypothetically be extended to the motivic, textural, and harmonic content of Gubaidulina’s melody. Within this frame of reference, the opening theme of the first exposition of Gubaidulina’s *Viola Concerto* invites comparison – or rather, evinces – certain idiosyncrasies of the *Valaam chant*, a unique singing practice developed over the centuries at the Monastery of Valaam located in the area of Russian Karelia.³³⁴ The specific traits of this musical tradition,³³⁵ such as the quality of its timbral colour, its polyphonic (often two-part) texture, and the harmonic underpinnings of its expressive modal melodies, were evidently intimately familiar to composer, who frequently visited the island of Valaam starting from the early 1970s.³³⁶ In Gubaidulina’s theme, the discernible flavour of the Valaam monastic singing is conveyed through a brooding ostinato-like upper melody within the two-part homorhythmic texture. Its bass line,

³³⁴ A recent publication by Finnish scholar Kati Parppei challenges the long-established Russian myths surrounding the venerable and idyllic image of the Monastery of Valaam. See Kati Parppei, *The Oldest One in Russia: The Formation of the Historiographical Image of Valaam Monastery* (Brill, 2011). Available online in the PhD dissertation version (2010) at https://erepo.uef.fi/bitstream/handle/123456789/9548/urn_isbn_978-952-61-0163-7.pdf?sequence=1.

³³⁵ An invaluable compendium of information about various aspects of Valaam Chant (in English) was published by the remarkable Finnish scholar Jopi Harri (1967–2022). See Jopi Harri, “St. Petersburg Court Chant and the Tradition of Eastern Slavic Church Singing,” PhD dissertation, (University of Turku, 2011), 62, 165–83, https://d1wqtxts1xzle7.cloudfront.net/31868004/AnnalesB340Harri.pdf?1378869803=&response-content-disposition=inline%3B+filename%3DSt_Petersburg_Court_Chant_and_the_Tradit.pdf&Expires=1696383171&Signature=gQhYH1tczv7y7nmXj~qU-95SKmGegliWQ~bJEYZn~LZG4KUjjudZIBVeJzo3OGwf9sRBMkEiNG-ibwZnObBptOu0jn4VSMQbJn5QWph0P7wikh9GJ3MTRjha1O~8CS4vW~tPyjXnfzl3mUyx53YygGd9zgfHOXA~mXoEta7lVjFu~HmQmePmEHM7Btr3BVxFCGcXSRtcITDQwz~nTX5jSG~aDLyAWr3ytmtPX0Low~QEtvCLQOx6z~D0hVoCRAzNX6YwcF2FguktwMYmAd~oH8oZSO8mB9m~BYfpwR8E2zVxKeGbEDtaomXI~fX-VQuarHXFCu7vZCeidAPJCxm7g_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA.

³³⁶ The composer mentions her visits to the Monastery of Valaam in many interviews given over the past few decades. In a 2012 interview with Ivan Moody, for instance, she describes it as “a very pure place, full of amazing people, priests and monks.” See Ivan Moody, “‘The space of the soul’: An interview with Sofia Gubaidulina,” *Tempo* 66, no. 259 (2012): 34, <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/95C58610EBB3B180B8D472A16B03BE/S0040298212000046a.pdf/div-class-title-the-space-of-the-soul-an-interview-with-sofia-gubaidulina-div.pdf>.

For additional information regarding Gubaidulina’s visits to the island, see Kurtz, 260–62.

acting as a fluctuating drone (*ison*³³⁷), creates an aura of a minor mode, clearly sounding as C minor to the Western-trained ear. The key is never ‘firmly established’ however, as the successively repeated G and A $\flat$, suggesting Dominant and Submediant functions, receive no ‘resolution.’

EXAMPLE 18: *Viola Concerto*: Theme 1 or the “Prayer” Theme in the strings, RN 2 (mm. 1–6)

Incidentally, the theme’s continuous circling within a narrow range of a diminished fourth, along with the persistent emphasis on the interval of a minor third, sounds somewhat evocative of the familiar opening of Rachmaninov’s Third Piano Concerto, the origins of which have been ascribed to a particular liturgical chant (only to be flatly refuted by the composer).³³⁸ With

³³⁷ In the performance of Byzantine liturgical music, *ison* is the drone-like sustaining of the fundamental note of the mode by some members of the choir, while the other singers chant the melody. See Kenneth Levy and Christian Troelsgård, “Byzantine chant,” *Grove Music Online*. Oxford Music Online, <https://www.oxfordmusiconline-com.ezproxy.library.yorku.ca/grovemusic/display/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000004494#omo-9781561592630-e-0000004494-div1-0000004494.14>.

³³⁸ This musicological enquiry was presented in 1969 by Joseph Yasser, a Russian-American organist and musicologist. Yasser constructs an imposing argument by ostensibly tracing the “subconscious” connections between Rachmaninov’s theme and the old Russian Orthodox chant associated with the words “Thy grave, O Saviour, guarded by warriors,” which was used in the vesper services of the famous Kyiv-Pechersk Lavra, also

respect to Gubaidulina's theme, we must admit that, in the final analysis, the origins of her melody remain the subject of osmosis or, in Igor Stravinsky's terms, the "essentially fluctuating matter" of her compositional process.³³⁹

Throughout the Second Exposition, the melodic contour of the theme remains unchanged; however, the number of parts involved in its harmonization fluctuates intermittently between two to four. This results in a thicker texture and, oftentimes, a tarter harmony. For instance, the first 'split' of the parts of the first and second violins (RN 19, m. 2)³⁴⁰ creates an added minor second below the top note of a perfect fifth: $A\flat$  $E\flat$. The following change in the part of second violins (RN 19, mm. 2–3) echoes the earlier use of the 'empty-sounding' parallel fifths within the two-part texture of the theme in the First Exposition. Now, however, the parallel fifths ($A\flat$ - $E\flat$ – G-D) are shifted to the upper layer of the ensuing three-pitch sonorities. Similar examples can be found throughout this section. One could also note that, perhaps to justify the traditional role of the second exposition as a 'solo' one, the strings' theme consistently gives way to the solo viola entries. This, in turn, prompts further fragmentation of the melodic line, as its segments are regularly superseded by the quasi-antiphonal entries of other orchestral timbres.

known as the Kyiv Abby of the Caves. See Yoseph Yasser, "The Opening Theme of Rachmaninoff's Third Piano Concerto and its Liturgical Prototype," in *The Musical Quarterly* 7 (1969): 313-28. For additional information on Yasser-Rachmaninov correspondence regarding this matter refer to Richard Taruskin, "Written for Elephants: Notes on Rach 3," in *Russian Music at Home and Abroad: New Essays* (University of California Press, 2016). 137-38.

³³⁹ Refer to Igor Stravinsky's passage: "The study of the creative process is an extremely delicate one. In truth, it is impossible to observe the inner workings of this process from the outside. It is futile to try and follow its successive phases in some-one else's work. It is likewise very difficult to observe one's self. Yet it is only by enlisting the aid of introspection that I may have any chance at all of guiding you in this essentially fluctuating matter." Igor Stravinsky, *Poetics of Music in the Form of Six Lessons*, trans. Arthur Knodel and Ingolf Dahl (Harvard University Press, 1947), 55.

³⁴⁰ Throughout an entire First Exposition, the first and second violins are playing in unison.

The idea of the theme's gradual disintegration takes a new turn in the first developmental episode (RNs 34–52). Here, all of the theme's initially fleeting entries are nearly imperceptible, as they are based on only two or three of the opening sounds of the frequently inverted original melody. Moreover, in addition to the new timbral colours of woodwinds, the opening motive of the theme is consistently stated in rhythmic diminution. Starting from RN 43, its quasi-canonic entries feature three-note segments in both their prime and the inverted forms. The frequent upward and downward octave displacement of the clustered motivic fragments harkens back to the theme of the introduction. At this point, however, the idea of playing a single note in different registers evolves into a polyphonic interplay of two- to three-note motives. Throughout the first episode of the development section, the order of appearance of the constituent melodic cells remains ascending, gradually filling out a complete twelve-tone space from B3 to B♭4. This expanding tonal space is accompanied by a dynamic growth in the consecutive segments, from *pp* to *f*. A schematic summary of the theme's appearances in this section is provided in Figure 12.

FIGURE 12: *Viola Concerto*: Summary of appearances of Theme 1 in Section 4 (Episode 1 of the Development)³⁴¹

RN	Timbre(s)	Pitch Cell	Type of melodic segment: O=original; I=inverted
36	Cl. 1	B3 - C4	I
38	Fl. 1 Cl. 1 Fag. 1	C4 - D♭4 C4 - D♭4 C3 - D♭3	I O O
39	Cl. 1	B3 - C4 - D♭4	O
40 - 41	Cl. 1	B3 - C4 - D♭4	I
43	Fl. 1 Cl. 1 Ob. 1 Fag. 1	C4 - D♭4; C5 - D♭5 - D♯5 C4 - D♭4; C5 - D♭5 ; B4/3 - C5/4 - D♭5/4; C6 - D♭6 - D♯6 ; C4 - C♯4 - D4 C5 - D♭5 ; C4 - D♭4; C6 - D♭6 - D♯6 B3 - C4 - D♭4; C3 - D♭3 - D♯3	O - I O - I - O I - O I - O

³⁴¹ The red font colour designates the gradually accumulated twelve-tone space from B3 to B♭4, while the blue font colour indicates the octave displacements of the respective motivic cells.

	Fag. 2	C4 - Db4; C#3 - D3	O - I O
44	Fl. 1 Ob. 1 Cl. 1 Fag. 1 Fag. 2	C#6 - D6 - Eb6; C#4 - D4 - Eb4 D6 - Eb6; C#5 - D5 C#4 - D4; C#4 - D4 - Eb4 C#3 - D3 - Eb3 C#4 - D4; D3 - Eb3	I - O O - I I - O I O
45	Fl. 1 Ob. 1 Cl. 1 Fag. 1 Fag. 2	D6 - Eb6 - Eb6; D4 - D#4 - E4 D5 - Eb5; D5 - D#5 - E5 C#5 - D5 - Eb5 C#3 - D3 - Eb3 C#4 - D4; D3 - Eb3	I - O O - I I - O I O
46	Fl. 1 Ob. 1 Cl. 1 Fag. 1 Fag. 2	D#6 - E6 - F6; D#4 - E4 - F4 D#5 - E5 - F5 E6 - F6; D#5 - E5 D#3 - E3 - F3; E4 - F4; E3 - F3	I - O I - O O - I I O
47	Fl. 1 Ob. 1 Cl. 1 Fag. 1	G4 - Ab4 G4 - Ab4 F#4 - G4 - Ab4 G4 - Ab4	O O O O
48	Fl. 1 Ob. 1 Cl. 1 Fag. 1	G#4 - Ab4 G#4 - Ab4 G4 - G#4 - Ab4 G#4 - A4	O O O O
49	Fl. 1 Ob. 1 Cl. 1 Fag. 1	G#4 - A4 - Bb4 G#4 - A4 - Bb4 G#4 - A4 - Bb4 G#4 - A4 - Bb4	O O O O
50	Fl. 1 Ob. 1 Cl. 1	G#5 - A5 - Bb5 G#5 - A5 - Bb5 G#5 - A5 - Bb5	O - I I O - I

In the second developmental episode (RNs 53–93), the process of gradual disintegration of the “Prayer Theme” is reversed. The theme’s successive statements, instantly recognizable in the original timbre of the strings, are gradually lengthened. Likewise, the tessituras of these statements display a parallel change in the opposite direction, shifting from a higher to a lower register. For instance, the length of the first three statements in the described episode increases from two measures (RN 61) to three (RN 65), and then to five (RN 68); the theme is stated in the 3-line, 2-line, and 1-line octaves, respectively. In the following even deeper descent in register

from RN 71 to 88, the composer introduces a new way of presenting the original thematic idea: namely, the two versions of the “Prayer Theme” – the opening prototype in the strings and the variant in diminution in the woodwinds – are repeatedly juxtaposed. The short recurrent monologues of solo viola nearly disappear at the end of this episode (RNs 84–8) where the two versions of Theme 1 sound continually in the form of the adjacent three-measure long segments. The theme’s final statement in the chalumeau register of the first clarinet unfolds simultaneously with the “motif of sorrow,”³⁴² as do all of the theme’s preceding appearances in solo woodwinds. Similar pairing of the “Prayer Theme” (in strings) with the “motif of sorrow” (in alto flute) at the end of Coda (RNs 149–52) presents an alternation between the two melodies in their lowest register of the small octave (C3 to B3). They eventually merge vertically into an essential entity of the cross macro-theme (G-Ab-Bb-Cb) in the key of Ab minor. In addition, the process of an extensive register-related descent appears to be accompanied by a corresponding return of the “Prayer Theme’s” original harmonic lining. Notwithstanding the numerous yet audibly inconspicuous changes in the theme’s rhythmic and temporal components,³⁴³ the Dominant and Submediant notes constituting its bass lines remain unambiguously pellucid.³⁴⁴

With respect to the overall process of structuring the “Prayer Theme” within the *Viola Concerto*, it is curious to note its similarities to that of J.S. Bach’s Royal Theme used in Gubaidulina’s first Violin Concerto, *Offertorium*. However differently approached, both works

³⁴² Basharova, 36.

³⁴³ Unlike the theme’s ♩. = 96 tempo indication of the First and Second Expositions, the Metronome marking for the String segments of the “Prayer Theme” in this episode is ♩. = 80.

³⁴⁴ Refer, for instance, to RN 68 (G and F♯ in B minor), RN 73 (Ab and G in C minor), RNs 77–8 (Gb and F in Bb minor) or RN 85 and 87 (C and F♯ in E minor).

utilize the same procedure: a gradual disintegration of a melodic idea followed by its reconstruction. *Mutatis mutandis*, in the last developmental episode of the *Viola Concerto*, the apogee of this reconstruction – the fully-reassembled “Prayer Theme,” desperately harangued by two solo oboes (RN 122-123) – remains barely audible. Set against the agitated background of the semantically transformed “motives of sorrow” in the wailing and bawling of the first French horn and the scordatura string quartet, it downrightly resigns itself to the surrounding forces of the “evil.”³⁴⁵ The last return of the “Prayer Theme,” notated in simple duple meter in the concerto’s Coda (RN 149-152), seems to conceptualize its final dissolution in the lowest register of the muted *ordinario* strings. The second of the theme’s two opening melodic segments is repeated five times in an ostinato fashion, while the double basses, *divisi a 2*, carry the bass line in parallel fifths to its lowest audible point, C1. As if emphasizing the ontological unity of musical space and time, the composer notates the gradual deceleration of the latter in metronomic values descending from ♩=72 (RN 149) to ♩=60 (RN 151) and, finally, to Gubaidulina’s own symbolic number of 48 (♩=48 in RN 152).

➤ Theme 2 or the “Motive of Sorrow”

To begin with, the subheading of this portion of the text touches upon the issue of two commonly contrasted terms, a “theme” and a “motive.” The general perception of the two, according to *Oxford Music Online*, is that the former is “a self-contained idea, as opposed to the elemental, incomplete nature of the motif.”³⁴⁶ Considering the distinctive and primarily motivic nature of

³⁴⁵ Valentina Kholopova describes the final development episode as the one “embodying the images of the evil.” Cited in Basharova, 36.

³⁴⁶ See William Drabkin, “Motif [Motive],” *Grove Music Online. Oxford Music Online*, <https://doi-org.ezproxy.library.yorku.ca/10.1093/gmo/9781561592630.article.19221>.

Sofia Gubaidulina's *Melos*, we must argue that in this particular circumstance, the juxtaposing of the two terms presents a false dilemma rather than an explicit dichotomy. Thus, the two locutions – the Theme 2 and the “Motive of Sorrow” – will be used interchangeably, since, despite the shortness of the melodic segment and its correlation with the ‘larger whole’ of the concerto's *macro-theme*, this particular melodic idea exhibits many of the usual traits of a ‘real’ theme. In other words, throughout the various concerto episodes, it remains remarkably subjective, immediately recognizable, and clearly perceivable as a complete musical expression in itself. Furthermore, much like the previously described concerto themes, it receives a unique compositional treatment with regard to the work's principal idea: variations on the theme of the cross.

Scrutinizing the series of appearances of the “Motive of Sorrow” in both expositions of the concerto presents several illustrations of the aforementioned observations. Firstly, in each of the two episodes, the theme enters *four* times, conceivably symbolizing the number of notes constituting the cross motive. Secondly, while all of the theme's statements in the Second Exposition are in C minor (i.e., complying with the DEsCH cross motive), its four entries within the First Exposition are in four different keys. Moreover, the starting points of these entries form a melodic cross motive in the range of the BACH monogram: B $\flat$ -B $\natural$ -D $\flat$ -C.³⁴⁷ A similar figure can be constructed by sequencing the corresponding (implied) minor keys of each segment: G-A $\flat$ -B $\flat$ -A. Furthermore, it would appear that the composer's playing with number four, whether intentional or intuitive, continues with regard to the overall tonal planning of the Second

³⁴⁷ Refer to RN 6, 8, 9, and 11.

Development Episode. Here, the number four governs the total number of different keys in which the nine entries of the theme are presented: A, F, D, and B $\flat$ minor.³⁴⁸

The Third Development section presents yet an entirely different interpretation of the idea of the cross. Here, Theme 2 participates in the three sizable episodes, all of which tangibly entertain the idea of a spatial crossing with other elements of the orchestral texture, as well as with reversed and/or inverted versions of itself. The first polyrhythmic episode in three flutes (RN 104-110) features several versions of Theme 2, modified both melodically and rhythmically. The full four-note reversed variant (C-C $\sharp$ -D-E $\flat$, Fl. 1 in RN 105) follows the original and now abridged three-note figure (E $\flat$ -D-C $\sharp$) in the familiar initial timbre of the bass flute (RN 104); the alto flute (Fl. 3) joins in with a three-note motive B $\flat$ -A-G $\sharp$ in m. 3 of RN 105. Towards the end of this episode, the first flute passes its ostinato figure on to flute 2; at this point, the melodic pattern begins to oscillate between its four- and three-note versions. In all likelihood, the idea of juxtaposing the rising and falling versions of the same theme presents a possibility for a potential special crossing, which is first realized in the next episode (RN 118-121). At this time, the “Motive of Sorrow” emerges in its ‘square’ quarter-note version in piano (D-C $\sharp$ -B-A $\sharp$); yet, the dynamic emphasis remains constantly shifted from one pitch to the next while the theme undergoes a five-octave ascent from the contra-octave to the fifth octave. Accompanied by a similar ascensional procedure in the scordatura string quartet³⁴⁹ and cembalo,³⁵⁰ Theme 2

³⁴⁸ Refer to RN 55 (fl. 4 (piccolo), A minor); RN 59 (fl. 4, E minor); RN 63 (Fl. 1, D minor); RN 66 (fl. 1, B $\flat$ minor); RN 71 (ob. 1, E minor); RN 76 (fl. 3, B $\flat$ minor); RN 84, 86, and 88 (fl. 5, E minor).

³⁴⁹ This layer of the musical texture is built on ascending, four-note whole-tone clusters.

³⁵⁰ Incidentally (or by design?), the cembalo passages feature the same melodic range of an ‘abstract’ minor third (i.e., that of the BACH monogram) as the corresponding motivic segments of Theme 2 in the bass flute. Moreover, the four-note groupings played by the right and left hands are shaped in descending and ascending motion, respectively.

eventually cuts through the concurrent melodic descent of the strings, both being anchored by the sustained bass in the low brass. With the addition of the higher Ds in the French horn and trumpets (RN 120-121), the registral crossing figure is framed by the tremendous *forte* sound that opens the final segment featuring the Theme 2 in the sixth episode of the concerto. In RN 122-123, the first horn and the cellos deliver the original and inverted versions of the Second Theme homorhythmically and in the same register, allowing them to cross each other nine times. The concurrent sounding in the same range of the scordatura string quartet and the ‘fully-reassembled’ Theme 1 in two oboes creates an effect of a multilayered melodic crossing, with Theme 2 dominating the orchestral texture.

EXAMPLE 19: *Viola Concerto*: theme 2 or the “Motive of Sorrow” in RN 122 (Episode 6)

➤ Macro-Theme in the Solo Viola Part

In contrast to the previously discussed concerto themes, the manifold workings of the macro-theme in the soloist's part hardly fall within the traditional boundaries of the term 'theme'.

Unlike the easily recognizable themes upon their return – such as the Introduction, Prayer, the “Motive of Sorrow,” or the “Clock Theme” – the soundings of the viola sola seem intrinsically connected, if not utterly identified, with the timbre of the instrument itself. The composer's metaphorical perception of the sound of a string as an expression of a human soul – or rather “not an expression but the soul itself”³⁵¹ – presents another of Gubaidulina's enduring dualistic conundrums: the rational versus the intuitive. In this instance, this *binary opposition* transforms into the thematically lucid versus the melodically elusive expressions of the macro-theme. The same type of duality is evident in the pitch organization of the macro-theme components in the soloist's part. The viola's ostensibly “free and intuitive” stream of musical “subconsciousness”³⁵² is markedly poised and meticulous in its formal logic. Further, an analytical deconstruction of the often fragmentary and kaleidoscopic melodic lines of the viola sola reveals the presence of the otherwise interconnected pitch configurations within each of the concerto's episodes; they occur in addition to those ordering the overall design of the work. By and large, the viola's part develops in a series of extended pitch undulations. Each of the rising or falling waves of this transmogrification is contained within a single large episode, i.e., one of the seven sections of the concerto. Ingeniously, the registeral and dynamic rise and fall in the double-exposition create an

³⁵¹ Cited from Sofia Gubaidulina documentary (0.28-0.47) “To be an Oracle.” See Zulfia Asadullina, director, “To be an Oracle” [Быть оракулом], TV channel TNB -Tatarstan, Kazan (2017), video, https://youtu.be/PCF9aZ_PG98.

³⁵² Citing Valentina Kholopova, Basharova's analysis presents the temporal organization of Gubaidulina's Viola Concerto “free and intuitive.” By extension, this seems to be applied to the overall pitch organization of the work, as the author abstains from any interpretation of the comprehensive pitch-related logic of the work. See Basharova, 34.

arch-like figure in which the congruent extremes – the highest and the lowest points of the first and the second expositions – are clearly matched. The same idea of creating the massive hemicycles of sound is implemented in constructing the next two section pairs of the concerto form: the first two episodes of the development, the third developmental episode, and the coda. Eventually, the penultimate arrival at the prolonged zigzag-shaped *glissando* on viola's lowest G sound comes across as emblematic of the composer's final materialization of her "self" expressed by an identical pitch symbol of her initials, G (as Gubaidulina) or Sol (as Sofia). In a truly Gubaidulinian fashion, this apperception is called into question in the final five measures of the work. The ethereal *ppp sul tasto* of the solo viola sliding between two tritones seems to pose another question rather than offering any answer.³⁵³

Much of the ingenuity of Gubaidulina's writing can be observed by analyzing the content and ordering of the pitch segments comprising the rising and falling sound waves in the viola's part. For instance, correlating the lowest and highest points of the double exposition reveals the D3 and the Eb6 as the corresponding margins of the first and second expositions, as shown in Example 20.

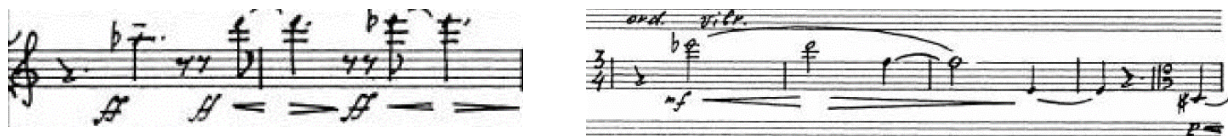
³⁵³ Sofia Gubaidulina monologue in the 2017 documentary presents her highly articulated opinion on the conceptual subject of questions and answers. She states (25.00-25.56): "For me the individuality is valuable when it is *not* turned inwards; only when it is turned towards something else. From this point of view, when you are asking me about myself, what am I? – I have nothing to say, really... I'm not turned toward myself. I don't like to look at myself in the mirror. I don't like the position of an artist who looks at himself in the mirror. I like to live in the world of questions rather than answers. To be an oracle means to know the answers... I don't want to be an oracle. I don't want to know the answers; I want to live and to continue living in the world of questions." Refer to Asadullina, dir., *To be an Oracle*, TV channel TNB -Tatarstan, Kazan (2017).

EXAMPLE 20: *Viola Concerto*: pitch demarcation of the lowest and highest points in the Exposition

The lowest point D3: Exposition 1 (RN 3, beginning) and Exposition 2 (RN 32, ending)



The highest point E $\flat$ 6: Exposition 1 (RN 16, ending) and Exposition 2 (RN 20, beginning)



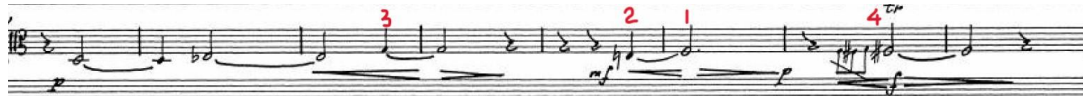
In the exposition, the macro-theme appears in one of the three forms: first, the BACH monogram or BACH-range motive; next, the five-pitch DEsCH-range motive; and finally, the chain of ascending chromatic cells unfolding over the repeated anchor-like lower pitches. Aurally, these melodic elements are hardly discernible as their layout changes from one appearance to the next. For instance, the opening solo of the Viola (RN 3) presents the BACH monogram in retrograde, with the opening sound repeated at the end of the phrase.³⁵⁴ The same monogram, stated at the beginning of the second exposition (RN 20), presents the BACH motive in its prime form (E $\flat$ -D-F-E $\flat$ -[D $\sharp$]). At this time, once again, it appears not to be immediately recognizable because of the large descending leaps from one note to the next. Another permutation of the BACH monogram involves a change in the order of appearance of its consecutive pitches, namely, the starting motive in retrograde from its third rather than its fourth sound. It seems that the composer strives to enshroud the aural as well as the visual discernibility of this procedure by complicating it even further, by using either the overlapping of the two

³⁵⁴ The prime version of BACH motive here is D $\flat$ -C-E $\flat$ -D $\flat$. The retrograde version with the opening pitch repeated is D-E $\flat$ -C-C $\sharp$ (D $\flat$)-D. Refer to Example 20.

adjacent versions of the BACH motive, or separating its constituent segments by other thematic elements, such as the “Prayer Theme”; e.g., RN 24, m.3 and RN 25, mm. 3–5. Selected examples and brief explications of BACH motive permutations in the first and second expositions of the concerto are presented below.

EXAMPLE 21: Selected BACH motive permutations in the Exposition(s) of the *Viola Concerto*

RN 4



BACH monogram, prime version (P): F-E-G-F#

1 2 3 4

retrograde version (R) started on the third pitch: G-E-F-F#

3 2 1 4

The first two pitches (D and Eb) are (repeated) part of the opening BACH version – D-Eb-C-C# (RN3)

RN 24

BACH monogram, P: Bb-A-C-Bb

1 2 3 4

R started on the first pitch: B-C-A-A# (=Bb); two segments are separated by the “Prayer” Theme

4 3 2 1

RN 30



BACH monogram, P: Ab-G-Bb-Ab

1 2 3 4

R started on the first pitch: A-Bb-G-G#

4 3 2 1

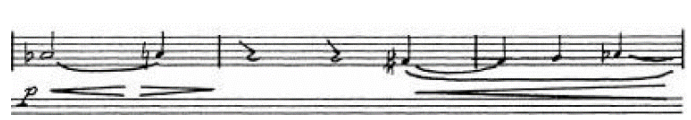
Starting from RN 5, the opening variants of the macro-theme morph into a five-pitch DEsCH-range motive (G-G[#]-A-B^b-B^b), stated twice in different forms, as shown in Example 22.

EXAMPLE 22: DEsCH-range motives in the First Exposition of the *Viola Concerto*

RN 5-6

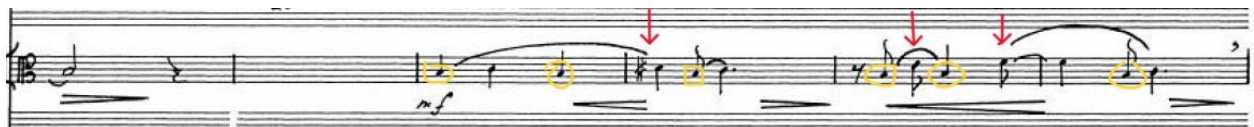


RN 7



The following process of a gradual expansion of the initially narrow-range motivic cells is accompanied by three interconnected features: namely, the steady increase in the dynamics from *p* to *ff*; the transformation of the soloist's vocalized recitation into an instrumental declamation; and the concomitant increase of the overall range of the solo viola part from C3 to E^b6. The first wave of the registral ascent (RN 8-11), unfolding against the background of the flutes and the scordatura string quartet, begins with an upward sequential motion derived from another DEsCH-range motive (B-C-B-D[#]-B-C; RN 8, mm. 2-3), as shown in Example 23. This oscillating melodic line consistently reaches the next higher chromatic pitch (D[#]-E-F) while remaining anchored to the low B3 and thus creating a hidden two-part contrapuntal texture.

EXAMPLE 23: Viola Concerto: the beginning of chromatic ascent in viola's part, RN 8



The successive intermittent vacillations between the ‘anchored’ lower pitches and the chromatically ascending melodic line in the upper layer of the viola’s part result in reaching the *fortissimo* on the D major triad, with an added tritone (G $\sharp$), in the instrument’s brightest ‘violin’ register.

EXAMPLE 24: *Viola Concerto*: the ending of the first wave of chromatic ascent in the viola’s part, RN 9-11



It is curious to note that the sequence of BACH motives in the first wave of ascent is structured in strict ascending chromatic order, covering, as a result, a full abstract twelve-tone space from C to B; e.g., C to E $\flat$ (RN 3), E to G (RN 4), and G $\sharp$ to B (RN 5-7). The second ascending wave abandons the idea of an orderly rise, presenting instead the segments of the five-note macro-theme (E-F-F $\sharp$ -G-A $\flat$) dispersed across various registers in viola’s cadenza-like episode (RN 13 to 15). The retrograde of the BACH motive (F $\sharp$ -G-E-F $\flat$ -[F $\sharp$]) reappears in RN 15, ushering in the viola’s final surge to E $\flat$ 6. The latter, in turn, is built as chromatically ascending dyads; four intermittent members of these pairs, doubled by the first clarinet, are accompanied by the quarter-tone “shadows” of the scordatura violin and viola, transforming the perfect unisons into minor seconds. See Figure 13 below.

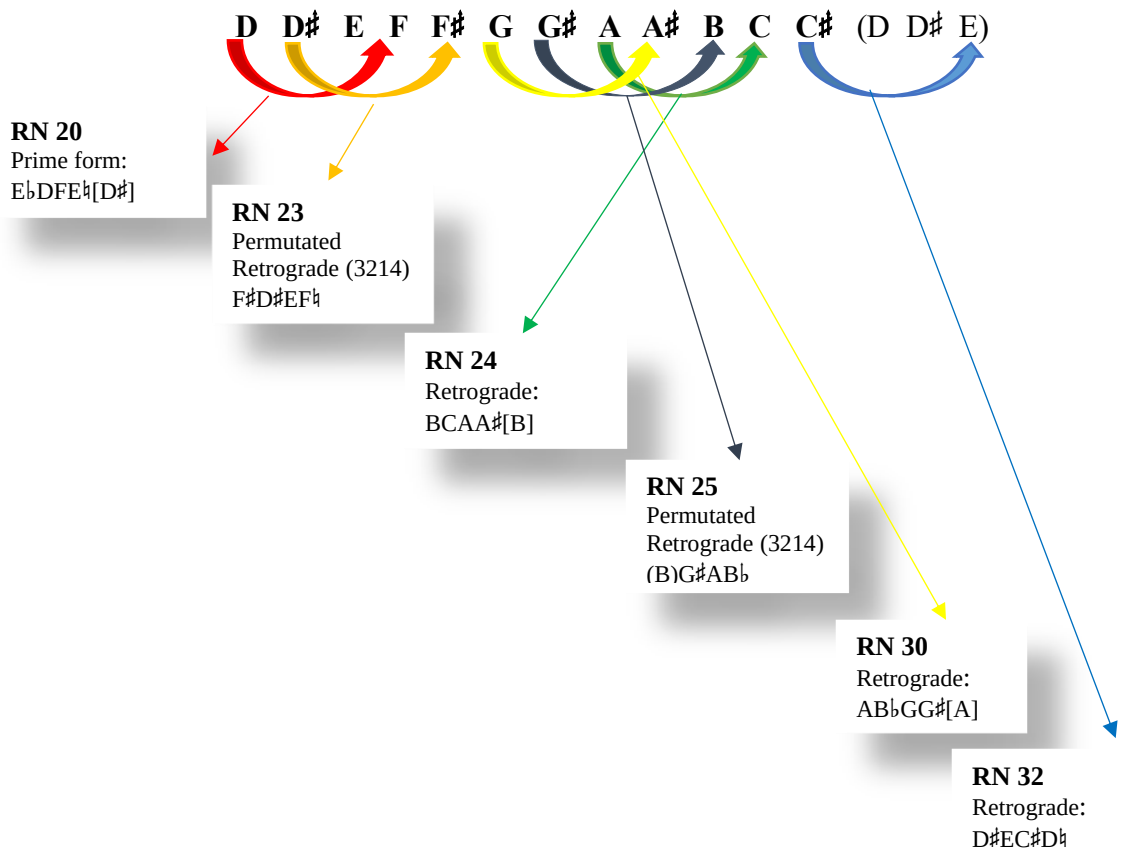
FIGURE 13: *Viola Concerto*: Intervallic transformations at the end of the First Exposition,
RN 16

RN 16, mm.	1–2	5	6–7	8–9
Viola sola; Cl. 1	F#	D	G	E $\flat$
Q: V-no and V-la	*G and *F#	*E $\flat$ and *D	*A $\flat$ and *G	*E and *D#

The pitch structuring of the distinct descending wave in the Second Exposition is similar to that of the first ascent in Exposition 1; i.e., it makes use of an ascending chromatic chain, which becomes punctuated intermittently by overlapping of the corresponding BACH motives and the segments thereof. These melodic cells appear in either the prime or the retrograde/permutated retrograde versions; they can be in the full four- to five-note form (with the opening note repeated), or as two- to three-pitch segments separated by rests; they can be conjunct or disjunct in terms of their melodic motion. Oftentimes, the large leaps in the viola part may be interpreted as compound and/or inverted forms of the combinatorial intervals associated with the original BACH motive. That is to say, a minor second can become a minor ninth or a major seventh, and a minor third can be turned into a major sixth etc. Thus, in her unrelenting pursuit of constant development and variation, the composer re-creates the contrapuntal device of melodic inversion as applied to a small segment of a ‘theme’, rather to an entire melodic idea. Figure 14 outlines the pitch-related structuring of BACH motives throughout the descending wave in Exposition 2.

FIGURE 14: *Viola Concerto*: BACH motives in the descending wave in Exposition 2

Chromatic ascent from D to C# and the corresponding BACH-range cells:



The process of recasting the concerto's macro-theme continues throughout the tripartite development section. Each of its episodes presents yet another example of Gubaidulina's striking combinatorial inventiveness regarding the transformation of a specific motivic idea. Thus, throughout the first developmental episode, an uninterrupted dramatic ascent from the viola's lowest register to its highest contains no aurally discernible entries of either the BACH or DEsCH-range motives. Instead, the melodic idea from the concerto's Introduction, featuring a series of rising and falling octave leaps, appears to prevail. The gradual chromatic expansion in

the viola's part begins in RN 35 with the addition of lower and upper semitones to the opening sound of C, reiterated in different registers.

EXAMPLE 25: *Viola Concerto*: beginning of chromatic buildup in viola's part; Development 1, RN 35-36



The ensuing structuring of the twelve-tone space presents an orderly semitonal ascent from C to C $\flat$. In terms of the actual sound, it covers the space of four octaves from C3 to C $\flat$ 7 and features two other prominent leaps – a major seventh and a minor ninth – allowing an upward chromatic motion. Refer, for instance, to RN 46-47, where the new members (F $\sharp$, G, and G $\sharp$) of the ascending chain first appear.³⁵⁵ As in the first Exposition of the concerto, this process is accompanied by a significant dynamic buildup, rising from *p* in RN 34 to *fff* in RN 50.

EXAMPLE 26: *Viola Concerto*: continual chromatic ascent in the viola part; Development 1, RN 46-47 (m.1)



³⁵⁵ The remaining pitches of the chromatic scale appear initially as follows: D $\sharp$ (RN 43, m. 3); E $\flat$ (RN 43, m. 5); E $\sharp$ (RN 45, m. 1); F (RN 45, m. 3); A (RN 48, m. 1); B $\flat$ (RN 49, n. 2); C $\flat$ (RN 50, m. 2).

The audibly recognizable expressions of the macro-theme seem to be restricted to the other layers of the orchestral texture; predominantly, to the slowly ascending chorale in three Wagner tubas and the contrabass tuba. Accompanied by the resonant sounding of the piano with the open lid,³⁵⁶ the two versions of the BACH motive in retrograde and the two motivic segments of five pitches (DEsCH range) become ‘harmonized’ by the ‘third-less’ triads in RN 34-46. As the viola’s sound continues to soar closer to its utmost heights, the last five chords of the majestic chorale of the tubas become major triads (C, E, E $\flat$, D, and G $\flat$ majors). The full summary of the pitch configuration of the tubas’ chorale bass line is shown in Figure 15.

FIGURE 15: *Viola Concerto*: macro-theme in the bass line of the tubas’ chorale, RN 34-49

RN	Bass line of the chorale	Pitch configuration
34-35	E-A $\flat$ -G-G $\flat$	DEsCH combined range (E-A $\flat$)
36	F-G $\flat$ -E $\flat$ -E $\sharp$ -F	BACH motive in retrograde 5-pitch version (with the repeated first note)
37-41	A-A $\flat$ -G/G-A $\flat$ -G/B-B- $\flat$ A	DEsCH combined range (G-B), formed incrementally
44-45	B $\flat$ -B $\sharp$ -G $\sharp$ -A-B $\flat$	BACH motive in retrograde 5-pitch version (with the repeated first note in m.1, RN 45)
45, m.3-48	D-D $\flat$ /C-E-E $\flat$ -D	DEsCH combined range (C-E)

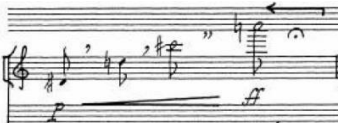
In the second developmental episode, the idea of fragmentation of the concerto’s macro-theme is combined with that of the intervallic transformations of the constituent dyads. The sparse, chamber-like texture of this section showcases a series of the double-stop harmonics in the soloist’s part often echoed by their quarter-tone ‘shadows’ in the scordatura string quartet.

³⁵⁶ See the composer’s indication in the score, RN 34.

This soft, ethereal sound is repeatedly contrasted with the viola's dramatic vibrato outcries. The latter tend to state the BACH motives in various forms, such as the original narrow-range five-pitch retrograde version (sounded solo or jointly with other themes), the version separated by other thematic elements, as well as the new solo variant presenting a chromatically descending four-pitch fragment as a series of ascending leaps of major sevenths (or diminished octaves).

Figure 16 illustrates selected examples of these procedures.

FIGURE 16: Selected examples of the macro-theme transformations in the Second Development Section of the *Viola Concerto* (RN 53-93)

RN	Musical Excerpt	Macro-theme description
54		Double-stops harmonics A-C and A-C# and single-top harmonics A#, B, and Cb create a complete 5-pitch chromatic space in the DEsCH range.
70		A minor third (E-G) in double-stops harmonics in the solo viola part and the major third (*E-*G#) in V-no and V-c of the scordatura string quartet create a symbolic transformation of a min. 3 rd (BACH range) into a maj. 3 rd (an acoustic equivalent of DEsCH range).
71		BACH motive in retrograde in viola sola (narrow range, 5-note form: G-Ab-F-F#-G) sounding at the end of a passage built on the "Prayer Theme" in diminution (Fl. 1) and the "Motive of Sorrow" in Ob. 1 and Cel. (in diminution and in triplets).
72		A variant of the Introduction Theme is presented as a series of ascending leaps of major sevenths/diminished octaves: D#4-D#5-C#6-C#7; an abstractly descending 4-pitch segment of the chromatic scale falls into an

		acoustic range of the BACH motive (aug. 2 nd = min. 3 rd or C-D#/Eb)
77-79		BACH motive in retrograde in viola sola (narrow range, 5-note form: G-Ab-F-F#-G) is separated/surrounded by the fragments of the “Prayer Theme” in the strings

In contrast to the singular rising and falling waves of sound built up in each of the preceding episodes of the concerto, the final development section (RN 94-148) is structured as two continuous ascents in the viola’s part. They are followed by the corresponding descents led by the strings, during which the soloist remains withdrawn from the process. Furthermore, the new versions of the macro-theme appear in four distinct forms, delineated not only by their motivic and/or rhythmic content but also by their characteristic timbral colour or the method of sound production in the violist’s part. Those include, firstly, the short and palpably brash *ostinato* figures based on three pitches (D, C#, and Eb) executed *au talon* (RN 69-105); secondly, the sustained crescendoed trills, concluded with the gradual shift of the bow from *ordinario* to *sul ponticello* at the end of the terminating *glissandos* (RN 106-110); thirdly, the new configuration of the BACH motive stated emphatically in double stops in minor sixths (RN 111-112); and finally, the predominantly five-pitch DEsCH-range triplet motivic figures, ended with the consistently rising quadruplets at the point of interlocking with the next sequential segment. This final version of the macro-theme unfolds in a perpetuum mobile fashion at the end of the first ascent (RN 115-117), as well as throughout the entire second ascent (RN 124-132) where it is

delivered *sul ponticello* in full length. The following annotated excerpt from the latter episode illustrates the composer's consistent treatment of the five-pitch chromatic segments, which generate an entire four-octave ascent from C#3 to C#7. Remarkably, the sinuous movement within each of the corresponding cells is structured as a series of orderly pitch overlays. Namely, the closing members of the ascending melodic patterns overlap with the opening pitches of the following descending patterns, while two opening pitches of the descending segments overlap with the two closing ones of the ensuing mini-ascents, as shown in Example 27.

EXAMPLE 27: *Viola Concerto*: the correlation between the 5-pitch DEsCH-range motivic segments generating the second sequential ascent in the final development section, Episode 6



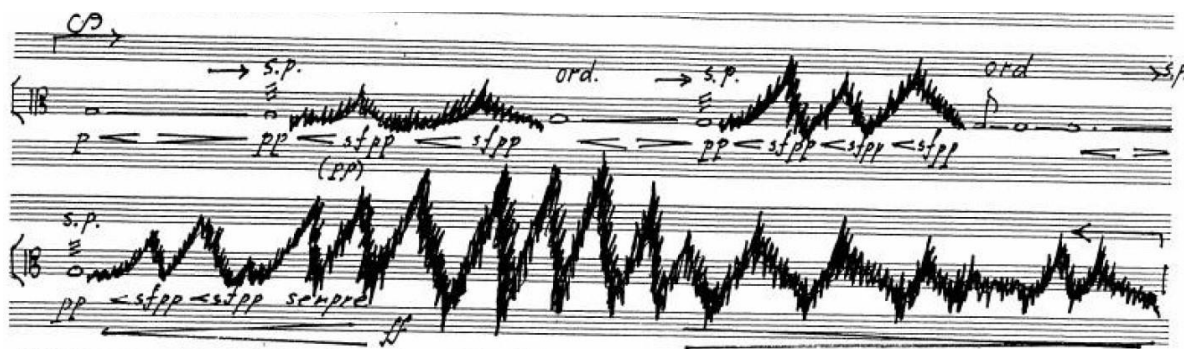
RN 124, m. 2	RN 124, m. 3	RN 125, m. 1	RN 125, m. 2	RN 125, m. 3
5-pitch motivic segments presented in an ascending chromatic order starting with the lowest pitch member				
E F F# G Ab	C# D D# E F	F F# G A# Ab	D D# E F Gb	F# G G# A Bb

The concerto's final arch of ebbing and flowing sound emerges in the unmetered cadenza episode. In its opening section (RN 147), the soloist's meditative ascent relies on the familiar BACH and DesCH motives, which comprise the macro-theme. Here, the viola's short "cries and whispers"³⁵⁷ are punctuated by pauses of varying lengths, adding to the purported spontaneity of

³⁵⁷ Refer to Alex Ross, "Musical Events – Russian Soul: The Exotic Grandeur of Sofia Gubaidulina," *The New Yorker* (June 16, 1997): 110.

the musical expression. The pointed absence of any bravura virtuosic display, accompanied by constant dynamic and timbral shifts, indeed creates the impression aptly described (or, rather, astutely rephrased) by Alex Ross as “the solo voice [being] the still point of the turning world.”³⁵⁸ The four successive crests of this closing sound wave,³⁵⁹ marked with one to three *fortes*, appear to be unsustainable as the following passages collapse in large leaps, thus bringing the cadenza section to its second graphically notated episode (RN 148). Its jagged ripples of rising and sinking *glissandos*, *tremolandos*, and the bow shifts from *sul ponticello* to *ordinario* inevitably return to the composer’s signature pitch, alluding to the first letter of her last name. See Example 28, below.

EXAMPLE 28: *Viola Concerto*: graphically notated portion of the viola’s cadenza, RN 148



³⁵⁸ Ross paraphrases a line from the first poem of T. S. Eliot *Four Quartets*. See Ross, “Russian Soul,” 110.

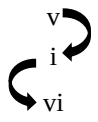
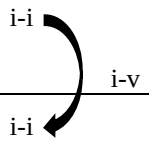
³⁵⁹ As could be expected, these four pitches – D, E $\flat$, E $\sharp$ and F – fall within the BACH motive range.

Tonal Interplay of the Themes Within the Composer-Identified Concerted Sonata Framework

While Gubaidulina's reference to the concerted sonata form can be readily discernible on a conceptual level as a desire to create a dramaturgy of dualistic contrasts, the subject of the genre-associated tonal relationships among the concerto's themes appears to be rather puzzling due to the tonal ambiguity of some of the thematic derivations of the work's macro-theme. As the latter tend to be aurally consonant with the key-related interactions of the "Prayer Theme" and the "Motive of Sorrow" (i.e., Themes 1 and 2, which present the tonally lucid manifestations of the macro-theme), observing the key correlations between them reveals two consistent harmonic patterns: either the juxtaposition of Tonic with Dominant (I-V) or Tonic with Submediant (I-VI). One could thus say that the basic harmonic models utilized by Gubaidulina, who produces her own interpretation of the form, emerge as intrinsically connected with an "anterior corpus" (Julia Kristeva's term)³⁶⁰ of tonal relationships between two major themes of Classical and later models of the concerted sonata forms. Figure 17 maps the pertinent keys' correlations of the "Prayer Theme" and the "Motive of Sorrow" throughout the *Viola Concerto*.

³⁶⁰ Cited in Paul Wingfield, "Beyond 'Norms and Deformation': Towards a Theory of Sonata Form as Reception History," review of *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* by James Hepokoski and Warren Darcy, *Music Analysis* 27, no. 1 (March 2008): 171, <https://www.jstor.org/stable/25171408>.

FIGURE 17: The tonal correlations between the “Prayer Theme” and the “Motive of Sorrow” in the *Viola Concerto*³⁶¹

Section	RN	Themes	Instrumentation	Keys implied	Functional key relationships (including those in temporarily tonicized keys)
Exposition 1	2-7 6-7	PT MS	Strings Fl. 5	C minor G minor	i-v
	11 12	MS PT	Fl. 5 Strings	A minor C minor	#vi-i
Exposition 2	19-29 25-29	PT MS	Strings Fl. 3	C minor C minor	i-i
Development 2	61 63	PT MS	Strings Fl. 1 and Cel. (in dim.)	D minor D minor	i-i
	65 66	PT MS	Strings Fl. 1 and Cel. (in dim.)	D minor B $\flat$ minor	i-vi
	68 71 73	PT PTv/dim MS PT	Strings Fl. 1 Ob. 1 and Cel. (in dim.) Strings	B minor E minor C minor	
	75 76 77	PT PT MS PT	Strings Cl.1 Fl. 3 and Cel. (in dim.) Strings	B $\flat$ minor B $\flat$ minor B $\flat$ minor	i-i-i
	83-87 84-88	PT MS PTv/dim	Strings Fl. 5 and Cel. (in dim.) Cl. 1	E minor E minor	
	122-124	PT MS	2 Ob. Cor. 1 and Vc. (inverted)	B minor	i-i
	149-152 150-152	PT MS	Strings Fl. 5	A $\flat$ minor A $\flat$ minor	i-i (or, vi-i re the concerto's “principal key,” or C minor)

It is important to reiterate that the composer's initial reference to these three harmonic functions occurs *within* the first statement of the “Prayer theme.” In RN 2-8, the theme's bass line fluctuates between the submediant and dominant notes, establishing a clearly perceivable C

³⁶¹ In the this Figure the “Prayer Theme” and the “Motive of Sorrow” are abbreviated as PT and MS, respectively. PTv/dim stands for “Prayer Theme” variant in diminution; all of the celesta's versions of the MS are in diminution (in dim.). The red chevron arrow indicates a simultaneous statement of the two themes.

minor. Its tonic, however, never appears. The minor tonal colour of the sounded chords prevails, as the use of the functionally archetypal major thirds in the upper voice is entirely eschewed at the metrically and/or dynamically emphasized returns of the lower A $\flat$ and G. The ultimate materialization of all three functions (I, V, and VI) in their minor-mode versions seems to transpire on a broader level, namely, as a tonal juxtaposition in the *paired* statements of the two aforementioned themes throughout the work.

The further reflection upon the functional correlation of the paired statements with their unlinked counterparts reveals the presence of a full tripartite sonata form unfolding at the combined level of the two expositions. As it is, the new structural *status quo* proposes an alternative development section of a “small” sonata form within the “large” one, with the middle section of the former is situated in RN 8 to 18. Within this supposed development, the multiple versions of the two themes are carried through several new keys, other than the tonic and dominant of the C minor, in the parts of four flutes. The flute episode is followed by a mini-cadenza of the soloist (RN 13-16) and, further, by a shimmering transition episode emphasizing a tritonal pitch combinations – the signature interval for the transitions to come.³⁶² In the newly envisioned recapitulation (RN 19-31), each statement of Themes 1 and 2 remains in the “home key” of C minor, thereby resolving the tonic-dominant “opposition” of the two themes. Given

³⁶² Refer, for instance to the transition episodes 2, 3 and 4 prominently featuring the augmented fourths and diminished fifths; e.g., E $\flat$ -A, F $\sharp$ -C and G $\sharp$ -D in RN 17; D-G $\sharp$ (A $\flat$) in RN 33; A-D $\sharp$ and C $\sharp$ -G in RN 51. Curiously, yet not unexpectedly, Irina Basharova emphasizes the “semantic meaning” of the tritone as either “fantastical, fairy-tale-like” or as depicting “the world beyond.” The author describes the acoustic peculiarities of this *diabolus in musica* as a salient feature of the “musical practice” (apparently referring to the numerous precedents in the 19th-century Russian music of Glinka, Rimsky-Korsakov, Lyadov et al.). The unambiguously pontifical goal of this outwardly insignificant and rather inconsequential remark by the Russian scholar seems to originate from the necessity (or a desire?) to reaffirm the political agenda of the current sovereign state, i.e., to put Sofia Gubaidulina’s music in line with the Russian “national” tradition. See Basharova, 36-37. At this point, we can only add that, from a purely constructive compositional standpoint, the inversive invariance of a tritone undergoing various quarter-tone transformations presents a singular intervallic option capable of sustaining the static/ostinato-based textures of the *Viola Concerto*’s transitioning episodes.

that the composer deliberately excluded the recapitulatory idea from the overall design of the work, it is not implausible to consider its extraneity, as its formal purpose has already been fulfilled at another structural level of the form.

Lastly, the composer's Schubertian treatment of the submediant function, featuring multiple chromatic third relations within the "principal" and the "interim" keys, appears to effectuate the concerto's "off-tonic" ending in A $\flat$ minor. This key's striking pre-cadenza sounding in three timpani and strings *col legno* (RN 145- 146), and later in the final paired statement of the "Prayer Theme" and the "Motive of Sorrow", intensifies the work's stylistic allusions to the late-Romantic tradition (Brahms, Wagner, Mahler et al.). At the same time, A $\flat$, as the concluding and clearly audible tonal center, forms a tritonal arch to the opening of the concerto, which starts with an exploration of a single sound, D. Quite remarkably, the concerto's last five measures eschew the idea of the Submediant's reaffirmation; instead, the soloist's *ppp* *glissando* wanderings between two tritones (D-G $\sharp$ and E $\flat$ -A), accompanied by the "Clock Theme" and the final intervallic transformation of a minor third (G-B $\flat$ in tubas) into a major (*G-*B in the lower strings of the scordatura string quartet), slowly fall into silence. Within this context, the entire tonal journey of the themes within the concerted sonata framework comes across as Gubaidulina's unique hypotactic compositional hearing within an ostensibly paratactic musical utterance.

Sofia Gubaidulina's *Viola Concerto: The Numerorum Mysteria?*

Unlike the majority of Gubaidulina's works created in the 1990s, her *Viola Concerto* appears to be shrouded in the numerical mystery. The two published sources touching upon the subject matter provide rather conflicting information. On the one hand, Valentina Kholopova (and Basharova, who cites her) state(s) that, according to the composer herself, the work was written "freely and intuitively," i.e., without any Fibonacci-related calculations aimed at shaping the proportions of its form.³⁶³ On the other hand, Valeria Tsenova, who describes several "numerical plots" in compositions created in the 1990s, indicates that an analogous design is "to a certain degree" present in the *Concerto for Viola and Orchestra*.³⁶⁴ Deciphering the composer's sketches preserved at the Basel archive appears to exacerbate the problem even further. Firstly, one immediately notes plenty of numbers scattered throughout the pre-compositional drawings and the draft of the work itself. The former pertain to the number of bars intended for certain timbral combinations within the depicted episodes, as can be seen on the hand-copied image shown in Plate 2 on the following page. The latter includes various calculations referring to the temporal proportions of certain sections within the specific episodes of the form; the singular numerical sequences scribbled over particular passages; the rows of digits deriving Fibonacci numbers from Lucas numbers by addition and subtraction; and finally, the occasional two-layered bar numbering indicated with the multi-coloured horizontal round brackets of varying size, arrows, checkmarks, and boldfaced vertical lines. Yet, the composer does not provide any pre-compositional numerical plan for this work, as she did for all pieces discussed in Valeria Tsenova's dissertation.

³⁶³ Kholopova (2020), 296.

³⁶⁴ Tsenova, 167.

PLATE 2: Hand-copied page from the pre-compositional drawings to Gubaidulina's *Concerto for Viola and Orchestra*

F3a

14 Танец; Трубы и К-ла
6 st. шшш
8 st. шшш

15 танец; дерево
6 разн. ритмах

16 Str. f
танец; танец каденс

17 Tr-be ↔ Corni

9 a) Str
b) s.p.
p subito
танец; октавой ниже

3 Fag. ↔ 3 Corni

101 Транзисторы

10 H=60

18 OB

Sil. Mar.
pero Tom-Tom

Cor.

1 = 36
5/4 = 43.2
5/4 = 56, 9/4

Трещи

Tom-Tom
tempo

14 + 9

15 traverbd ≈ 93 такта

16

17

18

19

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100

This absence of an explicit pre-compositional theoretical basis apparently became the reason for Gubaidulina's statement in a private conversation with Kholopova. Conceivably, the composer's intense musical activities in the mid-nineties left no time to complete the precise calculations that would bring all temporal aspects of the work (various meters, tempo indications, and duration of the unmetred episodes) to a common denominator of a specified unit of time, as she has done for other opuses created during this period. Remarkably, in 1996 alone, Gubaidulina completed four other substantial works,³⁶⁵ and attended multiple international workshops and concerts dedicated to the celebration of her sixty-fifth birthday.³⁶⁶ Be that as it may, the *Viola Concerto* has thus far remained a musical topological puzzle, offering an opportunity for an analyst to extrapolate a "numerical plot" from various hints presented in the composer's draft.

Meanwhile, it is worth mentioning that Valentina Kholopova, who must have been intimately familiar with the work's sketches, shrewdly alludes to a few external expressions of the Fibonacci numbers in the concerto's Introduction. According to her, these surface as a result of the "rhythm of numerical sequences" that became "deeply imbued in her [the composer's] musical hearing" by the mid-nineties.³⁶⁷ Assenting to Kholopova's highly merited musicological

³⁶⁵ Those are: *Impromptu* for flute (fl/alto fl), violin, and strings; dedicated to Irena Grafenauer and Gidon Kremer; commissioned by KölnMusik for the 'Schubert Anniversary Year 1997; duration: 15'; *Quaternion* for four violoncelli; dedicated to Vladimir Tonkha; duration: 25'; *Gallows songs a 3* (Galgenlieder) 1; fifteen pieces for mezzo-soprano, percussion and double bass on poems by Christian Morgenstern (in German); dedicated to and commissioned by Patricia Adkins Chiti; duration: 45'; and *Gallows songs a 5* (Galgenlieder); fourteen pieces for mezzo-soprano, flute, percussion, bayan and double bass on poems by Christian Morgenstern (in German); dedicated to Ensemble 'that'; commissioned by Hannoversche Gesellschaft für Neue Musik; duration: 45'. Refer to the *Sikorski Musikverlage Catalogue* (Hamburg, 24 November 2021), 32, 51, 60 and 61.

³⁶⁶ Michael Kurtz provides a summary of the 1996 events in his Appendix A, outlining the chronology of Gubaidulina's life by year. Among them are her visits to San José, California; Moscow (Russia); London and Huddersfield (UK); Zurich (Switzerland); and Bochum (Germany). See Kurtz, 272.

³⁶⁷ Kholopova points out the Fibonacci numbers pertinent to the number of sounds in the opening solo of the viola (1, 2, 8); percussion (2, 5); and strings (5, 1, 2). The third example apparently refers to the "Prayer Theme" (RN 2) opening the First Exposition. See Kholopova (2020), 296.

authority, Basharova provides another example of the grouping of the eight notes as in 1, 2, 3, and 5 in the viola's part in RN 80 (mistakenly referring to it as RN 81).³⁶⁸ Further examination of the concerto's score in a similar fashion produces many other exoteric examples discernible on multiple structural levels. For instance, the score calls for **five** flutes (Fibonacci number) of **four** sizes (Lucas number); **three** Wagner tubas and **three** keyboard instruments requiring **two** players (Fibonacci numbers); **eleven** percussion instruments (Lucas number) played by **five** percussionists (Fibonacci number); and a total of **thirteen** brass instruments (Fibonacci number). Further, the work utilizes **two** sound systems – chromatic tonality and microtonality. It is cast in **seven** sections (Lucas number) envisioned within a concerted sonata form with **two** expositions and **three** episodes in the development section. **Five** is the total number of pitches in the concerto's macro-theme, which appears in **five** distinct emanations.³⁶⁹ Throughout the work, the “Clock Theme” retains **three** constant attributes: pitch, percussive timbre, and rhythmic ostinato; concurrently, the Viola's “theme” extensively uses **two** monograms, BACH and DEsCH. More localized examples relating to instrumentation, pitch, and duration can be observed, for instance, in RN 82 and RN 34-41. The former showcases **five** groups of strings (V-ni I, V-ni II, V-le, V-c, C-b) producing an **eight**-pitch sonority that lasts for **eight** beats. The latter plays with the first four members of the Fibonacci series (1, 2, 3, and 5) as well as the third number (**four**) of the Lucas series with regard to organizing the sounding and resting episodes in the piano part. Curiously, all changing meters indicated by the composer metronomically or in seconds (in only three of the unmetred episodes) can be interpreted as either *symbolic* numbers – referring to biblical numerology or to the three names (Bach, Sofia, Shostakovich) crucial to the overall

³⁶⁸ Basharova, 34.

³⁶⁹ Those are, once again, the theme of Introduction; the “Clock” theme; the “Prayer” theme; the “Motive of Sorrow” and the manyfold viola's theme.

conception of the work – or as numbers *belonging to various numerical series*. These can appear alone or in combinations with one another. Figure 18 provides a list and possible interpretation(s) of these numbers.

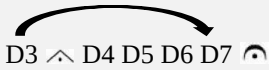
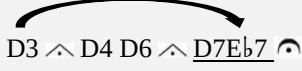
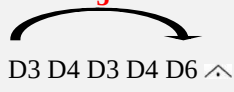
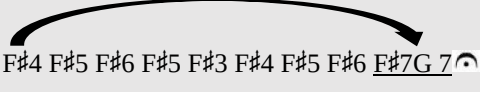
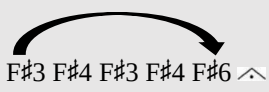
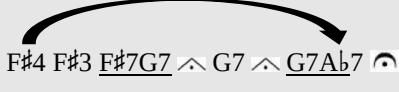
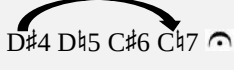
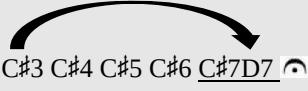
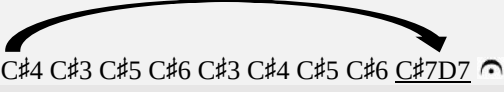
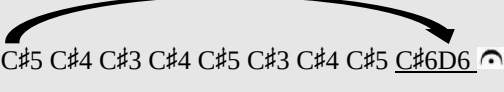
FIGURE 18: Interpretation(s) of the metronomic and other indicated numerical values in Sofia Gubaidulina's *Concerto for Viola and Orchestra*

Metronome Marking or/and time in seconds indicated by the composer	RN	Interpretation of the numbers as a symbolic, part of a Fibonacci-based series or a combination on thereof
$\text{♩}=48$	1, 18, 152	48=Sofia Gematria version of the composer's first name
$\text{♩}=96$	2–8; 12–13; 19–31; 90–2	$48 \times 2 = 96$ Sofia's number doubled
$\text{♩}=60$	34–50; 70–71; 84; 86; 139; 141; 145–6; 151	60= Bach number (no. 8 in Bach's series)
$\text{♩}=72$	149–50	$36 \times 2 = 72$ Shostakovich's number doubled (DSCH=7+18+3+8=36)
$\text{♩}=144$	93	Fibonacci Number (no. 11 (Luca) in the Fibonacci series)
$\text{♩}=100$	9–11; 55; 59; 61; 63; 66; 76	$100 = 2^2 \times 5^2$ Product of two Fibonacci numbers squared and multiplied by each other
$\text{♩}=132$	51–3	$132 = 100 + 32$ The sum of the Bach's symbolic number (23=S. Bach=18+14) and two Fibonacci numbers squared and multiplied by each other
$\text{♩}=92$	14	$92 = 2^2 \times 23$ The Fibonacci number squared and multiplied by the Bach's number (no. 6 in Bach's series and/or Bach's symbolic number 23= J. Bach=9+14) Or: The Lucas Number (4) multiplied by the Bach's number: $4 \times 23 = 92$
$\text{♩}=40$	57; 62; 143–4	40=Biblical number associated testing, trials, transformation etc. (e.g., the rain of Noah's flood lasted for 40 days; Moses and the Israelites wandered in the desert for 40 years; three of the Bible's most important figures – Moses, Elijah and Jesus – fasted in the desert for 40 days each)
$\text{♩}=80$	15–17; 33; 65; 68; 73; 75; 77– 83; 85–8	$80 = 40 \times 2$ Biblical number 40 doubled
$\text{♩}=120$	94–137	$120 = 60 \times 2$ Bach's number doubled (=multiplied by the Fibonacci number);

		Or: 120=40×3 Biblical number (40) multiplied by the Fibonacci number (3)
♩=30 (or ♩=60)	154	30=60÷2 Bach's number (60) divided by the Fibonacci number (2)
♩=20 (or ♩=40)	154	20=40÷2 Biblical number (40) divided by the Fibonacci number (2)
65"	147	65=5×13 Product of two Fibonacci numbers multiplied by each other Also: Biblical number representing, <i>inter alia</i> , a numerical value or gematria of the word "Adonai" (one of the Hebrew's names of God)
7"	153	Lucas number
5"	153	Fibonacci number

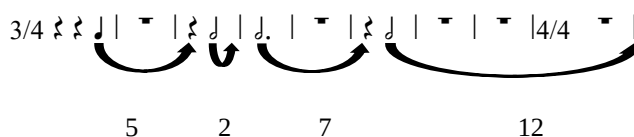
Studying the concerto's sketches preserved at the Basel archive and comparing them to the work's published score provides more concrete evidence of the composer's use of various Fibonacci-based series, underpinning the organization of the musical matter on multiple levels. For instance, Gubaidulina indicates the number of notes within the leaping ascents and descents of the Introduction theme as Bach's numbers – 1, 4, 5, and 9. The structuring of these segments, separated by longer rests and/or fermatas, remains extraordinarily consistent throughout the work as one can observe from the schematic Figure 19, below.

FIGURE 19: Bach's numbers in the *Viola Concerto's* Introduction theme

RN	Pitch Schemata	
Before RN 1	$1+4=5$ 	$2+3=5$ 1 
	$1+2+1=4$ 	5 
	4 	5 
14	9 	5 
	$3+1+1=5$ 	
72	4 	4 
138	5 	
140	9 	
142	9 	

Another set of numbers written out by the composer in RN 144 under the part of the Tam-tam represents the four opening members of the Evangelist's series: 2, 5, 7, and 12. Once again, Gubaidulina clearly marks the lengths of the vibrating sounds, measured in quarter-note beats.

FIGURE 20: *Viola Concerto*: Evangelist's numbers in the part of Tam-tam in RN 144



The last of the drafted numerical series appears on the first page of the opening developmental episode, marked as Episode 3 in Gubaidulina's sketches. It consists of three rows of numbers, creating the composer's own numerical sequence derived from the addition and subtraction of Lucas numbers (the middle row) and Fibonacci numbers (the bottom row).

FIGURE 21: *Viola Concerto*: Gubaidulina's own numerical sequence derived from the Lucas and Fibonacci Numbers

9:11	7	2	9	11	20	31	51	82	133
	-4	+3	-1	+2	+1	+3	+4	+7	+11
	3	5	8	13	21	34	55	89	144

The actual realization of Gubaidulina's own series leaves some room for interpretation, as the draft's notation deviates from that in the published score. However, judging by the consistent marking of the nine statements of the tubas' chorale in the sketch, the composer's principal aim remains discernible. It appears that the numbers refer to the proportionate duration of the sounding and resting segments of chorale, measured in bars. For instance, each of the chorale statements in RN 35 to 38 spans seven bars. Thus, in RN 35, 37-38, and 36, the proportions of

the sounding and resting segments within each statement are 3:4 and 5:2 (RN 36). The combined duration of the tubas' sounding and resting in RN 44-47 (statement no. 6 and 7 in Gubaidulina's drafts) is thirteen bars (11+2), presenting a sound-to-rest ratio of 11:2. Further, the shorter statements consist of three or five bars (RN 34 and 36, respectively), producing sound to silence ratios of 2:1 (RN 34) and 5:2 (RN 36). Finally, in RN 39-43, the longest segment of the chorale lasts for a total of 21 bars and consists of 8 sounding measures and 13 resting ones, respectively.

All of the aforementioned examples of Gubaidulina's musical symbolism, intrinsically interconnected with the use of the "magic" numbers, remain external manifestations of the composer's numerical aesthetics from the 1990s. In other words, they are visible and easily detectable in the score. From an analytical point of view however, the most fascinating piece of the concerto's numerical puzzle lies on a much deeper level. The substantial number of calculations in the form of equations abundant in the draft points to an intent to organize the sound matter through a system of mathematical proportions, hidden from the eyes and the ears, yet creating the mysterious temporal harmony of Gubaidulina's music. The following Plate, presenting the facsimile of a page from the sketches, exemplifies one of the composer's attempts to balance the duration of two fragments at the end of the first exposition, subtitled Episode 1 ("Эп." is short for "эпизод" [epizod] in Russian). The type of calculation used to equate the temporal lengths of two segments,³⁷⁰ marked as 27 seconds each and notated in different metronomic values, presents Gubaidulina's "double-counting technique," dubbed the "Gubaidulina principle" by Tsenova.³⁷¹

³⁷⁰ The values are calculated as following: 1) $60 \div 80 = 0.75$; $27 \div 0.75 = 36$; $36 \div 3 = 12$; therefore, $27'' = 36$ mb or 12 bars in $\frac{3}{4}$ time at MM $J = 80$; 2) $60 \div 46 = 1.3043$; $27 \div 1.3043 = 21$; $21 \div 3 = 7$; therefore, $27'' = 21$ mb or 7 bars in $\frac{3}{4}$ time at MM $J = 46$.

³⁷¹ Tsenova, 122.

PLATE 3: Reproduction of a page from Gubaidulina's sketches to the *Concerto for Viola and Orchestra*³⁷²

The image shows a handwritten musical score for a Viola and Orchestra. The score is written on multiple staves, including staves for Viola (Vla), Cello (Cl), Double Bass (Cb), Flute (Fl), Clarinet (Cl), Bassoon (Fg), Trumpet (Tr), Trombone (Tbn), Tuba (Tub), Snare Drum (Sn), Cymbals (Cym), and Viola (Vla). The score includes various musical notations such as notes, rests, and dynamic markings. Key markings include "2n: J -6-", "27", "19 20 21 22", "27", "28", "29", "30", "31", "32", "33", "34", "35", "36", "37", "38", "39", "40", "41", "42", "43", "44", "45", "46", "47", "48", "49", "50", "51", "52", "53", "54", "55", "56", "57", "58", "59", "60", "61", "62", "63", "64", "65", "66", "67", "68", "69", "70", "71", "72", "73", "74", "75", "76", "77", "78", "79", "80", "81", "82", "83", "84", "85", "86", "87", "88", "89", "90", "91", "92", "93", "94", "95", "96", "97", "98", "99", "100". The score is marked with "meno mosso" and "Cymbals outside P". The bottom of the page features a series of numbers 1 through 12, with some numbers crossed out or modified.

³⁷² Reproduced with permission from the Paul Sacher Foundation.

According to this principle, outlined in Tsenova's dissertation, the duration of music can be measured in the real (notated) units as well as in the absolute (abstract) ones.³⁷³ The beats can change their absolute time values depending on the tempo. These fluctuations of time are then compared with the "model tempo," which establishes the microbeat value *sui generis*,³⁷⁴ functioning throughout the entire work independently of the real or written-out tempo changes. The model tempo is an abstract idea; it may or may not coincide with the real tempo. If it does, the resultant proportion is 1:1. If it does not, it is determined as follows:

- 1) Calculate the ratio between the given ("real") tempo and the "model tempo" (e.g., $48 \div 60 = 4:5$ in RN 1).
- 2) Calculate the number of real beats within the pertinent number of bars notated in the given tempo (e.g., 10 bars in the triple meter in RN 1 yields to 30 real beats ($10 \times 3 = 30$)).
- 3) Calculate the number of absolute beats by dividing the number of real beats by the proportionate value of the given tempo, and then multiply it by the proportional value of the model tempo. Alternatively, divide the number of real beats by the result of division in Step 1 (e.g., $30 \div 4 \times 5 = 30 \div 0.8 = 37.5$).
- 4) Convert the number of absolute beats into the number of absolute bars within the indicated meter. The result is usually rounded up (e.g., $37.5 \div 3 = 12.5 = 13$).

In the unmetered episodes:

- 1) Divide the time indicated in seconds by the value of the (usually) preceding metered microbeat.
- 2) Prorate the value obtained in Step 1 according to the proportional relationship between the real and model tempo; i.e., divide it by the product of that ratio.
- 3) Convert the value obtained in Step 2 into the absolute number of bars using the preceding meter indication when available.

³⁷³ See Tsenova, 120-25.

³⁷⁴ As a reminder, the value of a microbeat is calculated by dividing the number of seconds in a minute (60) by the number of beats per minute indicated metronomically; e.g., $60 \div 48 = 1.25$.

The multi-dimensional array of numbers presenting itself in Gubaidulina’s drafts serves us as a point of departure for creating a temporal model of the concerto, in which the “absolute” durations of its sections are related to the principal numerical sequence. Since the draft notation often differs from the final version of the Schirmer-published score, the latter is considered the finalized primary source for metronome markings and the number of bars. The durations of the *senza metrum* sections, unspecified (in seconds) by the composer, are taken from the first commercial recording of the concerto released by Deutsche Grammophon. Some measured versions from the sketches are also used in the calculation. The chosen “model tempo” $\text{♩} = 60$ not only conforms to many of Gubaidulina’s ratios in the drafts but also serves as a symbolic unifying cipher. The eighth member of the BACH series, the number sixty, represents the name of the composer, whose metaphorical impact on the *Concerto for Viola and Orchestra* cannot be overestimated. Thus, the temporal model of the work, extrapolated from the three sources of data under the model tempo of $\text{♩} = 60$, appears as follows:

FIGURE 22: Extrapolated temporal model of the *Concerto for Viola and Orchestra*

Sections as identified by the composer	Introduction	Double Exposition		Development			Coda
Section number	1	2	3	4	5	6	7
Number of absolute bars at under $\text{♩} = 60$	34	89	58	89	144	215	29

Table 7 shows the pertinent calculations.

TABLE 7: *Concerto for Viola and Orchestra*: calculation of the number of absolute bars within the indicated meters at the Model Tempo ♩ =60

Section 1: Introduction						
RN	Time Signature and Metronome indication	Real Number of Bars	Real Number of Beats	Proportional relationship between the indicated (real) tempo and the model tempo	Number of Absolute Beats	Number of Absolute Bars within the meter indicated
Before RN 1	Unmeasured: 65"	N/A	N/A	$60 \div 48 = 1.25$ $48 \div 60 = 0.8$ or $4:5$	$65 \div 1.25 = 52$ $52 \div 0.8 = 65$ $30 \div 4 \times 5 = 37.5$	$(65 + 37.5) \div 3 = \mathbf{34}$
RN 1	$3/4$ ♩=48	10	$10 \times 3 = 30$			
Section 2: Exposition 1						
2–8 and 12–13	$3/4 = 9/8$ ♩=96	54	$54 \times 3 = 162$	$96 \div 60 = 1.6$ or $8:5$	$162 \div 8 \times 5 = 101.25$	Total number of absolute beats in the triple meter: $101 + 38 + 12 + 45 + 26 = 222$
9–11	$3/4 = 9/8$ ♩=100	21	$21 \times 3 = 63$	$100 \div 60 = 1.67$ or $5:3$	$63 \div 5 \times 3 = 37.8$	
14	$3/4$ ♩=92	6	$6 \times 3 = 18$	$92 \div 60 = 1.53$ or $23:15$	$18 \div 1.53 = 11.74$	Number of absolute bars within the meter indicated: $222 \div 3 = \mathbf{74}$
15–17	$3/4 = 9/8$ ♩=80	20	$20 \times 3 = 60$	$80 \div 60 = 1.33$ or $4:3$	$60 \div 4 \times 3 = 45$	
18	$3/4$ ♩=48	7	$7 \times 3 = 21$	$48 \div 60 = 0.8$ or $4:5$	$21 \div 4 \times 5 = 26.25$	
13	Unmeasured: 13" Prorated under $3/4 = 9/8$ ♩=96	N/A	N/A	$60 \div 96 = 0.625$ $96 \div 60 = 1.6$	$13 \div 0.625 \div 1.6 = 13$	Total number of unmeasured absolute beats in the triple meter: $13 + 32 = 45$
14	Unmeasured: 32" Prorated under $3/4$ ♩=92	N/A	N/A	$60 \div 92 = 0.652$ $92 \div 60 = 1.53$	$32 \div 0.652 \div 1.53 = 32$	Number of absolute bars within the meter indicated: $45 \div 3 = \mathbf{15}$ $74 + 15 = \mathbf{89}$
Section 3: Exposition 2						
19–32	$3/4 = 9/8$ ♩=96 RN 32 is unmeasured in the published score; notated as an 8-measure segment in the draft	$60 + 8 = 68$	$68 \times 3 = 204$	$96 \div 60 = 1.6$ or $8:5$	$204 \div 8 \times 5 = 127.5$	$(127.5 + 45) \div 3 = 57.5$ $\mathbf{58}$

33	9/8 J=48	12	12×3=36	48÷60=0.8 or 4:5	36÷4×5=45	
Section 4: Development 1						
34–50	3/4 J=60	78	78×3=234	60÷60=1	234	(234+34) ÷3= 89
51–3	3/4 J=132	25	25×3=75	132÷60=2.2 or 11:5	75÷11×5=34	
Section 5: Development 2						
55 59–61 63 66 76	3/4=9/8 J=100	4 4+2=6 3 3 4	4×3=12 6×3=18 3×3=9 3×3=9 4×3=12 12+18+9+9+12=60	100÷60=1.67 or 5:3	60÷5×3=36	36÷3=12
57 62	3/4 J=40	2 3	2×3=6 3×3=9 6+9=15	40÷60=0.67 or 2:3	15÷2×3=22.5	22.5÷3=7.5
65 68 73 75 77 79 81–3 85 87–8	9/8=3/4 J=80	3 5 3 2 3 2 9 3 8	3×3=9 5×3=15 3×3=9 2×3=6 3×3=9 2×3=6 9×3=27 3×3=9 8×3=24 9+15+9+6+9+6+27+9+24=114	80÷60=1.33 or 4:3	114÷4×3=85.5	85.5÷3=28.5
70–71 84 86	3/4 J=60	7 4 3	7×3=21 4×3=12 3×3=9 21+12+9=42	60÷60=1	42	42÷3=14
90–2	4/4 J=96	11	11×4=44	96÷60=1.6 or 8:5	44÷8×5=27.5	27.5÷4=6.875
93	3/4 J=144	8	8×3=24	144÷60=2.4 or 12:5	24÷12×5=10	10÷3=3.33
Measured portion; total number of absolute bars within the meters indicated: 12+7.5+28.5+14+6.875+3.33=72.205 or 72 bars						
54 57 58 60 62 64 67 69 72 74 77 78 80 86 89	Unmeasured: 13” 10” 22” 5” 5” 19” 23” 38” 27” 13” 4” 4” 13” 5” 17”	N/A	N/A	60÷60=1	13+10+22+5+5+19+23+38+27+13+4+4+13+5+17=218	218÷3= 72 all prorated under 3/4
Total number of absolute bars in measured and unmeasured portions: 72+72= 144						

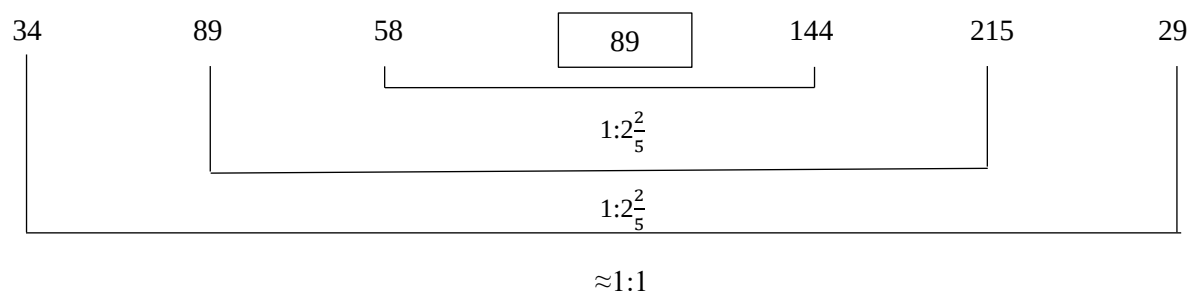
Section 6: Development 3						
94 95 96 97 98 99 100 102 104-6 106-7 107-8	9/8 J=120	2 2 4 2 2 2 4 2 12 2 4	2×3=6 2×3=6 4×3=12 2×3=6 2×3=6 2×3=6 4×3=12 2×3=6 4×3=12 6+6+12+6+6+6+ 12+6+36+6+12= 114	120÷60=2 or 2:1	114÷2×1=57	57÷3=19
94 95 96-7 98-9 99 100-1 102-3 106 107 108-21 122-37	6/8 J=120	2 2 9 4 1 12 11 1 3 74 74	2×2=4 2×2=4 9×2=18 4×2=8 1×2=2 12×2=24 11×2=22 1×2=2 3×2=6 74×2=148 74×2=148 4+4+18+8+2+24+ 22+2+6+148+148= 386	120÷60=2 or 2:1	386÷2×1=193	193÷2=96.5
139 141	3/4 J=60	2 2	2×3=6 2×3=6 6+6=12	60÷60=1 or 1:1	12	12÷3=4
145-6	4/4 J=60	10	10×4=40	60÷60=1 or 1:1	40	40÷4=10
143-4	3/4 J=40	11	11×3=33	40÷60=0.67 or 2:3	33÷2×3=49.5	49.5÷3=16.5
144	4/4 J=40	1	1×4=4	40÷60=0.67 or 2:3	4÷2×3=6	6÷4=1.5
Measured portion; total number of absolute bars within the meters indicated: 19+96.5+4+10+16.5+1.5=147.5 or 148 bars						
94 95 138 97 140 142 147 148	Unmeasured: 6/8 J=120 3" 3" 8" 9/8 J=120 2" 3/4 J=60 17" 19" 2/4 J=60 65" 30"	N/A	N/A	60÷60=1	3+3+8=14 2 17+19=36 65 30	14÷2=7 2÷3=0.67 36÷3=12 65÷2=32.5 30÷2=15 7+0.67+12+32.5+15=67
Total number of absolute bars in measured and unmeasured portions:						

148+67= 215						
Section 7: Coda						
149	2/4 ♩=72	1	1×2=2	72÷60=1.2 or 6:5	2÷6×5=1.67=2	2÷2=1
149–50	3/4 ♩=72	7	7×3=21		21÷6×5=17.5=18	18÷3=6
151	3/4 ♩=60	4	4×3=12	60÷60=1 or 1:1	12	12÷3=4
152	3/4 ♩=48	3	3×3=9	48÷60=0.8 or 4:5	9÷4×5=11.25=11	11÷3=3.6=4
153	Unmeasured: 3/4 ♩=48 12”	N/A	N/A	60÷60=1 or 1:1	12	12÷3=4
154	3/4 ♩=30	2	2×3=6	30÷60=0.5 or 1:2	6÷1×2=12	12÷3=4
154	3/4 ♩=20	2	2×3=6	20÷60=0.33 or 1:3	6÷1×3=18	18÷3=6
Total number of absolute bars in measured and unmeasured portions: 1+6+4+4+4+4+6= 29						

Thus, the application of the “Gubaidulina principle” to each of the seven sections of the *Viola Concerto* results in the emergence of a chain of numbers derived from or approximating those from the Fibonacci series. Strikingly, the non-Fibonacci numbers (58, 215, and 29) as well as the concerto’s overall duration in absolute bars (658), attune themselves to several arithmetical combinations generating other symbolic numbers. For instance, the number 658, divided by 14 (Bach’s number), produces the Lucas number 47. The same, when number divided by Sofia’s number 48, approximates the same Bach’s number ($13.7 \approx 14$). The number 29, coming from the Lucas series and carrying a connotation of the numerical value of one of J. S. Bach’s signatures,³⁷⁵ creates the number 58 when doubled. Further, the Fibonacci number 89, repeated twice in the proposed temporal model, can be composed of the Sofia’s and the Bach’s numbers ($89=48+41$). Its central positioning in the overall scheme of the work results in a set of two direct proportions approaching a 1:1 ratio between the opening and the closing episodes of the form.

³⁷⁵ See Tatlow, *Bach’s Numbers*, 67.

FIGURE 23: Proportions created by the numerical values of the sections in the *Concerto for Viola and Orchestra*



Bearing in mind the unavailability of the composer’s own calculations, it seems well-grounded to acknowledge that Gubaidulina indeed possesses an exceptional ability to “hear” the “divine proportions” and, thereby, achieve the desired temporal harmony semi-intuitively. On a final note, we must emphasize once again that the *Numerorum Mysteria* of her *Viola Concerto*, just as that of the Pietro Bongo’s eponymous Renaissance manuscript, shall remain the subject of analytical conjecture. Oddly enough, today it also exists with respect to the concerto’s actual duration, indicated as 34 minutes (Fibonacci number) by the composer. And yet, in all versions of Kholopova’s volume, the concerto’s duration is marked as 40 minutes.³⁷⁶ It appears that this minute and seemingly insignificant detail in the best Russian-language study of Gubaidulina’s music remains, as the country itself, “a riddle, wrapped in a mystery, inside an enigma.”³⁷⁷

³⁷⁶ Kholopova (2020), 413.

³⁷⁷ This famous phrase belongs to Winston Churchill, who in 1939 described the country as an inscrutable and menacing land that plays by its own rules, usually to the detriment of those who choose more open regulations. See David Owen, *Riddle, Mystery, and Enigma: Two Hundred Years of British–Russian Relations* (Haus Publishing, 2021), 9.

CHAPTER FOUR

Analytical Étude No. 3: *In the Shadow of the Tree* [Im Schatten des Baumes] for Koto, Bass Koto, Zheng and Orchestra

Sofia Gubaidulina's last concerted work from the 1990s, *In the Shadow of the Tree*, was completed in Appen on September 17, 1998. The composer's brief annotation, reproduced in Valentina Kholopova's volume, is presented below in the original language along with the English translation.³⁷⁸

“В тени под деревом” (1998)

Сочинение для японских кото, бас-кото и китайского чжэна с оркестром. Рассчитано на японскую исполнительницу Казуэ Саваи.

Эта вещь имеет музыкально-композиционный сюжет. Исходная его пружина в следующем: как инструменты солистки, так и весь оркестр разделены на две группы; одна из них настроена на $\frac{1}{4}$ тона ниже другой. В оркестре так противопоставлены струнные I и струнные II; у солистки чжэн настраивается на $\frac{1}{4}$ тона ниже, чем кото и бас-кото.

Эта особенность настройки дает возможность трактовать оба 12-звучковых состава как противоположные звуковые сферы, как “пространство света” и “пространство тени.”

Играя с этими двумя пространствами, “теневым” и “световым”, можно попытаться приблизиться к музыкальному пониманию и ощущению тени. Сам процесс приближения представлен здесь как музыкальная игра, в конце которой нам открывается: тень – это та область существования, из которой рождается жизнь и излучается свет.

1998

“In the Shadow of the Tree” (1998)

This is a composition for Japanese koto, bass koto, Chinese zheng and orchestra. It is written for the Japanese performer, Kazue Sawai.

The work has a certain musical and compositional plot. Its initial idea is to divide the solo instruments and the orchestra into two groups, with one tuned a quarter-tone lower than the other. Thus, in the orchestra, the two juxtaposed groups are the first and second strings, while the soloist's Zheng is tuned a quarter-tone lower than the Koto and the Bass Koto.

The peculiarity of this tuning makes it possible to treat both of these twelve-tone areas as contrasting musical spheres, that is, as ‘a space of light’ and ‘a space of shadow.’

While playing with these two sound-spaces, the ‘shadowy’ and the ‘light’, one can try to come to grips with musical understanding and perception of the shadow. The very process of converging of the two is presented as a musical game which, in the end, reveals to us that shadow is the sphere of existence from which life emanates and light emits.

1998

³⁷⁸ Kholopova (2020), 314-15. For an abridged/text-modified alternative translation from Russian see Vera Lukomsky, “Sofia Gubaidulina (1931 –),” *Music of the Twentieth-Century Avant-Garde: A Biocritical Sourcebook*, ed. Larry Sitsky (Greenwood Publishing Group, 2002), 185.

However succinct, Gubaidulina's note recapitulates several important principles that governed the creative process of this and, indeed, many other works completed during the 1990s. They concern her fascination with unusual instruments, the philosophically charged conception of *shadow and light*, and the emergence of the phenomenon of the tree as a symbol with many meanings.

Gubaidulina and Koto: Sonic Odyssey of Introspection

Interviewed in 1994, Gubaidulina described the koto as “a living creature that produces the sound.”³⁷⁹ As it is, the composer's proclivity to animate and often to personify a musical instrument is neither unusual nor idiosyncratic. Throughout the history of mankind, musicians have attested to the peculiar and rather inscrutable compulsion to emotionally bond with their instruments presenting themselves as otherwise inanimate objects. From this perspective, Gubaidulina's “breathing bayan”³⁸⁰ or “a completely different animal” called Viola,³⁸¹ are not dissimilar to Michele Todini's “Golden Harpsichord,” with its “triumphing Galatea travelling over [...] the waves of oceanic phantasmagoria that rests on lion's feet,”³⁸² or to the capricious

³⁷⁹ Olga Bugrova, “‘What's given' and ‘what's assigned,’” 5.

³⁸⁰ Multiple sources touching upon the subject are available. Among the most recent see, for instance, Svetlana Savenko, “The Vitality of Music: From the Origins to the Realities of Non-Classics,” *Hudozhestvennaya kul'tura* [Art & Culture Studies] 2 (2022): 10–55, <https://doi.org/10.51678/2226-0072-2022-2-10-55>.

³⁸¹ Schickelhaus, “‘The Viola is a Completely Different Animal,’” 18.

³⁸² See Emanuel Winternitz, *Musical Instruments and Their Symbolism in Western Art*, 2nd edition (Yale University Press, 1979), 110-15; idem, “The Golden Harpsichord and Todini's galleria armonica,” *Metropolitan Museum of Art Bulletin* 14, no. 1 (1956): 149-56. The latter version is available online at https://www.academia.edu/23965233/The_golden_harpsichord_and_Todinis_Galleria_Armonica. Among more recent publications see Stewart Pollens, “Michele Todini's Golden Harpsichord: An Examination of the Machine of Galatea and Polyphemus,” *Metropolitan Museum Journal* 25 (1990): 33-47, https://www.jstor.org/stable/pdf/1512894.pdf?refreqid=fastly-default%3Aabc7721d4ce9d84af9d3e8dc6601ba8fa&ab_segments=&origin=&initiator=&acceptTC=1.

and sophisticated “Lucille,” the beloved guitar of B. B. King.³⁸³ This being said, there is a remarkable idiosyncrasy in Gubaidulina’s perception of exotic, i.e., traditional non-European musical instruments. It lies in the composer’s metaphysical explications of the ensuing novel and utterly uninhibited sonic discoveries. In her view, the musical communication through and with an unfamiliar instrument, realized by a professional musician becoming a dilettante *pro tem* – that is, expressly unburdened by often centuries-established performance practice traditions – allows her to reach, or rather, to get closer to the realm proto-music, a primordial state of music making where the notion of music itself does not exist. Within it, any previously acquired skills or knowledge of “proper” sound-production techniques become irrelevant; instead, the physical body of an instrument itself emerges as the source of child-like wonder and enjoyment. Commenting on her Astraea-related experiments with unusual instruments, Gubaidulina articulates her thoughts on the subject in a succinct yet invariably vivacious fashion:

We want to enter a special state when we are, as it were, at the threshold of a naïve, childish consciousness; as if we are without any idea that there is music in the world. That’s why there shouldn’t be any skills. Our music-making is the need to communicate with each other through sound, preferably through an unusual sound. An unfamiliar instrument, like a primitive material, leads us to primordial music. For us, this is a pure vessel that receives and gives, and each of us becomes such a “vessel” for a while. We’re kind of amateurs. [...] We are attracted by the pristine capabilities of an instrument rather than the playing technique developed on it. [...] We have no goal at all to compose a collective, even if it is an entirely intuitive work, or imitate its creation on stage. [...] This experience is then reflected – to some extent involuntarily – in the composition as well as in the state of creative consciousness.³⁸⁴

³⁸³ Philip Auslander, “Lucille Meets GuitarBot: Instrumentality, Agency, and Technology in Musical Performance,” *Theatre Journal* 61, no. 4 (December 2009): 603-16, https://www.jstor.org/stable/pdf/40660554.pdf?refreqid=fastly-default%3A9cd2bf701eb5d5f366747438a75a7a4b&ab_segments=0%2Fbasic_search_gsv2%2Fcontrol&origin=&initiator=search-results&acceptTC=1.

³⁸⁴ Bugrova, “Dano i zadano,” 4-5.

Keeping in mind Gubaidulina's final remark about the nature of her compositional process, it becomes clear that her never-ending exploration and self-searching through sound are at work in the koto concerto, *In the Shadow of the Tree*. Incidentally, the work remains her only concerto for "unusual" solo instruments completed at the threshold of a new millennium. As with nearly all of Gubaidulina's concerted works, it was written for and dedicated to a particular performer, the Japanese koto virtuoso Kazue Sawai. Commenting on the personal significance of the relationship between composer and performer in one of her numerous interviews over the past few decades, Gubaidulina accentuates once again: "The personality of a performer is very important to me. It is vital for me to see a person's eyes, to know their communication style, their manner of performance. Then I [can] write for that person."³⁸⁵ The composer had, indeed, met her match in Kazue Sawai during her first trip to Japan in 1989. At the time, Sawai enjoyed a reputation as a world-renowned koto player interested in contemporary music and improvisation, who saw her instrument as versatile, adaptable, and "still so much to discover about."³⁸⁶ The two women, inherently open to exploring the unconventional sound possibilities of "a board with strings on it,"³⁸⁷ found themselves on the same wavelength starting from their first meeting at Sawai's home in 1992. The hostess, surprised and touched by "Guba-chan's"

³⁸⁵ Tatiana Mamaeva, "Sofia Gubaidulina: 'It's Important for Me to Hear What Flowers Sound Like, What a Tree Sounds Like,'" *Real Time* [Real'oe Vremya], November 2, 2016, <https://m.realnoevremya.ru/articles/47148?ysclid=lvln48g9mv286492808>.

³⁸⁶ Cited in Jocelyn C. Clark, "Searching for a Niche without a Genre: The Case of the Multi-National East Asian Traditional New Music Ensemble IIIZ+," *The World of Music, New Series: Ensembles in the Contemporary Korean Soundscape* 1, no. 1 (2012): 107, https://www.jstor.org/stable/pdf/41699978.pdf?refreqid=fastly-default%3A357f66e190c40fa4b1d9e5a8d6369bac&ab_segments=&origin=&initiator=&acceptTC=1.

³⁸⁷ Clark, "Searching for a Niche without a Genre," 106.

immediate fascination and total absorption with the instrument,³⁸⁸ gave her one as a gift, which, to date, remains in Gubaidulina's house in Appen.³⁸⁹ The 1992 one-week sojourn of the composer and the performer marked the beginning of a fruitful artistic collaboration, which turned out to be a revelation for one as much as for the other. Gubaidulina's first experiments with the instrument were truly astonishing for Sawai, long considering herself as the Koto player who "had tried hard to follow a path of taking things apart and breaking them down to essential elements."³⁹⁰ Yet, even years of working with many Japanese and Western contemporary composers could not,³⁹¹ as she later admitted, prepare her for the extent and the intensity of Gubaidulina's search for new sounds.³⁹² The composer, in turn, describes her admiration for Sawai and her instrument in the annotation to her first Koto work, *...Early In the morning, Right Before Waking...*(1993) as follows:

My impressions of her musical talent and her technical mastery were deeply enriched at the time when I was lucky enough to live in her house for an entire week. These impressions were magnified by the personal communication with her and her instruments. The seven days that I spent tête-à-tête with two instruments, the koto and bass koto, were truly unforgettable. My joy

³⁸⁸ Refer to an interview with Kazue Sawai by Eiko Tsuboike, "Opening New Realms in Sokyoku: The World of Kazue Sawai," trans. Robert Reed, *Performing Arts Network Japan (PANJ)*, March 12, 2013, <https://performingarts.jp/article/7026/>.

³⁸⁹ A photograph of Sofia Gubaidulina playing Koto in her house in Appen is available at the official website of the Japanese *Premium Imperiale*, an international award bestowed upon the composer in 1998. See <https://www.praemiumimperiale.org/en/laureate-en/laureates-en/gubai-en>.

³⁹⁰ In Eiko Tsuboike, "Opening New Realms in Sokyoku: The World of Kazue Sawai" (March 12, 2013): para 19. Another Sawai's account of Gubaidulina's stay at her home in 1992 is reproduced in Michael Kurts's monograph. See Kurtz, 223-24.

³⁹¹ Among them were notable Japanese and American avant-garde composers such as Toshi Ichianagi (1933–2022), Yuji Takahashi (b.1938), Christian Wolff (b. 1934) and John Cage (1912–1992). In 1989, for instance, Sawai made an arrangement of John Cage's *Three Dances* for two prepared pianos (1945) for prepared seventeen-string (bass) Koto. One of the performances of Cage's original version can be accessed on YouTube at <https://youtu.be/p7aMUR5x7yA>. Sawai's transcription is available at <https://youtu.be/0Iudc1Xhtjg> (Dance 1), <https://youtu.be/2f3pBHPRX38> (Dance 2) and <https://youtu.be/PZYJG5Z6hI4> (Dance 3).

³⁹² See Tsuboike, "Opening New Realms," para 14 and 19.

transcended anything that could be described in words. I touched the strings with my ungainly and inept fingers; yet the instruments were so kind-hearted and responsive that, gradually, I discovered a deep connection with them and, as one might say, gained an intimate familiarity with them.³⁹³

Gubaidulina's hands-on experimentation with the instrument resulted in the discovery of an amazing array of staggering sounds that were hitherto unimaginable for Sawai, the brilliant koto master who, nonetheless, had long been working and performing within the context of the centuries-old Japanese tradition.³⁹⁴ Among these novel sound-production techniques brought forth by the composer are the following:

- Playing with a bow (violin, double bass, etc.)
- Using different types of glass cups to produce various sound effects such as *glissando*, *tremolo*, and *vibrato*
- Using other objects made of wood and metal, such as hard brushes, thimbles, and piano-tuning hammers
- Finger *pizzicato* and finger tapping; the latter also allows for the production of natural harmonics and chords made up of them
- Combining the above techniques on two halves of the instrument's strings divided by the movable bridges

Multiple combinations of these extended techniques, used alongside the traditional plectrum-produced sonorities, present themselves in Gubaidulina's two works composed for koto:³⁹⁵ the 1993 ten-minute-long piece for three 17-stringed (bass) kotos and four 13-stringed kotos, ...*Early*

³⁹³ Kholopova (2020), 306.

³⁹⁴ Tsuboike, "Opening New Realms," para 16.

³⁹⁵ Along with composing, Gubaidulina also took part in multiple improvisational sessions with Japanese musicians. For instance, on February 6-8 of 1995, Gubaidulina, Sawai and Mayumi Miyata (Japanese *shō* player) recorded their free improvisation session at SYSMO Studio in Paris. The CD, beguilingly titled "Three Strangers in Paris," was released the same year by the Japanese Kyoto Records (KYCH-3001). It should be mentioned, however, that by 1995, the three musicians were no longer strangers. In addition to Gubaidulina's time-honoured artistic collaboration with Sawai, the composer's introduction to Miyata took place during her first visit to Tokyo in 1989. See Kurtz, 232 and 205. In 1991, Miyata took part in Astraea improvisation session at the International Music Festival at Davos Dorf alongside with Viktor Suslin, Mark Pekarsky, Valentina Ponomareva, and the composer herself. The following year, the recording of this session was issued as a CD a small British company dedicated to producing improvisation-based contemporary music. Refer to Astraea Ensemble, *Music from Davos*, recorded August 5 and 7, 1991. Leo Records UK B00000B5KB, compact disc.

In the morning, Right Before Waking...,³⁹⁶ and the 1998 thirty-one-minute-long composition for Japanese koto, bass koto, Chinese zheng and orchestra, *In the Shadow of the Tree*, otherwise known as Gubaidulina's *Koto Concerto*. The following excerpts from the concerto's score featured in Examples 1.1, 1.2, and 1.3 present selected sound effects in the part of the three solo instruments: koto, zheng and bass koto.

EXAMPLE 29.1: *In the Shadow of the Tree*: the koto is played with a violin bow; first as *arco tremolo*, then *a punta d'arco tremolo sul ponticello (s.p.)*. In measure 7 the bowing is combined with the traditional plectrum playing technique.

The image shows a musical score excerpt for the Koto and Violins I from the piece 'In the Shadow of the Tree'. The score is written for measures 88 to 94. The Koto part is in 4/4 time, with a tempo marking of 60. The Violins I part is in 4/4 time. The Koto part features a variety of techniques, including arco tremolo, a punta d'arco tremolo sul ponticello (s.p.), and plectrum playing. The Violins I part features a variety of techniques, including arco tremolo, a punta d'arco tremolo sul ponticello (s.p.), and plectrum playing. The score is written in G major, with a key signature of one sharp (F#).

³⁹⁶ For this work, the list the extended techniques accompanied by several annotated score excerpts can be found in Valeria Tsenova's dissertation. See Tsenova, 81-83.

EXAMPLE 29.2: *In the Shadow of the Tree*: the zheng part combines finger pizzicato (*pizz. con le dita*) in the soloist's right hand rapidly sliding down (starting from m. 3 of RN 98) and creating cluster-type sonorities with the rising and falling tremolo across the strings played by the performer's left hand. In RN 99, *glissando* and *tremolo* are produced by the corrugated bottom of the glass.

98

Zheng

pizz con le dita (#) (p) (p) (p) (p) (p) (p)

Ct

99

Zheng

Glissandierendes Tremolo mit dem geriffelten Glasboden
Glissando and tremolo produced by the corrugated bottom of the glass

Ct

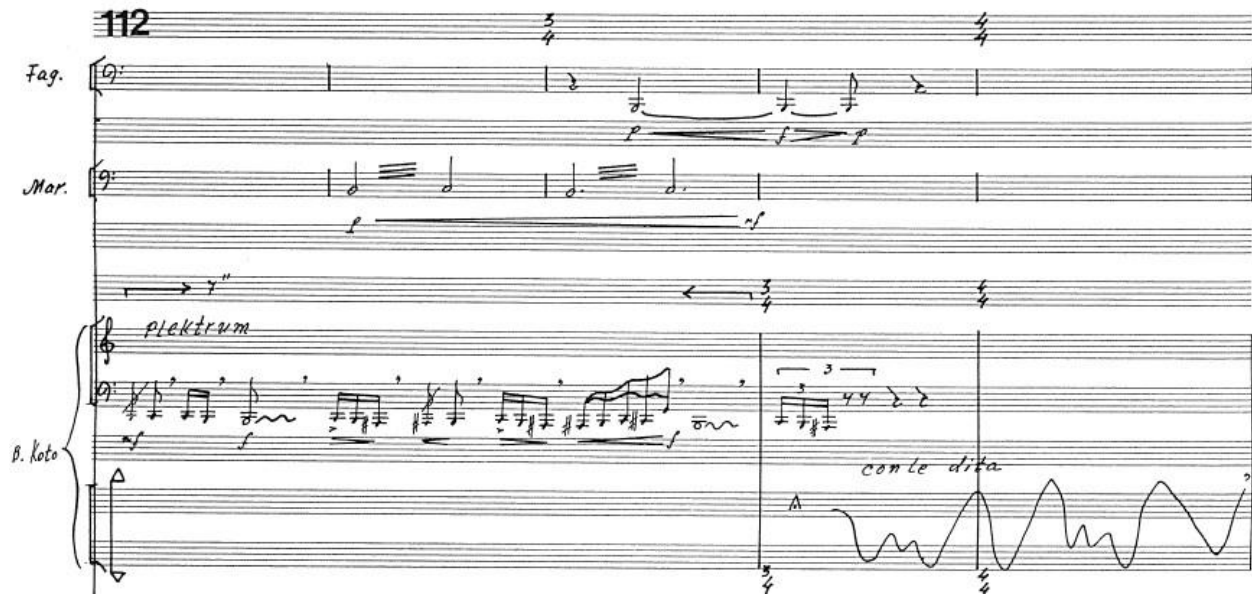
Ct

Pizz. mit den Fingern
Finger pizzicato

Tremolo quer über die Saiten
Tremolo across the strings

EXAMPLE 29.3: *In the Shadow of the Tree*: plectrum playing in the bass koto part (RN 112) is followed by rising and falling waves of natural harmonics (*con le dita*) indicated

by the sign () placed at the lower two staves of the bass Koto system.



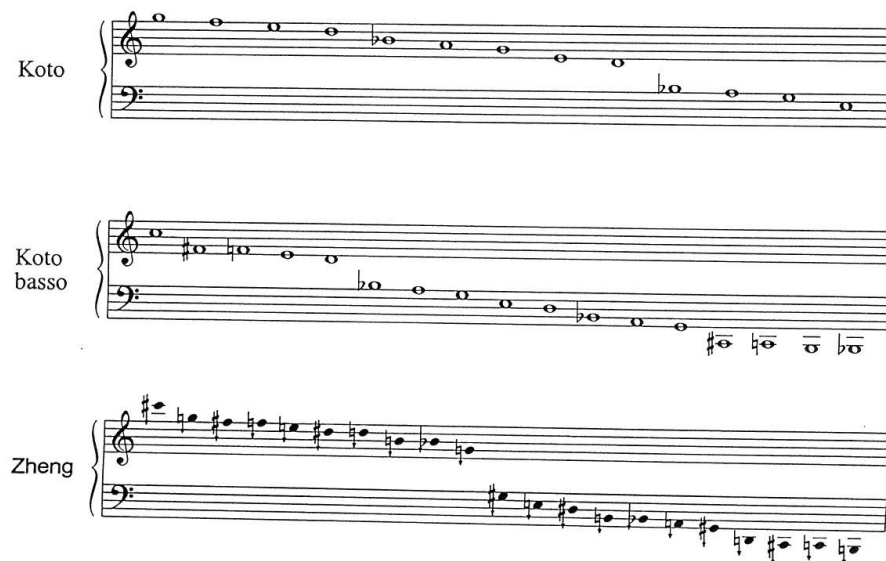
It is pertinent to note that, while the timbres of the solo instruments do bring a certain Oriental flavour to the overall sonic picture of the concerto, the composer, by and large, strives “not to be locally tied to what has already been given.”³⁹⁷ To paraphrase Toru Takemitsu’s thoughts on Gubaidulina’s music, one might say that nostalgia – or rather, reminiscences of Japan’s rich musical traditions – do not exist here;³⁹⁸ instead, the composer continues to “expand

³⁹⁷ Ilgizar Vakhitov, “Sofia Gubaidulina: Ethnicity is Reflected in My Compositions, Yet Indirectly” [София Губайдулина: “Этнос сказывается в моих сочинениях - каким-то опосредованным образом или даже мелодией”], *Milliard Tatar*, November 2, 2021, <https://milliard.tatar/news/sofiya-gubaidulina-etnos-skazyvaetsya-v-moix-socineniyax-kakim-to-oposredovannym-obrazom-ili-daze-melodiei-1093>.

³⁹⁸ See Kunio Hara, “1 + 1 = 1: Measuring Time’s Distance in Tōru Takemitsu’s *Nostalghia*: In Memory of Andrei Tarkovskij,” *Music and the Moving Image* 9, no. 3 (Fall 2016): 9, https://www.jstor.org/stable/pdf/10.5406/musimoviimag.9.3.0003.pdf?refreqid=fastly-default%3A111d5f982847e24ea29c1bb5a91f2b6b&ab_segments=&origin=&initiator=&acceptTC=1.

[her] consciousness”³⁹⁹ through the newly found sounds within the ancient instruments of the East. And yet, the Asian aura of the work is undoubtedly intensified by the composer’s choice of the tunings for both of the kotos and zheng. All of these instruments prominently feature one of the oldest koto tunings, called *nakazora jōshi*,⁴⁰⁰ which has a distinct minor flavour to a Western-trained ear. As the ‘*In-sen*’ or minor-sounding scale in the Japanese tradition, it is similar to the most standard of the koto tunings, *hira jōshi*.⁴⁰¹ With the addition of new minor seconds in the upper and lower registers of the bass koto and the quarter-tone chromatic inflections of the zheng, the complete sound range of the three solo instruments covers slightly more than five octaves, as shown in Figure 24.

FIGURE 24: Tuning of the solo instruments in Gubaidulina’s *Koto Concerto*



³⁹⁹ Ilgizar Vakhitov, “Sofia Gubaidulina,” para 17.

⁴⁰⁰ See, for instance, Masateru Ando, “Koto scales and tuning,” *Journal of the Acoustical Society of Japan* 10, no. 5 (1989): 280, https://www.jstage.jst.go.jp/article/ast1980/10/5/10_5_279/pdf.

⁴⁰¹ Ando, “Koto scales and tuning,” 280.

Outwardly, the overall design of the tuning for the three solo instruments, homogeneous in the middle registers and becoming, as it were, distended in the upper and the lower registers of the 17-stringed and 21-stringed zithers, may be interpreted as the composer's attempt to create a metaphysical model of *the expanding universe of the Koto*, the instrument which she sees as "coming not only from the archipelago called "Japan" but also from the wider region called "Asia.""⁴⁰² Furthermore, the interconnectedness and interdependence of the manifold elements comprising Gubaidulina's koto microcosm manifest themselves with respect to the physicality of the instrument itself and the metaphysics of the *shadow and light* concept. The subject of the latter will be discussed in the next section of the text. Concerning former, the composer expounds in her 1994 interview to Olga Bugrova:

Japanese instrument koto [...] is divided [by the movable bridges] exactly in the middle. Its wonderful peculiarity lies in the following: the sound (we produce it, let's say, with a plectrum on one half) exists as one, *real* world; and while it sounds, with the other hand and on the other half of the instrument, we can make different kinds of vibrato. This *other* part of the instrument represents something [...] soaring, something floating above the surface; there is a completely different world within it. One side of the instrument, thus, represents the rhythm of specific sounds; the other – the rhythm of various vibratos. And this possibility of interpreting "here" and "there", contained in the instrument itself, is extremely attractive.⁴⁰³

On the Question of *Shadow and Light*

According to the commentary on the Tokyo premiere of the work by a Japanese scholar Akemi Nakata, *In the Shadow of the Tree* "depicts the colours of light and shadow created by the sunlight shining through the trees." Nakata, drawing on the words of the composer, adds that

⁴⁰² Cited from Junichi Konuma's description of Gubaidulina's work for the Japanese kotos and the "'Chinese koto' from the Chinese Zen tradition" in the liner notes to the first commercial recording of *In the Shadow of the Tree* by the Japanese record label Commons, founded by Ryuchi Sakamoto in 2006; the CD was released on October 12, 2011. See Junichi Konuma, "Ryuchi Sakamoto: Sonority of Japan. Point and Surface" (Commons Records RZCM-46928, 2011): para 2. Compact disc, liner notes.

⁴⁰³ Bugrova, 5.

“the world of ‘shadow’ symbolizes life, and the idea is that ‘light’ is also born from ‘shadow.’”⁴⁰⁴ Prior to advancing any supplementary comments on Gubaidulina’s concept of *shadow and light* in her 1998 koto concerto, it is essential to recapitulate the contents of the additional primary sources on the subject.

Two such documents cited earlier are the 1994 interview with Bugrova and the 1998 composer’s annotation to her own work. Both of these texts emphasize the purely musical ideas derived from either the unique characteristics of the koto instruments or the peculiarity of the overall tuning method, which creates a unified twenty-four-tone sound space comprised of two twelve-semitonal vastitudes, one of which is a quarter-tone lower than the other. On the surface, these ostensibly dualistic ideas of “here” versus “there”, as well as semitonal versus quarter-tone tunings, appear to fall into Valentina Kholopova’s category of “binary oppositions.”⁴⁰⁵ And yet, within the entire sound palette of the concerto, there is neither contradiction nor confrontation between the twelve-tone chromatic space and its quarter-tone-lower counterpart. In the 1998 press release for the concerto’s North-American premiere, Paul Griffiths, a British music critic working for *The New York Times*, remarks that “the shadow music is not particularly negative or sinister, and its effect is not so much to contradict the light as to gentle it”; as a result, the “initial

⁴⁰⁴ Cited in Konuma, “Ryuchi Sakamoto: Sonority of Japan,” para 3.

⁴⁰⁵ In the recent decades, drawing such parallels has become increasingly popular in an Anglophone music discourse on Gubaidulina’s works employing alternative tunings. See, for instance, Fay Damaris Neary, “Symbolic Structure in the Music of Sofia Gubaidulina” (DMA diss., Ohio State University, 1999), 117; Joseph Williams, “Discontinuous Continuity?: Structural Analysis of Sofia Gubaidulina’s String Quartets” (MA Thesis, University of Cincinnati, 2007), 17; or Young-Mi Lee, “Musical Contents and Symbolic Interpretation in Sofia Gubaidulina’s “Two Paths: a Dedication to Mary and Martha” (DMA diss., Ohio State University (2007), 69-70.

contradictions [...] seem less important than the equal necessity of both aspects.”⁴⁰⁶ Viewed from this angle, the quintessence of Gubaidulina’s musically expressed metaphor of *shadow and light* seems to be at odds with Kholopova’s notion of binary oppositions. Conjecturally, the latter stems from the underlying premise of a theoretically defined duality, understood as the two antithetical entities that are, in actuality, complementary and interdependent. Each of them substantiates something the other cannot be; at the same time, together they create a unified whole.

As such, they seem to fall into a category of other conceptual and often interconnected ‘unities of opposites’, prevalent (under the heading of binary oppositions) in Gubaidulina musicological discourse since the early 1980s – e.g., East and West, Heaven and Earth, Body and Mind. As a musician who believes that any true art form is precipitated and mysteriously shaped by higher, divine forces, the composer nonetheless searches for *rationalization* and perhaps even justification of her creative practice through the vast body of religiously infused philosophical writings. These range from the ancient Chinese divination of the *I Ching* and Taoism of Lao Tzu to the analytic psychology of Carl Gustav Jung and the religious philosophy of artistic freedom of Nikolai Berdyaev. Curiously, the linguistic expression in the last paragraph of Gubaidulina’s annotation describing *shadow and light* is notably similar to that of the penultimate writer on the list above. Reflecting on the topic in 1959, Carl Jung writes: “To confront a person with his shadow is to show him his own light. Once one has experienced a few times what it is like to stand judgingly between the opposites, one begins to understand what is meant by the self.

⁴⁰⁶ In Paul Griffiths, “Sofia Gubaidulina: Apostle of Inner Struggle and Redemption,” *The New York Times*, April 28, 1999, <https://archive.nytimes.com/www.nytimes.com/library/music/042599gubaidulina-music.html>.

Anyone who perceives his shadow and his light simultaneously sees himself from two sides and thus gets in the middle.”⁴⁰⁷

To a certain extent, the argument for the particular importance of Jungian ideas in Gubaidulina’s metaphysical conception of *shadow and light* can be suitably supported by the composer’s own acknowledgement in her 1999 interview with Lukomsky.⁴⁰⁸ Yet, drawing direct parallels to a specific musical work seems rather far-fetched for several reasons. Firstly, constructing any analytical outcome from the given data by a scholar can only produce a singular and often a goal-oriented result which remains one out of a myriad possibilities regarding the inner workings of another person’s mind, whether intentional or subconscious. Moreover, the compositional mechanics of the creative process often remain or become inexplicable if not inadvertently disregarded by the composer herself or himself by the time a work is completed. A fitting illustration for the latter scenario comes from the drafts of the koto concerto itself. Several of its episodes have intriguing programmatic subtitles, such as “Blizzard” [Metel’], “Moonlight” [Lunnyi Svet], “Sobs” [Vskhlipy], et al. When asked about any ‘program’ in the work, Gubaidulina replied that she could not recall (or perhaps was unwilling to reveal?) anything specific.⁴⁰⁹ Further, many other of her favourite philosophical readings contemplating the issue

⁴⁰⁷ Carl Gustav Jung, “Good and Evil in Analytical Psychology,” eds. Sir Herbert Read, Gerhard Adler, Michael Fordham and William McGuire, trans. R. F. C. Hull, in *The Collected Works of C.G. Jung*, Book 10, *Civilization in Transition* (Princeton University Press, 1959), 872, https://s3.us-west-1.wasabisys.com/luminist/EB/I-J-K/Jung%20-%20Civilization%20in%20Transition_cw_V10.pdf.

⁴⁰⁸ “Of the scientific literature I am particularly influenced by Carl Jung. [...] ... I have read all works by Jung in German, because Jung has not been translated and published in Russia. I am greatly impressed that in his research into the human soul, there is no corner that Jung is afraid to enter. One of my favourites is his fundamental work *Psychology and Alchemy*. Appreciating the alchemists’ discoveries on this issue, Jung studied their treatises, which he explored during his trips to Tibet and Africa. Jung’s main field is psychiatry and psychotherapy, but the scope of his interests is really astonishing. For example, he wrote *Psychology and Religion* and *Psychology and the Arts*. His treatise *Answer to Job* is a great attempt to interpret *The Book of Job*, which is one of the most incomprehensible parts in the Bible.” See Lukomsky, “Hearing the Subconscious,” 27.

⁴⁰⁹ Tsenova (2000), 183.

of the unity of opposites, such as Martin Buber's concept of *twofoldness* or Nicholas of Cusa's *coincidentia oppositorum*, could have been equally important in the shaping of an individualized and manifold metaphor of the *shadow and light* in the composer's mind. Incidentally, answering the question about the importance of Rudolf Steiner's anthroposophical teachings for her as a composer, Gubaidulina responded that her interest in "history of human spirit" led her to reading "many books"; for all intents and purposes, however, any direct correlation between her reading choices and her creative practice "should not be exaggerated."⁴¹⁰

Finally, Gubaidulina's metaphor of *shadow and light*, realized through the unification of the two-fold semitonal space, elucidates her apperception of the history of musical language in the past few centuries. From the composer's standpoint, the "enlightened and rationalized" dodecaphonic music of the twentieth century is emblematic of 'light' or "the daytime." That is to say, the works created using the twelve-tone technique leave no space for "night" or 'shadow' that existed in the tonal system of Classical and Romantic eras in the form of chromaticism within the diatonic system. "Night," she says, "existed as a supplement to the diatonic system: the diatonic sphere was "day," whereas the chromatic sphere was "night": *one could go there and return*.⁴¹¹ [...] In twelve-tone compositions, we lost "night": everything became "day." But within the twenty-four-tone scale, we may have not only "a day," but also "a night."⁴¹²

Outlined in pitch-related terms, Gubaidulina's notion of *shadow and light* remains concomitant to several other of her multifaceted dualities, otherwise known as binary

⁴¹⁰ See Aleksei Munipov, "Today a Person Has no Right to Be a Pessimist," 3.

⁴¹¹ Our emphasis.

⁴¹² See Vera Lukomsky, "Sofia Gubaidulina: 'My Desire Is Always to Rebel,'" 11.

oppositions. Among them are intuition and rationality;⁴¹³ the vertical (heavenly/divine) and the horizontal (earthly/human);⁴¹⁴ female and male;⁴¹⁵ freedom and oppression. The former member of the last pair, justly perceived as “a mark of political dissidence in the waning years of Soviet authority”⁴¹⁶ prior to the year 1991, also notably reflects the composer’s attitude towards the aspect of ‘light’ in Schoenbergian serialism, viewed as “system [from which] composers inherited a prison, a real prison.”⁴¹⁷ As could be expected, within Gubaidulina’s hermeneutical process, the unification, conversion or even a brief intersection of the aforementioned polarities result in an appearance of yet another symbol – undoubtedly the most significant for her as a musician and a human being: the symbol of the cross. As it is, this continuing metamorphosis of the inter-complementing concepts with their metaphorical potentialities pertains to the *idea of identity and change* through transformation, or, in the composer’s terms, *transfiguration*.⁴¹⁸

⁴¹³ This topic has been discussed in multiple interviews with the composer. See, for instance, Bugrova (1994), Ustinov (1994), Munipov (2016) et al.

⁴¹⁴ In the 1992 conversation with Enzo Restagno Gubaidulina draws an interesting parallel between the idea ‘horizontal and vertical’ and her perception of the twelve-tone technique as follows: “Music theory explains to us that dodecaphony appeared as a result of the evolution of musical language. But why a system based on identical pitch values is preferable to hierarchical pitch organization? I think that the reason [...] lies in the intrinsic requirements and needs of the musical material which, so to speak, experiences the drama of its existence, the drama of its evolution. It feels some pain, and the composers, writing their music, try to appease it. The twelve-tone technique was born as an answer to the suffering of the atonal musical material; it flattens the surface in order to prepare a sounding ground for the properties of the future condition of music. Schoenberg said that a twelve-tone row can be perceived as a single note. This, indeed, is an anticipation of the future conversion of the horizontal plane into the vertical one: the experience of the ‘plot’ developing along the horizontal line of musical time is replaced by an experience of the properties of the sounding matter itself, of its depths. The ‘vertical time’ is conceived as the life of soul in spirit.” In Kholopova (2008), 33.

⁴¹⁵ On the subject of ‘male-female’ as related to the ‘horizontal-vertical’ see Kurtz, 70.

⁴¹⁶ Richard Taruskin, *The Oxford History of Western Music*, vol. 5 (Oxford University Press, 2010), 524.

⁴¹⁷ Moody, “‘The space of the soul,’ 34.

⁴¹⁸ The paramount importance of this principle was expressed by the composer on many occasions. See, for instance, the quotation from one of her interviews cited in Caroline Askew’s dissertation: “I think that transfiguration is what we most desire in the creative process, because this transformation into something completely different is what unites us with our creator. Without this our efforts are futile. Only the transfigurative

Gubaidulina's Tree: A Symbol with Many Meanings

In recent decades, the word “tree” has appeared in many of Gubaidulina's interviews, talks, conversations, and film documentaries created all around the world. From these idiosyncratic remarks, musings, and explications presented by the outspoken composer, the very idea of the tree emerges as a symbol with many meanings. Perceived as an allegory of continuous transfiguration, Gubaidulina's tree first and foremost represents several music-related metaphors of a natural organic cycle, with its birth, growth, passing and resurgence. Therefrom, it can be a symbol of inner peace, contemplation and solitude, i.e., the conditions indispensable for her creative process. Further, it can be a metonymy of the composer's subconscious ideation. As an artist with a distinctive outlook on the relationship between traditional and new techniques of music composition, Gubaidulina is convinced that she does not “construct” her works; instead, she “cultivates” or “grows” them as if they were branches and leaves of a tree. For this reason, “everything [i.e., the compositional techniques she has assimilated] resembles the roots of a tree, and the works – its branches and leaves. One can call them new,” she says, “but they are leaves nevertheless, and from this standpoint they are always traditional and old.”⁴¹⁹ Finally, Gubaidulina's vivid imagination presents the principal stages of classical music history in the metaphorical form of Three Trees.

In a talk given in Kazan' during the celebration of Gubaidulina's eighty-fifth birthday, the composer articulates the idea of the utmost importance of maintaining her connection with

element in art acts like this, so it becomes the necessary bread, the spiritual bread for those who participate in this act.” In Askew, “Sources of Inspiration in the Music of Sofia Gubaidulina” (2002), 94-95.

⁴¹⁹ Cited in Dagmar Sikorski and Dr. Axel Sikorski, “Sofia Gubaidulina: In Honour of her 85th Birthday: Introduction,” *Sikorski Magazine* (March 2016): 5-6, https://www.boosey.com/downloads/sikorski_magazin_2016_03.pdf.

nature in order to write music. “It is important for me to hear what the world sounds like, what a tree sounds like, what flowers sound like, and what I myself sound like. Listening is an endless process. It is important for me to hear the depth of my soul; this process requires deep contemplation.”⁴²⁰ In the early 1990s, the period that marked the collapse of the Soviet regime, such contemplation became out of reach as Gubaidulina’s anxiety and fears made it impossible for her to compose. Three years after her relocation to Germany, the composer admits to retaining much of her angst of the first two years of the nineties, when “someone might come from behind and hit you over the head.”⁴²¹ This feeling, intimately familiar to many people (including the author of this study) living in Moscow during the final years of Perestroika, along with the tremendous socio-political unrest, hunger, and unavailability of basic consumer goods, severed the composer’s “contact with nature, with the stars, with the earth and with the leaves on the trees.”⁴²² Thankfully, Gubaidulina’s emigration to Germany proved to be artistically and mentally healing. Describing her new, nature-surrounded life in Appen-Unterglinde in a 1999 interview with Israeli music critic Noam Ben-Zeev, she reiterated the issue of the vital personal correlation between the nature and creativity: “I have always longed for a connection with a tree. And now, at the end of my life, I live the way I should. [...] Musically – as well.”⁴²³ Nearly eight years later, Gubaidulina provides more details about her ‘new life’ in another, this time more

⁴²⁰ Mamaeva, “Sofia Gubaidulina,” <https://m.realnoevremya.ru/articles/47148?ysclid=lvln48g9mv286492808>.

⁴²¹ Andrei Ustinov, “The Hour of Sofia Gubaidulina: Interview with Sofia Gubaidulina,” *Music Review* [Muzykal'noye obozreniye] 3, no. 113, March 1994, <https://muzobozrenie.ru/chas-sofii-gubajdulinoj/?ysclid=marm7tpi4u341162180>. Also, cited in Kurtz, 212.

⁴²² Ustinov, “The Hour,” <https://muzobozrenie.ru/chas-sofii-gubajdulinoj/?ysclid=marm7tpi4u341162180>.

⁴²³ See Noam Ben-Zeev, “Interview with Sofia Gubaidulina,” interpreted and trans. Maxim Reider, *Moscow Musical Bulletin* 1, no. 31 (1999), https://www.mmv.ru/interview/30-09-1999_gubaid.htm.

animated conversation (in Russian) with the long-standing editor-in-chief of Moscow's *Music Review*, Andrei Ustinov:⁴²⁴

I recognize these fifteen years that I have been living in Germany as the most propitious time in my life. The sky is open for me there. I can stand next to a tree, and no one will scare me or chase me away. I can go outside at night, and no one will attack me. To be able to see the sky and the stars is very important to me. Here, I can do it without taking a tram or a bus; I can find myself in an atmosphere of solitude in this place where everything is natural and unconstrained.

I have been living in paradise for fifteen years. This is a small two-street village without even its own bakery! Nearby, there is a field where cows and horses graze... A real paradise! Of course, there is no complete silence here because there are farmers and their tractors. Sometimes a plane flies by. But occasionally, on Saturday or Sunday, complete silence is achieved.

It is interesting to note that Gubaidulina's fascination with trees, as part of all living, growing, and constantly changing creations of the natural world, has been reflected in the titles and subtitles of her works since the mid-1950s.⁴²⁵ To a certain degree, the tripartite composition of the tree itself (with its trunk, roots, and crown) led to the conception of her unique metaphor of the "three trees," describing various types of musical structures and compositional techniques throughout the history of Western art music. Levon Hakobian justly notes, however, that Gubaidulina's idea was largely "influenced by the theory of historical evolution of musical material put forward in the late 1970s by pianist and music theorist Pyotr Meshchaninov. Though Meshchaninov's ideas enjoyed great esteem among those musicians who were familiar with them, they have never been published in full."⁴²⁶

⁴²⁴ Andrei Ustinov, "We are Standing on the Edge of an Abyss: Conversation with Sofia Gubaidulina," *Music Review* [Muzykal'noye obozreniye] 2, no. 278, January 2007, <https://muzobozrenie.ru/sofiya-gubajdulina-my-stoim-na-krayu-propasti/>.

⁴²⁵ See, for instance, no. 4 ("The First Flower") and no. 5 ("Flowering of the Wild Rose") in the 1956 vocal cycle for soprano and orchestra *Phacelia*; no. 3 ("The Trumpeter in the Forest") and 14 ("Forest Musicians") from the 1969 collection of piano pieces for children *Musical Toys*; or 1978 composition for flute and piano, *Sounds of the Forest* (*Klänge des Waldes*).

⁴²⁶ See Hakobian, *Music of the Soviet Era*, 295. For more information (in English) on Meshchaninov's "Elemental Evolutionary Theory of Music" refer to Kurtz, 84-86. For more information (in Russian) see Grigory Lyzhov and Elena Dvoskina, "Pyotr Meshchaninov: Hamburg Archive in the Scientific Library of Moscow Conservatory,"

Yet again, the uniqueness of Gubaidulina's idea of the "three trees" lies in its intrinsic connection with her concept of the *Rhythm of Form*. The former appears to have been envisioned in an effort to explain and justify her own creative ideas regarding the temporal proportionality of a musical form according to the numbers of the Fibonacci-based series. As the ratio between the numbers in a sequence *changes*, i.e., infinitely approaches the golden section perceived by the composer as "a principle organizing all organic life,"⁴²⁷ so do the periods of music history *change* – as if according to the law of nature embodied in the life cycle of a tree. That is to say, a tree grows, blooms, then its fruits ripen and fall to the ground, forming new roots that give rise to a new natural cycle.

With regard to her own vision of music history, Gubaidulina identified three such cycles. In her model, the three principal elements of musical language – harmony, melody, rhythm – are associated with the three parts of a tree: the roots, the trunk, and the leaves. The roots of the tree represent the idea or essence, the trunk is the phenomenon or realization of the idea, and leaves represent the transformation or musical transfiguration of the ideas. In the 1990 documentary "Fire and Rose,"⁴²⁸ the composer enthusiastically expounds on the topic and even draws the

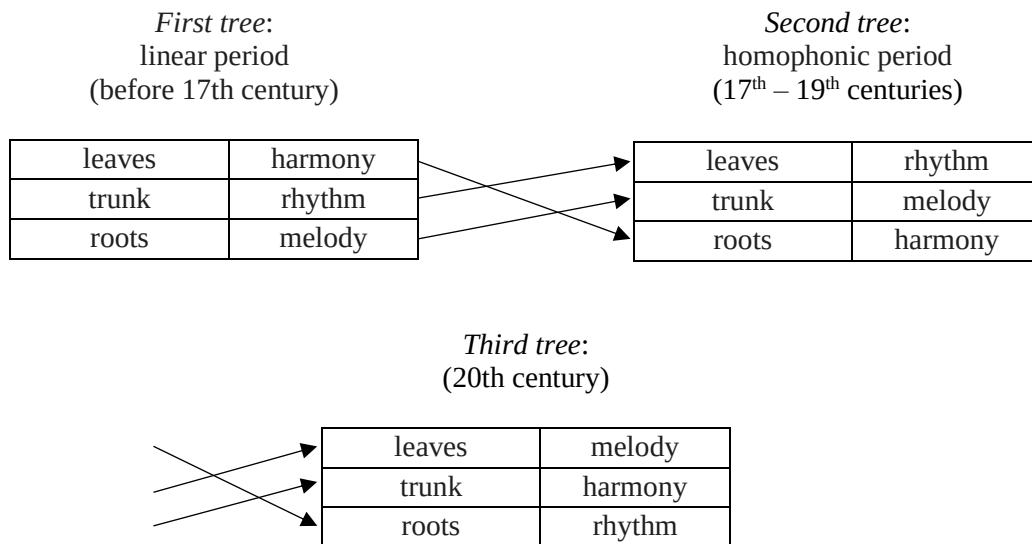
Journal of Moscow Conservatory [Научный вестник Московской консерватории] 2, no. 25 (2016): 8-31, https://docs.yandex.ru/docs/view?tm=1718855518&tld=ru&lang=ru&name=16_2_lyzhov_dvoskina.pdf&text=%D0%BF%D0%B5%D1%82%D1%80%20%D0%BC%D0%B5%D1%89%D0%B0%D0%BD%D0%B8%D0%BD%D0%BE%D0%B2%20%D0%BC%D1%83%D0%B6%20%D0%B3%D1%83%D0%B1%D0%B0%D0%B9%D0%B4%D1%83%D0%BB%D0%B8%D0%BD%D0%BE%D0%B9&url=https%3A%2F%2Fmv.mosconsrv.ru%2Fsites%2Fdefault%2Ffiles%2Fpdf%2F16_2_lyzhov_dvoskina.pdf&lr=10115&mime=pdf&l10n=ru&type=touch&sign=6ce21d3439b3138f5818ada3a0abf52a&keyno=0&serpParams=tm%3D1718855518%26tld%3Dru%26lang%3Dru%26name%3D16_2_lyzhov_dvoskina.pdf%26text%3D%D0%BF%D0%B5%D1%82%D1%80%20%D0%BC%D0%B5%D1%89%D0%B0%D0%BD%D0%B8%D0%BD%D0%BE%D0%B2%20%D0%BC%D1%83%D0%B6%20%D0%B3%D1%83%D0%B1%D0%B0%D0%B9%D0%B4%D1%83%D0%BB%D0%B8%D0%BD%D0%BE%D0%B9&url=https%3A%2F%2Fmv.mosconsrv.ru%2Fsites%2Fdefault%2Ffiles%2Fpdf%2F16_2_lyzhov_dvoskina.pdf%26lr%3D10115%26mime%3Dpdf%26l10n%3Dru%26type%3Dtouch%26sign%3D6ce21d3439b3138f5818ada3a0abf52a%26keyno%3D0.

⁴²⁷ Lukomsky, "The Eucharist," 34.

⁴²⁸ Barrie Gavin and Gerard McBurney, "The Fire and the Rose: A Portrait of Sofia Gubaidulina," TV documentary, BBC 2 (June 10, 1990), video film in Russian with English subtitles, <https://youtu.be/t4P2U6kzajI>.

three trees to graphically demonstrate her thoughts. The schemata of these drawings, reproduced in Tsenova's dissertation, appears as follows:

FIGURE 25: Schemata of Gubaidulina's drawings of the 'three trees'⁴²⁹



Thus, the first tree represents the linear polyphonic period (before the 17th century), where the root of the tree is a line or a melody. The rhythm of the word that, “in essence [...] defined the form,” emerges as the trunk of the tree, while the leaves are the suggested or anticipated harmony. The second tree represents the homophonic period (the 17th to 19th centuries). Here, the leaves and seeds of the tree (i.e., the harmony of the first period) fell to the ground and formed the new roots, harmony. Stemming from this new harmonic essence, the melody, or the linear thematic development of the harmony became the trunk of the tree. The transformative function in this case is performed by the rhythm, or by the leaves. The third tree, representing the twentieth century, was derived – according to Gubaidulina's own account – by analogy. The

⁴²⁹ See Tsenova (2000), 17.

leaves of the second tree fall to the ground and form new roots: the rhythm. The roots of the second tree, or harmony (“that is, everything vertical, to do with pitch”) have become the trunk. Finally, the transformation, or the leaves, is now the melody.

In Gubaidulina’s thought, it was the path of the rhythm, organically rising from the trunk of the first tree to the crown (leaves) of the second tree, falling to the ground, and thus becoming the roots – or the fundamental principle – that determined the realization, or rather, the long-sought theoretical validation of her personal quest as a composer working out the idea of the *Rhythm of Form*. Commenting further on the structure of the third tree, Gubaidulina states that “under the conditions of sonority, the melody can no longer serve as a means of unfolding the material; instead, it must become a transfiguration of the material itself, that is, the result of the progression from the ‘root’ to the ‘trunk.’”⁴³⁰ The following section of our study examines the unique implementation of the idea of the *Rhythm of Form* and its effects on the horizontal (melodic) and vertical (harmonic) aspects of the composer’s musical language in her 1998 koto concerto.

The Game of Numbers in *Im Schatten des Baumes*: Temporal Proportions

In Gubaidulina’s drafts, the work is clearly divided into seven episodes marked with Roman numerals; some of these she calls “circles” [krugi]. Three of these episodes are subdivided and labeled with the capital letters A, B, C, and D; e.g., Ep. (episode) 3A or Ep. 5D. The progression from one of the seven sections to the next is usually accompanied by a change of the solo instrument, i.e., from the koto to the bass koto or to the zheng. The soloist can, however, switch to another instrument within a single episode, often more than once. Selected sections and

⁴³⁰ In Tsenova, 17.

subsections of the composition have programmatic titles and comments; however, none of these were included in the final published version of the score. The overall draft's demarcation of the episodes and their subdivisions is consistent with that of the published score. Figure 26 presents the delineation of the concerto's sections as indicated by the composer.

FIGURE 26: Gubaidulina's delineation of the *Koto Concerto* sections and the indicated programmatic subheadings and comments

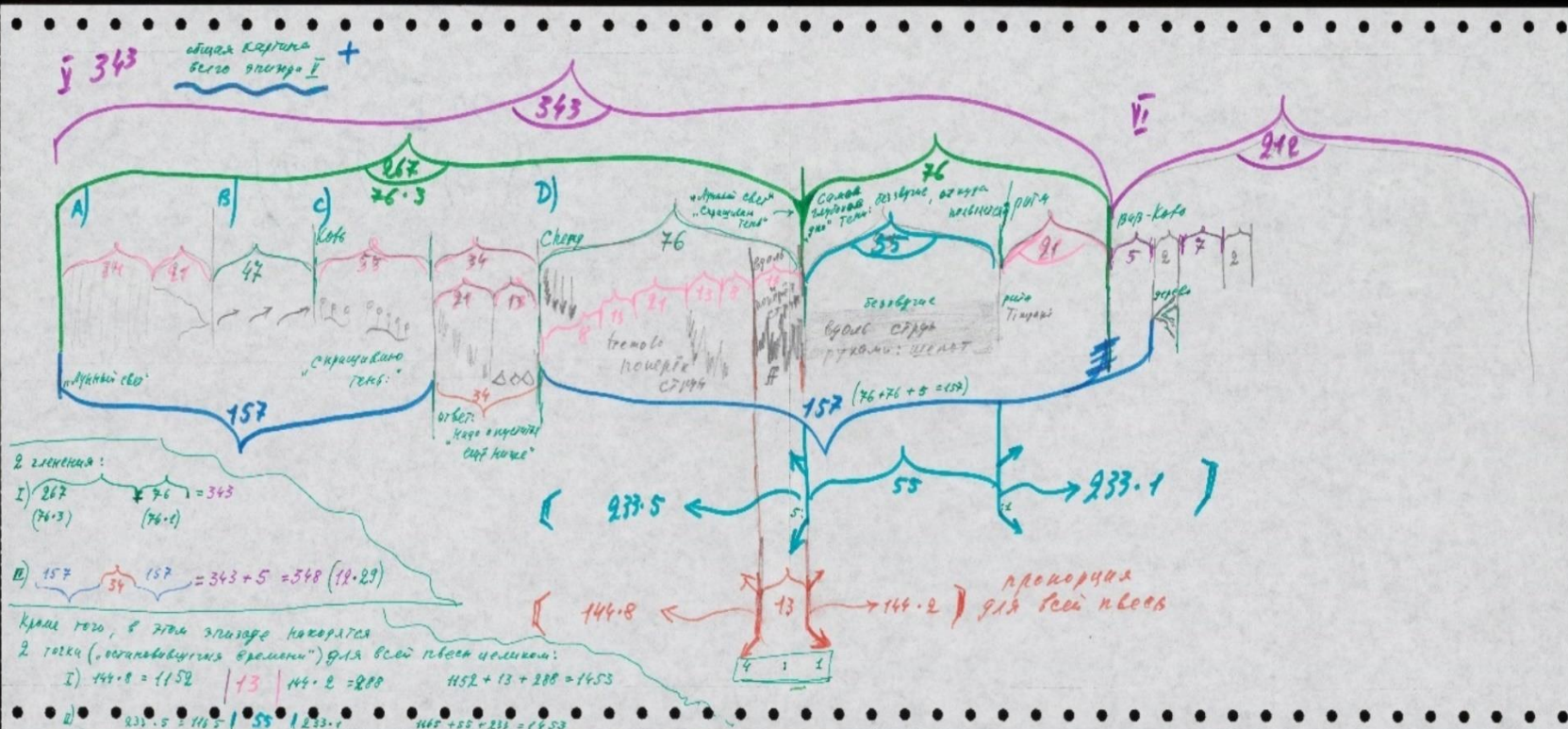
Episode Number	I	II	III	IV	V	VI
Rehearsal Number (RN)	RN 1–12	RN 13–34	RN 35–59	RN 60–78	RN 79–109	RN 110–30
Subdivisions within the Episodes		Ep. II A: RN 13–22 Ep. II B: RN 23–34		Ep. IV A: RN 60–2 Ep. IV B: RN 63–78	Ep. V A: RN 79–82 Ep. V B: RN 83–7 Ep. V C: RN 88–92 Ep. 5 D: RN 89–107	
Programmatic subheadings and comments			“Krug III: Zheng” RN 43–50: “Dialogue: solo of the orchestral ensemble”	“Krug IV” Ep. IV A: “Spouting Tree” [Prorastayushchee Derevo] Ep. IV B: “Blizzard” [Metel’]	Ep. V A: “Moonlight” [Lunnyi Svet] Ep. V B: “Moon” [Luna] Ep. V C: “Moonlight” [Lunnyi Svet] Ep. V D: “Sobs” [Vskhlipy]	
Solo instruments in each episode	Koto	Zheng	Bass koto Koto (from RN 52) Bass koto (from RN 59)	Bass koto Zheng (from RN 71)	Zheng Koto (from RN 88) Zheng (from RN 93)	Bass koto Koto (from RN 119)

Gubaidulina's working materials, as well as the final version of the concerto's score, indicate the definitive presence of the thoroughly calculated temporal proportions of the form on multiple levels. The duration of all the unmetred episodes of the piece is marked in seconds; additionally, the detailed numerical diagram (“numerical plot”) for the fifth episode was written out by the composer herself. Gubaidulina calls this diagram “the overall picture of the fifth episode” [общая картина всего эпизода V]. The proportions written out for this episode also indicate the number-related focal points for the entire work. Furthermore, the drafts of the

remaining six episodes contain multiple calculations pertaining to the proportional values of these sections, as well as the detailed timbral, rhythmic (as related to the actual written-out durations and combinations thereof) and harmonic or otherwise pitch-related plans, schemes, and comments. The following portion of our text will present a Russian-to-English annotated translation of Gubaidulina's diagram of the fifth episode and provide actual score cross-references outlining the mathematical procedures utilized by the composer.⁴³¹ The facsimile of Sofia Gubaidulina's "overall picture of the fifth episode" is reproduced in Plate 4 with the permission of the Paul Sacher Foundation.

⁴³¹ The description of Gubaidulina's diagram for the fifth episode of her koto concerto is also available in Tsenova's dissertation. However, the author does not provide any score-based explications to the mathematical procedures involved in creating these numbers. See Tsenova (2000), 183-84.

*In the Shadow of the Tree*⁴³²



⁴³² Curiously, Gubaidulina's diagram resembles an image of a tree; its 'trunk' appears to rest on the lowest number, 13 (in red), while the 'branches' and 'leaves' represent the remaining numbers on the picture.

➤ Annotated Translation of Gubaidulina’s Diagram for the Fifth Episode

The composer indicates the total number of *time units*⁴³³ in the fifth episode as 343 (see the upper purple curly bracket). The two possible subdivisions of this number are as follows:

- 1) $267 \text{ (as } 76 \times 3) + 76 = 343$ (see the two green curly brackets)⁴³⁴
- 2) $157 + 34 + 157 = 343 + 5 = 348$ (as 12×29) (see the lower blue/red/blue curly brackets)

Under the second subdivision, the five ‘time units’ from the sixth episode are included into the “overall picture of the fifth episode.” The two subdivisions of number 343 are summarized once more in the lower left corner of the diagram (in green, purple, blue, and red) as shown:

- 1)
$$\begin{array}{ccc} 267 & + & 76 \\ (76 \times 3) & & (76 \times 1) \end{array} = 343$$
- 2)
$$157 + 34 + 157 = 343 + 5 = 348 \text{ (} 12 \times 29 \text{)}$$

The diagram also shows smaller subdivisions of numbers 267 and 76 as made up of terms representing the numbers from the Fibonacci and Lucas series:

343									
267								76	
34	21	47	55	34	76				55
				21	13	8	13	21	13
								8	13

⁴³³ Our emphasis. Tsenova uses the term “beat,” which apparently refers to another Gubaidulina-related term, microbeat. See Tsenova, 183. Our further analysis shows, however, that the numbers presented in Gubaidulina’s diagram refer to the number of seconds or a microbeat value at the model tempo of $\text{♩}=60$. In the meantime, we use the term ‘time unit’ as a generalized idea for measuring time.

⁴³⁴ Apparently, the number 76 is incorrect on Gubaidulina’s diagram, as $76 \times 3 = 228$, not 267. It seems the composer intended to write 89 (a Fibonacci number) instead of 76, as $89 \times 3 = 267$. Our thanks go to our supervisor, Professor Michael Coghlan, whose keen eye caught this arithmetic error, which had been overlooked by the author of this dissertation.

The composer's choice of colours is consistent with the correlation of the numbers as members of one of the four utilized numerical series: Fibonacci (red, pink, and light blue), Lucas (green),⁴³⁵ Evangelist (purple), and Bach⁴³⁶ (dark blue). The use of light blue-coloured Fibonacci numbers is associated with the semantic center of the fifth episode, as well as that of the entire work. Thus, the number 55 receives the following programmatic comment: "the deepest 'bottom' of the shadow: soundlessness (with hands along the strings: a whisper, from which the rhythm of the *timpani* emerges [in the next 21-time-unit-long section])." In the preceding section, the 'events' leading to this point are described with additional comments (as a dialogue between the moonlight and the shadow), indications of the solo instruments, methods of sound production on the solo instrument, and another, a letter-based separation of the form's segments.

267											
A)		B)	C) Koto			D) Cheng					
34	21	47	55	34		76					
				21	13	8	13	21	13	8	13
"Moonlight"		"I ask the Shadow:"		Answer: "We need to go even lower"		<i>tremolo</i> across the strings				"Moonlight": "I ask the shadow:" along and across the strings <i>ff</i>	

Finally, the bottom-left corner of the diagram reads as follows: "In addition, the fifth episode contains two junctures of 'stopped time' for the entire piece":

$$I) \quad 144 \times 8 = 1152 \quad \mathbf{I \ 13 \ I} \quad 144 \times 2 = 288 \quad 1152 + 13 + 288 = 1453$$

⁴³⁵ In Gubaidulina's diagram, the number 267 is derived from multiplying two Lucas numbers: 76 and 3. However, the intended number appears to have been 89 (Fibonacci), not 76 (see FN 434).

⁴³⁶ The Bach number 157 is indicated as the sum of the two Lucas numbers and the Fibonacci number: $76 + 76 + 5 = 157$.

$$\text{II)} \quad 233 \times 5 = 1165 \quad \mathbf{I \ 55 \ I} \quad 233 \times 1 \quad 1165 + 55 + 233 = 1453$$

As we can see, the two crucial points are represented by the Fibonacci numbers 13 and 55; at the same time, the identical totals of two equations (1453) appear to mark the total number of time units for the entire work. Interestingly, the number associated with the complete piece, as well as the numbers indicating the lengths of the fifth and the sixth episodes, are part of the Evangelist's series: 1453, 343, and 212, respectively. The central lower portion of Gubaidulina's diagram reproduces the two junctures of the "stopped time" in reversed order:

$$\begin{array}{ccc} 233 \times 5 & 55 & 233 \times 1 \\ 144 \times 8 & 13 & 144 \times 2 \end{array}$$

Next to the formula in red, the composer writes: "the proportion for the entire piece is **4 : 1**" (Lucas numbers).

➤ Deciphering the "Numerical Plot" in Sofia Gubaidulina's Koto Concerto

Deciphering Gubaidulina's numerical message in the fifth episode supplemented by the composer's own diagram is a rather straightforward process. It involves the conversion of the real number of beats in the given time signatures and the corresponding metronomic values to the number of absolute beats under the model tempo of $\text{♩} = 60$. Figure 27 presents the complete score-referenced calculation of this portion of the concerto.

FIGURE 27: Score-referenced calculation of Episode V of Sofia Gubaidulina's concerto *In the Shadow of the Tree*

343													
267												76	
34	21	47	55	34	76							55	21
A		B	C		D								
				21	13	8	13	21	13	8	13		
RN 79 m. 1, from beat 3) to RN 81 (mm. 1–2): 31↓ at 3/4; J=54 54:60=9:10 (31÷9)×10= 34.4= 34	RN 81 m. 1, beat 3) up to RN 82 19 ↓ at 3/4; J=54 54:60=9:10 (19÷9)×10= 21.2= 21	RN 83 3 bars at 3/4 =9 ↓; 1 bar at 4/4 =4 ↓ 9+4=13↓ J=72 72:60=6:5 (13÷6)×5= 10.83= 11 RN 84 3 bars at 3/4 =9 ↓; 1 bar at 2/4 =2 ↓ 9+2=11 ↓ J=84; 84:60=7:5 (11÷7)×5= 7.857= 8 RN 85 2 bars at 3/4 plus 4 bars at 2/4 =14 ↓ J=84; (14÷7)×5= 10 RN 86 3 bars at 3/4 plus 1 bar at 4/4 =13 ↓ J=84; (13÷7)×5= 9.286= 9 RN 87 2 bars at 2/4 plus 3 bars at 3/4 =13 ↓ J=84; (13÷7)×5=9 11+8+10+9= 47	RN 88-90 (m.1) Changing meters 3/4 and 5/4; total number of beats: 55 ↓ J=60 60:60=1:1 55= 55	RN 90 (m.2)– 91 Changing meters 3/4 and 2/4; total number of beats: 21 ↓ J=60 60:60 =1:1 21= 21	RN 92 3 bars at 3/4 =9 ↓; 1 bar at 4/4 =4 ↓ 9+4=1 3↓ J=60; 60:60 =1:1 13= 13	RN 93–4 (m.1) 3 bars at 3/4 = 9↓; 1 bar at 5/4 = 5↓; 9+5=14 ↓ J=108 108:60=9:5 (14÷9)×5 =7.78= 8	RN 94 (from m. 2) – RN 95 Changing meters 3/4, 4/4 and 5/4; total number of beats: 24 ↓ J=108 108:60=9:5 (24÷9)×5 =13.3= 13	RN 96–7 Changing meters 3/4, 4/4 and 5/4; total number of beats: 38 ↓ J=108 108:60=9:5 (38÷9)×5 =21.1= 21	RN 98 (mm.1–8) 24 ↓ at 3/4; J=108 108:60=9:5 (24÷9)×5 =13.3= 13	RN 98 (m.9) – RN 99 Changing meters 3/4 and 5/4; total number of beats: 14 ↓ J=108 108:60=9:5 (14÷9)×5 =7.78= 8	RN 100 Time indicated in seconds (Zheng): 8" + 5" = 13" Metered notation in Strings for mm. 1–4; mm. 1–2 at 3/4 = 6 ↓; mm. 2–4 at 4/4 = 8 ↓ 6+8=14 ↓ J=108 108:60= 9:5 (14÷9)×5 =7.78=8 8+5= 13	RN 101–7 Time indicated in seconds (Zheng): 5" + 50" = 55" Metered notation in other parts for mm. RN 102–7: Changing meters 3/4 and 4/4; 26 bars at 3/4 = 26×3=78 ↓ 3 bars at 4/4 = 3×4=12 ↓ 78+12=90 ↓ J=108 108:60=9:5 (90÷9)×5=50 5+50= 55	RN 108–9 Changing meters 3/4 and 4/4; 10 bars at 3/4 = 10×3=30 ↓ 2 bars at 4/4 = 2×4=8 ↓ 30+8=38 ↓ J=108 108:60=9:5 (38÷9)×5=21.11= 21

As it stands, all of the consecutive subdivisions of the second-row numbers, 267 and 76, presented in Gubaidulina's diagram, correlate with the continuous changes in timbral colours that comprise the sonic texture of the work. For instance, within the subsection A (RN 79-82; subtitled "Moonlight" in the drafts), the progression from the first number (34), starting off with the *tremolo* in the bar chimes, to number 21 is accompanied by the soloist's transition from the zheng to the koto instrument; the entrance of subsection B (RN 83-87; subtitled "The Moon" in the drafts) is marked by the introduction of a new timbre of the solo bass clarinet, echoed and answered by the lower strings I and II. The next number (55), marking the subsection C (RN 88-90; dubbed, once again, the "Moonlight" in the sketches), features a solo of the koto played with the violin bow. Figure 28 maps the timbral changes accompanying the corresponding numerical segments of the entire fifth episode.⁴³⁷

FIGURE 28: Correlation between the timbral and numerical segment changes in the Fifth Episode of the *Koto Concerto*

267												76	
34	21	47	55	34		76						55	21
				21	13	8	13	21	13	8	13		
Bar Chimes, Mar., Camp., Pl. Gl., V-ni II, V-le II, V-c II, C-b II, Zheng Played <i>pizzicato con le dita</i>	Timp. I, II, 2 Fag., Bar Chimes, Mar., Camp., Pl. Gl., V-ni I, V-le I, V-ni II, V-le II, V-c I, V-c II, C-b II, Zheng Zheng <i>muta in</i> Koto	B.Cl., Fag., V-c I <i>div</i> , soli, s.s., vibr.; Vc II c.s., <i>punta d'arco</i> ; da <i>punta d'arco</i> with <i>plectrum</i>	Koto Played with the violin bow) <i>da punta d'arco</i> with <i>plectrum</i>	Cl., Fl., B. Cl., Fag., 1 V-no II: <i>solo</i> vibr.; 1 V-la II: <i>solo</i> c.s. vibr.; 1 V-c II: <i>solo</i> s.s. vibr.; Koto <i>muta in</i> Zheng	2 C-b I; soli, s.s.; 2 C-b II; soli, 1: s.s.; II: <i>arco</i>	Zheng Played with the edge of the glass across the strings with one hand and the strigs	Zheng Played by simultaneously drawing the edge of the glass across the strings with one hand and the plectra with the other hand	Zheng Played by simultaneously drawing the edge of the glass across the strings with one hand and the plectra with the other hand	Zheng Played <i>tremolo</i> with the glass across the strings) with one hand and finger pizzicato with the other hand	Zheng Played with the glass (<i>tremolo</i> across the strings) with one hand and finger pizzicato with the other hand	Zheng Played <i>tremolo</i> simultaneously across and along the strings	Zheng Played <i>glissando</i> produced on both halves of the instrument by sliding both hands along the strings	Timp.; 2 C-b I; soli, s.s.; 2 C-b II; soli, 1: s.s.; II: <i>arco</i> Zheng <i>muta in</i> Bass Koto

⁴³⁷ The summary uses Gubaidulina's scoring abbreviations. The indicated methods of sound production are italicized.

Further analysis reveals that this correlation between the timbral and numerical aspects of the form governs the remaining episodes of the concerto.

Our calculations of the proportional values of these sections and their subdivisions reveal the composer's absolute control over the temporal design of the entire work. Thus, the number 1453, indicating the full duration of the piece in Gubaidulina's diagram is comprised of the following six parts/episodes:

Episode I	Episode II	Episode III	Episode IV	Episode V	Episode VI
212	212	287	187	343	212

Curiously, with respect to the 'ideal' overall duration (1453''=24.217' or about 24 minutes), Valentina Kholopova's volume provides the closest number (25')⁴³⁸ while the *Sikorski Musikverlage*⁴³⁹ and Gubaidulina's current publisher *Boosey & Hawkes*,⁴⁴⁰ refer to the Japanese recording of the work, which marks its actual performance duration of 31'⁴⁴¹ minutes. With regard to establishing of the numbers allocated to sections I-IV and VI, the composer's special attention given to the fifth episode in the drafts serves as the invaluable Rosetta Stone as it allows us to determine the temporal lengths of the remaining episodes by calculating their absolute durations provided working in a similar fashion. Furthermore, it emerges as an authentic pinpoint of the golden section of the entire work. Herein, the beginning of Episode V appears at the very point where the entire form is subjected to the law of divine proportion:

$$(212+212+287+187 \text{ or } 898) \div (343+212 \text{ or } 555) = 1453 \div 898 = \mathbf{1.618}.$$

⁴³⁸ Kholopova (2020), 414.

⁴³⁹ See https://www.boosey.com/downloads/gubaidulina_werkverzeichnis.pdf.

⁴⁴⁰ See <https://www.boosey.com/cr/music/Sofia-Gubaidulina-In-the-Shadow-of-the-Tree/104476>.

⁴⁴¹ Peculiarly, the actual performance duration (31') of the work results in the number present in the Evangelist's series.

Remarkably, the three integers involved in creating the value of the golden section (1.618) are consecutive members of the Evangelist's integer series. Our calculations of temporal lengths of Episodes I-IV and VI are presented in Figure 29.

FIGURE 29: Calculations of temporal length (at $\text{♩}=60$) of episodes 1-4 and 6 of Sofia Gubaidulina's concerto *In the Shadow of the Tree*

Episode I: RN 1-12						
RN and measure number (mm.) within the RN	Time Signature and Metronome indication	Real Number of Bars	Real Number of Beats	Proportional relationship between the indicated (real) tempo and the model tempo $\text{♩}=60$	Number of Absolute Beats or Seconds indicated and/or calculated	Total number of Absolute Beats or Seconds within the RN(s)
Before RN 1	Unmeasured	N/A	N/A	1:1	$7''+5''+8''+5''+9''=34''$	34
RN 1	Unmeasured	N/A	N/A	1:1	$7''+10''=17''$	17
RN 2	Unmeasured	N/A	N/A	1:1	$9''+11''=20''$	20
mm. 1-3	$3/4 \text{ ♩}=60$	3	$3 \times 3=9$	1:1	(9)	
RN 3	Unmeasured in the part of Koto	N/A	N/A	1:1	$9''+12''=21''$	21
mm. 1-3	$3/4 \text{ ♩}=60$	3	$3 \times 3=9$	1:1	(9)	
RN 4	Unmeasured in the part of Koto	N/A	N/A	1:1	$12''+13''=25''$	25
mm. 1-4	$3/4 \text{ ♩}=60$	4	$3 \times 4=12$	1:1	(12)	
RN 5	Unmeasured in the part of Koto	N/A	N/A	1:1	14''	14
mm.1-3	$3/4 \text{ ♩}=60$	3	$3 \times 3=9$	1:1	(9)	
m.4	$5/4 \text{ ♩}=60$	1	$5 \times 1=5$	1:1	(5)	
RN 6-8	$9/8 \text{ ♩}=88$	6	$6 \times 3=18$	$88:60=22:15$	$(18 \div 22) \times 15=12.27$	12
RN 9	$6/8 \text{ ♩}=88$	4	$2 \times 4=8$	22:15	$(13 \div 22) \times 15=8.86$	9
mm. 1-4						
m. 5	$9/8 \text{ ♩}=88$	1	$3 \times 1=3$	22:15		
m. 6	$6/8 \text{ ♩}=88$	1	$2 \times 1=2$ ($8+3+2=13$)	22:15		

RN 10	Unmeasured in the part of Koto	N/A	N/A	1:1	32"	32
RN 11 m. 1 m. 2	3/4 ♩=92 5/4 ♩=92	1 1	3×1=3 5×1=5 (3+5=8)	92:60=23:15	(8÷23)×15=5.21	5
RN 12	3/4 ♩=46	6	3×6=18	46:60=23:30	(18÷23)×30=23.47	23
Episode I: total number of absolute beats or seconds: 34+17+20+21+25+14+12+9+32+5+23= 212						
Episode II: RN 13-34						
RN and measure number (mm.) within the RN	Time Signature and Metronome indication	Real Number of Bars	Real Number of Beats	Proportional relationship between the indicated (real) tempo and the model tempo ♩=60	Number of Absolute Beats or Seconds indicated and/or calculated	Total number of Absolute Beats or Seconds within the RN(s)
RN 13	Unmeasured	N/A	N/A	1:1	5"	5
RN 14 m. 1-4 mm. 1-2 m. 3	Unmeasured in the part of Zheng 3/4 ♩=72 5/4 ♩=72	N/A 2 1	N/A 3×2=6 5×1=5 (6+5=11)	1:1 72:60=6:5	$\mathcal{X}$ " +4" (11÷6)×5=9.16 $\mathcal{X}$ =9 (9+4=13)	13
RN 15 mm. 1-2 m. 3	Unmeasured in the part of Zheng 3/4 ♩=72 5/4 ♩=72	N/A 2 1	N/A 6+5=11	1:1 72:60=6:5	9"+7"=16" (11÷6)×5=9.16	16
RN 16 mm.1-2	Unmeasured in the part of Zheng 3/4 ♩=72	N/A 2	N/A 3×2=6	1:1 72:60=6:5	6"+5"=11" (6÷6)×5=5 (5~6; 6~5)	11
RN 17 mm. 1-2 m.3	Unmeasured in the part of Zheng 3/4 ♩=72 5/4 ♩=72	N/A 2 1	N/A 6+5=11	1:1 72:60=6:5	9"+7"=16" (11÷6)×5=9.16	16
RN 18 mm. 1-4	Unmeasured in the part of Zheng 3/4 ♩=72 4/4 ♩=72	N/A 3 1	N/A 9+4=13	1:1 72:60=6:5	11" (13÷6)×5=10.83	11
RN 19	Unmeasured	N/A	N/A	1:1	12"	12
RN 20	Unmeasured					

	in the part of Zheng	N/A	N/A	1:1	10"	10
mm. 1–4	3/4 ♩=72	4	4×3=12	72:60=6:5	(12÷6)×5=10	
RN 21	Unmeasured	N/A	N/A	1:1	23"	23
RN 22	Unmeasured in the part of Zheng	N/A	N/A	1:1	16"	16
mm. 1–7 m. 8	3/4 ♩=96 5/4 ♩=96	7 1	3×7=21 5×1=1 (21+1=26)	96:60=8:5	(26÷8)×5=16.25	
RN 23 m. 1 and m. 3 m. 2 m. 4	6/8 ♩.=112 5/8 ♩.=112 Unmeasured	2 1 N/A	2×2=4 1.67=2 (4+2=6) N/A	112:60=28:15 1:1	(6÷28)×15=3.21=3 3" (3+3=6)	6
RN 24 mm.1–2 mm.3–5 m. 6	5/8 ♩.=112 9/8 ♩.=112 Unmeasured	2 3 N/A	2×2=4 3×3=9 (4+9=13) N/A	112:60=28:15 1:1	(13÷28)×15=6.96=7 4" (7+4=11)	11
RN 25–26 mm.1–7 m. 8	2/4 ♩=96 Unmeasured	7 N/A	2×7=14 N/A	96:60=8:5 1:1	(14÷8)×5=8.75=9 5" (9+5=14)	14
RN 27–28 mm. 1–7 m. 8	2/4 ♩=96 Unmeasured	7 N/A	2×7=14 N/A	96:60=8:5 1:1	(14÷8)×5=8.75=9 5" (9+5=14)	14
RN 29–34	2/4 ♩=96	27	2×27=54	96:60=8:5	(54÷8)×5=33.75=34	34
Episode II: total number of absolute beats or seconds: 5+13+16+11+16+11+12+10+23+16+6+11+14+14+34= 212						
Episode III: RN 35-59						
RN and measure number (mm.) within the RN(s)	Time Signature and Metronome indication	Real Number of Bars	Real Number of Beats	Proportional relationship between the indicated (real) tempo and the model tempo ♩=60	Number of Absolute Beats or Seconds indicated and/or calculated	Total number of Absolute Beats or Seconds within the RN(s)
RN 35–41	[Unmeasured] (2-bar segments in the part of Bass Koto are marked as 7"; thus, the value	N/A [17]	N/A	1:1	59" 17×3.5"=59.5 =60	

	of one bar is approximated as 3.5” The other simultaneously sounding parts are notated at 3/2 ♩=48	17	17×3=51	48:60=4:5 (51÷4)×5=63.75 =64		64
RN 42	5/4 ♩=76	3	3×5=15	76:60=19:15	(15÷19)×15=11.84 =12	12
RN 43	Unmeasured	N/A	N/A	1:1	7”	7
RN 44	♩=152 (or ♩=76)					
m. 1	5/8	1	5	76:60=19:15	(10÷19)×15=7.89 =8	8
m. 2	7/8	1	7			
m. 3	5/8	1	5			
m. 4	3/8	1	3			
			5+7+5+3=20 ♩ =10 ♩			
RN 45	♩=76					
mm. 1–2	3/4	2	2×3=6	76:60=19:15	(11÷19)×15=8.68 =9	9
m.3	5/4	1	5×1=5 6+5=11			
RN 46	♩=76					
m. 1	3/4	1	1×3=3	76:60=19:15	(9÷19)×15=7.11 =7	7
mm. 2–4	2/4	3	2×3=6 3+6=9			
RN 47	♩=76					
	3/4	5	5×3=15	76:60=19:15	(15÷19)×15=11.84 =12	12
RN 48	♩=76					
m. 1	2/4	1	1×2=2	76:60=19:15	(5÷19)×15=3.95 =4	4
m. 2	3/4	1	1×3=3 2+3=5			
RN 49	♩=76					
	2/4	7	7×2=14	76:60=19:15	(14÷19)×15=11.05 =11	11
RN 50	♩=76					
mm. 1–2	3/4	2	2×3=6	76:60=19:15	(23÷19)×15=18.16 =18	18
m.3	2/4	1	2×1=2			
mm. 4–6	5/4	3	3×5=15 6+2+15=23			
RN 51	9/8 ♩.=66	6	6×3=18	66:60=11:10	(18÷11)×10=16.36 =16	16
RN 52	Unmeasured	N/A	N/A	1:1	6”	
mm. 2–4	3/4 ♩=96	3	3×3=9	96:60= 8:5	(9÷8)×5=5.625 =6 6+6=12	12
RN 53	Unmeasured	N/A	N/A	1:1	4”	
mm. 2–5	2/4 ♩=48	4	4×2=8	48:60= 4:5	(8÷4)×5=10 4+10=14	14
RN 54	Unmeasured	N/A	N/A	1:1	12”	12
RN 55	♩=84					
mm. 1–7, 9, 10, 13	3/4	10	10×3=30	84:60=7:5	(52÷7)×5=37.14	37

mm. 8, 11, 12	4/4	3	$3 \times 4 = 12$		$= 37$	
mm. 14, 15	5/4	2	$2 \times 5 = 10$ $30 + 12 + 10 = 52$			
RN 56– 8	3/4 ♩=76	13	$13 \times 3 = 39$	96:60=19:15	$(39 \div 19) \times 15 = 30.78$ $= 31$	31
RN 59	Unmeasured	N/A	N/A	1:1	13"	13
Episode III: total number of absolute beats or seconds: $64 + 12 + 7 + 8 + 9 + 7 + 12 + 4 + 11 + 18 + 16 + 12 + 14 + 12 + 37 + 31 + 13 = \mathbf{287}$						
Episode IV: RN 60-78						
RN and measure number (mm.) within the RN	Time Signature and Metronome indication	Real Number of Bars	Real Number of Beats	Proportional relationship between the indicated (real) tempo and the model tempo ♩=60	Number of Absolute Beats or Seconds indicated and/or calculated	Total number of Absolute Beats or Seconds within the RN(s)
RN 60	3/4 ♩=76	6	$6 \times 3 = 18$	76:60=19:15	$(18 \div 19) \times 15 = 14.21$ $= 14$	14
RN 61	Unmeasured	N/A	N/A	1:1	13"	13
RN 62	3/4 ♩=76	6	$6 \times 3 = 18$	76:60=19:15	$(18 \div 19) \times 15 = 14.21$ $= 14$	14
RN 63	Unmeasured	N/A	N/A	1:1	13"	13
RN 64	9/8 ♩.=60	2	$2 \times 3 = 6$	60:60=1:1	6	6
RN 65	9/8 ♩.=60	4	$4 \times 3 = 12$	60:60=1:1	12	12
RN 66	9/8 ♩.=60	3	$3 \times 3 = 9$	60:60=1:1	9	9
RN 67	9/8 ♩.=60	2	$2 \times 3 = 6$	60:60=1:1	6	6
RN 68 m.1 m. 2 m. 3	♩.=60 9/8 6/8 9/8	1 1 1	$1 \times 3 = 3$ $1 \times 2 = 2$ $1 \times 3 = 3$ $3 + 2 + 3 = 8$	60:60=1:1	8	8
RN 69	9/8 ♩.=60	2	$2 \times 3 = 6$	60:60=1:1	6	6
RN 70	9/8 ♩.=60	4	$4 \times 3 = 12$	60:60=1:1	12	12
RN 71	9/8 ♩.=60	2	$2 \times 3 = 6$	60:60=1:1	6	6
RN 72	9/8 ♩.=60	4	$4 \times 3 = 12$	60:60=1:1	12	12
RN 73	9/8 ♩.=60	2	$2 \times 3 = 6$	60:60=1:1	6	6
RN 74	9/8 ♩.=60	2	$2 \times 3 = 6$	60:60=1:1	6	6
RN 75	9/8 ♩.=60	3	$3 \times 3 = 9$	60:60=1:1	9	9
RN 76	9/8 ♩.=60	3	$3 \times 3 = 9$	60:60=1:1	9	9
RN 77	9/8 ♩.=60	4	$4 \times 3 = 12$	60:60=1:1	12	12
RN 78	9/8 ♩.=60	4	$4 \times 3 = 12$	60:60=1:1	12	12
Episode IV: total number of absolute beats or seconds: $14 + 13 + 14 + 13 + 6 + 12 + 9 + 6 + 8 + 6 + 12 + 6 + 12 + 6 + 6 + 9 + 9 + 12 + 12 = 185$; $185 + 2$ (first 2 beats of RN 79) = 187						

Episode VI: RN 110-130						
RN and measure number (mm.) within the RN	Time Signature and Metronome indication	Real Number of Bars	Real Number of Beats	Proportional relationship between the indicated (real) tempo and the model tempo ♩=60	Number of Absolute Beats or Seconds indicated and/or calculated	Total number of Absolute Beats or Seconds within the RN(s)
RN 110 mm. 1–3 m. 4 m. 5	3/4 ♩=108 3/4 ♩=60 2/4 ♩=60	3 1 1	3×3=9 3+2=5	108:60=9:5 60:60=1:1	(9÷9)×5=5 5 (5+5=10)	10
RN 111 mm. 1, 3 mm. 2, 4	3/4 ♩=60 2/4 ♩=60	2 2	3×2=6 2×4=4 6+4=10	60:60=1:1	10	10
RN 112 mm. 1–2 mm. 3–4 m.5	2/4 ♩=60 3/4 ♩=60 4/4 ♩=60	2 2 1	2×2=4 3×2=6 4×1=4 4+6+4=14	60:60=1:1	14	14
RN 113 mm. 1,4 mm. 2–3	4/4 ♩=60 3/4 ♩=60	2 2	4×2=8 3×2=6 8+6=14	60:60=1:1	14	14
RN 114	3/4 ♩=60	4	3×4=12	60:60=1:1	12	12
RN 115	3/4 ♩=60	4	3×4=12	60:60=1:1	12	12
RN 116–18 RN 116–17 RN 118	Unmeasured in the part of Bass Koto 3/4 ♩=60 9/8 ♩=92	N/A 6 3	N/A 6×3=18 3×3=9	1:1 1:1 92÷60=23:15	24” 18 (9÷23)×15=5.57=6 18+6=24	24
RN 119	9/8 ♩=92	8	8×3=24	92÷60=23:15	(24÷23)×15=16.65 =16	16
RN 120	9/8 ♩=92 6/8 ♩=92	3 1	3×3=9 2×1=2 9+2=11	92÷60=23:15	(11÷23)×15=7.17= 7	7
RN 121	6/8 ♩=92	5	5×2=10	92÷60=23:15	(10÷23)×15=6.5=6 (rounded down)	6
RN 122	6/8 ♩=92	4	4×2=8	92÷60=23:15	(8÷23)×15=5.21=5	5
RN 123 mm. 1–6 m. 7	3/4 ♩=92 2/4 ♩=92	6 1	6×3=18 1×2=2 18+2=20	92÷60=23:15	(20÷23)×15=13.04 =13	13
RN 124–25	3/4 ♩=88	6	6×3=18	8÷60=22:15	(18÷22)×15=12.27 =12	12
RN 126–29	3/4 ♩=88	13	13×3=39	8÷60=22:15	(39÷22)×15=26.59 =26 (rounded down; see the note in the drafts)	26
RN 130	Unmeasured	N/A	N/A	1:1	31”	31
Episode VI: total number of absolute beats or seconds: 10+10+14+14+12+12+24+16+7+6+5+13+12+26+31= 212						

Our calculations of the proportional values of Episodes 1-4 and 6 also confirm the locations of the two junctures of Gubaidulina's "stopped time." The first occurs at RN 100, and the second spans RN 101-107, as shown in Figure 30.

FIGURE 30: Calculation of the locations of the two junctures of "stopped time" in Gubaidulina's concerto *In the Shadow of the Tree*

1) 144×8=1152 I 13 I 144×2=288 1152+13+288=1453								
Episode I	Episode II	Episode III	Episode IV	Episode V				Episode VI
212	212	287	187	254 (=267-13)	13	55	21	212
212+212+287+187+(267-13) =1152						55+21+212=288		
1152=144×8						288=144×2		
2) 233×5=1165 I 55 I 233×1 1165+55+233=1453								
Episode I	Episode II	Episode III	Episode IV	Episode V				Episode VI
212	212	287	187	276	55	21	212	
212+212+287+187+267=1165						21+212=233×1		
1165=233×5								

Discernibly, the internal composition of the two resulting proportions of the work is based on Fibonacci numbers (144, 8, 2 and 233, 5, 1). The question remains, however, as to why the composer chooses the former ratio (4:1) instead of the latter (5:1). It seems reasonable to assume that Gubaidulina's identification of the proportion for the entire piece as 4:1 is linked to her contemporaneous exploration of the possibilities of other Fibonacci-based integer sequences, the Lucas in particular.⁴⁴² Further, the preference for the Lucas number-based ratio over the Fibonacci-based one emphasizes the formative device revealing an 'even' twofoldness in the overall constructive idea, which in turn harkens back to Gubaidulina's beloved notion of binary

⁴⁴² For instance, three compositions completed by Gubaidulina in 1993 (...*Early In the morning, Right Before Waking...*, *Dancer on a Tightrope* and *String Quartet no. 4*) are created with simultaneous application of both the Fibonacci and the Lucas numbers. Refer to the analyses of this works in Tsenova (2001), 85-105, 178-81 and 152-62, respectively.

oppositions, expressed here in the numerical terms. Moreover, the precedence of the 4:1 ratio might have been perceived by the composer as mathematically more ‘consonant,’ as the inverted Lucas-based ratio produces a value that more closely approximates the golden section than the Fibonacci-based one.⁴⁴³ At one and the same time, the two-layered overall numerical proportion of the work creates an original compositional structure in which the multiple garlands of “beautiful numbers”⁴⁴⁴ sprout from the integral value of the piece, forming a sophisticated contrapuntal texture comprised of the members of the Fibonacci, Lucas, Evangelist’s, and various Bach’s sequences. The final episode of the concerto also bears the composer’s personal numerical seal: the number 48. The next figure presents the internal subdivisions of Episodes 1 to 4 and 6. The applicable series names are identified with the capital letters as follows: Fibonacci (F), Lucas (L), Evangelist (E), and Bach (B); Bach name-related numbers are marked as (Bn) while Bach name-related numbers organized as a Fibonacci-type sequence are identified as (Bn/F); the inverted numbers (i.e., read from right to left) are marked (inv); Sofia’s number is (S). The composite numbers lying outside of any pertinent numerical sequence receive an additional explanation in the form of a brief footnote.

FIGURE 31: Subdivisions of the total numbers of Episodes I-IV and VI in Sofia Gubaidulina’s concerto *In the Shadow of the Tree*

Episode I	
212 (E)	
131 (E)	81 (E)

⁴⁴³ On the ‘consonant’ versus ‘dissonant’ properties of the Fibonacci and the Fibonacci-based integer series see Tsenova (2000), 74-75.

⁴⁴⁴ From Gubaidulina’s perspective, “beautiful numbers” are those that belong to ordered and thus “harmonious” integer series. The composer’s own expression is cited multiple times in Tsenova’s dissertation; e.g., Tsenova, 176.

34 (F)	97 (B)									21 (F)		60 (B)										
	7 (L/ E)	10	9 (B/ Bn)	11 (L)	9 (B/ Bn)	12 (E)	12 (E)	13 (F)	14 (B/ Bn)	12 (E)	9 (B/ Bn)	37 (B/ Bn)		23 (B/ Bn)								
Before RN 1	RN 1		RN 2 mm. 1–3		RN 2 m. 4	RN 3 mm. 1–3	RN 3 m. 4	RN 4 mm. 1–4	RN 4 m. 5	RN 5	RN 6–8		RN 9		RN 10	RN 11	RN 12					
													32 (Bn)	5 (F/E/B)								
Episode II																						
212 (E)																						
133 [131+2 or (E) + (F)]										79 [81-2 or (E) – (F)]												
RN 13–15					RN 16–20		RN 21		RN 22		RN 23–26				RN 27– 28		RN 29–34					
34 (F)					60 (B)		23 (B/Bn)		16		31 (E)				14 (B/Bn)		34 (F)					
RN 13	RN 14 mm. 1–3	RN 14 m. 4	RN 15 mm. 1–3	RN 15 m. 4	RN 16– 18 (up to m. 2, beat 2) – RN 20	RN 18 (from m. 2, beat 3) – RN 20		mm. 1–4 (beats 1–2)	mm. 4 (from beat 3) –8	RN 23	RN 24	RN 25–6			RN 29– 30 (to m. 3, beat 1)	RN 30 (from m. 3, beat 2) –34 (to m. 4, beat 1)	RN 34 (from m. 4, beat 2)					
5 (F)	9 (B)	4 (L)	9 (B)	7 (L/ E)	31 (E)	29 (L)		7 (L)	9 (B)	6	11 (L)	14 (B/Bn)			7 (L/ E)	23 (B/Bn)	4 (L)					
Episode III																						
287 [41×7 or (Bn×L/E)] ⁴⁴⁵																						
152 [19×8 or (E×F)]							135 [131+4 or (E+L); 123+12 or (L+E)]															
RN 35–6		RN 37–40		RN 41–5		RN 46–50				RN 51–9												
23 (B/Bn)		34 (F)		43 (F _{inv})		52																
RN 35–45					RN 46–8		RN 49–50		RN 51		RN 52		RN 53		RN 54		RN 55		RN 56–8		RN 59	
					23 (B)		29 (L)		16 (8+8) (F+F) mm. 1–3 and 4–6		12 (E)		14 (B/Bn)		12 (E)		37 (B/Bn)		31 (E)		13 (F)	
Further subdivisions of numbers 43 (RN 41-45); 29 (RN 49–50); 16 (RN 51) and 31 (RN 56–58)																						
43						29				16				31								
7 (L)	12 (E)	7 (L)	8 (F)	9 (B)	11 (L)	18 (L)		8 (F)		8 (F)		7 (L)	7 (L)	5 (F)	12 (E)							

⁴⁴⁵ The total of 287 is obtained by multiplying Bach's name (as J. S. Bach in its gematria form according to the Natural Order Alphabet: 41=9+18+14) by seven (the number present in both the Lucas and the Evangelist series). Further subdivisions presenting composite numbers that do not belong to any Fibonacci-based integer sequence can be interpreted in a similar fashion where they are the product of simple arithmetical operations such as multiplying, dividing, adding or subtracting the numbers belonging to any the utilized additive sequences or Bach-related gematria forms. For example, 16=8+8 (RN 51) or (in RNs 60-4) 54=(14×2)+(13×2); thus, 54 is the sum of each, the Fibonacci and Lucas number, multiplied by two (another Fibonacci number). In the latter example, the number 14 is also part of the Bach sequence as well as one of the famous gematria-forms of the composer's name (B=2; A=1; C=3; H= 8; thus, 2+1+3+8=14=BACH).

Episode IV											
187 (Bn/F) ⁴⁴⁶											
RN 60–3					RN 64–78				RN 79 m. 1, beats 1–2		
54 [(14×2)+(13×2) or (L/B/Bn×F)+(F×F)]					131 (E)				2 (F)		
RN 60	RN 61	RN 62	RN 63		RN 64–70 (to m. 3, beat 2)		RN 70 (from m. 3, beat 3)–78				
14 (B/Bn)	13 (F)	14 (B/Bn)	13 (F)		55 (F)		76 (L)				
Episode VI											
212 (E)											
RN 110–23					RN 124–30						
143 [(13×11) or F×L]					69 [(3×23) or F/L×B]						
RN 110–13		RN 114–18		RN 119–23		RN 124–25		RN 126–29		RN 130	
48 (S)		48 (S)		47 (L)		12 (E)		26		31 (E)	
						RN 126–28		RN 129			
						18 (L)		8 (F)			
Further subdivisions of number 48 (RN 110–13)											
RN 110, mm. 1–3		RN 110, mm. 4–5		RN 111, mm. 1–3		RN 111, mm. 4–5		RN 112, mm. 1–3		RN 112, mm. 4–5	RN 113
5 (F/B)		5 (F/B)		5 (F/B)		5 (F/B)		7 (L)		7 (L)	14 (L)
Further subdivisions of number 48 (RN 114–18)											
RN 114			RN 115				RN 116–18				
12 (E)			12 (E)				24 [12×2 =E×F or 48÷2=S÷F]				
m. 1–2 (beats 1–2)	m. 2 (beat 3)– m. 4 (beat 1)		m. 4 (beats 2– 3)	m. 1	mm. 2–3 (beats 1–2)	m. 3 (beat 3)– m. 4	RN 116, mm. 1–2 (beat 1)	RN 116, m. 2 (beats 2–3)– m. 3 (beat 1)	RN 116, m. 3 (beat 2)– RN 117, m. 1 (beat 1)	RN 117, m.1 (beats 2–3)– m. 2 (beats 1–2)	RN 117, m.2 (beat 3)– RN 118
5 (F/B)	5 (F/B)	2 (F/E)	3 (F/L)	5 (F/B)	4 (L/B)	4 (L/B)	3 (F/L)	6	4 (LB)	7 (L/E)	
Further subdivisions of number 47 (RN 119–23)											
RN 119–22									RN 123		
34 (F)									13 (F)		
RN 119–RN 120, mm. 1–3							RN 120, m. 4 – RN 122				
21 (F)							13 (F)				
RN 119			RN 120, mm. 1–3								
16			5 (F) [9 ♯ in RN 120 are rounded down as per the composer’s note in the drafts; i.e., 9÷23×15=5.87=5]								
mm. 1–2		mm. 3–8									
4 (L)		12 (E)									

⁴⁴⁶ The number 187 is part of Gubaidulina-constructed series based on the integers associated with J.S. Bach's name and his various signatures. The composer's own explication of this phenomenon can be found in Lukomsky (1998): 17–18.

➤ Further Commentary on the Internal Subdivisions in Episodes I-IV and VI

All bipartite subdivisions in Episodes I-IV and VI are based on the composer's own indications, detectable in the concerto's drafts. Gubaidulina-notated 'large dividers' take several different forms. For instance, she labels two segments with the capital letters A) and B) in the Second Episode; alternatively, the two subsections are placed on separate folios marked with numbers 1) and 2), (also labeled as B) in coloured pencils, as seen in Episode I. In the Fourth Episode, the sections are identified with programmatic subtitles: the "Sprouting Tree" (RN 60-63) and the "Blizzard" (RN 64-78). The combination of letters, numbers, and literary descriptions can be seen in the sketches for the second largest episode of the work, Episode III (e.g., "Dialogue" and the "Solo of the Orchestral Ensemble" – up to RN 50 and "Wind" (from RN 51)). The second part of Episode VI is marked "Coda" in the folio containing the pitch-related drafts of the chromatic clusters in the strings.

The second-layer subdivisions are also meticulously specified in the drafts using the lowercase letters, programmatic comments, rows and tables of calculations, and even numbering of the bars as it happens in the 131-microbeat-long section subtitled the "Blizzard." The dichotomizing of this segment clearly shows that the number from the Evangelist's series (131) has been divided into two other meaningful for the composer numbers: the first one (55) comes from the Fibonacci sequence, and the second one (76) is from the Lucas sequence.⁴⁴⁷ This numerical delimitation coincides with the soloist's transition from the bass koto to the zheng. The markings in Gubaidulina's drafts for this section also indicate the presence of three other tightly structured numerical layers, implemented at the level of strings, woodwinds, and the

⁴⁴⁷ Curiously, both of these numbers are the ninth members of their respective sequences, thereby potentially hinting at the number nine coming from the Bach's series.

brass. Within these timbral blocks, the durations of *resting* and *sounding* segments in the 131-microbeat-long section of the Fourth Episode are represented by the ‘meaningful/beautiful’ numbers, used in various combinations. Thus, in the string portion, the strict alternation of numbers 7 and 5, used in the 55-beat-long section, is avoided as the new solo instrument (zheng) appears at the end of RN 71. The change is initially marked by a number from the Evangelist’s series (12), covertly separating the two larger segments of 55 and 76 microbeats. Then, the interplay between the Lucas and Fibonacci numbers continues until the very end (RN 77-78), where the final disappearance of the undulating passage in the strings is marked by a Bach number, 9. The complete schemata of the durations of sounding and resting segments in the parts of strings in this episode is presented below.

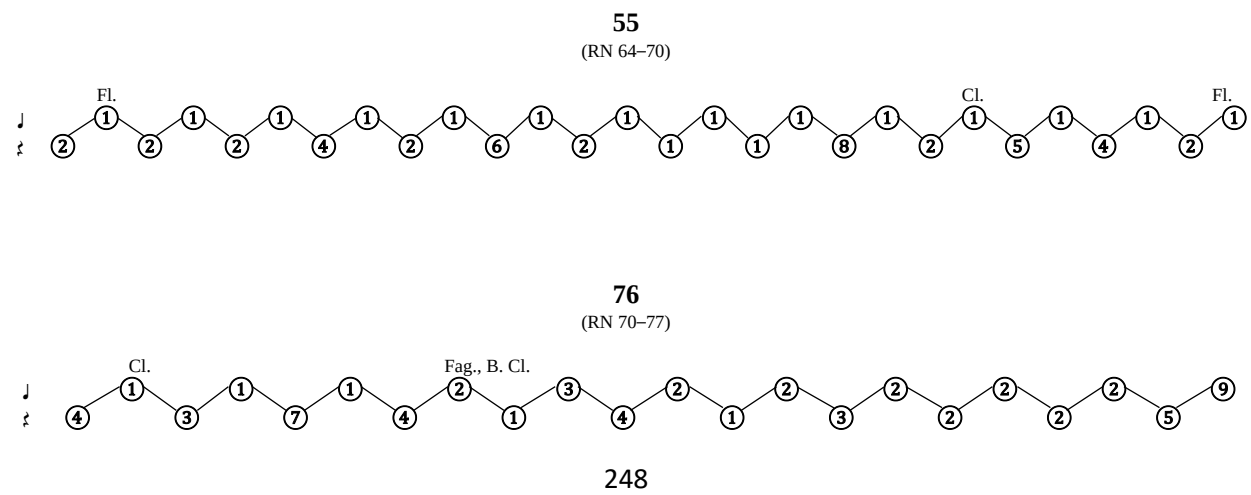
FIGURE 32: *Koto Concerto*: subdivision of number 131 (RN 64-78) based on the duration of sounding and resting segments in the orchestral strings

RN, mm., beat no.	Sounding Segment	Resting Segment
RN 64–5 (m. 1, beat 1)		7 (L)
RN 65 (from m. 1, beat 2 to m. 3, beat 2)	7 (L)	
RN 65 (from m. 3, beat 3) to RN 66 (m. 1, beat 1)		5 (F)
RN 66 (from m. 1, beat 2 to m. 3, beat 2)	7 (L)	
RN 66 (from m. 3, beat 3) to RN 67 (m. 2, beat 1)		5 (F)
RN 67 (from m. 2, beat 2) to RN 68 (m. 2)	7 (L)	
RN 68 (from m. 3) to RN 69 (m. 1, beat 2)		5 (F)
RN 69 (from m. 1, beat 3) to RN 70 (m. 1, beat 1)	5 (F)	
RN 70 (from m. 1, beat 2 to m. 2)		5 (F)
RN 70 (from m. 3) to RN 71 (m. 1, beat 1)	7 (L)	
RN 71 (from m. 1, beat 2 to m. 2)		5 (F)
RN 72	12 (E)	
RN 73 to RN 74 (m. 1, beat 1)		7 (L)
RN 74 (from m. 1, beat 2) to RN 75 (m. 1, beat 2)	7 (L)	
RN 75 (from m. 1, beat 3)		7 (L)

RN 76 (from m. 1 to m. 2, beat 2)	5 (F)	
RN 76 (from m. 2, beat 3) to RN 77 (m. 1, beat 1)		5 (F)
RN 77 (m. 1, beats 2-3)	2 (F)	
RN 77 (from m. 2 to m. 3, beats 1-2)		5 (F)
RN 77 (from m. 3, beat 3 to m. 4, beats 1-2)	3 (F)	
RN 77 (from m. 4, beat 3) to RN 78 (m. 1, beat 1)		2 (F)
RN 78 (m. 1, beats 2-3)	2 (F)	
RN 78 (mm. 2-4)		9 (B)

In the woodwind layer of the score, the proportional structuring of sounding versus resting segments is applied to the seemingly intermittent solo passages of the first flute, clarinet, bass clarinet, and the bassoon. The chromatic *frullato* scales played by the four soloists form two distinct groups: the first one tends to feature the short descending solos of the two upper-range instruments in the 55”-long section. In the subsequent 76”-long episode, the durations of predominantly descending passages in bass clarinet and bassoon become longer, curiously ending with number 9, as in the concluding ‘resting’ segment of the previously described part of the strings. Refer to the diagram below.

FIGURE 33: *Koto Concerto*: subdivision of number 131 (RN 64–78) based on the duration of sounding and resting segments in the woodwinds



Bachian number 9 also marks the duration of the final segment of extended ostinato in two muted trumpets in RN 72. All five appearances of this timbral colour demonstrate the deliberate avoidance of temporal regularity in their sounding and resting cycles. Specifically, the two-quarter-long sounding segment in RN 67 is followed by eight quarters of rest; the three-quarter-long sounding time in RN 68 is succeeded by seven quarters of rest; the remaining three pairs in RN 70, 71 and 72 unfold in a similar fashion, producing the new irregular patterns of 4 ♩ to 8 ♪, 5 ♩ to 3 ♪, and 9 ♩ to 5 ♪, respectively. As the timbre of the trombones ‘replaces’ that of the trumpets in RN 72, the new group of three continues the Fibonacci-Lucas number game. It provides new cycles of 5 ♪ versus 5 ♩ (RN 72-74), 3 ♪ versus 5 ♩ (RN 74-75), 8 ♪ versus 5 ♩ (RN 75-76), and finally, 10 ♪ versus 14 ♩ (RN 77-78), thus concluding an entire 131-microbeat-long episode with the fifth number from Bach’s series. Remarkably, the two concluding numbers representing different orchestral groups in this episode are the consecutive integers in the Fibonacci-based Bach series; i.e., they roughly approximate the Golden Section ($14 \div 9 = 1.5555\dots$ or 1.6).

All of the remaining arithmetic subdivisions are concurrent with the fluid changes in the orchestral palette. In other words, any new timbral combination – whether a single or a group solo within a timbrally homogeneous fragment – unfolds synchronously with Gubaidulinian cryptic counterpoint of the “beautiful numbers.” Figure 34 outlines the correlation between the timbral and the numerical changes in the remaining episodes of Sofia Gubaidulina’s concerto *In the Shadow of the Tree* for koto, bass koto, zheng and orchestra.

FIGURE 34: Correlation between the timbral and the numerical segment changes in Episodes I-IV and VI of Sofia Gubaidulina concerto *In the Shadow of the Tree*

Episode I																	
34 Koto solo		97 Koto, V-le, V-c								21 Legni, Perc., V-ni, V-c I		60 Koto, V-ni, V-le, V-c					
	7 Koto V-c I	10 Koto solo	9 V-c I, V-le II	11 Koto solo	9 V-c I, V-le II	12 Koto solo	12 V-c I, V-le II	13 Koto solo	14 Koto, V-le I-II, V-c I	12 FL., Cl., Perc., V-ni I-II	9 FL., Ob., Cl., Perc., V-ni I-II, V-c I	37 Koto, V-ni I-II,		23 V-ni I-II, V-le I-II, V-c I-II			
Before RN 1	RN 1		RN 2 mm. 1-3	RN 2 m. 4	RN 3 mm. 1-3	RN 3 m. 4	RN 4 mm. 1-4	RN 4 m. 5	RN 5	RN 6-8	RN 9	RN 10	RN11	RN 12			
												32 Koto solo	5 V-ni I-II				
Episode II																	
133 Zheng, Archi I-II								79 Legni, Perc., Zheng, Archi I-II									
RN 13-15					RN 16-20		RN 21	RN 22		RN 23-26			RN 27-28		RN 29-34		
34 Zheng, V-ni I, V-le II, V-c I-II					60 Zheng, V-ni I-II, V-le I-II, V-c I-II		23 Zheng solo	16 V-ni I-II, V-le II, V-c I-II		31 Fl., Cl., Perc., Zheng, V-ni I-II, V-le I-II, V-c I-II (Archi divisi)			14 Fl., Cl., Perc., Zheng, V-ni I-II, V-le I-II, V-c I-II (Archi div. differ from that in RN 23- 26)		34 Fl., Cl., B. Cl., Fag., Perc., V-ni I-II, V-le I-II, V-c I-II		
RN 13	RN 14 mm. 1-3	RN 14 m. 4	RN 15 mm. 1-3	RN 15 m. 4	RN 16-18 (up to m. 2, beat 2)	RN 18 (from m. 2, beat 3)- RN 20		mm. 1-4 (beats 1-2)	mm. 4 (from beat 3) -8	RN 23	RN 24	RN 25-26			RN 29-30 (to m. 3, beat 1) [11 J = 11÷8×5=7"]	RN 30 (from m. 3, beat 2) -34 (to m. 4, beat 1) [36 J = 36÷8×5=23"]	RN 34 (from m. 4, beat 2) [7 J = 7÷8×5=4"]
5 Zheng solo	9 Zheng V-ni I, V-c I-II	4 Zheng solo	9 Zheng, V-ni I, V-c I-II	7 Zheng solo	31 Zheng, V-no I solo V-ni I V-le I-II V-c I-II	29 Zheng, V-ni I, V-no II solo, V-le I-II, V-c I-II		9 Zheng, V-ni I-II, V-le I-II, V-c, I-II	7 V-ni I-II, V-le I-II, V-c, I-II	6 Fl., Perc., Zheng, V-le I-II, V-c I-II	11 Fl., Perc., Zheng, V-ni I, V-le I-II, V-c I-II	14 Fl, Perc., Zheng, V-ni I-II, V-le I-II, V-c I-II		7 Fl., Cl., B. Cl., Perc., V-ni II, V-le II, V-c I-II	23 Fag. solo, B. Cl., Perc., V-ni I-II, V-le I-II, V-c I-II	4 V-ni I, V-le I	
Episode III																	
152 B. Koto, Legni, Perc., Archi							135 Koto, Legni, Ottoni, Perc., Archi B. Koto (in RN 59)										
RN 35-36		RN 37-40		RN 41-45		RN 46-50		RN 51-59									
23 C-b. I-II		34 B. Koto,		43 B. Koto, Timp., B. Cl.		52 Fl., Ob., Cl., B. Cl., Fag. -soli; Archi I											

	C-b. I- II	V-c I	V-c II, C-b. II									
RN 35–45			RN 46–48	RN 49–50	RN 51	RN 52	RN 53	RN 54	RN 55	RN 56–58	RN 59	
			23 Fl., Ob., Cl., B. Cl., Fag. - soli; V-ni I, V-le I, V-c I- II, C-b I- II	29 Fl., Ob., Cl., B. Cl., - soli; Fag. a 2, V-no I solo; V-ni I altri, V-le I, V-c I-II, C-b I-II	16 Fl., Ob., Cl., B. Cl., Fag., Tr- be, Perc., V-ni I-II, V-le I-II, V-c I-II, C-b I-II	12 Koto, V-no II solo, V-le II, V-c II solo	14 Koto, V-ni II, V-le II - div.; V-c II solo	12 Koto solo	37 B. Fl. solo	31 B. Fl., Cl. solo, Fag. a2, 3 Tr-ni, V-ni I-II, V-le I (solo e altri) V-le II (tutti div.), V-c I-II, C-b I-II	13 B. Koto solo	
Further subdivisions of numbers 43 (RN 41-45); 29 (RN 49-50); 16 (RN 51) and 31 (RN 56-58)												
43					29		16		31			
RN 41	RN 42	RN 43	RN 44	RN 45	RN 49	RN 50	RN 51 mm. 1–3	RN 51 mm. 4–6	RN 56 [9 J= 9÷19×15=7"]	RN 57 mm. 1–3 [9 J=7"]	RN 57 (m. 4)– RN 58, (m. 1) [6 J= 6÷19×15=5"]	RN 58 mm. 2–6 [15 J= 15÷19×15=12"]
7 Timp., C-b I, B. Koto	12 B. Cl., Timp., V-c I solo	7 B. Koto solo	8 B. Cl. Solo, V-c I	9 B. Koto, B. Cl., V-c I	11 Fl., Ob., Cl. - soli; Fag. a 2, V-no I solo; V-ni I altri, V-le I, V-c I-II, C-b I-II	18 Fl., Ob., 2 Cl.; B. Cl. solo; Fag., V-ni I V-le I V-c I C-b I	16 Fl., Ob., Cl., B. Cl., Fag., Tr-be, Perc., V-ni I-II, V-le I-II, V-c I-II, C-b I-II	8 2 Tr- be, 2 Cl.; Fl., Ob., B. Cl., Fag., Perc., Archi I-II	7 B. Fl. solo, Fag. a2, V-le I (solo e altri); V-le II and V-c II (tutti div.)	7 B. Fl. solo, 3 Tr-ni, V-le I (solo e altri); V-le II and V-c II (tutti div.)	5 Cl. solo V-c I	12 Archi I-II
Episode IV												
RN 60–63					RN 64–78							RN 79 m. 1, beats 1- 2
54 B. Koto, Cl. solo, Archi					131 B. Koto, Zheng, Legni, Ottoni, Perc., Archi							2 V-ni II C-b II
RN 60	RN 61	RN 62	RN 63	RN 64–70 (to m. 3, beat 2)				RN 70 (from m. 3, beat 3)–78				
14 Cl. solo, V-ni I-II, V-le I-II, V-c I-II, C-b I-II	13 B. Koto solo	14 Cl. solo, V-ni I-II, V-le I-II, V-c I-II, C-b I-II	13 B. Koto solo	55 B. Koto Legni, Ottoni, Perc., Archi				76 Zheng Legni, Ottoni, Perc., Archi				
Episode VI												
RN 110–123									RN 124–130			
143 B. Koto, Legni, Ottoni, Perc., Archi									69 Archi I-II div., Ob., Koto			
RN 110–113			RN 114–118				RN 119–123			RN 124– 125	RN126–129	RN 130
48 B. Cl., Fag., Mar., B. Koto, V-le I-II, V-c I, C-b I-II			48 Mar., B. Koto Tr-ne V-ni I-II, V-le I-II, V-c I-II, C-b I				47 Fl., Ob., Cl., Tr-be, Tr-ni, Perc., Koto, V-ni I-II, V-le I-II, V-c I-II, C-b I			12 Archi I-II divisi	26 Ob., Archi I-II	31 Koto solo

										RN 126–128	RN 129		
										18 Archi I-II	8 Ob. solo, Archi I-II		
Further subdivisions of number 48 (RN 110–13)													
RN 110, mm. 1–3		RN 110, mm. 4–5		RN 111, mm. 1–3		RN 111, mm. 4–5		RN 112, mm. 1–3		RN 112, mm. 4–5		RN 113	
5 B. Koto plectrum, Fag. solo, Mar. senza arco, C-b I-II		5 B. Koto con le dita, Fag. solo, Mar. senza arco, C-b I-II		5 B. Koto plectrum, Fag. solo, Mar. senza arco, C-b I-II		5 B. Koto plectrum/con le dita, Fag. solo, V-c I (2 soli), C-b I-II		7 B. Koto plectrum, Fag. solo, Mar. senza arco, V-c I (2 soli), C-b I-II		7 B. Koto plectrum/con le dita, Fag. solo, V-la I sola, V-c I (2 soli), C-b I-II		14 B. Koto plectrum/con le dita, B. Cl., Mar., V-le I, V-c I, C-b I divisi, V-c II, C-b II tutti	
Further subdivisions of number 48 (RN 114–18)													
RN 114			RN 115				RN 116–18						
12 Mar, B. Koto plectrum, Archi I divisi, V-ni II tutti			12 B. Koto plectrum/flageolet glissandi, Tr-ne, Archi I divisi/soli, V-ni II, V-le II, V-c II tutti/divisi				24 Fl., Ob., Cl., Mar., B. Koto Archi I; V-ni II, V-le II, V-c II						
m. 1–2 (beats 1–2)	m. 2 (beat 3)–m. 4 (beat 1)	m. 4 (beats 2–3)	m. 1	mm. 2–3 (beats 1–2)	m. 3 (beat 3)–m. 4	RN 116, mm. 1–2 (beat 1)	RN 116, m. 2 (beats 2–3)–m. 3 (beat 1)	RN 116, m. 3 (beat 2)–RN 117, m. 1 (beat 1)	RN 117, m.1 (beats 2–3)–m. 2 (beats 1–2)	RN 117, m. 2 (beat 3)–RN 118			
5 B. Koto solo, 2 V-le I sole, 2 V-c I soli, C-b I	5 B. Koto, Mar. V-ni I, V-le I, V-c I – divisi;	2 B. Koto, V-ni I, V-le I, V-c I – divisi; V-ni II tutti	3 B. Koto plectrum/flageolet glissando, V-ni I, V-le I divisi, 5 V-c I soli, C-b I, V-ni II, V-le II, V-c II	5 Tr-no I solo, B. Koto flageolet glissando, V-no I solo, V-la I sola, V-c I, V-ni II, V-le II, V-c II - divisi	4 B. Koto plectrum, V-no I solo, V-la I sola, V-c I, C-b I div. a 2	4 B. Koto plectrum/flageolet glissando, 2 V-ni I soli, 2 V-le I sole, 2 V-c I soli, C-b I div. a 3	3 B. Koto plectrum/flageolet glissando solo	6 Mar., B. Koto plectrum/flageolet glissando	4 Mar., B. Koto plectrum/flageolet glissando; V-ni I, V-le I -divisi; 5 V-c I soli	7 Fl. I solo, Fl 2 frul., Ob. solo, Cl. I solo, Cl II frul., B. Koto, V-ni I, V-le I -divisi; 5 V-c I soli V-ni II div., V-le II, V-c II – unis.			
Further subdivisions of number 47 (RN 119–23)													
RN 119–122										RN 123			
34 2 Fl., Ob., 2 Cl., 2 Tr-be, 3 Tr-ni, Perc, Koto, Archi I, V-ni II, V-le II, V-c II										13 Archi I divisi			
RN 119–RN 120, mm. 1–3							RN 120, m. 4–RN 122						
21 Fl. I solo, Fl 2 frul., Ob., Cl. I solo, Cl II frul., 2 Tr-be, 3 Tr-ni, Koto plectrum/ flageolet glissando, Archi I divisi, V-ni II, V-le II, V-c II -tutti							13 Fl. I solo, Fl 2 frul., Ob., Cl. I solo, Cl II frul., Tr-ba I sola, Perc., Koto plectrum/ flageolet glissando, Archi I divisi, V-ni II, V-le II, V-c II - tutti						
RN 119			RN 120, mm. 1–3										
16 Fl. I solo, Fl 2 frul., Ob., Cl. I solo, Cl II frul., 2 Tr-be a 2, 3 Tr-ni a3, Koto plectrum, V-ni I-II, V-le I-II, V-c I-II			5 Fl. I solo, Fl 2 frul., Ob., Cl. I solo, Cl II frul., Koto plectrum/ flageolet glissando, Archi I divisi, V-ni II, V-le II, V-c II -tutti										
mm. 1–2	mm. 3–8												
4 Fl. I solo, Fl 2 frul., Ob., Cl. I solo, Cl II frul., 2 Tr-be a 2, 3 Tr-ni a3, V-ni II, V-le II, V-c II	12 Fl. I solo, Fl 2 frul., Ob., Cl. I solo, Cl II frul., 2 Tr-be a 2, 3 Tr-ni a3, Koto plectrum, Archi I-II (no C-b)												

The Game Numbers, Part Two: “The Other Musical Elements”⁴⁴⁸

“Yes, it is a game!” – reasserts Sofia Gubaidulina in her 1999 interview with Lukomsky, when questioned about whether she uses the Fibonacci series in her work as a type of game.⁴⁴⁹ This game, she continues, is played exclusively with respect to the calculation of the form’s proportionality while the “other musical elements – melody, harmony, [and] rhythm” – retain their “absolute freedom.”⁴⁵⁰ When dealing with the subject of the “other musical elements” from an analytical point of view, the question remains, however, whether this ‘absolute freedom’ is indeed absolute.

Within the massive body of the work’s compositional sketches, the number of remarks, notes, calculations and diagrams referring to the “other elements” is very few. Oftentimes, these jottings are rather cryptic and are applicable to the notation that is slightly or substantially different from that in the published version of the score. This seems to corroborate Gubaidulina’s statement, emphasizing the secondary nature of their deliberate configurations and, thus, the unmediated reliance on the inner ear – or, in the composer’s terms, her “gift of spontaneous hearing” or musical intuition.⁴⁵¹ And yet, many of the score’s numerical coincidences (perhaps based on the discarded or undisclosed calculations?) – regarding the ordonnance of the duration of certain phrases and timbral blocks, the types of *divisi* in the string groups, and the pitch content of the recurrent motives, cluster-type sonorities and the multi-voiced passages – appear

⁴⁴⁸ Lukomsky, “Hearing the Subconscious.” 30.

⁴⁴⁹ Ibid.

⁴⁵⁰ Ibid.

⁴⁵¹ Ibid.

to indicate an exaggerated value of Gubaidulinian “absolute freedom” in relation to the musical elements other than those creating the temporal proportion of the large-scale form.

The sizable number of suchlike numerical examples includes those easily discernible by ear, as well as through surface-level score analysis and informed theoretical observations. For instance, the work begins and ends on a single note in the koto solo, thus presenting the number one (1) – the opening integer in the Fibonacci series, and two of the Fibonacci-derived series used in the concerto: the Bach and the Lucas. This pitch (B $\flat$ 4) is produced on the ninth string of the Koto (or the fifth from the top). Both of these numbers (9 and 5) are consecutive members of the Bach sequence; therefore, their proportional relationship roughly approximates the Golden Section ($9 \div 5 = 1.8$). The presence of the second integer (5) in two other numerical rows, the Fibonacci and the Evangelist, unifies all four numerical rows used in the entire work. Strikingly, reading the opening sound in French nomenclature,⁴⁵² as Si bémol, also points to a possible connection with the letter ‘S’, which begins both the first name of the composer and the last name of the soloist.

Next, the initial entrances of the three solo instruments follow the consistent pattern, featuring an incremental addition of new pitches corresponding to the opening three numbers of the Fibonacci series (1, 2, and 3), and ultimately creating a memorable three-note motto that remains recognizable throughout the piece. Refer to Example 30, below.

⁴⁵² The French nomenclature has long been adopted by all Russian music education establishments and thus is natural for the composer’s musical thinking.

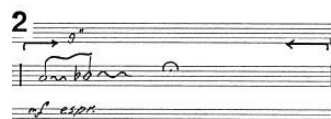
EXAMPLE 30: *In the Shadow of the Tree*: incremental addition of pitches in the initial appearances of the three soloists and the three-note motto of the work

Koto

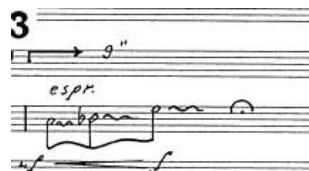
before RN 1



RN 2

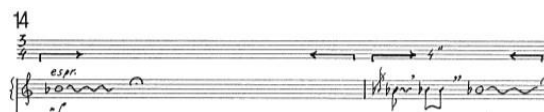


RN 3

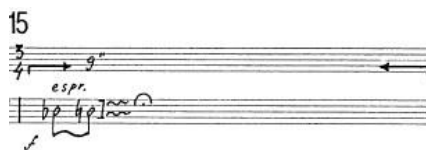


Zheng

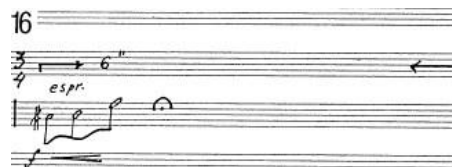
RN (13) 14



RN15



RN 16



Bass Koto

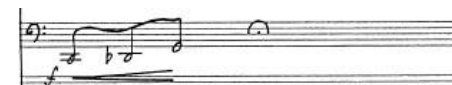
RN 37



RN 39



RN 40



Another musical element easily perceptible by ear pertains to the number of parts in the strings, echoing the initial ‘calls’ of the three soloists. At the beginning of the work, the strings answering the koto follow the same pattern of incrementally adding pitches from one to three. Starting from the second two-note segment (RN 2), each of the sounds first appearing in the regularly tuned cellos gradually merges with its quarter-tone-lower counterpart in the second violas – as if representing an inherent and inextricable unity of *shadow and light*. Gubaidulina’s extraordinary inventiveness allows her to create a variety of new combinations while playing with a simple additive pattern that accompanies the initial entrances of the other two soloists, the zheng and the bass koto. More concretely, the first two segments in the zheng (RNs 13-14 and 15) are followed by same-pitch patterns performed by the similarly tuned second cellos, while the first (regularly tuned) strings seem to illuminate these pitches ‘from within’ using an interesting timbral combination of flageolets in the first cellos and *tremolo sul ponticello* in the first violins. In RN 16, the strings’ response to the three-note motto in the part of the zheng transforms once again, as the *tremolo sul ponticello* timbre is repeated only in the solo violin (strings I) while the first cellos and the newly added first violas spin out in a contrapuntal sonoristic texture reminiscent of that in Witold Lutosławski’s *Livre pour orchestre* (1968). Refer to Example 31.

EXAMPLE 31: Two comparison excerpts: sonoric counterpoint in Sofia Gubaidulina's *In the Shadow of the Tree* (1998) and Witold Lutosławski's *Livre pour orchestre* (1968)

Sofia Gubaidulina, *In the Shadow of the Tree*, RN 16

This musical score excerpt for Sofia Gubaidulina's *In the Shadow of the Tree*, RN 16, shows a complex arrangement of string parts. The staves are labeled Zhrup, Vni I, Vlna I div., Vlna II, Vlna III, and Vlna IV. The music is characterized by dense, overlapping melodic lines with various articulations and dynamics, illustrating the concept of sonoric counterpoint.

Witold Lutosławski, *Livre pour orchestre*, Première Chapitre

This musical score excerpt for Witold Lutosławski's *Livre pour orchestre*, Première Chapitre, shows a complex arrangement of orchestral parts. The staves are labeled vni I div., vni II div., vle div., and vc. div. The music is characterized by dense, overlapping melodic lines with various articulations and dynamics, illustrating the concept of sonoric counterpoint. The score includes tempo markings such as *rit.*, *a tempo*, and *rit.*, and time signatures of 3/4, 2/4, and 3/4.

With the entrance of the bass koto (RN 37), the accompanying pitch pattern in the strings changes once again. This time, it is based on **seven** pitches (Lucas number) borrowed from the tuning pattern of the zheng (strings 2 to 8), and continuously restated by the double basses *divisi* of both string groups. The compositional procedure utilized to structure the strings portion of this section (RN 35-40) is reminiscent of the Baroque technique of pervading imitation. In the composer's inherently understated yet inimitable fashion, the idea of the contrapuntal 'point of imitation' is recast into a model based on the tuning pattern of one of the solo instruments; that is, the sounds of the lower or upper strings of the zheng become the points imitation from which successive pitches unfold in either ascending or descending order.

EXAMPLE 32: *In the Shadow of the Tree* Contrapuntal points of imitations in five double basses based on the tuning scale pattern of the zheng (strings 2 to 8), RN 37

Peculiarly enough, throughout this episode (RN 35-40), the number of simultaneously sounding parts in the strings fluctuates between six to two; the latter number accompanies the three-note motto in the bass koto. The unfolding of this process appears to create an overall linear proportion in relation to time. Simplifying the 6:2 ratio by reducing both numbers to their lowest terms results in a 3:1 ratio, which can be interpreted as a reversal or, in contrapuntal terms, a retrograde of the original idea of the pitch-related incremental increase.

A wealth of other kinds of numerical games, whether witfully invented or created ‘by ear,’ occupy many pages of Gubaidulina’s 1998 concerto for Japanese koto, bass koto, Chinese zheng, and orchestra. In the drafts to RN 12, for instance, the composer leaves an interesting comment: “Good resolutions; light and shadow are represented here by identical timbres (that is, without s. p. [*sul ponticello*]); in Russian: Хорошие разрешения; здесь и свет и тень – одинаковые тембры (т.е. без s. p.).” The comment refers to the **12** (Evangelist number) evenly alternating sonorities cast in **2** groups (Fibonacci/Evangelist number) of the first and second violas and cellos. Each of these groups is *divisi a 6*, thus producing **12** pitches in total. The first **11** (Lucas number) of these ‘chords’ form a gradually tapering cluster, leading to a single pitch of B $\flat$ 4 in the second strings. Further, the outer boundaries of this cluster/chord, becoming progressively smaller toward the final pitch of B $\flat$, are made of six chromatically descending upper parts set against six chromatically ascending pitches in the lowest parts, as follows:



This final sound, played in unison by the second strings, lasts for exactly **nine** (Bach number) absolute beats before the arrival of the same pitch in the zheng (RN 13), marking the beginning of the second episode of the concerto. Furthermore, the overall duration of the chordal episode in RN 12 is **twenty-three** absolute beats, which is, once again, the Bach number.

Further, the durations of the sounding and resting portions in some of the single orchestral parts result in Gubaidulina's "meaningful" numbers. For instance, examining the koto's part in the first episode of the concerto reveals that the total number of the absolute sounding microbeats is **131** (Lucas number, RN 0-5), while its resting counterpart (RN 6-9) lasts for precisely **21** microbeats (Fibonacci number). In the remaining portion of this episode, the sounding segment of the koto is **32** (which might be an 'inversion' of the Bach number **23**), while the resting fragment of 28 beats is comprised of **5** (Fibonacci number) and **23** (Bach number) in the orchestral strings. A similar idea of sound versus silence duration can be traced in the part of the zheng in the second episode. Here, the soloist's continuous sounding (RN 13-22) is marked by number **123** (Lucas)⁴⁵³ while within the remainder of this section lasting for **89** microbeats (Fibonacci number), there are **4** (Lucas/Bach number) short entries of the zheng marked by numbers **3, 4, 5, and 5** numbers, respectively.

Other orchestral parts and homogeneous timbral groups frequently follow similar numerical patterns, which can be noted not only with respect to their two-fold configuration – sound versus silence – but also in terms of their overall playing duration within the work or an episode thereof. Among the salient cases in point are the following:

⁴⁵³ The total number of absolute beats is comprised of $5+13+16+11+16+11+12+10+23=117$ (RNs 13–21) and 9 notated quarters at $\text{♩} = 96$ in RN 22 which is $9 \div 8 \times 5 = 5.625 = 6$; i.e., $117+6=123$. Refer to Figure 29.

- An entire part of the wind-gong (RN 51) consists of **4** measures (Lucas/Bach) notated in a triple meter thus producing **12** (Evangelist) beats at $\text{♩}=66$. Its full duration converts to **11"** (Lucas) [$12 \div 11 \times 10 = 10.91 = 11$]. The proportion created by its sounding and resting components is **1:2** (first two numbers in the Fibonacci sequence); the original segment [2♩ versus 4♩] is repeated twice.
- The full duration of the cembalo part (RN 64-78) is **131"** (Evangelist).
- The full duration of the triangle part (RNs 64–8; before the switch to the *campane*) is **37"** (Bach).
- All of the unaccompanied solos are associated with “beautiful” numbers; e.g., koto (before RN 1) – **34"** (Fibonacci); zheng (RN 23) – **23"** (Bach); bass flute (RN 55) – **37"** (Bach); bass koto (RN 59, 61, 63) – **13"** each (Fibonacci); koto (RNs 88–90) – **55"** (Fibonacci); koto (RN 130) – **31"** (Evangelist).
- The duration of the *frullato* episode in three trombones (RN 77 [from m. 4, beat 2] to RN 78), gliding between two pitches (E and B $\flat$) is **14"** (Bach); the duration of the same-pitched concurrent *tremolo* figure in the timpani (RN 77 [from m. 1, beat 2] to RN 78) is **23"** (Bach).
- The duration of the ‘celestial/twinkling’ sound in the upper register of woodwinds (Fl. picc., Fl., Cl., Ob.) and percussion (Mar., C-lli, Cel.) in RNs 6–8 is 28♩ . at $\text{♩}=88$, or **19"** (Evangelist) when converted to an absolute beat [$28 \div 22 \times 15 = 19.09 = 19$].
- The timbral block similar to the above (F., Cl., Mar., Vibr.) appears intermittently in the second episode of the concerto (RNs 23–30). Its total sounding duration is **29"** (Lucas), while the resting segment occupies **23"** (Bach). These values are calculated as follows:

RN, mm.	Sound	RN, mm.	Silence
23 mm. 1–3	$6 \text{♩} \div 28 \times 15 = 3.2142857''$	23 m. 4	3''
24 mm. 1–3	$7 \text{♩} \div 28 \times 15 = 3.75''$	24 mm. 4–5 m. 6	$6 \text{♩} \div 28 \times 15 = 3.2142857''$ 4''
25–6 (mm. 1–3)	$12 \text{♩} \div 8 \times 5 = 7.5''$	26 m. 3 m. 4	$2 \text{♩} \div 8 \times 5 = 1.25''$ 5''
27–8 (mm. 1–3)	$12 \text{♩} \div 8 \times 5 = 7.5''$	28 m. 3 m. 4	$2 \text{♩} \div 8 \times 5 = 1.25''$ 5''
29–30	$11 \text{♩} \div 8 \times 5 = 6.875''$ $3.2142857 + 3.75 + 7.5 + 7.5 + 6.875 = 28.839$ =29		$3 + 3.2142857 + 4 + 1.25 + 5 + 1.25 + 5 = 22.714$ =23

Just as importantly, Gubaidulina's score presents several fascinating examples of combining the idea of symbolic numerical durations with the pitch organization based on the tuning patterns of the three solo instruments. The latter, referring to the fragments of the scales tracing the order of strings in the koto, bass koto or zheng, permeates a great number of the orchestral parts. To supplement our previously described example referring to RN 37, refer for instance to RN 22 (mm. 1–2), where the stretched-out à la Lutosławski cluster in the second strings is based on the ascending zheng scale (strings 14 to 21); a similarly structured passage in the first violins (*divisi a 6*) in RNs 117–18 features a tuning fragment of the bass koto (strings 17 to 12); and the opening of the clarinet solo in RN 90 outlines the order of the first seven strings of the koto. Fortuitously (or by design?), the absolute durations of these passages are accompanied by the numbers 4, 7 and 5.⁴⁵⁴

A more intricate example of combining the tuning-based pitch organization with the temporal length of the constituent segments occurs in a recurrent episode in the Strings, where each part of the *divisi* lines slides up or down an octave before a sustained trill on a single note. First appearing at the end of the third episode (RN 58), it is laid out in 8 parts – tutti in both strings I and II – and lasts for 14 seconds, both of which correspond to the Fibonacci and Bach numbers, respectively. This fragment reappears in RN 60 and, once again, in RN 62, where the number of orchestral parts doubles as each group is divided into two parts. All three segments are based on two pitches, E (first strings) and *F (second strings), scattered within a six-octave range. Following her beloved principle of variation, the composer structures all subsequent returns of this texture as accompanied not only by the ‘meaningful’ numbers and new *divisi*

⁴⁵⁴ The numbers are calculated as follows: RN 22: 6 ♭ at ♭=96 is $6 \div 8 \times 5 \approx 4$; RN 117: 6 ♭ at ♭=60 plus 2 ♭ at ♭=92 ($2 \div 23 \times 15 = 1.304$) equals $6 + 1 = 7$; RN 90: 5 ♭ at ♭=60 is 5”.

patterns but also by a new, non-repeated pitch for each segment starting from the fourth one.

Refer to the figure below.

FIGURE 35: Composition of the single-pitch segments in Gubaidulina's *Koto Concerto*

RN	Duration in seconds	Central pitch	Number of parts	Instrumentation
110	3 (F/L)	B	6	Cb. I div. a 3 Cb. II div. a 3
111–12 (mm. 1–2)	9 (B)	B	5	Vc. 1, 1 and 2 soli Cb. I div. a 3
112 (mm. 4–5)	7 (L/E)	B	6	V-le I, 1 sola Vc. I 1 and 2 soli Cb. I div. a 3
113 (m. 4)–14 (m. 1)	7 (L/E)	B $\flat$	7	V-le I, 1 and 2 sole Vc. I, 1, 2 and 3 soli Cb. I div. a 3
115 (mm. 3–6)	9 (B)	A	9	V-ni I, 1 and 2 soli V-le I, 1 and 2 sole Vc. I 1 and 2 soli Cb. I div. a 3
119 (from m. 6)–20	21 (F)	G $\sharp$	9	V-ni I div. a 2 V-le I div. a 2 V-c I div. a 2 C-b I div a 3
123	13 (F)	G	10	V-ni I div. a 3 V-le I div. a 2 V-c I div. a 2 C-b I div a 3

Ingeniously, the first three of these ‘sprouting through the sound-space’⁴⁵⁵ pitches (E, F, and B) outline the three-note motto of an entire composition. In addition, six pitches partaking in creation of new versions of the original texture can be arranged in a sequence reproducing that of the top six strings of the zheng (transposed a minor sixth down):

21	20	19	18	17	16
F	B	B$\flat$	A	G$\sharp$	G

⁴⁵⁵*Pro memoria*: in Gubaidulina's sketches, the first appearance of this episode is marked with a programmatic subtitle: “Sprouting Tree.”

The peculiar spatial separation of the homogeneously constructed timbral segments, each of which is based on a single pitch reproduced in different registers, appears to be a nod to one of the last works of Gubaidulina's comrade, Luigi Nono; his 1987 piece *No hay caminos, hay que caminar...* [There are no paths, but one must walk...] (1987) for seven orchestral groups revolves around one single note: G.⁴⁵⁶ Below is an excerpt from Sofia Gubaidulina's score; much like Nono's work completed about eight years earlier, Gubaidulina's fleeting 13-second episode is absorbed with a single G sounding in different registers. See Example 33.

⁴⁵⁶ Gubaidulina-Nono's mutual respect and admiration received several mentions in the Kholopova and Kurtz's volumes, See, for instance, in Kurtz, 188-89, 233-34; Kholopovan (2020), 279-80, 282. In 1991, Gubaidulina wrote a piece for six percussionists "Can you hear us, Luigi? Look at the dance a simple wooden rattle is performing for you" to commemorate Nono's passing on May 8, 1990. The recording of Nono's *No hay caminos, hay que caminar...* is available online at <https://www.youtube.com/watch?v=H0Q7L5w8iWE>.

EXAMPLE 33: *In the Shadow of the Tree*: an excerpt from the Concerto's Sixth Episode based on a single pitch

Handwritten musical score for a string quartet, measures 24-28. The score is for Violin I, Violin II, Viola, and Cello/Double Bass. It features complex rhythmic patterns, including sixteenth and thirty-second notes, and dynamic markings like 'f' and 'p'. The notation includes many 'tr' (trills) and 'div.' (divisi) markings. The time signature is 2/4.

Another fascinating example of combining the soloists' tunings with the durations of the sounding and silent segments associated with Gubaidulina's "magic numbers" can be observed in the Fourth Episode (RNs 64–78), in the section lasting 131 absolute beats. Within this large episode, subtitled the "Blizzard" in the drafts, the pitch sequences of the **eleven** (Lucas number) oscillating *tremolo* passages in strings I and II are based on the tuning patterns of the three soloists. The composer's metaphorical sonic blizzard appears to intensify before gradually dissipating, as seen in the last **five** (Fibonacci number) cluster-like risings and droppings in the orchestral strings. In other words, their sounding duration, range, and texture density – along with the number of partaking divisi lines – progressively decrease, while the silent segments

grow in size. The sounding and silent durations of these passages, as well as the total numbers of parts and type of *divisi*, are summarized in Figure 36.

FIGURE 36: *Koto Concerto*: Structuring the passages of the orchestral strings in Episode IV: duration of the sounding and silent fragments; the type of *divisi* and the total number of parts

Passage number	RN, mm.	Duration of sound (in ♩)	Duration of silence (in ♩)	Total numbers of parts and type of <i>divisi</i>
1	65–6 (m. 1, beat 1)	7	5	12: V-ni II, V-le II, V-c II, C-b II each <i>div. a 3</i>
2	66 (from m. 1, beat 2)–67 (m. 2, beat 1)	7	5	15: V-ni I-II; V-le I-II, V-c II each <i>div. a 3</i>
3	67 (from m. 2, beat 2)–69 (m. 1, beat 2)	7	5	19: V-ni I-II; V-le I-II, V-c I-II each <i>div. a 3</i> ; C-b I <i>unis.</i>
4	69 (from m. 1, beat 3)–70 (m. 2)	5	5	10: V-ni 1, V-le I, V-c I each <i>div. a 3</i> ; C-b I <i>unis.</i>
5	70 (from m. 3)–71	7	5	16: V-ni I-II; V-le I, V-c I-II each <i>div. a 3</i> ; C-b II <i>unis.</i>
6	72–4 (m. 1, beat 1)	12	7	15: V-ni I-II, V-le I-II each <i>div. a 3</i> ; V-c I-II <i>unis.</i> ; C-b II <i>unis.</i>
7	74 (from m. 1, beat 2)–75	7	7	15: V-ni I-II, V-c I-II, V-le II each <i>div. a 3</i> ;
8	76–7 (m. 1, beat 1)	5	5	10: V-ni 1, V-le I, V-c I each <i>div. a 3</i> ; C-b I <i>unis.</i>
9	77 (from m. 1, beat 2 to m. 3, beat 2)	2	5	4: V-c II <i>div. a 3</i> ; C-b II <i>unis.</i>
10	77 (from m. 3, beat 3)–78 (m. 1, beat 1)	3	2	8: V-c I-II each <i>div. a 3</i> ; C-b I-II <i>unis.</i>
11	78 (from m. 1, beat 2)	2	12	4: V-c I <i>div. a 3</i> , C-b I <i>unis.</i>

The pitch-related structuring of these eleven passages is subject of constant variation, as the tuning patterns of the koto, bass koto, and zheng used in the strings appear in many forms. They can be transposed or non-transposed; they can feature the string order of a single instrument or a combination thereof, whether within a single line or an entire *divisi* group of the

same instruments such as violas II, violins I, etc. For example, all *divisi* lines of the first passage (RN 65) are based on the non-transposed⁴⁵⁷ tuning pattern of the zheng (strings 2-13):

EXAMPLE 34: *In the Shadow of the Tree*: tuning patten of the zheng utilized in the pitch-structuring of a strings' passage in RN 65

Likewise, the sixth and longest passage in both groups of Strings, comprised of several rises and falls, is formed by combining the tuning patterns of all three solo instruments. That is to say, both viola groups (I and II) use the transposed tuning order of the bass koto while the remaining groups of the strings utilize various combinations of the transposed tuning patterns of the koto,

⁴⁵⁷ The octave-related transpositions are disregarded in order to simplify the analytic schemata. Likewise, all of the following transpositions are presented in simple rather than compound ones (where applicable).

bass koto, and the zheng. Refer to Example 35. This passage also displays the complete array of structural devices common to all eleven ‘sonic waves’ produced by the orchestral Strings in this episode of the concerto. They are as follows:

- The tripartite *divisi* groups usually begin their rapid ascent starting on a single, i.e., the same pitch.
- The polyphonic melodic contour of any group of the strings (e.g., V-ni I or V-c II) can be determined by the tuning order of either a single soloist (e.g., the koto) or a combination of the two (e.g., the bass koto and zheng). In the latter case, the scalar pattern of the opening portion of the passage returns as the concluding segment of the descent.
- The polyrhythmic groupings within a single homogeneous group of instruments, rapidly changing from one tremolo pitch to the next produce a glissando-like effect analogous to that in the corresponding ‘implied’ soloists.
- The uniform construction of the passages is realized through the consistent shortening of an ascending scalar segment within each three-part timbral group, resulting in a consistent pattern of a three-pitch sonority formed by the sounds of the three adjacent strings of an implicit soloist at the highest point of a melodic ascent (e.g., 6-5-4, the zheng’s scalar pattern transposed a minor third up, in V-ni II [RN 70, m. 4]; passage number five).
- The final pitches of a passage’s descent often form a similar tuning-related ‘triad’ created by the adjacent strings of one of the solo instruments (e.g., 9-8-7, the koto’s strings, non-transposed, in V-ni I [RN 71]; passage number five). Otherwise, the descent might end on the same pitch in all three parts (e.g., 11-11-11, the bass koto, transposed a major second down, in V-ni I [RN 69]; passage number four).
- Where a combination of two different tunings is utilized by the composer, the sounds of the lowest range of the zheng (strings two to six) form the upper portion of a passage, while the upper-range scalar patterns of the other soloists occupy the lower segments of the corresponding passages.

Figure 37 presents selected examples of the Strings passages’ pitch-structuring which utilizes the tuning patters of the koto, bass koto, and the zheng in its numerical version.

EXAMPLE 35: *In the Shadow of the Tree*: tuning patten of the koto, bass koto, and zheng utilized in the pitch-structuring of strings' passages in RN 72

Handwritten musical score for Example 35, left page. The score is written on staves for V-m I, V-le I, and V-le II. It includes various tuning patterns for B. Koto, B. Koto -2, and Zheng. Some patterns are highlighted in yellow. Annotations include 'Zheng p.4', 'B. Koto -2', 'B. Koto -2', 'Zheng x4', and 'Koto +2'.

Handwritten musical score for Example 35, right page. It continues the staves for V-m I, V-le I, and V-le II. It includes various tuning patterns for B. Koto, B. Koto +2, and Zheng. Some patterns are highlighted in yellow. Annotations include 'Zheng x4', 'B. Koto +2', and 'B. Koto +2'.

FIGURE 37: *In the Shadow of the Tree*: selected examples of pitch-structuring of other strings' passages utilizing the tuning pattens of the koto, bass koto: numerical version

Passage 2, RN 66				
Instrumentation	Tuning Patterns			
	B. Koto, -3↑	Zheng, p. 5↑	B. Koto, -3↑	
V-ni I	1.	11 12 13	2 3 4 5 6 5 4 3 2	13 12 11 10 9 8 7 6 5
	2.	11 12 13	2 3 4 5 4 3 2	13 12 11 10 9 8 7 6
	3.	11 12 13	2 3 4 3 2	13 12 11 10 9 8 7
	Tuning Patterns			
		Zheng, +2↑	Koto, -3↑	
V-le I	1.	1 2 3 4 5	3 4 5 6 7 8 9 10 11 12 11 10 9 8 7 6 5 4 3 2	
	2.	1 2 3 4 5	3 4 5 6 7 8 9 10 11 10 9 8 7 6 5 4 3	
	3.	1 2 3 4 5	3 4 5 6 7 8 9 10 9 8 7 6 5 4	
	Tuning Pattern			
V-ni II, mm. 1–2	B. Koto, non-transposed			
	1.	10 11 17 13 14 15 16 17 16 15 14 13 12 11 10 9 8 7 6 5		
	2.	10 11 12 13 14 15 16 15 14 13 12 11 10 9 8 7 6		
	3.	10 11 12 13 14 15 14 13 12 11 10 9 8 7		
V-le II, mm. 1–2	B. Koto, non-transposed			
	1.	4 5 6 7 8 9 10 11 12 13 14		
	2.	4 5 6 7 8 9 10 11 12 13		
	3.	4 5 6 7 8 9 10 11 12		
V-c II, m. 2	B. Koto, non-transposed			
	1.	14 13 12 11 10 9 8 7 6 5 4 3 2 1		
	2.	14 13 12 11 10 9 8 7 6 5 4 3 2		
	3.	14 13 12 11 10 9 8 7 6 5 4 3		
Passage 9, RN 77, m. 1				
Instrumentation	Tuning Patterns			
	B. Koto, -3↓	Zheng, -2↑	B. Koto, -3↓	
V-c II	1.	11 12 13	2 3 4 5 6 5 4 3 2	13 12
	2.	11 12 13	2 3 4 5 4 3 2	13 12
	3.	11 12 13	2 3 4 3 2	13 12
C-b II		11 12 13	2 3 2	13 12
Passage 10, RN 77, mm. 3–4				
Instrumentation	Tuning Patterns			
	B. Koto, +3↓	Zheng, non-transposed	B. Koto, +3↓	
V-c I	1.	6 7 8	2 3 4 5 6 5 4 3 2	8 7
	2.	6 7 8	2 3 4 5 4 3 2	8 7
	3.	6 7 8	2 3 4 3 2	8 7
C-b I		6 7 8	2 3 2	
V-c II	1.	6 7 8	2 3 4 5 6 5 4 3 2	8 7
	2.	6 7 8	2 3 4 5 4 3 2	8 7
	3.	6 7 8	2 3 4 3 2	8 7
C-b II		6 7 8	2 3 2	8 7
Passage 11, RN 78				
Instrumentation	Tuning Patterns			
	B. Koto, p. 5↑	Zheng, +7↑	B. Koto, p. 5↑	
V-c I	1.	6 7 8	2 3 4 5 6 5 4 3 2	8 7
	2.	6 7 8	2 3 4 5 4 3 2	8 7
	3.	6 7 8	2 3 4 3 2	8 7
C-b. I		6 7 8	2 3 2	8 7

The final, and from an analytical point of view, the most enigmatic example of combining the tuning-based pitch organization with the temporal length of the constituent segments presents itself at the close of the concerto. This time, it takes the form of a chain of clusters steadily alternating between the second and first orchestral strings (RNs 124–29).⁴⁵⁸ The size of these sonorities gradually decreases as they shift down from one to the next. The overall pitch configuration of this progression resembles the shape of a horizontal cone, tapering towards the end and terminating in a single sound, B $\flat$ 4. Strikingly, this creates a very audible mental connection with the beginning of the work, which opens with the very same pitch in the koto solo. Furthermore, the combined duration of the large clusters, comprised of multiple *divisi* parts (RNs 124–25), is ‘numerically’ separated from the following segment (RNs 126–28), where each of the string groups (except for the violins) plays in unison. The latter segment is, in turn, followed by another of Gubaidulina’s proportional numbers, as the ‘chord progression’ ends with a single sound of B $\flat$ played in unison by the first strings and the oboe solo (RN 129). Figure 38 outlines the type of *divisi*/participating parts in the corresponding segments, along with their proportional values in seconds. As the alternating clusters in the second and first Strings appear to follow an antiphonal pattern – i.e., questions of ‘shadow’ (scordatura second strings) are followed by answers of ‘light’ (standardly tuned first strings) – the total of sixteen sonorities is presented as eight pairs, with the ‘chords’ in the first strings marked with the letter ‘a’ added to the corresponding number of the clusters in strings II.

⁴⁵⁸ N.B.: it appears that in Gubaidulina’s score a change from the treble clef to alto clef is missing in the parts of V-le II (RN 66, m. 2, prior to beat 3).

FIGURE 38: *Koto Concerto*: type of *divisi* and the number of pitches in cluster-chords (RNs 124–29) and the proportional values of the analogous segments in seconds

Cluster no.	1-1a	2-2a	3-3a	4-4a	5-5a	6-6a	7-7a	8-8a	
Number of [divisi] lines	33 33	27 33	21 27	5 5	5 5	5 5	5 5	5	5
Number of pitches	38 37	28 33	21 27	5 5	5 5	5 5	4 3	2	1
Proportional value	12'' (E)			18'' (L)					8 (F)

The deciphering of the pitch structuring of these clusters is greatly facilitated by Gubaidulina’s own schemata, found among the multifarious pages of the work’s drafts preserved in the Basel archives. The first page of this folio outlines the general plan for the progression of the cluster-chords; it is reproduced in Plate 5 with the permission of the Paul Sacher Foundation. The upper right corner of this page reads (in blue): “Coda: Strings I-II” [кода: str I-II]. Two inscriptions at the bottom of the page read:

- 1) (in pink) Scale of the Bass Koto – 17 sounds (a major third lower and a quarter-tone down: Shadow (strings II [in black pencil above]) [Звукоряд В-Кото – 17 звуков (на б. 3 ниже, +1/4 тона: тень (Str II))]
- 2) (in blue) Scale of the zheng – 21 sounds (retrograde; a major second lower and a quarter-tone down: Light (strings I [in black pencil below]) [Звукоряд Шена – 21 звук (кребс. на б. 2 ниже, +1/4 тона: свет (Str I))]

The body of a page presents eight numbered units of notehead notation in the form of short motivic cells distributed between the first and second strings. These cells are circled or bracketed in either pink or blue pencil. The use of the same colours for the bottom-of-the-page comments suggests that the former designates the tuning order of the bass koto, while the latter designates that of the zheng. Taking a cue from the composer, the configurations of these ‘light and shadow’ sonorities in the alternating groups of strings are interpreted as shown in Plate 5.

PLATE 5: *In the Shadow of the Tree*: Gubaidulina's sketch: pitch organization of the strings' clusters in RNs 124–29

Handwritten musical sketch for the strings section of *In the Shadow of the Tree*, showing pitch organization across measures 124–29. The sketch is divided into two main sections, 1–3 and 4–9, with various annotations and markings.

Section 1–3: This section shows the initial pitch organization for the strings. It includes staves for Violins I (Vni), Violins II (Vle), Violas (Vc), and Cellos/Double Basses (Cb). The sketches are numbered 1, 2, and 3. Annotations include "Koga: Str I-II" and "1-1".

Section 4–9: This section continues the pitch organization, showing staves for Violins I (Vni), Violins II (Vle), Violas (Vc), and Cellos/Double Basses (Cb). The sketches are numbered 4, 5, 6, 7, 8, and 9. Annotations include "Koga: Str I-II" and "1-1".

Section 10–16: This section shows the final pitch organization, including staves for Violins I (Vni), Violins II (Vle), Violas (Vc), and Cellos/Double Basses (Cb). The sketches are numbered 10, 11, 12, 13, 14, and 16. Annotations include "Koga: Str I-II" and "1-1".

Section 17–29: This section shows the final pitch organization, including staves for Violins I (Vni), Violins II (Vle), Violas (Vc), and Cellos/Double Basses (Cb). The sketches are numbered 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29. Annotations include "Koga: Str I-II" and "1-1".

Handwritten Notes:

- звукоряд В-кото - 17 звуков (на 8.3 фиче. $\frac{1}{4}$ тона : Гекс)
- звукоряд Шена - 21 звуков. (кредс. на 6.2 ните $\frac{1}{4}$ тона : секс)

Other Annotations:

- rend (Str II)
- 14 16

➤ **‘Deconstruction’ of the Clusters in RNs 124–29**

- The first pentachord on the composer’s diagram consists of sounds corresponding to those of the top five strings of the bass koto. Transposed a major third down (first pink circle on the left – V-ni II: G $\sharp$ -D-C $\sharp$ -C $\flat$ -B $\flat$), this motivic cell descends and, in Gubaidulina’s terms, is in retrograde.
- Its ‘illuminated’ version in V-ni I (second pink circle to the right) consists of six pitches (G-D-C $\sharp$ -C $\flat$ -B-A $\sharp$). Two of these are chromatic inflections of the same scalar pattern from the bass koto’s open strings 17 (↓) and 13 (↑). Additionally, the whole tone between strings 14 and 13 is split into two semitones.
- This results in an ascending version of the six-pitch cell, comprised of two three-note segments (circled in blue below: C $\sharp$ -D-D $\sharp$ and E-F-B). This, in turn, is associated with the sounds of the consecutive strings (16 to 21) of the zheng, transposed a major second down.
- The idea of interlocking two- to three-note cells, concomitant with the scalar patterns of both the bass koto and zheng, permeates the construction of the first three pairs of the cluster-chords. Motivic cells designated for each sonority (marked as ① to ⑧) are deconstructed in a similar fashion.

Below, the tuning-related ‘deconstruction’ of the clusters in the second strings and their

‘illuminated’ counterparts in strings I are presented side by side for each of the strings’ groups.

FIGURE 39: *Koto Concerto*: tuning-related ‘deconstruction’ of the clusters in the strings (RN 124-129)

Cluster 1

- V-ni II: scalar pattern of 13 (F) strings of the bass koto (5 to 17)⁴⁵⁹

1	2	3	4	5	6	7	8	9	10	11	12
G $\sharp$	D	C $\sharp$ -E $\sharp$	C $\flat$	B $\flat$	G $\flat$ -B $\flat$	E $\flat$ -C	G $\flat$ -E $\flat$	F	F	C-E	D $\sharp$
17	16	15-11	14	13	12-8	10-9	7-5	11	6	9-6↓	5

- V-ni I: scalar patterns of the B. Koto (7 (L) strings) and the Zheng (8 (F) strings)

Bass Koto (strings 10 to 17, string 12 omitted)	Zheng (strings 21 to 14)
--	---------------------------------

⁴⁵⁹ V-ni I partaking in this sonority play a quarter-tone higher, thus producing the same pitches as V-ni II; e.g., G $\flat$ =G $\sharp$ ¼ tone↓= the sound of the bass koto’s string 17 (transposed a major third down). The number of semitonal chromatic inflections on an open string is indicated by upward- or downward-facing arrows where necessary.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
G	D	C#	Cb	Bb	Bb	F	E	Eb	D	C-Eb	F#	F-Eb	D#-B	F-D	D#	E	C#
17↓	16	15	14	13↑	13	11	11↓	10	17	15-18	11	20-19	18-21	20-17	18	19	16

- V-le I and II: scalar patterns of the zheng (7 (L) strings: 16-10)

	1	2	3	4	5	6
V-le II	C#	A	G#	Gb	F#	D
	16	14	13	13↓	11	10
V-le I	Cb	A	G#	F#	Fb	D
	15	14	13	11	12	10

- V-c I/II and C-b I/II: continue the descending scalar pattern of the zheng (9 (B) strings: 9-1)

	1	2	3	4	5	6
V-c II	C#	A#	Ab	G	F#	C#
	9	8↑	8	6	5	4↑
V-c I	C#	A	G#	Gb	F#	Cb
	9	8	7	6	5	4
C-b II	Cb	B	A			
	4	3	1			
C-b I	B	A#	Ab			
	3	2	1			

Cluster 2

- V-ni II: scalar pattern of the bass koto (9 (B) strings: 1 to 9)

1	2	3	4	5	6	7	8	9	10	11	12
Bb	Gb	F	Eb	C	Bb	Gb	F	Eb	F-F#	Ab	G
8	7	6	5	9	8	7	6	5	4-1	3	2

- V-ni I: scalar pattern of the bass koto (9 strings: 1-9) overlapping with that of the zheng in V-ni 16-18 – strings 7, 6 and 5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A	F#	Fb	E	D#	Db	C	A	F#	Fb	E	D#	Ab	G	F#	Ab	G	F#
8↓ =4	7	6	6↓	5	5↓	9	8↓ =4	7	6	6↓	5	3	2	1	3	2	1

- V-le I and II: scalar patterns of the zheng (7 (L) strings: 21-15)

	1	2	3	4	5	6
V-le II	C	F	E	E	D#	C#
	15	20	19	19	18	16
V-le I	B	F	E	D#	Db	C#
	21	20	19	18	17	16

- V-c I/II and C-b I/II: scalar pattern of the zheng (7 (L) strings in V-c: 16-10 and 4 (L) strings in C-b:10-7)

	1	2	3	4	5	6
--	---	---	---	---	---	---

V-c II	C#	A	G#	G#	F#	D
	16	14	13	11↑	11	10
V-c I	C#	A	G	F#	F#	D
	15	14	11↑	11	12	10
C-b II	D	A	G#			
	10	8	7			
C-b I	C#	A	G#			
	9	8	7			

Cluster 3

- V-ni II: scalar pattern of the bass koto (9 (B) strings: 1-9) overlapping with that of the zheng in V-ni 12-10 – 3 (F/L) strings 15, 12, and 19

1	2	3	4	5	6	7	8	9	10	11	12
C	Bb	Gb	F	Eb	A#	Ab	G	F#	C	F	E
9	8	7	6	5	4	3	2	1	9	6	5↑

- V-ni I: scalar pattern of the bass koto (8 (F) strings) and zheng (3 (F/L) strings); the last three notes of the first (bass koto) segment (parts 11-13) repeating the preceding three-pitch cell 9 in parts 8-10) also overlap with the zheng-associated pattern: 7, 6, and 5 (3 (F/L) strings)

Bass Koto (8 strings: 8 to 1, string 4 omitted)													Zheng (3 strings: 21 to 19)				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B#	Bb	A	F#	F#	E	Eb	Ab	G	F#	Ab	G	F#	B	F	E	B	F
9↓	8	8↓	7	6	6↓	5	3	2	1	3	2	1	21	20	19	21	20

- V-le I/II, V-c I/II and C-b I/II: scalar pattern of the zheng (total of 13 (F) strings: 4 in V-le and 9 (B) in V-c/C-b I and II groups)

V-le II			V-le I		
F	E	D	E	Eb	D
20	19	17	19	18	17
V-c II			V-c I		
D	C#	A	D#	C#	A
10	9	8	16	15	14
C-b II			C-b I		
D	C#	A	G#	G#	F
10	9	8	6	5	12

Cluster 4

- scalar pattern of 5 (F) strings of the bass koto

Archi group no.	V-ni	V-le	V-c	C-b
II	D#-A	G#	G#	F#
	5-4	3	2	1
I	D-A	G#	G#	F#
	5↓-4	3	2	1

Cluster 5

- scalar pattern of 4 (L) strings of the bass koto

Archi group no.	V-ni	V-le	V-c	C-b
II	D $\sharp$ -B $\flat$	A $\sharp$	A $\flat$	G
	5 $\downarrow$ -4 $\uparrow$	4	3	2
I	D $\flat$ -B $\flat$	A $\sharp$	A $\flat$	G
	5 $\downarrow$ -4 $\uparrow$	4	3	2

Cluster 6

- scalar pattern of 3 (F/L) strings of the bass koto

Archi group no.	V-ni	V-le	V-c	C-b
II	C $\sharp$ -B	A $\sharp$	A $\sharp$	G $\sharp$
	5 $\downarrow$ -4 $\uparrow$	4 $\uparrow$	4	3
I	C $\sharp$ -B $\sharp$	B $\flat$	A	G $\sharp$
	5 $\downarrow$ -4 $\uparrow$	4 $\uparrow$	4	3

Cluster 7

- scalar pattern of 2 (F) strings of the bass koto

Archi group no.	V-ni	V-le	V-c	C-b
II	C-B $\sharp$	B $\flat$	A	A
	5 $\downarrow$ -4 $\uparrow$	4 $\uparrow$	4	4
I	B $\sharp$ -B $\flat$	B $\flat$	A	A
	4 $\uparrow$ -4 $\uparrow$	4 $\uparrow$	4	4

Cluster 8

- String 4 (1=F) of the bass koto

Archi group no.	V-ni	V-le	V-c	C-b
II	B $\sharp$ -B $\flat$	B $\sharp$	B $\flat$	B $\flat$
	4 $\uparrow$ -4 $\uparrow$	4 $\uparrow$	4 $\uparrow$	4 $\uparrow$
I	B $\flat$	B $\flat$	B $\flat$	B $\flat$
	4 $\uparrow$	4 $\uparrow$	4 $\uparrow$	4 $\uparrow$

Koto Concerto: Au Lieu de Conclusion

In the end, the discovery of various types of numerical underpinnings in Gubaidulina's structural thinking, involved in the creation of her 1998 work *In the Shadow of the Tree* for koto, bass koto, zheng, and orchestra, was made possible through our careful examination of the composer's sketches. Without these invaluable resources, the extent of the composer's extraordinary contrivances – both in terms of creating sophisticated mathematical proportions of form and in

applying Fibonacci and Fibonacci-derived numbers to the “other musical elements” – could hardly be fully appreciated. After all, despite her remarkable openness to general music-related communication, Gubaidulina has remained somewhat reserved when it comes to discussing her compositional procedures in detail. “I saw a manuscript in her study that resembled an engineer’s drawing – something for a plane like the Concorde or for a computer. There was an abundance of carefully drawn lines,” recalled Rostropovich after visiting Gubaidulina’s home in Appen, where he caught a glimpse of her work in progress. When asked what it was, the composer replied: “Never mind, that’s my business.”⁴⁶⁰ Fortunately, since a substantial number of Gubaidulina’s sketches are now held under the aegis of the Paul Sacher Foundation in Basel, the study of this vast array of compositional inventiveness has become the work of those willing to investigate and marvel in awe. At one and the same time, the deeper we immerse ourselves in Gubaidulina’s unique musical universe, the more insistent become the questions asked long ago by one of the twentieth-century most distinguished poets: “Where is the Life we have lost in living? Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?”⁴⁶¹

⁴⁶⁰ Cited in Gavin Dixon, “Contemporary Composer: Sofia Gubaidulina,” *The Gramophone Newsletter*, November 29 (2019): para 9, https://www.gramophone.co.uk/features/article/contemporary-composer-sofia-gubaidulina?fbclid=IwY2xjawFVb1ZleHRuA2FlbQIxMAABHWyR9UHOsSGUphmBc7nDCdRaz_bJT2wepMbc6rgS84qS1hmI9Z7WZyq8ZQ_aem_FBPSjQOnCiXX1y-JwQPcWg.

⁴⁶¹ T.S. Eliot, *The Rock* (Harcourt, Brace and Company, 1934), 7, <https://archive.org/details/dli.ernet.235750/page/n5/mode/2up?view=theater&q=wisdom>.

CLOSING REMARKS

This dissertation has explored the concept of “Sofia Gubaidulina’s Cathedrals of Sound: Redefining the Boundaries of Instrumental Concertos,” a journey through the composer’s artistic vision of music as a spiritual and transformative space, akin to the creation of a grand architectural masterpiece. The metaphor of the “cathedral of sound” encapsulates Gubaidulina’s compositional philosophy, where each work is an effort to build a unique and harmonious space that transcends temporal limitations, offering a sense of spiritual elevation and contemplation. Much like the timeless, sacred architecture of a cathedral, her music transcends the conventionalized frameworks of innovation and the pursuit of ‘newness’ that often dominated the latter half of the twentieth century. Instead, Gubaidulina’s compositions offer a profound rethinking of these ideas, creating a space for musical expression that is rooted in tradition but shaped by a unique, personal vision. Its ultimate goal is to invite the listeners into a sound space where they can experience transformation and communion with something greater than themselves.

This dissertation is the first scholarly work to apply Gubaidulina’s theory of the *Rhythm of Form* through an analysis of three of her concertos, drawing on a detailed examination of the scores as well as the sketches and drafts preserved at the Paul Sacher Foundation in Basel, Switzerland. The archival materials, offering an intimate look into Gubaidulina’s creative process, have made a significant contribution to our analysis of the composer’s use of mathematical proportions derived from Fibonacci and Fibonacci-related sequences. The analyses of the three selected works (*Revue Music/Concerto for Two Orchestras, Jazz and Symphony, Viola Concerto*, and *In the Shadow of the Tree*) have revealed the multitude of ways in which the composer shapes her musical material through a constantly evolving structure – almost

architectural in its approach to form and proportion – echoing the construction of a cathedral, which blends aesthetic beauty with precise, deliberate design. Furthermore, our study has illustrated how Gubaidulina’s use of “magic” numbers permeates her music at multiple levels, influencing not only the work’s formal proportions but also its thematic, timbral, and textural development, thereby creating an intricate, symbolic, and unique structure within each of the analyzed compositions.

Our study has also focused on Gubaidulina’s reimagining of the concerto form, underscoring the composer’s ability to merge contemporary practices with the traditions of Western art music. Through three detailed case studies, this research has demonstrated Sofia Gubaidulina’s capacity to blend and transform traditional forms – whether ritornello, sonata, or sectional – into highly individualized structures, reflecting her unique perspective on musical ‘architecture.’ Furthermore, our research has offered a comprehensive examination of Gubaidulina’s musical language, particularly her exploration of unusual timbres, microtonality, and various acoustic phenomena, as well as her development of the *Rhythm of Form* across several periods of her career.

Each chapter of this dissertation has explored a variety of distinct features of Gubaidulina’s concerted oeuvre, highlighting both the meticulous cultivation of her compositional language and the integration of a metaphysically inspired theoretical framework in her music. These include a comprehensive overview of the tendencies and trends within Gubaidulina’s concerted oeuvre, her approach to instrumental virtuosity, and key philosophical themes and conceptual leitmotifs. In this light, we have presented Gubaidulina’s music as not merely an expression of new ideas but as a rediscovery and reimagining of the same foundational concepts across different periods of her career. This consistency of focus on these philosophical

and theological concerns, which have been central to Gubaidulina's work since the early 1970s, speaks to the integrity of her "cathedral of sound" – a structure built upon a foundation of unyielding spiritual search and the pursuit of truth through the medium of sound.

On a personal note, this dissertation is a humble tribute to Sofia Gubaidulina, whose music has profoundly influenced our artistic and intellectual development. Our first meeting in Moscow in 1989 left an indelible mark on us, and since then, her work has remained a source of both inspiration and solace. The opportunity to delve into her music, explore her theories, and better understand her creative process has been a deeply rewarding experience – one that has enriched our understanding of both music and life itself.

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APPENDICES

Appendix 1

List of Sofia Gubaidulina's Instrumental Concertos

No.	Year	English Title	Original Title	Duration	Soloist(s)	Texts	Dedicatee(s)
1	1972	Detto II	Detto II	15'	Cello		Natalya Shakhovskaya
2	1975	Concerto for Bassoon and Low Strings	Концерт для фагота и низких струнных	27'	Bassoon		Valery Popov
3	1976	Hour of the Soul	Час души (Percussio di Pekarski)	30'	Percussions, Mezzo Soprano	Marina Tsvetaeva	Mark Pekarsky
4	1976/ 1995/ 2002	Concerto for Two Orchestras, Jazz and Symphony	Концерт для двух оркестров, эстрадного и симфонического or [Revue Music for Symphony Orchestra and Jazz Band]	10'	Various (concerto grosso with unfixed concertino group)	Afanasy Fet	
5	1978	Introitus	Introitus	29'	Piano		Alexander Bakhchiev
6	1980/ 1982/ 1986	Offertorium (Concerto for Violin and Orchestra No. 1)	Offertorium	38'	Violin		Gidon Kremer
7	1991	From the Book of Hours	Из Часослова [Aus dem Stundenbuch]	53'	Cello, Female Speaker	Rainer Maria Rilke	Vladimir Tonkha
8	1993	And: The Festivities at Their Height	И: Празднество в разгаре [Und: Das Fest ist in vollem Gang]	30'	Cello	Gennadiy Aygi	David Geringas
9	1994	Music for Flute, Strings and Percussion	Музыка для флейты, струнных и ударных	33'	Flute		Pierre-Yves Artaud
10	1996	Concerto for Viola and Orchestra	Концерт для альты с оркестром	40'	Viola		Yuri Bashmet
11	1997	The Canticle of the Sun	Похвала творению [Sonnengesang]	43'	Cello	St. Francis of Assisi	Mstislav Rostropovich
12	1998	In the Shadow of the Tree	В тени под деревом	31'	Koto, Bass Koto and Zheng		Kazue Sawai
13	1998	Two Paths: A Dedication	Две тропы (посвящение Марии и Марфе)	24'	Two Violas		Cynthia Phelps and

		to Mary and Martha					Rebecca Young
14	2003	Under the Sign of Scorpio (Variations on Six Hexachords)	Под знаком Скорпиона (вариации на шесть гексахордов)	27'	Bayan		Friedrich Lips
15	2005	The Deceitful Face of Hope and of Despair	...Меж ликом надежды и ликом отчаяния	26'	Flute		Sharon Bezaly
16	2006	The Lyre of Orpheus	Лира Орфея	24'	Violin		Gidon Kremer
17	2007	In Tempus Praesens (Concerto for Violin and Orchestra No. 2)	In Tempus Praesens	33'	Violin		Anne-Sophie Mutter
18	2008	Glorious percussion	Glorious percussion	38'	Five solo percussionists		
19	2009	Fachwerk	Фахверк	36'	Bayan		Geir Draugsvoll
20	2017	Triple Concerto	Тройной концерт	26'	Violin, Cello and Bayan		Elsbeth Moser
21	2018	Dialogue: You and I (Concerto for Violin and Orchestra No. 3)	Диалог: Я и Ты [Dialog: Ich und Du]	20'	Violin	Martin Buber	Vadim Repin and Andres Mustonen

Appendix 2

Sofia Gubaidulina: Concerto Discography and Other Recordings

Detto II for Violoncello and Chamber Ensemble (1972)

Three commercial recordings available

- 1) Ivan Monighetti (Cello) and Chamber Ensemble conducted by Yuri Nikolaevsky. MELODIYA/ARIOLA 74321 49957 2. Compact disc, 1994. Original LP release: MELODIYA S10-10167-8 33, 1979.
- 2) Ilkka Pälli (Cello) and Lahti Chamber Ensemble conducted by Osmo Vänskä. BIS records 636. Compact disc, 1993
- 3) Henrik Brendstrup (Cello) and Athela Ensemble conducted by Flemming Windekilde. Kontrapunkt 32176, DDD. Compact disc, 1994.

Two non-commercial recordings available on YouTube:

- 1) Elsa Dorbath (Cello) and Ensemble Contemporain de la Haute Ecole de Musique de Lausanne conducted by William Blank. Published on December 9, 2015.
[Sofia Gubaidulina *Detto II*](#)
- 2) Adel Zakirov and Chamber Orchestra “New Music” conducted by Honored Artist of the Republic of Tatarstan, Anna Gulyshambarova. Published on April 20, 2015.
[С. Губайдулина. "Detto 2" для виолончели и ансамбля.](#)

Concerto for Bassoon and Low Strings (1975)

Six commercial recordings available:

- 1) Harri Ahmas (bassoon) and Lahti Chamber Ensemble conducted by Osmo Vänskä. BIS records 636. Compact disc, 1993.
- 2) Valeri Popov (bassoon) and Chamber Ensemble conducted by Pyotr Meshchaninov (rec. 1978) (MELODIYA/ARIOLA 74321 49957 2. Original LP release: MELODIYA S10–12749-50, 1979.
- 3) Valeri Popov (bassoon) and Russian State Symphony Orchestra conducted by Pyotr Meshchaninov. Chandos Records 9717. Compact disc, 1999. Also available on YouTube at <https://www.youtube.com/watch?v=lBIVARagiSk>
- 4) Sergio Azzolini (bassoon) and Potsdam Chamber Academy conducted by Lewis Nielson. Aca Digital 20084. Compact disc, 2003.
- 5) Rino Vernizzi (bassoon) and New Music Studium conducted by Antonio Plotino. ARTS MUSIC 47644. Compact disc, 2003.
- 6) Sergio Azzolini (bassoon) and Potsdam Chamber Academy conducted by Maurice Bourgue. Capriccio Records 67139. Compact disc, 2005.

Three non-commercial recording available on YouTube:

- 1) Sung Kwon You (bassoon) and Symphonieorchester der UdK Berlin conducted by Eckart Hübner. Published on February 7, 2020. <https://youtu.be/xMlt3o41VCo>
- 2) Michael Matushek (bassoon) and Chamber Ensemble of Oberlin Conservatory of Music conducted by Gregory Charette. Published on October 16, 2008.
<https://youtu.be/tU3dB8APZeE>
- 3) Bram van Sambeek (bassoon) and Rotterdam Philharmonic Orchestra conducted by Yannick Nezet Seguin. Published on April 8, 20212. <https://youtu.be/c3ezd6sDq4c>

***Hour of the Soul* (1976)**

Two commercial recordings available:

- 1) Lina Mkrtchyan (Mezzo Soprano), Mark Pekarski (Percussion) and Leningrad Philharmonic Orchestra conducted by Timur Mynbaev. Col Legno 0647 290. Compact disc, 1982.
- 2) Lina Mkrtchyan (Mezzo Soprano) and Moscow State Film Orchestra conducted by Yuri Nikolaevsky. Col Legno 20507. Compact disc, 2009. Available on YouTube at <https://www.youtube.com/watch?v=mvnP8aC5-j8>

***Concerto for Two Orchestras, Jazz and Symphony/ Revue Music for Symphony Orchestra and Jazz Band* (1976/1995/2002)**

One commercial recording available:

- 1) Moscow Radio Light Orchestra conducted by Alexander Mikhailov. Original LP release: MELODIYA S10-13753-52, 1978. <https://youtu.be/5Tj1eY6MmIo>

***Introitus*, Concerto for Piano and Chamber Orchestra (1978)**

Seven commercial recordings available:

- 1) Alexander Bakhchiev (Piano) and Ensemble of Soloists of the State Academic Symphony Orchestra of the USSR conducted by Yuri Nikolaevsky. MELODIYA, MEL CO 0529. Compact disc, 2020. Original LP release: MELODIYA MEL CO 0847, 1979.
- 2) Andrej Hoteev (Piano) and St. Petersburg Symphony Orchestra conducted by Ravil Martynov. Accord 20275 2. Compact disc, 1993. Available online at <https://www.youtube.com/watch?v=Zf4gEFJ0j0o>
- 3) Andreas Haefliger (Piano) and Radio-Philharmonie Hannover des NDR conducted by Bernhard Klee. Sony Classical SK 53960. Compact disc, 1994.
- 4) Aleksei Lubimov (Piano) and Deutsche Kammerphilharmonie Bremen conducted by Heinrich Schiff. Erato 0630-12709-2. Compact disc, 1996. Available online at https://youtu.be/tMUc_OjuV_c
- 5) Béatrice Rauchs (Piano) and Kiev Chamber Players conducted by Vladimir Kozhukhar. BIS records 853. Compact disc, 1997.
- 6) Béatrice Rauchs (Piano) and Kiev Chamber Players conducted by Vladimir Kozhukhar. BIS records 898. Compact disc, 2002.
- 7) Claire-Marie Le Guay (Piano) and Orchestre de Chambre de Lausanne conducted by Jean-Jacques Kantorow. Universal Music France LC 00280. Compact disc, 2009.

Two non-commercial recording available on YouTube:

- 1) Filipe Pinto-Ribeiro (Piano) and Lisbon Metropolitan Orchestra Ciclo conducted by Mikhail Agrest. Live Performance on 12.02.2011, Centro Cultural de Belém, Lisboa. <https://www.youtube.com/watch?v=HSj1io4FQs8>
- 2) Alice Di Piazza (Piano) and Klaipeda Chamber Orchestra conducted by Andres Mustonen. Video recording, 2015. <https://www.youtube.com/watch?v=RbQ9eH5RNGk>

***Offertorium*, Concerto for Violin and Orchestra No. 1 (1980/1982/1986)**

Four commercial recordings available:

- 1) Gidon Kremer (Violin) and Boston Symphony Orchestra conducted by Charles Dutoit. Deutsche Grammophon DG 427 336-2. Compact disc, 1989.

- 2) Michaela Paetsch Neftel (Violin) and Berner Sinfonieorchester conducted by Dmitry Kitaenko. Bertelsmann Music Group *BMG DDD 1002*. Compact disc, 1990.
- 3) Oleg Krysa (Violin) and Royal Stockholm Philharmonic Orchestra conducted by James DePreist. BIS records 566. Compact disc, 1992.
- 4) Oleg Kagan (Violin) and The USSR Ministry of Culture Symphony Orchestra conducted by Gennadij Rozhdestvensky. CD Live Classics LCL 111 Compact disc, 2004. Original LP release: MELODIYA S10-18757–62 [3 LPs], 1983. Available on YouTube at <https://www.youtube.com/watch?v=iUqMBPUlswk>

Eight non-commercial recording available on YouTube:

- 1) Arabella Steinbacher (Violin) and NDR Sinfonieorchester conducted by Christoph von Dohnányi. Video recorded at, Laeiszhalle, Großer Saal, Hamburg on April 5, 2009. <https://youtu.be/ob6hHDbLxo8>
- 2) Vadim Gluzman (Violin) and Finnish Radio Symphony Orchestra conducted by Hannu Lintu. Video recording at the Helsinki Music Centre on February 3, 2012. https://youtu.be/QlFx7g_r1C4
- 3) Patricia Kopatchinskaja (Violin) and NDR Elbphilharmonieorchester conducted by Thomas Hengelbrock Audio recording, Hamburg, 2015. <https://youtu.be/erM9u5LujYg>
- 4) Vadim Repin (Violin) and The Moscow State Symphony Orchestra conducted by Vladimir Yurovsky. Video recording at the Tchaikovsky Concert Hall, Moscow, May 30, 2016. Available on YouTube at https://www.youtube.com/watch?v=t_MTBf3AwZs
- 5) Cosima Soulez Larivière (Violin) and The Danubia Orchestra Obuda conducted by Barnabás Kelemen. Video recording at the Great Hall of The Liszt Ferenc Academy of Music, Budapest, 2019. https://youtu.be/_2cii4OPIHc
- 6) Hyeyoon Park (Violin) and Orquestra Sinfónica do Porto Casa da Música conducted by Joana Carnerio. Video recording at the Casa da Musica, Porto, September 14, 2019. <https://youtu.be/JzLPWwKkKu0>
- 7) Wang Zhijiong (Violin) and Shanghai Philharmonic Orchestra conducted by Jurjen Hempel. Video recording posted on November 11, 2020. <https://youtu.be/uuc0Et32ei8>
- 8) Alexander Souptel (Violin) with the Singapore Symphony Orchestra conducted by Choo Huey. Video Recording posted on November 2, 2022. <https://youtu.be/jYhGnNJo8I8>

***From the Book of Hours* (1991)**

One commercial recording available:

- 1) Alexander Ivashkin (Cello), Annika Ton (Solo Speaker), North Netherlands Concert Choir and North Netherlands Orchestra. Chandos GB, MP3, 2007.

***And: The Festivities at Their Height* (1993)**

Two commercial recordings available:

- 1) David Geringas (Cello) and Finnish Radio Symphony Orchestra conducted by Jukka-Pekka Saraste. Col Legno WWE CD 31881. Compact disc, 1995. Available online at https://youtu.be/kQdJj5696-E?list=OLAK5uy_kbdeb6o7YDa4jppSttAEqnaQspHx5uCWw
- 2) David Geringas (Cello) and Badische Staatskapelle Karlsruhe conducted by Kazushi Ono. Antes BM CD 31.9139. Compact disc, 1998.

***Music for Flute, Strings and Percussion* (1994)**

One commercial recording available:

- 1) Emmanuel Pahud (Flute), Gordan Nikolik (First Violin), Simon Carrington, Neil Percey, Dave Jackson, Jeremy Cornes (Percussion) and London Symphony Orchestra conducted by Mstislav Rostropovich. EMI Classics 724355715326. Compact disc, 2001.

***Concerto for Viola and Orchestra* (1996)**

Two commercial recordings available:

- 1) Yury Bashmet (Viola) and Orchestra of the Mariinsky Theatre conducted by Valery Gergiev. Deutsche Grammophon DG 471 494-2. Compact disc, 2003. Available online at <https://youtu.be/4xamNMx6g1Q>
- 2) Antoine Tamestit (Viola) and Junge Deutsche Philharmonie conducted by Jonathan Nott [with revised solo part, 2015]. Label Ensemble Modern Medien, Edel EMCD-029. Compact disc, 2015. Available online at <https://youtu.be/tklvXU6Ibng>

Two non-commercial recordings available on YouTube:

- 1) Yury Bashmet (Viola) and Sinfônica de Colônia conducted by Semyon Bychkov. Video recording (ca. 2007). Available online in four parts:
<https://youtu.be/nvD2FUwZjD4>
<https://youtu.be/PvYRYHgYaNI>
<https://youtu.be/s49JmZG5rz8>
<https://youtu.be/fuLE3TzU5vo>
- 2) Lawrence Power (Viola) and the Orquestra Simfònica de Barcelona i Nacional de Catalunya conducted by Ivan Volkov. Video recording posted on October 15, 2022.
<https://youtu.be/kBj25KJpmUU>

***The Canticle of the Sun [Sonnengesang]* (1997)**

Four commercial recordings available:

- 1) Mstislav Rostropovich (Cello), Simon Carrington, Neil Percey (Percussion), John Alley (Celesta), London Voices (Chorus Master Terry Edwards) and London Symphony Orchestra conducted by Ryusuke Numajiri. EMI Classics 724355715326. Compact disc, 2001.
- 2) David Geringas (Cello), Tom Nybye, Gert Sorensen (Percussion), Alice Norregaard (Celesta), Danish National Radio Choir (Chorus Master Stefan Parkman) and Danish National Symphony Orchestra conducted by Stefan Parkman. Chandos Records 10106. Compact disc, 2003. Available online at https://youtu.be/Y0DS7iVfbcc?list=OLAK5uy_lOxSK2BgfKcsVFntN68ttrtGGzgJHrTLU
- 3) Marta Sudraba and Nicolas Altstaedt (Cello), Andrei Pushkarev, Rihards Zalupe (Percussion), Rostislav Krimer (celesta), Riga Chamber Choir Kamēr (Chorus Master Māris Sirmāis) and The Kremerata Baltica conducted by Māris Sirmāis. ECM Records GmbH 2256. Compact disc, 2012.
- 4) Ivan Monighetti (Cello), Christian Schmitt (celesta), NDR Chor [North German Radio Choir] (Chorus Master Philipp Ahmann) and Elbtonal Percussion conducted by Philipp Ahmann. BIS records 2276. Compact disc, 2016.

Two non-commercial recordings available on YouTube:

- 1) Nicholas Mariscal (Cello), Bobby Conselatore, Andrew Riley (Percussion), Alice Baldwin (Celesta). NOTUS: Indiana University Contemporary Vocal Ensemble (Chorus

Master Dominick Di Orio), conducted by Dominick Di Orio. Video recorded live in Auer Hall on the Indiana University Bloomington campus at the Jacobs School of Music. Tuesday, February 26, 2013. <https://youtu.be/faAsqEubdAo>

- 2) Narek Hakhnazaryan (Cello), Christoph Sietzen, Emiko Uchiyama (Percussion), György Handl (Celesta). Chorus sine nomine, conducted by Johannes Hiemetsberger. Video recorded in Mozart-Saal, Wiener Konzerthaus on June 15, 2019. <https://youtu.be/y6ITbAfxYcI>

***In the Shadow of the Tree* (1998)**

One commercial recording available:

- 1) Kazue Sawai (Koto, Bass Koto and Zheng) and Orchestre Des Concerts Mamoureux conducted by Yutaka Sado. Commons RZCM-46928. Compact disc, 2011. Available online at <https://youtu.be/ACWp4mZT7gk>

***Two Paths: A Dedication to Mary and Martha* (1998)**

One commercial recording available:

- 1) Cynthia Phelps and Rebecca Young (Violas) and New York Philharmonic conducted by Kurt Masur. NYP 0160 in set NYP 0103 (10 CDs). Compact disc, 2001. Available online at <https://youtu.be/k5lyzvfkfpY>

Two non-commercial recording available on YouTube:

- 1) Isabel Villanueva and Marina Katarzhnova (Violas) and Estonian National Symphony Orchestra conducted by Andres Mustonen. Video recording at the Big Hall of SPB Philharmony (Russia) on March 29, 2012. <https://youtu.be/A9ENxjDxxes>
- 2) Alexander Akimov and Sergei Poltavsky (Violas) and The Moscow Philharmonic Orchestra conducted by Mikhail Agrest. YouTube video; recorded live in The Great Hall of Moscow Conservatory and published online on October 17, 2013. <https://www.youtube.com/watch?v=hZ4GWk-NnrI>

***Under the Sign of Scorpio* (Variations on six Hexachords) (2003)**

Two commercial recordings available:

- 1) Friedrich Lips (Bayan) and BBC Symphony orchestra 2007 conducted by Mikhail Agrest PIGINI CD024. Live performance in London's Barbican Hall on January 14, 2007. Compact disc, 2007.
- 2) Gubaidulina, Sofia, Iñaki Alberdi, Asier Polo, José Ramón Encinar. Kadenza. Netherlands: Etcetera. Compact disc, 2011.

Five non-commercial recordings available on YouTube:

- 1) Iñaki Alberdi (Accordion) and the Royal Liverpool Philharmonic conducted by Vasily Petrenko. Video Recording at Auditorio Kursaal, Donostia, San Sebastián. Oct 18, 2010. <https://youtu.be/QmOK2RhPVAM>
- 2) Friedrich Lips (Bayan) and *State Academic Symphony Capella* of Russia conducted by Valery Polyansky. Video recording at Tchaikovsky Concert Hall, November 25, 2011. <https://thclips.com/video/26KIcwru6sc/софия-губайдулина-под-знаком-скорпиона-фридрих-липс-баян-валерий-полянский-гаск-россии.html>
- 3) Nenad Ljubenovic (Bayan) and The Radio Television of Serbia Orchestra conducted by Vesna Šouc. Video recording at Kolarac Concert Hall, Belgrade. March 4, 2021. <https://youtu.be/0IKrPlhHLOg>

- 4) Irene Miguel Auria (Bayan) and Cordoba Symphony Orchestra conducted by Irene Gómez-Calado. Video Recording at the Gongora Theater, Córdoba, Spain. January 25, 2024. <https://youtu.be/97BwM-U3EFs>
- 5) Iñaki Alberdi (Accordion): *Cadenza* – Sofia Gubaidulina. Premiere in Russia. Musikverlage Hans Sikorski. Posted on May 15, 2014. <https://youtu.be/HLH9Pznbllk>

***The Deceitful Face of Hope and of Despair* (2005)**

One commercial recording available:

- 1) Sharon Bezaly (Flute) and Gothenburg Symphony Orchestra conducted by Mario Venzago. BIS SACD 1449. Compact disc, 2006. Available online at https://youtu.be/5TK_y4ZnYus

***The Lyre of Orpheus* (2006)**

One commercial recording available:

- 1) Gidon Kremer (Violin) and Kremerata Baltica conducted by Māris Sirmāis. ECM Records GmbH 2256. Compact disc, 2012. Available online at <https://youtu.be/A4lPrz4Nhtk>

One non-commercial recording available on YouTube:

- 1) Roman Mints (Violin) and the Orchestra of The Gubaidulina Contemporary Music Centre (Kazan) conducted by Anna Gulishambarova. Video recording posted on November 3, 2021. <https://youtu.be/OGnbh-yDpt8>

***In Tempus Praesens* (2007)**

Four commercial recordings available:

- 1) Anne-Sophie Mutter (Violin) and Trondheim Soloists London Symphony Orchestra conducted by Valery Gergiev. Deutsche Grammophon DG 477 7450. Compact disc, 2008. Available online at <https://youtu.be/L8JVSyj-qV8>
- 2) Anne-Sophie Mutter (Violin) and London Symphony Orchestra conducted by Valery Gergiev. Deutsche Grammophon DG B0012054-02. Compact disc, 2008. Available online at https://youtu.be/izfQK_-f0HA
- 3) Vadim Gluzman (Violin) and Lucerne Symphony Orchestra conducted by Jonathan Nott. BIS records 1752. Compact disc, 2011.
- 4) Simone Lamsma (Violin) and The Netherlands Radio Philharmonic Orchestra conducted by Reinbert de Leeuw. Challenge Classics CC72681. Compact disc, 2017. Available online at <https://youtu.be/gjHcU8qFHIk>

One non-commercial recording available on YouTube et al.:

- 1) Gidon Kremer (Violin) and Berliner Philharmoniker conducted by Christian Thielemann. Recorded at the Berlin Philharmonie, 10 December 2016. Video recording available at the Berliner Philharmoniker's Digital Concert Hall [Christian Thielemann and Gidon Kremer | Digital Concert Hall](https://www.digitalconcerthall.com/Christian-Thielemann-and-Gidon-Kremer-Digital-Concert-Hall)
An excerpt on YouTube <https://youtu.be/5KSKglipnX0>

Glorious percussion (2008)

One commercial recording available:

- 1) Mika Takehara (Marimba), Robyn Schulkowsky, Anders Loguin, Anders Haag, Eirik Raude (Percussion) and Lucerne Symphony Orchestra conducted by Jonathan Nott. BIS records 1752. Compact disc, 2009. Available online at <https://youtu.be/lwQmekhpOs8>

Two non-commercial recordings available on YouTube et al.:

- 1) Orchestra del Teatro la Finice: Les Percussions de Strasbourg conducted by John Axelrod. Video recording at the Teatro alle Tese; la Biennale di Venezia, 57th International Festival of Contemporary Music. October 4, 2013. <https://youtu.be/qkVittHPgwc>
- 2) Ensemble Glorious Percussion: Berliner Philharmoniker conducted by Gustavo Dudamel. Recorded at the Berlin Philharmonie on September 19, 2009. Excerpt available on YouTube https://youtu.be/P_S1u5WYxz4?list=PLfxoYGRHr7gvtdkFuoAAAdk-GmuV3TO9J

The full video recording available at the Berliner Philharmoniker's Digital Concert Hall at [Dmitri Shostakovich's Symphony No. 12 | Digital Concert Hall](#)

Fachwerk (2009)

One commercial recording available:

- 1) Geir Draugsvoll (Bayan), Anders Loguin (Percussion) and Trondheim Symphony Orchestra conducted by Oyvind Gimse. NAXOS 8572772. Compact disc, 2011. Available online at <https://youtu.be/BzA-yCxAf08>

Five non-commercial recordings available on YouTube:

- 1) Germano Scurti (Bayan) and the FVG Mitteleuropa Orchestra conducted by Pierre André Valade. Video Recording at Teatro alle Tese, la Biennale di Venezia, 56th International Festival of Contemporary Music on October 7, 2012. <https://youtu.be/FevI46lISZ8>
- 2) Ida Løvli Hidle (Accordion), Lorenzo Colombo (Percussion) and The Danish Youth Ensemble conducted by Morten Ryelund. Video Recording at The Royal Danish Academy of Music. February 24, 2016. <https://youtu.be/lAvBkWfJbfA>
- 3) Geir Draugsvoll (Bayan), Hans Kristian Kjos Sørensen (Percussion) and the Norwegian Chamber Orchestra conducted by Terje Tønnesen. Posted on August 26, 2016. <https://youtu.be/cnLGLCjIKCM>
- 4) Maciej Frąckiewicz (Accordion), Antonio Ruiz Gimenez (Percussion) and the Detmolder Kammerorchester conducted by Alfredo Perl. Audio recording of live performance from Konzerthaus in Detmold (Germany) on November 24, 2020. <https://youtu.be/YH6slKlxdGY>
- 5) Friedrich Lips (Bayan) and Moscow Chamber Orchestra Moscow “FAIRS OF THE YEAR” conducted by Vladislav Bulakhov. Video Recording at the Gnessin Hall, February 16, 2022. <https://youtu.be/mUxf1tKjJr4>

Triple concerto (2017)

One commercial recording available:

- 1) Baiba Skride (Violin), Harriet Krijgh (Cello), Elsbeth Moser (Bayan) and NDR Philharmonie conducted by Andrew Manze. Orfeo records B0D776SS4F. Compact disc, 2024.

One non-commercial recording available on YouTube:

- 1) Baiba Skride (Violin), Harriet Krijgh (Cello), Elsbeth Moser (Bayan) and Boston Symphony Orchestra conducted by Andris Nelsons. Audio recording from Boston Symphony Hall on August 7, 2017. <https://youtu.be/9LuWz5RoDig>

Dialogue: You and I [Dialog: Ich und Du] (2018)

One commercial recording available:

- 1) Vadim Repin (Violin) and Gewandhausorchester conducted by Andris Nelsons. Deutsche Grammophon DG 00028948614578. Compact disc, 2021. An excerpt is available online at https://youtu.be/_O7yIf5s0sE

Appendix 3

Sofia Gubaidulina's Letter to the Organizers of the Siberian Art Festival: Before the Premiere of Dialogue: I and Thou

София Губайдулина

Перед премьерой сочинения
диалог: „Я и Ты“

Название этого сочинения обязано моему восторгу при
чтении книги Мартина Бубера „Я и Ты“.

Он пишет: „Мир для человека двойствен. В соответствии
с двойственностью основных слов, которые он может
произносить. Основные слова суть не единичные слова,
а словесные пары. Одно основное слово — это пара: Я — Ты;
другое: Я — Оно.“

Человек, это существо, которое сознаёт своё место во
вселенной. Это — существо, дерзнувшее приступить к миру
и его познать. Но важнее всего то, что ему известно
отношение между ним и этим миром.

В каждом акте наших отношений с природой, с
людьми, с духовными сущностями мы видим крошку
всего Ты, улавливаем его величие.

Два главные метафизические движения в мироздании —
— экспансия и притяжение, стремление к единству —
— находят свою человеческую реализацию, свою высшую
духовную форму в этом отношении: Я — Ты.“

При чтении таких размышлений меня восхищает то,
что всё это имеет непосредственное отношение к
искусству музыки, к жизни звучащей материи.

Двойственность. Её стремление расширяться до
бесконечности, а с другой стороны, — неизбывное желание
сосредоточиться вокруг некоего центра и утвердить его.

Двойственность желаний самой звучащей ткани и драма
внутри звучащих форм. Вот это для меня очевидно.

Счастливым образом все эти мач волеения совпали с инициативой двух великих музыкантов нашего времени, Вадила Репика и Андруса Мустонена — создать совместно вещь для скрипки и оркестра. Эта инициатива попала в самую горячую точку всех размышлений о диалогической антропологии Мартина Бубера. Создать диалог. Диалог между „Я“ солиста и „Я“ дирижёра оркестра.

Музыка это такой вид искусства, где чисто абстрактные сущности начинают испытывать свою собственную жизненную драму. Двойственность. В данном случае речь идёт об интервальных отношениях внутри аккордовых и мелодических построений.

Самая важная оппозиция здесь, это постепенно расширяющаяся или сжимающаяся конструкция.

На протяжении 4 вариаций (а вещь выстроена именно в этой форме) этот вопрос о расширении или сжатии разрешается различно. Вы услышите.

Стремление к расширению интервалов в ходе мелодической или аккордовой линии, или, напротив стремление к сжатию приводит к определённым последствиям и решениям (с моей точки зрения не моим решениям, а решениями самой звуковой материи).

Именно эти следствия и решения образуют сменяющиеся моменты формы. Вы это услышите.

Но мне хотелось бы, чтобы вы обратили внимание на два момента.

Одним готовит центральный эпизод формы. Солоист поднимается в самый верхний регистр по лестнице

из больших септим. Аккордовый отзвук от этого
поступенного хода образует самое разреженное
звуковое пространство.

И другой момент, перед самой кодой вена.
Звуковой киток стремится к центру оркестрового
диапазона. И там, в центре образует максимально
сжатое интервальные пространство.

Двойственность. По существу, это основной
вопрос разговора между „Я“ солиста и „Я“ дирижёра.
Вопрос о двойственности и драме, происходящей
из этого конфликта. Вопрос: что означает это
всемирное желание расширяться до бесконечности
и настолько же сильное притяжение к центру,
к средокрестию отношения Я и Ты.

Мартин Бубер: „Мы можем смутно догадываться
о метакосмической первичной форме этой
двойственности — отделении от первоосновы
и приближении к первооснове. Но даже знание
о двойственности умолкает перед парадоксом
первичной тайны“.

18.03.2018

София Губайдулина

Перед премьерой сочинения
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Название этого сочинения обязано моему восторгу при чтении книги Мартина Бубера «Я и Ты».

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Человек, это существо, которое сознает своё место во вселенной. Это – существо, дерзнувшее приступить к миру и его познать. Но важнее всего то, что ему известно отношение между ним и этим миром.

В каждом акте наших отношений с природой, с людьми, с духовными сущностями мы видим кромку вечного Ты, улавливаем его веяние.

Два главные метакосмические движения в мироздании – экспансия и притяжение, стремление к единству – находят свою человеческую реализацию, свою высшую духовную форму в этом отношении: Я – Ты».

При чтении таких размышлений меня восхищает то, что все это имеет непосредственное отношение к искусству музыки, к жизни звучащей материи.

Двойственность. Её стремление расшириться до бесконечности, а с другой стороны, – неизбывное желание сосредоточиться вокруг некоего центра и утвердить его. Двойственность желаний самой звучащей ткани и драма внутри звучащих форм. Вот что для меня очевидно.

Счастливым образом все эти мои волнения совпали с инициативой двух великих музыкантов нашего времени, Вадима Репина и Андреса Мустонена – создать совместно вещь для скрипки и оркестра. Эта инициатива попала в самую горячую точку всех размышлений о диалогической антропологии Мартина Бубера. Создать диалог. Диалог между «Я» солиста и «Я» дирижёра оркестра.

Музыка это такой вид искусства, где чисто абстрактные сущности начинают испытывать свою собственную жизненную драму. Двойственность. В данном случае речь идет об интервальных отношениях внутри аккордовых и мелодических построений.

Самая важная оппозиция здесь, это постепенно расширяющаяся или сжимающаяся конструкция.

На протяжении 7 вариаций (а вещь выстроена именно в этой форме) этот вопрос о расширении или сжатии разрешается различно. Вы услышите.

Стремление к расширению интервалов ходе мелодической или аккордовой линии, или, напротив стремление к сжатию приводят к определенным последствиям и решениям (с моей точки зрения не моим решениям, а решениям самой звуковой материи).

Именно эти следствия и решения образуют членящие моменты формы. Вы это услышите.

Но мне хотелось бы, чтобы вы обратили внимание на два момента.

Один готовит центральный эпизод формы. Солист поднимается в самый верхний регистр по лестнице из больших септим. Аккордовый отзвук от этого поступенного хода образует самое разреженное звуковое пространство.

И другой момент, перед самой кодой вещи.

Звуковой поток стремится к центру оркестрового диапазона. И там, в центре образует максимально сжатое интервальное пространство.

Двойственность. По существу, это основной вопрос разговора между «Я» солиста и «Я» дирижёра. Вопрос о двойственности и драме, происходящей из этого конфликта. Вопрос: что означает это всемирное желание расшириться до бесконечности и настолько же сильное притяжение к центру, к средокрестию отношения Я и Ты.

Мартин Бубер: « Мы можем смутно догадываться о метакосмической первичной форме этой двойственности – отделение от первоосновы и приближение к первооснове. Но наше знание о двойственности умолкает перед парадоксом первичной тайны».

18.03.2018

English Translation:

Sofia Gubaidulina

Before the premiere of composition

Dialog: "I and Thou"

The title of this work reflects my delight upon reading Martin Buber's book *I and Thou*.

He writes: "To man the world is twofold, in accordance with the twofold nature of the primary words which he speaks. The primary words are not isolated words, but combined words. The one primary word is the combination *I-Thou*. The other one primary word is the combination *I-It*.

Man is a being conscious of his place in the universe. He is a being who dares to discern the world and to cognize it. Yet what is more important, he recognizes the proper correlation between himself and the world.

In every instance of our interaction with the true inwardness, with other human beings, with their spiritual essence we see the threshold of the eternal *Thou*, we sense its breathing.

The two primary types of meta-cosmical fluctuation of the universe — expansion and attraction, inextinguishable longing for oneness — find their human realization, their highest spiritual form in this relationship, *I and Thou*."

When I read reflections as such, I am enthralled by the fact that all of it is directly related to the art of music, the living matter of sound.

Twofoldness. Its desire to expand into eternity while inescapably yearning for concentration on a certain centre to assert it. The twofoldness is in the propensity of the sonic material itself and the drama within the sounding forms. All this is very clear to me.

Fortunately, all my excitement on the subject coincided with the initiative of two great musicians of our time, Vadim Repin and Andres Mustonen, to create together a work for violin and orchestra. This initiative reached me at the most intense moment of my reflections upon the dialogical anthropology of Martin Buber. To create a dialogue. A dialog between the “I” of the soloist and the “I” of the orchestra’s conductor.

Music is a type of art where abstract ideas can begin to experience their drama of life. Twofoldness. In this instance I’m talking about intervallic relations within the vertical and melodic constructs.

The most important opposition here is gradually expanding or contracting sonic structures.

Throughout all seven variations (the work is written in this form) this question of expansion and contraction is solved in many different ways. You will hear.

The tendency toward expansion or contraction of the intervals within horizontal or vertical lines brings about certain implications and solutions (from my point of view, the solutions not mine but dictated by the sounding matter itself).

In fact, these corollaries and the constructive decisions based on them create the dividing points of the form. You will hear it.

I also would like to draw your attention to two important points.

The first one prepares the central episode of the form. The soloist reaches the highest register of his instrument by climbing the ladder of major sevenths. Chordal reverberation of this gradual ascend creates the most scintillating sound space.

The second one occurs just before the coda of the entire work. A torrent of sound bends on towards the centre of the orchestral diapason. There, in that centre, the maximally constricted intervallic spaces are formed.

Twofoldness. Essentially, that is the primary question of the conversation between the “I” of the soloist and the “I” of the conductor. It is also the question of the drama resulting from the conflict between them. Question: what is the meaning of this universal desire to expand into eternity while gravitating strongly to the centre? Martin Buber answers: “We might only faintly perceive the meta-cosmical primal form of this twofold nature of the world – moving away from the essence while moving toward it. Yet, our knowledge of twofold nature is silent before the paradox of the primal mystery.”

18.03.2018

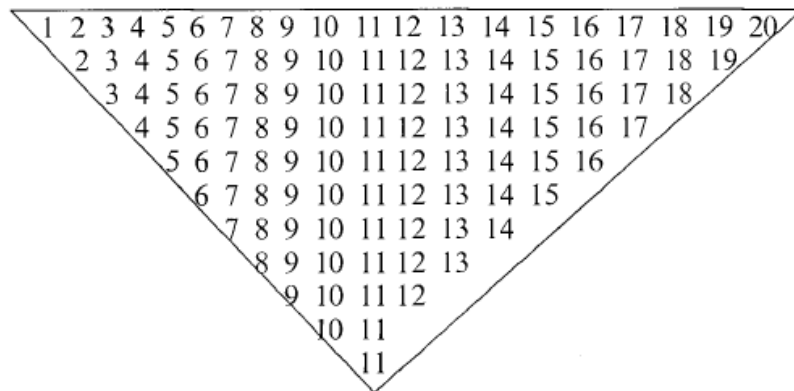
Appendix 4

Tsenova's Diagrams Depicting Decreasing and Increasing Logogriffs in Gubaidulina's Violin Concerto, *Offertorium*

The numbers represent the sound values of the Royal Theme. The quantitative numerical series, covering the first section of the concerto, is formed by the principle of diminution and draws a triangle with the tip facing down, with gradually shortening edges. This results in a numerical progression in the form of a descending arithmetic series with a common difference of -2. Musically, this means that with each repetition of the theme, two notes are subtracted (20, 18, 16, 14, 12, and so on). In the third section of the concerto, where the logical opposite of the first section is presented – the 'resurrection' of the theme – there is no mechanical repetition of the sequence. Formed by the principle of addition, this progression creates a figure resembling a trapezoid. It is also an arithmetic progression, but with a common difference of +1 (5, 6, 7, 8, and so on, up to 13). In the final line of the diagram, for purely musical purposes, the numerical principle is violated (after 13 notes, it jumps directly to 20).

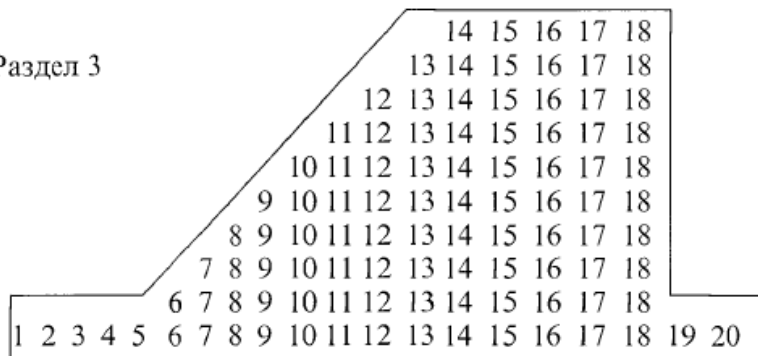
Схема I. Скрипичный концерт, логогриф

Раздел I



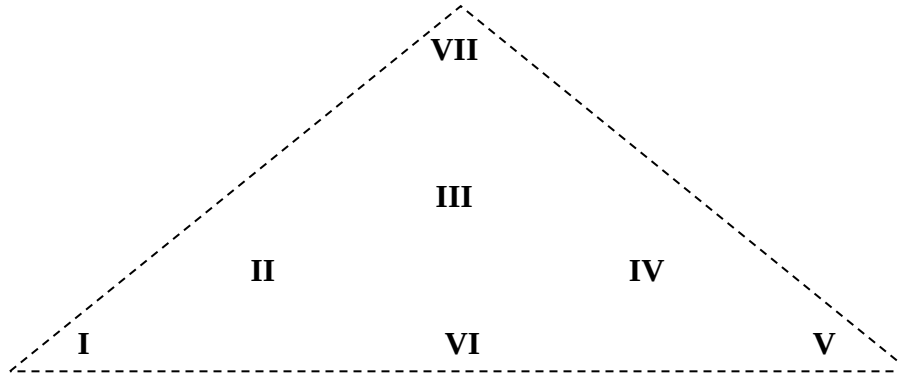
11
11 12
11 12 13

Раздел 3



Appendix 5

Geller's Diagram of the Symmetry of the Sections in *Fachwerk*, Resembling the Imagined Outline of a Building



Geller describes the seven sections of the work as follows: “The first section is the ‘section of creation,’ the ‘construction of frame blocks.’ At the end of this section, a dense rhythmic cadence in the string *divisi* and the general pause announce the completion of a part (wing) of the structure. The second section is like the ‘filling of the frames with material,’ as well as a visual inspection, a sliding gaze upwards, and, at certain points (along the way), the reinforcement of the structure with sharp, pinpointed chords – like bolts (in the strings). Then, there is a downward glide (with a serpentine chromatic movement in the bayan), all the way to the foundation, where we seemingly hear underground vibrations and echoes (*tremolo* in the *timpani* and un-tempered *glissando* in the bayan’s bass). The third section is once again full of ‘creative labor,’ as evidenced by the ‘block’ structure of the material, resembling the horizontal and inclined beams of a half-timbered framework – the straight *glissandi* of the marimba, the rhythmic horizontal pattern in the strings, and the diagonal movement (interspersed with static-horizontal movement) in the bayan part. The fourth, brief section (the choral solo of the bayan) contains a philosophical reflection-prayer. The fifth section is something like a mirror reflection of the first section, as if it were the symmetrical second wing of the building. The sixth section is the breath of the bayan – a kind of spirit of the structure, like a living soul inhabiting it. The seventh section is the conclusion – exultation; it conveys the sense of beauty and grandeur of the completed structure.” In Geller, 73.

Appendix 6

Summary of Gubaidulina's Score Adjustments in *Concerto for Two Orchestras/Revue Music*

Errors and Corrections				
RN	OM	ME	PSS 2001	SE
1 m. 16	Soprano I: enters with an 8 th note; correct	Soprano I: enters with a quarter note	Corrected to an 8 th note	Correct: 8 th note
5 m. 52	VI. I, beat 2 ♭ sign is missing for B	Same text as in OM	Corrected to B♭	Correct: B♭
7 m.71	Cr. V, beat 2: ♭ sign is missing for E	Same text as in OM	Corrected to E♭	Correct: E♭
m.74	Fl. 2: C♯ is present	♯ sign is missing for C	Corrected to C♯	Correct: C♯
	Chit. b., beat 2: second 16 th note is G; correct	Second 16 th note is F♯	Corrected to G	Correct: G
13 m. 129	Tr. VII, beat 2: ♭ sign is missing for C; pg. 21	Same text as in OM	Corrected to C♭	Correct: C♭
16 m. 155	Cl. 2, last note within beat 2 is G♭	Cl. 2, last note within beat 2 is G♭	Corrected to G♭	Correct: G♭
22 m. 212	Tr. IV, V, beat 1: correct: 16 th rest	Tr. IV, V, beat 1: dotted 16 th rest instead of 16 th rest	Corrected to 16 th rest	Correct: 16 th rest
22 m. 212	Tr. V, last 16 th of beat 1: ♭ sign is missing for B	Same text as in OM	Corrected to B♭	Correct: B♭
22 m. 213	Tr. IV, V: the last pulse of beat one is a 16 th note; correct	Same text as in OM	Same text as in OM and ME	Tr. IV, V: the fourth 16 th pulse of beat 1: 32 nd note instead of 16 th
22 m. 213	Trbn. VI, last pulse of beat 1 ♭ sign is missing for B	Same text as in OM	Corrected to B♭	Correct: B♭
22 m. 213	Trbn. VII, last pulse of beat 2: ♭ sign is missing for B	Same text as in OM	Corrected to B♭	Correct: B♭
22 m. 215	Tr. VII, last 32 nd of beat 2: ♭ sign is missing for F	Same text as in OM	Corrected to F♭	Correct: F♭
22 m. 216	Tr. IV, 3 rd pulse of beat 1: ♭ sign is missing for E	Same text as in OM	Corrected to E♭	Correct: E♭
22 m. 219	Tr. IV, 3 rd pulse of beat 1: ♭ sign is missing for E	Same text as in OM	Corrected to E♭	Correct: E♭
23 m. 220	Tr. VI, 2 nd pulse of beat 1: ♭ sign is missing for B	Same text as in OM	Corrected to B♭	Correct: B♭
23 m. 220	Trbn. VI, 2 nd pulse of beat 1: ♭ sign is missing for C	Same text as in OM	Corrected to C♭	Correct: C♭
23 m. 220	Tr. VI, 4 th pulse of beat 1: ♭ sign is missing for A	Same text as in OM	Corrected to A♭	Correct: A♭

23 m. 220	Tr. IV, 2 nd pulse of beat 1: ♯ sign is missing for E	Same text as in OM	Corrected to E♯	Correct: E♯
23 m. 221	Tr. IV, 3 rd pulse of beat 2: ♯ sign is missing for E	Same text as in OM	Corrected to E♯	Correct: E♯
23 m. 221	Tr. VI, 3 rd pulse of beat 1: ♯ sign is missing for B	Same text as in OM	Corrected to B♯	Correct: B♯
23 m. 221	Trbn. VI, 2 nd pulse of beat 1: ♯ sign is missing for C	Trbn. VI, 2 nd pulse of beat 1: ♯ sign is misplaced (B♯)	Corrected to C♯	Correct: C♯
23 m. 221	Trbn. IV and V, 3 rd pulse of beat 1: ♯ signs are missing for C and D	Same text as in OM	Corrected to C♯ and D♯	Correct: C♯ and D♯
23 m. 221	Trbn. IV, 1 st pulse of beat 2: ♯ sign is missing for C	Same text as in OM	Corrected to C♯	Correct: C♯
23 m. 221	Trbn. IV and V, 2 nd pulse of beat 2: ♯ signs are missing for C and D	Same text as in OM	Corrected to C♯ and D♯	Correct: C♯ and D♯
23 m. 221	Trbn. IV and V, 3 rd pulse of beat 2: ♭ signs are missing for D and E	Same text as in OM	Corrected to D♭ and E♭	Correct: D♭ and E♭
	Chit.b, 1 st pulse of beat 1: Correct: D	Chit.b, 1 st pulse of beat 1: E instead of D	Corrected to D	Correct: D
23 m. 221	Tr. IV, 1 st pulse of beat 3: misspelled note – D instead of E	Same text as in OM	Corrected to E	Correct: E
28 m. 246-247	Tr-ni notated in the bass clef (B♭-D) Cb., Eb; Chit.b., beat 1 – D (correct)	Tr-ni part erroneously notated in the tenor clef Cb. is same as on OM Chit.b., beat 1 – E (incorrect)	Corrected to the bass clef Both corrected to D	Correct: in the bass clef Correct: D
28 m. 248	Tr-ni notated in the tenor clef	Tr-ni notated in the bass clef	Corrected to the tenor clef	Correct: in tenor clef
29 m. 254	Cl. I, first 16 th note in beat 2 quintuplet: D (♯) is correct T-ba I, beat 3, first 16 th note is E (correct)	Cl. 1, first 16 th note in beat 2 quintuplet: D (♯) is correct T-ba I, beat 3, first 16 th note is D (incorrect)	Cl. 1, first 16 th notes in beat 2 quintuplet: D (♯) is correct Corrected to E	♯ sign is missing for D (Cl. 1 and 2 are notated on the same staff) Correct: E
30 m. 267	Chit. b., second 16 th note in beat 1 is misspelled: A instead of B	Same text as in OM	Corrected to B	Correct: B
32 m. 274	Cl. I, first 16 th note in beat 3 quintuplet: A (♯) is correct	Same text as in OM	Same text as in OM and ME	♯ sign is missing for A (Cl. 1 and 2 are notated on the same staff)
32 m. 274	Cl. 1, third 16 th note in beat 1 quintuplet; D (♯) is correct	Same text as in OM	Same text as in OM and ME	♯ sign is missing for D (Cl. 1 and 2 are notated on the same staff)
32 m. 274	Chit., G ⁷ (correct)	Chit., J ⁷ (incorrect)	Corrected to G ⁷	Correct: G ⁷
44 m. 329	Jazz Tr. I and II: F♯-A♯	Same text as in the OM	Changed to G♯-A♯	PSS 2001 changes retained

Detail Refinement				
1	<i>Piu mosso</i> indication is absent. Percussion section includes tom-toms; jazz battery has a different rhythmic pattern	<i>Piu mosso</i> indication is added. Tom-tom part is removed; new rhythmic pattern in jazz battery (Batteria IV)	ME changes retained	ME changes retained
2 m. 28	No touch indications provided	Misplaced touch indications for Batteria IV; the pattern is repeated every other bar, not every bar	o+o indications for Batteria IV are crossed out	PSS 2001 changes retained
2 m. 30	3 Harps are used; different score layout as Harps are placed below the jazz orchestra percussion	2 Harps are used; their positioning in the score the same as in OM	2 Harps are used; their part is repositioned to its proper place within the symphony orchestra score layout	PSS 2001 changes are retained
5 m. 58-59	Within a three-note/three-measure long cluster in Sopranos, Soprano I last only one measure	Same text as in OM	Soprano I part is corrected to last full three measures in order to create simultaneous downward <i>glissando</i> in all three parts	PSS 2001 changes are retained
7 m. 72-73	No crescendo is indicated	Same text as in OM	Crescendo poco a poco is added for all parts except percussion	PSS 2001 changes are retained
8 m. 90	Vc. I solo is indicated	Vc. I: solo indication is omitted	Vc. I solo indication is reinstated	PSS 2001 changes are retained
12	<i>Rubato</i> indication for Tr. I sola	<i>Rubato</i> indication for Tr. I sola is missing/misplaced	<i>Rubato</i> indication Tr. I sola is reinstated	PSS 2001 changes are retained
16 mm. 152-5	No <i>crescendo poco a poco</i> indicated; no <i>f</i> sign for Archi; Cl., Fl., Cor. and Perc.	<i>Crescendo poco a poco</i> is indicated in m. 152; no <i>f</i> sign for Archi, Cl., Fl., Cor. and Perc.	<i>Crescendo poco a poco</i> is moved to m. 154-155; <i>f</i> sign for Archi, Cl., Fl., Cor. and Perc. is added in m. 152	PSS 2001 changes are retained
19 mm. 166-74	Different text in 3 Flutes RN 32, pg. 18	Adjusted to fit a full circle of the whole-tone transpositions (Ab to Ab) in Fl. 1; motivic and rhythmic adjustments in Fl. 2 and 3; the former pertains to creation of consistent melodic patterns and their orderly transpositions. The length of this episode is reduced from 13 (OM) to 9 measures (ME).	ME changes retained	ME changes retained
19 mm. 169-71	Harp's part is not present	2 Harps are added	Harp's part is repositioned to its proper place within the symphony orchestra score layout	PSS 2001 changes are retained
19 mm. 174-83	Rhythmic differences in Theme 4 (Vl. I and II in mm. 174-9) and Tr. I sola (mm. 179-83)	Adjusted to resemble more closely an original version of the theme presented in RN 8; no indication of <i>unis. vibr.</i> for V-ni I and II	ME changes retained re thematic material; <i>unis. vibr.</i> is added for V-ni I and II	ME thematic changes retained; PSS 2001 changes re articulation are retained
19 mm. 178-85	Dynamic and tempi indications are the same as in ME	<i>p</i> sign for Fl. 1 in m. 179; <i>crescendo</i> for Fl. 1 in m. 179 to <i>f</i> in m. 180; <i>p</i> sign for Tr-ba I sola in m. 179; no <i>espressivo</i>	<i>f</i> sign for Fl. 1 in m. 179; <i>crescendo</i> for Fl. 1 in m. 179 is cut; <i>mf</i> sign for Tr-ba I sola in m. 179; <i>espressivo</i>	PSS 2001 changes retained

23 mm. 222–3	Notated in 6/8 time No tempo or dynamics indications provided	indication for Tr-ba I sola; <i>poco ritenuto</i> in m. 185 Notated as triplets in 2/4 time; <i>crescendo</i> indication above the Tr. IV, V part	indication is added for Tr-ba I sola; <i>poco ritenuto</i> is changed to <i>rit.</i> in m. 185 2/4 time signature retained; <i>crescendo</i> indicated below each of the orchestral parts; <i>poco ritardando</i> is added in m. 222	PSS 2001 changes retained <i>poco ritardando</i> is abbreviated to <i>poco rit.</i>
24 mm. 224–31	<i>f</i> is indicated for all parts; Soprano part doubling the strings is absent	Same dynamic indications as in the OM; Soprano part a 3 is added	<i>ff</i> is indicated for all parts; Electric Organ's part is repositioned (RN 24–32) to its proper place within the symphony orchestra	PSS 2001 changes retained
26 m. 236	The chord in strings (mm. 233–5) is not sustained in m. 236	The chord in strings (mm. 233–5) is sustained in m. 236 creating a quarter-note long overlapping between the episodes	A half rest is replaced by two quarter rests in $\frac{3}{4}$ time	PSS 2001 changes retained
27 m. 239–40	One <i>crescendo</i> sign in measure in P-tti and Strings	Two separate <i>crescendo</i> signs in each measure in P-tti and Strings; the chord in strings lasts for an 8 th note time value	One <i>crescendo</i> sign for both measures; the chord in strings lasts for a quarter note as in RN 26, thus creating uniform time overlapping in the successive episodes; re rests replacement refer to RN 26	PSS 2001 changes retained
27 m. 241	<i>Tremolo</i> sign in all Strings parts absent; the time value of the string chord (beat 1) – the eighth note; 4 Cor. a 4 enter at <i>mf</i>	Same text as in the OM	<i>Tremolo</i> and <i>diminuendo</i> marking added to all strings; the time value of all strings changed to a quarter note; the remaining rests are adjusted; <i>l.v.</i> and a slur added to P-tti part; 4 Cor. a 4 enter at <i>f</i>	PSS 2001 changes retained
27 m. 242	Chit. and Chit. b. parts end in b. 241	Same text as in the OM	An 8 th note is added in m. 242 in both parts	PSS 2001 changes retained
27 m. 243	Brass section enters at <i>mf</i>	Same text as in the OM	Brass section enters at <i>f</i>	PSS 2001 changes retained
28 mm. 249–50	Fl., Cl, Cor. I-IV, Trbn. I-III, Tuba and the Strings finish the phrase in m. 249 creating a quarter-note long overlapping between the episodes	Same text as in the OM	Extended length by a quarter note into m. 250; <i>diminuendo</i> of the last pitch in Fl., Cl, Cor. I-IV, Trbn. I-III, Tuba and Archi; creates a unified ending of the above instruments with the Org. El. Rest adjustment	PSS 2001 changes retained
29 mm. 253–4	Refer to RN 28, ditto	Refer to RN 28, ditto	Refer to RN 28, ditto	PSS 2001 changes retained

29 m. 254	ff is indicated for Tr. IV-VIII, Trbn. (Jazz orchestra), Batt. IV-V, Chit. and Chit. b.	f is indicated for Tr. IV-VIII, Trbn. (Jazz orchestra), Batt. IV-V, Chit. and Chit. b.	Corrected to ff	PSS 2001 changes retained
29 m. 256	No dynamics indicated for Org. el; f is indicated for Archi; Tr-ba I sola - f is indicated	Same text as in the OM	Crescendo sign to ff in m. 257 is added to Archi, Org. El and Tr-ba I sola	PSS 2001 changes retained
29 m. 257	No dynamics indicated for Tr. IV-VII, Trbn. IV-VII, Batt. IV-V, Chit. and Chit. b.	Same text as in the OM	ff sign is added to Tr. IV-VII, Trbn. IV-VII, Batt. IV-V, Chit. and Chit. b.	PSS 2001 changes retained
29 m. 259–60	Refer to RN 29, mm. 256–7; ditto No dynamics indicated for Tr. I	Same text as in the OM	Refer to RN 29, mm. 256–57; ditto ff is added to Tr. I	PSS 2001 changes retained
30 m. 265	<i>Frullato</i> is absent in Fl. and Cl. Parts	Same text as in the OM	<i>Frullato</i> is added to Fl. and Cl.	PSS 2001 changes retained
33 m. 276–77	Tam-tam – ff is indicated Piatti and Timp. parts are present; no <i>meno mosso</i> indication	Tam-tam – p is indicated Same text as in the OM	Corrected to ff Piatti and Timp. Parts are removed and replaced with a full measure rest; <i>meno mosso</i> indication is added	PSS 2001 changes retained
33 m. 277	Cmp. – no <i>solo</i> indication in the second version of this page (37) ⁴⁶²	Cmp. – no <i>solo</i> indication	<i>Solo</i> indication is added	PSS 2001 changes retained
33 m. 278	No specific indication for the type of sound production for P-tti	P-tti: <i>colla bacch. l.v. sempre</i>	P-tti: <i>colla bacch. al margine l.v. sempre</i>	PSS 2001 changes retained
33 m. 279	Tam-tam part is absent	Tam-tam part is notated as part of Battery II	Tam-tam's part is repositioned into Battery I	PSS 2001 changes retained
34 m. 281	Insufficient clarity re instrument names/layout for percussion Batteries I, II and III (p.37 OM)	Percussion layout is corrected; no instrument names provided	Specific percussion for each Battery indicated: Tam-tam, P-tti and Cmp.	PSS 2001 changes retained
36 m. 298	No fermata at the end of the bar	Same text as in the OM	Fermata is added at the end of the bar	PSS 2001 changes retained
38 m. 311	N/A	N/A	Duration of this bar indicated in seconds (10'')	PSS 2001 changes retained
39 m. 312	N/A	N/A	Duration of this bar indicated in seconds (20'')	PSS 2001 changes retained
39 m. 313	N/A	N/A	Duration of this bar indicated in seconds (15'')	PSS 2001 changes retained
40 m. 313	No dynamics indicated	Same text as in the OM	<i>Crescendo poco a poco</i> in all parts starts at the end of this bar	PSS 2001 changes retained
	Different score layout	Same text as in the OM	Harps' part is repositioned to its	PSS 2001 changes retained

⁴⁶² Gubaidulina's OM contains two versions of opening bars of this section. The one marked as page 54 (top right corner) consists of 7 measures prior to Soprano entry (ME and SE – 5 measures, i.e., mm. 176–280); it is notated in ¾ time. The second “cleaner” version is identical to the ME and SE with regard to its length.

			proper place within the symphony orchestra score layout	
41 m. 314	No dynamics indicated for Archi and Sass.	Same text as in the OM	p <i>cresc.</i> indicated for Archi and Sass.	PSS 2001 changes retained
41-44 m. 313-335	Different score layout re Arpe and Org. el.	Same text as in the OM	Arpe and Org. el. parts are repositioned to fit their proper place within the symphony orchestra score layout	PSS 2001 changes retained
42 m. 321	Timpani (Batt. I): <i>tremolo</i> on E for beats 2 and 3	Same text as in the OM	Timpani (Batt. I): <i>tremolo</i> on E for beat 2 only (matches the length of Piano chord)	PSS 2001 changes retained
	No dynamic indicated for Batt. II and III	Same text as in the OM	ff is added for Batt. II and III	
	Archi, beat 3: the beginning of the ascending passage marked ff	Same text as in the OM	The beginning of this passage marked f followed by a <i>crescendo</i> sign	
42 m. 322	Fl. and Cl., beat 2: the beginning of the ascending passage marked ff	Same text as in the OM	The beginning of this passage marked f followed by a <i>crescendo</i> sign	PSS 2001 changes retained
	No dynamics indicated for Batt. I, II and III	Same text as in the OM	f / <i>crescendo</i> indicated for Batt. I; ff / <i>crescendo</i> for Batt. II; ff / <i>diminuendo</i> (beat 1) and f / <i>crescendo</i> (beat 3) for Batt. III	PSS 2001 changes retained
	Sass., beat 2: ff indicated	Sass., beat 2: no dynamics indicated	Sass., beat 2: ff indicated	OM/ PSS 2001 changes retained
42 m. 323	No dynamics indicated for Batt. I and III	Same text as in the OM	ff / <i>diminuendo</i> for Batt. I and III is added	PSS 2001 changes retained
	Sass., beat 2: ff indicated	Sass., beat 2: no dynamics indicated	Sass., beat 2: ff indicated	OM/ PSS 2001 changes retained
	Full bar duration of these parts	Same text as in the OM	Duration of the parts reduced to two beats followed by a quarter rest	PSS 2001 changes retained
42 m. 324	No dynamics indicated for Sax. I	Same text as in the OM	Sax. I: f is added	PSS 2001 changes retained
43 m. 326	Sax. III: the second note (D $\flat$) falls on beat 2	Same text as in the OM	Sax. III: the second note (D $\flat$) falls on beat 3, thus becoming a quarter while the first one (A $\flat$) becomes a half note	PSS 2001 changes retained
44 m. 329	4 Jazz Tr., beat 1, one beat long	Same text as in the OM	Duration of the chord is changed to a dotted half time value	PSS 2001 changes retained
44 m. 330	Cr. I, II, beats 2 and 3: trill on B-C	Same text as in the OM	Cr. I, II, beats 2 and 3: trill on G-A $\flat$; F	PSS 2001 changes retained

	Sax. I and II: beats 2-3, trills on C#-D and F#-G	Same text as in the OM	(Cr. III, IV) is also sustained into m. 331 Sax. I and II: beats 2-3, trills on D#-E and G#-A $\frac{1}{2}$	PSS 2001 changes retained
	Jazz Cr, beats 2-3: trill on B-C	Same text as in the OM	Jazz Cr, beats 2-3: trill on C#-D	PSS 2001 changes retained
44 m. 330	4 Jazz Tr.: full bar rest	Same text as in the OM	The sonority from m. 329 is held (tied) for a quarter note value	PSS 2001 changes retained
	<i>ff</i> is indicated for 4 Jazz Tr.	Same text as in the OM	<i>fff</i> is indicated for 4 Jazz Tr.	PSS 2001 changes retained
44 m. 331	Tam-tam's Batterie number is omitted	T-t's Batterie II indicated. P-tti is located in Batterie III	T-t is indicated the one of Batterie III; P-tti as of Batterie II	P-tti as of Batterie III (error); T-t as of Batterie II
45 m. 332	<i>ff</i> is indicated for 4 Jazz Tr.	Same text as in the OM	<i>fff</i> is indicated for 4 Jazz Tr	PSS 2001 changes retained
m. 332	<i>ff</i> is indicated for Archi, Sass.	No dynamics indications for these parts	Same text as in OM	PSS 2001 changes retained
mm.333–5	<i>Diminuendo</i> indicated for Piano, Arpe and Org. el.; no dynamics indicated for Symph. Trbn. and Tuba; <i>ff</i> is indicated for 4 Jazz Tr.	<i>Crescendo</i> indicated for Symp. Brass; Batt. I, Jazz Cr., Trbn., Batt. IV/V and Chit. b.; <i>dim.</i> indicated for Piano, Arpe and Org. el. (as in OM);	Re <i>crescendo</i> in the corresponding parts – same text as in ME; <i>dim.</i> is cut for Arpe and Org. el.	PSS 2001 changes retained; <i>dim.</i> indication in Piano is cut
46 m. 336	No dynamics indication for Symp. /Jazz Brass and Jazz /Symph. Perc., Chit. and Chit. b.) with the exception of Jazz Tr. – <i>ff dim.</i> and Symp. T-t. - <i>pp</i>)	No dynamics indications for Symp. Brass; Batt. I, Jazz Tr. and Batt. IV – <i>ff</i> ; Batt. II – <i>pp</i> ; Jazz Trbn. and Batt. V – <i>fff</i> ; <i>l.v.</i> is added for Arpe	<i>fff</i> indicated for Symp. Brass, Jazz Cr., Trbn; Batt. I, III, IV, V and Chit. b.; <i>l.v.</i> is kept for Arpe; <i>cresc.</i> sign added to Batt. II (T-t)	PSS 2001 changes retained
m. 337	T-t. (Batt. II) remains <i>pp</i> for 3 beats	T-t. (Batt. II) remains <i>mf</i> for 3 beats	T-t. (Batt. II) remains <i>mf</i> for 2 beats followed by a quarter rest and <i>l.v.</i> indication removed from b. 338	PSS 2001 changes retained
m. 340	T-t. (Batt. II) <i>l.v.</i> sound stopped (x)	No indication for stopping the sound for T-t. (Batt. II) <i>l.v.</i>	T-t. (Batt. II) <i>l.v.</i> sound stopped (x)	OM/PSS 2001 changes retained
m. 345	No fermata signs at the end of the last measure of the work	Same text as in OM	Fermata signs are added	PSS 2001 changes retained
Time-related Adjustments				
m. 1	MM Dotted Quarter Note = 60	90	48	48
RN 1	MM Quarter Note = 100	113	96	96
RN 9	MM Quarter Note = 100	112	96	96
RN 20	MM Quarter Note = 100	112	96	96
RN 24	MM Quarter Note = 100	100	96	96
RN 33	MM Dotted Quarter Note = 60	60	48	48
RN 38 –41	N/A	N/A	Duration indicated in seconds	Duration indicated in seconds
RN 41	MM Quarter Note = 72	72	72	72
23 mm. 222–3	Measure 222 is repeated 3 times	Measure 222 is repeated 2 times (a cut is used to approximate the golden section more closely)	ME changes retained	ME changes retained

Appendix 7

Summary of Quasi-Thematic Elements: Solo Passages and Static, Ascending, Descending, and Combination Clusters in *Concerto for Two Orchestras/Revue Music*

Solo Passages					
RN mm.	Instrumentation	Length in measures	Motivic Cell Vertical Sonority or Scale Type	Melodic Range	Section of the Form
1 p.u.to 17–18	Soprano I	2	Single pitch	Perfect unison	Ripieno 1
1 p.u. to 21–22	Soprano II	2	Single pitch	Perfect unison	Ripieno 1
3 42–43	Organo Elettrico	2	Single pitch followed by ascending <i>glissando</i>	ca. 2 octaves	Ripieno 1
3 44–50	Xilofono	8	Chromatic scale	2 octaves	Ripieno 1
9 98– 101	Piano	4 Perceived length; two one-measure long passages are separated by a full measure rest	Opening motif revolves around Perfect/Augmented 4th; followed by chromatic descend/ascend	Major 6th	Ripieno 1I
10 103–5	Flauto I	4 Perceived length; three- measure long solo is separated by a full measure rest from the next solo group	Opening motif revolves around Perfect/ Augmented 4th; followed by a trill	Augmented 4 th	Ripieno 1I
10 106–9	3 Soprani Entering consecutively	4	Single pitch followed by descending <i>glissando</i>	Perfect unison to Augmented 8ve	Ripieno 1I
11 114–17	Flauto I	4 Perceived length; two one-measure long passages and the next new-timbre solo are separated by a full measure rest each	Opening motif revolves around Perfect/ Augmented 4 th ; followed by chromatic descend/ascend	Perfect 11 th	Ripieno 1I
12 118–21	Tromba I	4 Perceived length; three- measure long solo is separated by a full measure rest from the next solo group	Opening motif revolves around Perfect/ Augmented 4th; followed by a trill	Augmented 4 th	Ripieno 1I
14 138–41	3 Soprani Entering consecutively	4	Single pitch followed by descending <i>glissando</i>	Perfect unison to Minor 6 th	Ripieno 1I
16 153–8	Chitarra	5	4-3-pitch narrow-range melodic cells; chromatic ascend	1.5 octaves	Ripieno 1I
25 234–5	Saxofono alto	2	4-3-pitch chromatic melodic cells; chromatic descend underlying whole-tone pattern	ca. 1 octave	Ripieno- Concertino III Combination
26 239–40	Saxofono tenore	2	4-3-pitch chromatic melodic cells; chromatic ascend	ca. 2 octaves	Ripieno- Concertino III Combination

29 256–63	Tromba I	8 Perceived length; First two one-bar long solos are separated by full measure rests (2+1) from the remaining three passages	Chromatic scale; minor triad	up to ca.2 octaves	Ripieno- Concertino III Combination
45-46 332–7	4 Jazz Trombe a4	6	Chromatic scale; minor triad	nearly 3 octaves overall	Coda/Tutti of Two Orchestras
Static Clusters					
5–11	2 Flauti 3 Clarinetti Campane	7	5-pitch chromatic cluster	Diminished 4 th	Introduction
6–10	Violini I and II Viole Violoncelli	5	Gradually assembled 12- pitch chromatic cluster 3-pitch cells in each group <i>divisi a3</i>	Diminished 8ve	Introduction
2 26–7	Violini I and II, Viole	2	3-pitch cells in each group <i>divisi a3</i>	Diminished 7 th	Ripieno 1
3 33–5	Violini I and II, Viole	3	3-pitch cells in each group <i>divisi a3</i>	Diminished 7 th ; followed by slow <i>glissando</i> Perfect 11 th down	Ripieno 1
5 57–9	3 Soprani	3	3-pitch cell	Major 2 nd ; followed by slow <i>glissando</i> Major 6 th down	Ripieno 1
8 76–8	4 Jazz Trombe	3	2-3-pitch cells; trill-like motion	Minor 3 rd	Concertino I
17-18 158–61	4 Symphony Corni and Campane	3 (+1) one-measure overlap with the next cluster	2-3-pitch cells; trill-like motion	Major 2nd	Concertino II
18 161–5	3 Soprani	5 (+1) one-measure overlap with the next cluster	2-4-pitch cells; trill-like motion; chromatic scale	Minor 3 rd	Concertino II
34-36 281–98	Campane 3 Soprani Flauti I and III	18	5-pitch chromatic cluster	Diminished 4 th	Return of Introduction
Ascending Clusters					
2 30–2	2 Arpe a2	3	Hemitonic pentatonic scale; followed by an ascending <i>glissando</i>	ca. 2.5 octaves	Ripieno 1
11 112–13	Piano and Arpa	2	White cluster and hemitonic pentatonic scale; followed by an ascending <i>glissando</i>	ca. 7 octaves	Concertino II
12 122–5	3 Clarinetti	4 Perceived length; three- measure long solo is separated by a full measure rest from the next solo group	3-pitch narrow range (major third) cells rising sequentially and forming underlying whole-tone pattern in Cl I; chromatic scale	ca. 2 octaves	Concertino II
46 336–7	Archi	4	3-pitch segments forming minor triad ascend chromatically	ca. 3.5 octaves	Coda/Tutti of Two Orchestras
Descending Clusters					
p.u. to 11	Violini I and II Viole Violoncelli	1.5	12-pitch cluster 3-pitch cells in each group <i>divisi a3</i> Downward glissando at the pick-up point; followed by closing chromatic descend in each part	3.5 octaves	Introduction
13 126–9	3 Symphony Trombe	4	3-pitch cells; trill-like motion; ending with a 3- pitch chromatic cell reached	ca. 1 octave	Concertino II

			by slow downward <i>glissando</i>		
14 129–34	3 Flauti	4 Perceived length; three-measure long solo is separated by a full measure rest from the next solo group	Trill: 3-pitch chromatic cell in the range of a minor 3 rd ; followed by <i>frullato</i> descending chromatic scale and ending with the same pitch set an octave lower	ca. 1 octave	Ripieno II
20 192–5	4 Jazz Trombe	4	Block chords descending down the chromatic scale	ca. 2 octaves	Ripieno-Concertino III Combination
Combination Clusters					
18 166–74	3 Flauti – ascending cluster 2 Arpe Campanelli di Valday and Piatti Piano	9	3-pitch chromatic cells with underlying whole-tone pattern of transposition in Fl. 1; chromatic scale Rising and falling <i>glissando</i> ; Mixolydian on E; ascending/descending cluster <i>Tremolo</i> ; unpitched Static clusters; white and black penta-scales; trills	2 octaves 2.5 octaves Minor 6th	Concertino II
21 200–3	2 Jazz Corni and 4 Jazz Tromboni – ascending/descending cluster	4	Block chords ascending and descending down the chromatic scale	Perfect 11 th	Ripieno-Concertino III Combination
30-31 264–73	3 Flauti and 3 Clarinetti 4 Jazz Trombe 3 Saxofoni	12	Block chords descending down the chromatic scale; recurring passage – mm. 265, 268, 271 Block chords descending down the chromatic scale; recurring passage – mm. 266, 269, 272 Static cluster; ascending and descending chromatic scales; open-spaced major triad, trill	ca. 2 octaves in each group	Ripieno-Concertino III Combination
32 274–5	3 Flauti 3 Clarinetti 4 Symphony Corni 3 Symphony Trombe 2 Symphony Tromboni Piano 2 Arpe Organo elettrico Archi 3 Saxofoni 2 Jazz Corni 4 Jazz Trombe 4 Jazz Tromboni	2	Chromatic scale-based 3-pitch descending clusters Diatonic “white” scale-based 4-pitch descending clusters Chromatic scale-based 3-pitch descending clusters Diatonic “white” scale-based 2-pitch descending clusters Diatonic “white” scale-based ascending and descending <i>glissandi</i> Mixed (diatonic in LH and whole-tone-based ascending and descending <i>glissandi</i>) Diatonic “white” scale-based 3/5-pitch descending clusters Whole-tone 3-pitch chromatically descending clusters Whole-tone 2-pitch chromatically descending clusters	5 octaves	Ripieno-Concertino III Combination

			Block-chords descending chromatically		
37 299–310	Archi 3 Flauti 3 Clarinetti	12	Gradually built 12-pitch ascending chromatic cluster 3-5 pitch predominantly chromatic clusters; ascending and descending	ca. 2 octaves	Introduction Return and Semi-aleatoric Episode
38-41 311–19	3 Flauti 3 Clarinetti Piano Arpe Archi 3 Saxofoni 2 Jazz Corni (from m. 318) 4 Jazz Trombe 4 Jazz Tromboni	9	Static cluster; chromatic scale Chromatic scale-based passages; ascending and descending Ascending and descending <i>glissandi</i> ; whole-tone flavoured passages 12-tone chromatic cluster; sustained Static cluster; 2-3-pitch chromatic cells Gradually assembled twelve-tone cluster (RN 41)	Minor 3 rd Minor 6 th Diminished 4 th 1 octave ca 2.5 octaves Perfect 5 th Minor 9 th	Introduction Return and Semi-aleatoric Episode

Appendix 8

Concerto for Viola and Orchestra: duration of the transitions measured in the absolute values of microbeats

Transition number	Transition location	RN	Number of bars	Time signature and M.M.	Value of a microbeat	Number of beats	Number of microbeats	Total number of microbeats rounded to the nearest tenth
1	Introduction to Exposition 1	N/A 1	Unmeasured 10	Time in seconds ⁴⁶³ : 5 $3/4 \text{ ♩} = 48$	1.25 1.25	N/A 30	4 + 37.5 = 41.5	40
2	Exposition 1 to Exposition 2	16-17 18	16 7	$9/8 \text{ ♩.} = 80$ $3/4 \text{ ♩} = 48$	0.75 1.25	48 21	36 + 26.25 = 62.25	60
3	Exposition 2 to Development 1	32 33	Unmeasured ⁴⁶⁴ 12 [8]	Time in seconds: 38 $9/8 \text{ ♩.} = 80$ (Quartet) OR: $3/4 \text{ ♩} = 48$ (Percussion: simultaneous notation)	1.25 0.75 [1.25]	N/A 36 [24]	30.4 + 27 OR + [30] = 57 [60.4]	60

⁴⁶³ As there is no indication of the duration of this episode in Gubaidulina's drafts, the average length of this and all following unmeasured episodes is taken from the two commercial recordings of the work (Bashmet (2002) and Tamestit (2015)). Unmeasured portion in this episode refers to one "measure" prior to RN 1.

⁴⁶⁴ In the drafts this RN is notated at $3/4 \text{ ♩} = 48$; it occupies 8 measures. In this layout the total number of microbeats is nearly identical to the calculated above: $30 = (60 \div 48) \times 24$.

4	Development 1 to Development 2	51-53	27	3/4 ♪ = 132	0.455	81	36.81	40
5	Development 2 to Development 3	89	Unmeasured	Time in seconds: 15 (9/8 ♪. = 80 in RN 87)	0.75	N/A	20	60
		90-92	11	4/4 ♪ = 96	0.625	44	27.5	
		93	8	3/4 ♪ = 144	0.417	24	+ 10 = 57.5	
6	Development 3 to Coda	138	Unmeasured	Time in seconds: 10 (3/4 ♪ = 60)	1	N/A	10	120
		139	2	3/4 ♪ = 60	1	6	+	
		140	Unmeasured	Time in seconds: 17	1	N/A	6	
		141	2	3/4 ♪ = 60	1	6	+	
		142	Unmeasured	Time in seconds: 24	1	N/A	17	
		143-144	12	3/4 ♪ = 40	1.5	36	+	
							24 + 54 = 117	

Appendix 9

Concerto for Viola and Orchestra: Summary of Intervallic Transformations in the Transitioning Episodes 1-6

Transition number	RN mm. ⁴⁶⁵	Intervallic transformation(s)	Instrumentation
1	1	Min. 2nd-Maj. 2nd D-E $\flat$ *D-*E	V-la sola Q: V-no, V-la
2	16 mm. 1–2 mm. 4–5 mm. 6–7 mm. 8–9 17	Per. Unison- Min. 2nd F $\sharp$ -F $\sharp$ *F $\sharp$ -*G D-D *D-*E $\flat$ G-G *G-*A $\flat$ E $\flat$ -E $\flat$ *D $\sharp$ -*E Tritones-Per. 5^{ths} E $\flat$ -A and G $\sharp$ -D *E $\flat$ -*B $\flat$ and *A $\flat$ -*E $\flat$	V-la sola, Cl. Q: V-no, V-la V-la sola, Cl. Q: V-no, V-la V-la sola, Cl. Q: V-no, V-la V-la sola, Cl. Q: V-no, V-la Cel., Archi Q: V-no, V-la, V-c, C-b
3	32	Min. 2nd-Maj. 2nd D-E $\flat$ * $\sharp$ C-*D-*E $\flat$ (Incremental $\frac{1}{4}$ -tone descend)	V-la sola, Dita Cimbali, Camp, V-le, Vc, C-b Q: V-no, V-la, V-c, C-b
4	51–52 52 51–52	All intervals in this section receive their $\frac{1}{4}$ -tone lower equivalents. Per. 5^{ths} G-D *G-*D D-A *D-*A Tritones A-D $\sharp$ *A-*D $\sharp$ C $\sharp$ -G *C $\sharp$ -*G Minor 6th D $\sharp$ -B *D $\sharp$ -*B	Cel., V-le Q: V-c Cel., Camp, V-ni I div. (1. Solo), V-ni II, V-le Q: V-la Cel., Campanelli, V-ni I and II, Fl. 1 Q: V-no, V-la Cel. Q: C-b Cel., Camp, V-ni I and II Q: V-no

⁴⁶⁵ The measure numbers indicated are those within a rehearsal number (RN).

5	89-93	Min. 2nd -Maj. 2nd F#-G *E#-*F#-*G (Incremental ¼ -tone descent)	V-la sola, Campane, 3 Tr-ni (from RN 92) Q: V-no, V-la, V-c, C-b
6	138-140 141-142 143-144	Min. 2nd and its ¼-tone lower equivalent C#-D *C#-*D Min. 2nd -Maj. 2nd C-C# *C-*D Maj. 2nd -Min. 3rd B-C# *B-*D	V-la sola, Dita Cimbali, Camp, V-le Q: V-la, V-c V-le, V-c Q: V-la, V-c V-le, V-c Q: V-la, V-c