

# Thesis:

My dissertation, using the experiences of traditional double bass, violin, cello, and piano schools, attempts to create a fundamentally new, holistic approach to the performing and creative artistic process. For the process of holistic fingering creation, I will draw on established fingerings from other instrumental schools in addition to the well-known double bass schools. The larger part of my research is based on the study of the aforementioned schools, comparing their results and lessons learned. I will then outline a new, modern approach that utilizes results from other disciplines, which facilitates the creation of harmony between the performer, the creative intention, and the performer's abilities.

The necessary steps for a quality performance are illustrated by the following logical sequence:

a. Examination of the author's intention, b. Understanding of musical articulation, c. Knowledge of the mental, spiritual, and physical abilities of the performer(s), d. Application of the ideal binding and fingering culture, e. Practical testing, verification, and application of the theory.

In holistic fingering creation, knowledge of the composer's intention is of fundamental importance, as the performer's action can only be authentic if the performer is aware of the aspects of the musical work. Therefore, the very first and perhaps most crucial task is to understand the creative intention at a skill level. My research and work consider the creative intention as the absolute starting point upon which the entire performance process must be built, from the first glance at the score to the last note of the performance.

After interpreting the author's intention, we must map and understand the articulations of the musical work. We need to analyze the melodies and their functions—both separately and in relation to each other—to precisely examine the connection between the author's intention and the melodies. Skipping this arduous intellectual work would deprive all subsequent efforts of the solid foundation that guarantees significant quality.

We cannot overlook musical articulations either, as their precise knowledge will prevent the realization of the author's intention from being random. The structure of music can only become visible and audible if there is order in the performer's thoughts and feelings, and if they are aware of their own place concerning the whole work, not just the details. Without a thorough understanding of the author's intention and articulation, even seemingly simple authorial instructions, such as *forte*, *piano*, *largo*, and *allegro*, can merely be categorized as fiction, as a given voice cannot know where its dynamic task is situated in relation to the entire performing apparatus.

Tempo markings are not exact either; the acoustic conditions of the performance greatly influence the feasibility of a given tempo. A symphonic orchestra may sound overwhelming in a 100 square meter rehearsal room, while the same ensemble faces a completely different acoustic environment in the Palace of Arts. The proportions are different, the echo is different, and the rise and decay times of the sound are different. The same physical parameters can lead to chaos in the realization of the author's intention in a cathedral. Above a certain tempo, the melodies can completely collapse, and the musical functions become unrecognizable due to the echo, causing the next note to arrive before the previous one has ended.

For the above reasons, we can state that all authorial instructions are relative, and their feasibility depends on the specific musical and acoustic environment. This is why understanding musical articulations is important, as with precise knowledge of them, the performer can effectively adapt to the changing factors of the performance.

Except for solo concerts, music-making is a communal activity. My dissertation outlines the parameters of group music-making and the individual and communal conditions necessary for creating a successful performance. It addresses the challenges of orchestral work, particularly in opera performances, and illustrates with vivid examples how holistic work organization can be an effective tool for efficient performance.

However, we cannot overlook the analysis of the performer as an independent entity. Although we are all different, to achieve a successful performance, we must learn to play together, putting our personal abilities and current mental states at the service of collaborative work. Therefore, my dissertation also examines the performer as an independent entity. It attempts to investigate the mental, spiritual, and physical attributes of the performer in order to optimally serve the author's intention through conscious control of their talent and diligence. My holistic approach to work helps to align the author's intention with the capabilities of the performers.

The main virtue of this method is that it increases the flexibility and virtuosity of double bass playing, taking into account the specific qualities of the instrument. Additionally, it can certainly be successfully applied to other string instruments as well. In terms of structure, my dissertation guides the performer toward optimal solutions through the following stages:

1. Analysis of the author's will →
2. Definition of musical articulation →
3. Analysis of traditional fingerings →
4. Examination of individual mental, spiritual, and physical attributes →
5. Holistic fingering creation →
6. Comparative analysis of traditional and holistic fingerings →
7. Practical testing →
8. Practice of effective fingerings →
9. Testing during rehearsal processes →
10. Practical application in performances →
11. Drawing conclusions →
12. Broad application of holistic fingerings that have already proven their worth in performances.

In my work, while presenting the results of double bass schools, I will touch upon traditional fingerings as well as the experiences of other string and piano instrument schools. I believe it is important to familiarize ourselves with the different instrumental schools since we do not need to recreate the well-established methods that have been effectively working for other instruments for decades or even centuries. We should adopt every opportunity that may not yet be accepted on our own instrument but can foster our technical development in the long run with an innovative approach.

By presenting past traditions and describing the fingering practices of long-established schools, I provide methodological support for the continuous renewal process, which is essential for a successful performing career. Following this, I will introduce my new, innovative system that can be used in everyday practice, and in the third part of my

dissertation, I will illustrate its advantages compared to traditional fingerings with practical examples. I will demonstrate the significant increase in efficiency that can be achieved through the use of holistic fingering creation by mathematically and statistically analyzing the emblematic double bass positions in symphonic and operatic literature. The possibility of melody-based fingering realization takes into account the mental, spiritual, and physical attributes of the performer. Due to its holistic approach, the melody, as an entity that organizes fingering, becomes the focal point, highlighting the individual's mental, spiritual, and physical qualities.

While many like to believe in the world-changing power of innovations, there are no miracle solutions. My innovative working method is not universally applicable. In fact, its greatest value may lie in its personalized nature, inspiring the performer to engage in continuous thinking and re-planning, thereby raising awareness of the need and opportunities for constant change. As a practicing performer, I have often experienced that numerous obstacles can arise in the pursuit of high-quality artistic productions. Imperfect performance conditions constantly challenge performers in every single performance and musical situation. If we consider a musical work as a living entity composed of cells created by various professionals, we realize the interdependence that exists between the small details and the larger whole. There are numerous correspondences and countless situations requiring compromises that can be categorized in two ways:

From top to bottom, considering the realization of the work, the following issues may arise:

- The author's intention (its notational feasibility, examination of questionable points in the score),
- The director's vision (which unfortunately may sometimes have little connection to the original intentions of the authors),
- The physical possibilities of the given theater (Are we performing works by Richard Wagner or Richard Strauss in theaters where the required performing apparatus cannot physically fit?),
- The preparedness of the performers (Is there an appropriate soloist ensemble for a worthy performance of the given musical work? Do they possess the necessary artistic and physical abilities for successful performances?)

From bottom to top, considering the participants' perspectives, the following questions may arise:

- What can the performer do in a performing environment that they cannot influence, but can only endure?
- What can they do if they have to cope with conditions that are far from ideal for the successful realization of the musical work?
- How can one prepare for unforeseen situations?
- Where does collective responsibility end, and individual responsibility begin?
- In case of an emergency, should we swim against the current, or should we remain united? Should we be active or passive in an unexpected situation?

The complex and multifaceted task conceals numerous conflict situations that may jeopardize the success of the performance. In the context of opera performances, it may happen that a singer positioned by the director at the back of the stage cannot hear where they are in relation to the orchestra. If a deviation occurs, the conductor usually directs the orchestra to the singer. However, this duality entails risk. In a symphonic orchestra or choir, it only takes

one musician who does not recognize the emergency, and by misunderstanding an unexpected musical development, they may inadvertently ruin the musical process. For this reason, it is crucial for every participant to know exactly where they stand in a given musical environment.

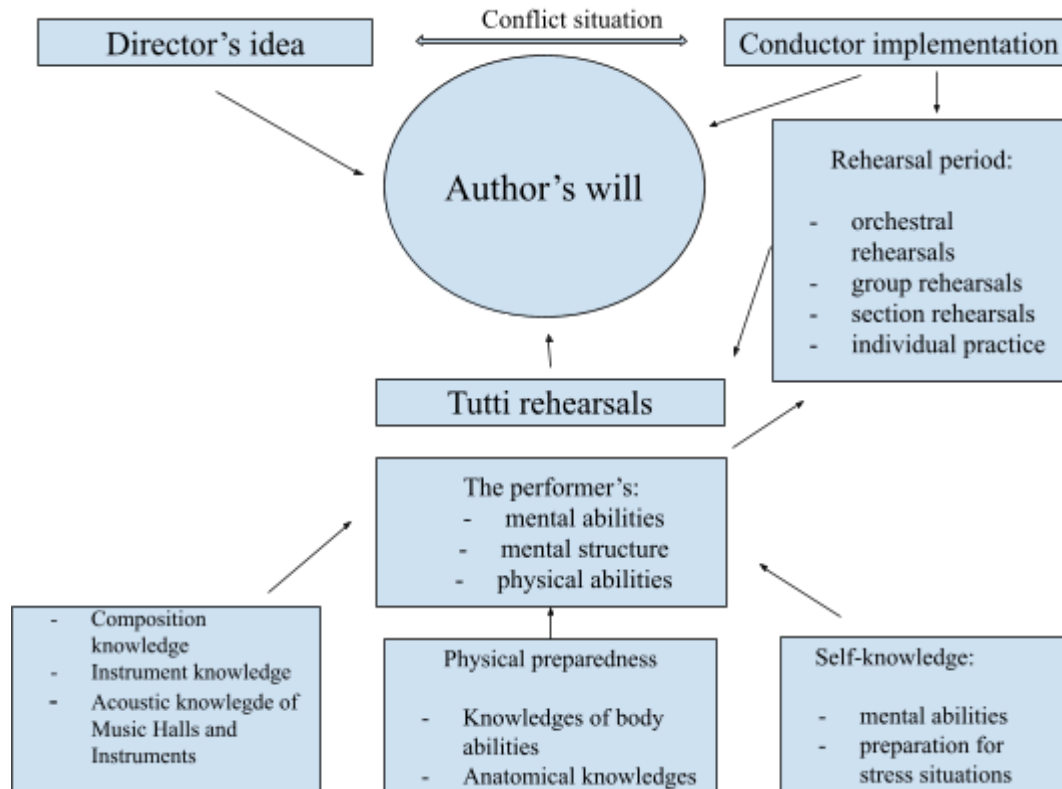
For a successful performance, the performer must be aware of their own task:

- in relation to the larger whole,
- in relation to the given musical situation,
- in relation to the conductor,
- in relation to the soloists,
- in relation to the other parts,
- in relation to our section,
- in relation to our part.

The performer must approach the author's intention with humility. For each note, they must make a decision on how best to serve the realization of the collective production with their talent. Night after night, from one musical work to another, note by note. It is a colossal task, as in a three-hour opera performance, each performer must make decisions regarding thousands, even tens of thousands of notes, sometimes multiple notes per second. The essence of the holistic approach to performance practice outlined in my doctoral dissertation is to systematize the mental, psychological, and physical tasks of the performer, which are essential for focused, collaborative work.

Following the theoretical overview, my work provides practical guidance on the functioning of the holistic system, using emblematic excerpts from operatic and symphonic literature composed for the double bass.

I illustrate the complexity of this issue with the following diagram:



The Operational Model of a Holistic, Authorial Intent-Centered Work Process

The above diagram illustrates how individuals with different decision-making and implementation capabilities can serve the author's intent. The diagram clearly shows the ongoing conflict between the director's and conductor's visions due to contradictions between the stage's visual and acoustic parameters. The larger and more grandiose a stage design, the more likely it is to pose challenges in terms of acoustics. Unfortunately, opera directors often disregard the laws of physics. Many productions feature set designs whose acoustic properties hinder musical communication, preventing singers from hearing each other or the orchestra. As a result, performers must mentally prepare for the most extreme acoustic conditions to effectively showcase their talent.

In an ideal situation, the director's vision aligns with the author's intent. Directing is a complex process: beyond staging their own impressions and ideas for an opera, directors must also understand the physical feasibility of their concepts. The key question is whether the necessary resources are available for a successful production. Responsible directing requires collaboration with performers, artistic department leaders, and stage managers, ensuring that sets and costumes are ready in time for rehearsals. With more than 30 years of experience in opera houses, I can affirm that these seemingly trivial aspects are far from self-evident in the work process.

The heart of an opera performance beats in the orchestra pit, where, under ideal circumstances, the conductor ensures the successful presentation of the musical work. For the orchestra to function optimally, several essential conditions must be met: uninterrupted preparation time for musicians, a sufficient number of rehearsals, and the employer's commitment to fulfilling various personnel, physical, and financial requirements.

My research focuses on identifying parameters that can enhance the quality of collaboration.

In my experience, it is easier to change ourselves than to change the circumstances that influence our work. In my dissertation, I emphasize the importance of developing the intellectual, emotional, and physical qualities that shape an artist's growth. To work effectively, performers must understand their own strengths and capabilities.

On stage, a performer's soul is completely exposed—there is nowhere to hide from a memory lapse, a vocal strain, a coughing fit, or a note that cannot be played due to an overworked finger. Artists must learn to manage the immense stress caused by the complexity of their tasks and the presence of a large audience. I doubt that any performer has never experienced stage fright at some point in their career. In my opinion, there are two types of performers: those who have battled stage fright and those who will. However, stress is not the only factor affecting performance—everyday personal struggles can also impact artistic quality. Momentary conflicts, life situations, exhaustion, menstruation, family tragedies, workplace conditions, colleagues' preparedness, mood, talent, inspiration, illness, or even weather changes can all influence a performance.

We must learn to coexist with changing circumstances and master self-control on stage. The audience is there for the artistic experience, not our personal problems. Therefore, performers must do everything in their power each night to ensure that audiences leave with positive emotions and unforgettable experiences.

My dissertation also attempts to examine these "soft factors" since they interact with "hard factors" and are not independent of each other. No masterpiece is immune to a poor performance. One of my goals is to analyze unpredictable risk factors and bring them to a manageable level. This is why my research focuses on the performer as a vulnerable human being. My aim is to help artists recognize their weaknesses and use them as stepping stones toward a higher level of artistic expression.

Opera production is a complex process where numerous elements must align simultaneously to fulfill the composer's intent and realize the director's vision. Sets, costumes, lighting, stage technology, and the conductor's leadership must all work harmoniously to inspire performers toward artistic immersion. When all mental, emotional, and technical parameters align optimally, the audience can experience the magic of opera as a unique and unrepeatable event.

From a creative perspective, the essence of my holistic approach to finger placement is to view the fingerboard as an integrated whole filled with infinite possibilities, rather than merely a collection of different positions and hand placements.

The ultimate goal of my dissertation is to inspire performers to contribute their best knowledge and abilities to the shared mission of creating a high-quality artistic experience.