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**The development and applications
of the tuba as a solo instrument**

Theses of DLA dissertation

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1. The subject of the research

In the nearly 200 years since the tuba was patented, our instrument has come a long way from being a bass instrument for wind orchestras, through becoming a permanent member of the modern symphony orchestra, to a solo instrument. During this time, of course many people have tried to influence the tuba's rise to prominence in many ways - some positive, some negative – but by today it has become a technically mature and universally applicable instrument that can be used in the full range of the classical music palette.

The aim of my research was to provide a chronology of this development, which is still ongoing today, in which we can make a complex interpretation of the tuba's current status by exploring its historical antecedents, understanding the motivations of the colleagues and composers who popularized the instrument, and presenting radically new works that use the tuba in a solo role.

The literature definition of the tuba describes the instrument as "a true bass instrument, similar to the bass instrument of the string orchestra, the double bass"¹, "the basis of the brass section of opera, symphony and wind orchestras."² However, as early as 1971, in the book *Methodology of Teaching Brass and Percussion* (edited by György Zilcz), a teacher at the Franz Liszt Academy of Music, Dr László Újfalusi mentions that "there are those who do not recognise this role of the tuba and push the pitch at all costs, trying to advance the development of the instrument in light technical feats."³ The words of Dr. László Újfalusi clearly indicate that the process of expanding the role of the tuba was already well underway in Hungary at that time, but like all innovations, the reception was mixed.

"This ambition, however understandable, is not the real domain of the tuba and is somewhat comical. It is a different matter when, especially in recent and modern works, there are very high and significant so-called tuba parts. These are laudable efforts and show that the instrument's possibilities have been extended even further; more and more works are being written in which its function within the orchestra has outgrown that of a harmonium-bearing bass. It is then that the player himself comes into his own, with his artistic qualities, his shaping skills and, not least, his beautiful, warm tone."⁴

¹ Bogár István (1975)

^{2 3 4} Zilcz György (1971) – 123. p.

The appreciation and use of the tuba as a solo instrument has always been the composer's sovereign right, although the composer's intentions can be influenced by a number of other factors. The most important influence on composers has of course been the professional environment of the time and field, but the development of the tuba has also been affected by feedback from the audience and thus by the concert organisers' ideas on programming policy.

2. Research methodology

Throughout the research, I have always tried to select the people and events I have presented in such a way that, by following the stages of the tuba's spread as a solo instrument in chronological order, we can better understand its causes and context. In writing this thesis, it was not my intention to fully describe all the participants and events in the process, since this amount of information would have made it difficult to explore and interpret the context, which was the main aim of my thesis.

To do this, it was first necessary to take stock of the general applications of the instrument. The bass and contrabass tuba is mainly used in symphony orchestras, wind orchestras and various chamber ensembles. However, it cannot be said that the way in which the instrument is used clearly defines its role in different musical textures, since there is no clear dividing line between the functions in these terms alone. Though, if we consider the role of the tuba in a complex framework of specific works, composers and periods, we can see a number of correlations.

The reason for focusing my research on the use of the tuba as a solo instrument is that the development of the solo tuba has had a profound impact on the everyday life of professional instrument players in the recent decades, as the acquisition of a soloistic performance style has become essential to meet the extended requirements. This intensive development is still going on today, but I still find that the Hungarian tuba community is often only partially informed about the achievements made so far, their history and their future prospects. Therefore, I considered it important to put the knowledge gained from my research into this topic in context and to help colleagues who would like to get more information about the current situation of the tuba as a solo instrument or who wish for looking back years later and find out what the leading personalities of different generations of composers thought about our instrument in 2022.

The interviews with the composers were conducted in the form of guided discussions, the first step of which was to send the same questions to each of the interviewees beforehand. In the subsequent interviews, the questions were answered in a fixed order, but the subjects were allowed to deviate from the topic of the question and thus to argue in favour of their answer. As a result, it was possible to record the selected subjects' perceptions on the solo tuba in a structurally same and thus easily comparable way, thus helping to support the findings of the research.

3. Conclusions of the research

By contextualizing the information I have learned in my research, I have tried to present the rise of the solo tuba and its achievements to date in a way that will not only contribute to a better understanding of the current state, but also serve as a guide to continuing the work begun by our predecessors. Our task is not an easy one, and many may disagree with the necessity of it, but what is certain is that we tuba players have reason to believe that the special qualities of our unique instrument can bring pleasure not only to us in solo playing, but also to the general public.

The instruments often used in solo roles, such as violin, piano or flute, are all melodic instruments that play in a high register and have been shown to have a significantly higher cognitive relevance for musical perception. The reasons for this can be traced back to the evolution of the human auditory system as well as the brain's processing system, which has resulted in a more sophisticated ability to distinguish pitch differences between higher pitched notes - which is also the basis for melody recognition - than between notes of lower pitched notes.⁵

This phenomenon was also demonstrated by Arlette Zenatti's research on melody recognition among young people. In polyphonic music, melody recognition is inherently difficult for children. That is why in her 1969 experiment she played children's songs that were familiar to them as fugues, but even so, on average, they were only able to recognise melodies in polyphonic music between the ages of 8 and 10. In cases where the melody was placed in the bass part, even children as young as 12 had difficulty solving the task.⁶

⁵ Bovermann and co-authors (2017) – 380.

⁶ Túrmezeyné Heller Erika (2007) – 108.

However, the perception of timing differences between notes works in the opposite way in our brains, because it is much more efficient for low notes, proving the common musical practice that rhythmic stability and metric emphasis are usually provided by bass instruments in musical textures.⁷

The biological background of musical perception confirms beyond any doubt that the tuba's general role in musical textures is fully consistent with its acoustic properties, and that composers have mostly used and employed it in the role for which it was originally designed.

One might think that this statement might even challenge the justification of the tuba as a solo instrument, but fortunately this is not the case. By the 21st century, the written and unwritten rules of orchestration and composition had become less rigid, and composers began to push the boundaries in unprecedented ways, with the result that today's compositions are limited only by the needs of the customer (if any). Audiences are also increasingly more and more receptive to the new and unusual, so the disadvantage of the solo tuba for biological reasons can easily be turned into an advantage if performers and composers continue to seek new solutions together.

Although the tuba society is much smaller in number compared to other instrumentalists, this may be the reason why a very cohesive and transnational community of instrument players has developed, which we can still appropriately call brotherhood, in accordance with the original name of our international professional organization.⁸ The rise of the tuba as a solo instrument and its growing recognition have been, and are likely to continue to be, due exclusively to this cohesive professional community. This brotherhood does not end with a shared aim to show the world the potential of our instrument, but also with a mutual support and motivation to advance the improvement of our playing technique, a mentality that is unique among us even in competitive situations.

The fate of classical music in the coming decades remains to be seen, as changes in society have significantly altered our cultural consumption habits. Nevertheless, I am confident that we will be able to keep the current mentality of the tuba society alive for a long time to come, which is also the key to the wide-ranging use of our special instrument.

⁷ Hove and co-authors (2014) – 382.

⁸ <https://iteaonline.org/> – downloaded: 05.11.2022.

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