

Pécs University of Arts and Sciences, Faculty of Arts
Doctoral School

Zsolt Koppányi

The Development of Orchestral Wind Instrument Sound
in the Mirror of the Bass Brass Wind Instruments: the
Flourishing of Serpent, Ophicleids and Cimbasso, the
Spreading of Tuba

Theses of the DLA Dissertation

Topic leader: István Péter Farkas, Trombone Artist,
Habilitation Associate Professor

2012

Preliminaries of the Research, Motivation

I clearly remember the day, though it happened almost 25 years ago, when I was a college student. We were sitting in the music history course, the subject of the lesson was the *Fantastic Symphony* by Berlioz. I was happy about it: finally a piece of music which contains even two tubas – I thought at that time. The date when the symphony was written was 1830, the time of constructing the tuba was 1835. I knew these pieces of information so the two dates made it absolutely obvious that Berlioz could not write tuba for the composition of programme music considered as the forerunner of symphonic poems. However, which instrument could be the one that is replaced by tuba today? I have been professionally interested in the different brass wind instruments, particularly in bass and special, more precisely forgotten instruments and their fields of application from this date. I collected the materials to my dissertation for years, decades and I did not even think that once I would be writing a dissertation because as a practicing musician and teacher I often met instrument names for which even in the best case I only had a supposition regarding what instrument they could have meant. Thus my dissertation also had a practical motivation, and does not only examine theoretical issues.

Sources

Unfortunately I found very little Hungarian special literature to my research. One of these was a book by István Bogár titled *The Brass Wind Instruments* (Budapest: Zeneműkiadó, 1975), which of course did and could not include the huge development and accumulated experience that was seen and obtained in the field of brass wind instruments and their application, and method of playing in the more than three decades that passed from its writing.

Fortunately, I found – though not plenty of – but a lot greater number of source materials among the special books in the English and German languages, due to the organology researches that became renewed in this field in the 1970s. I considered the following books out of these the most important ones with the titles

below: Clifford Bevan *The Tuba Family* (London: Piccolo Press, 2nd Edition, 2000.), Trevor Herbert *The Trombone* (Yale University Press: New Haven and London, 2006.), Herbert Heyde *Das Ventilblasinstrument. Seine Entwicklung im deutschsprachigen Raum von den Anfängen bis zur Gegenwart* (Wiesbaden: Breitkopf & Härtel, 1987.), and last but not least Hector Berlioz *Große Instrumentationslehre*. (Leipzig: Breitkopf und Härtel, (1843) 1911.). Bevan wrote about the family of tubas, and the enhanced, international interest in his elaborated, accurate work almost covering the smallest details was clearly shown by the fact that even 500 dollars were asked for the first edition of this book originally written in the 1970s. Thus the second, reworked edition is considered gap-filling, and shall be considered a basic book to tuba players.

Renato's Menucci's study, *The Cimbasso and Related Instruments in 19th-Century Italy* (*Galpin Society Journal*, Vol. 49 Mar., 1996, pp. 143–79.) is considered to reach the same high quality (though being shorter but offering deeper research). It provided special help to the writing of the Cimbasso chapter.

I used a great number of partitions as primary and secondary sources to the analyses, however, here I also endeavoured to obtain different editions of the same work of art in order to achieve the most grounded approach as in the compositions of the 19th century mostly researched by me I often met inaccurate instrument names.

Naturally, I also used one of the greatest inventions of the modern age, i.e. the Internet to help me, however, I was very cautious when handling this source and I only used the works of recognized professionals. Such was the study by James Gourley, the excellent English tuba artist and international soloist, which was prepared and appeared in its Internet homepage, titled: *The Cimbasso: Perspectives on Low Brass performance practise in Verdi's music* (www.jamesgourley.com).

The Structure of the Dissertation, the Examined Fields

My dissertation is constituted by nine parts. The first chapter deals with the general history of brass wind instruments, the second one deals with the acoustic features of brass wind instruments. Actually I could have omitted these two parts, however, in my opinion these chapters serve the easier understanding of my dissertation. In the

third, fourth and fifth shorter parts I examined the application fields of a trumpets-bass trumpets, horns-bass horns, as well as trombones-bass and contrabass trombones in a historic context. The main and at the same time longer and more detailed chapters of my dissertation are the sixth, seventh, eighth, and ninth ones which deal to a deeper extent with the by the beginning of the 20th century totally forgotten however by now newly discovered serpent, ophicleid, and the old and new versions of the cimbasso, as well as with tubas that became almost totally dominant in the bass brass wind instruments in a few decades after their construction, furthermore with the problems emerging from the resulted ground gaining. I paid less attention to the Hungarian relations of the examined fields – mainly regarding the tuba – as László Szabó provided proper attention and accuracy in his doctoral dissertation¹ while researching these link points.

Methods and Results

I would not consider my research method novel. I mainly did studying the foreign special literature (as there is hardly any existing in the Hungarian language in this field), and comparing, analysing the different partitions. Furthermore, I had to use the method of source criticism as well as the above mentioned inaccurate and different instrument names were included in the different editions of the same work.

The novelty of my dissertation lies in the approach of the topic chosen by me. As a performer, as well as college and comprehensive school tuba teacher I often faced the issue of replacements in the applications fields of the special instruments analysed in my dissertation. Naturally, my approach is subjective, however, I hope that having more than 20 years of professional experience I can show proper objectivity.

My research sometimes led to surprising results. Such as the use of bass trumpet, which in many cases shows the picture of an instrument connecting to the soprano part of the trumpet, leading the melody. It was particularly interesting to observe and follow the efforts made by French composers of the 19th century to have

¹ László Szabó (2010): Hungarian Implications of the Fields of Application of the Bass Tuba, DLA Dissertation

all trombone parts played by tenor trombone, which rooted in the performance practice of that time. The beloved and feared solo of tuba players, *Bydlo*, which was in fact composed for an instrument with a much higher root note than used today. The problem of replacing ophicleids is connected to extremely high orchestral passages similar to this, and the replacement of this part causes a problem to tuba players as well. These “anomalies” are substantially experienced by orchestra musicians in their everyday practice, however, they do not have the answer to the question why. My dissertation may help answer theoretical questions and – in my opinion – it could be used as an educational aid to the training of brass wind instrument players.

In the issue of the serpent I can only show partial results as I did not find enough source material to the clarification of the serpent’s role in Hungary. However, I have a firm intention to conduct further study in this research field in the issue whether the serpent played a similar role in the Hungarian church music life to the one it did in the French and Italian churches of the 19th century.

Selected List of Literature

- Baines, Anthony (1993): *Brass Instruments. Their History and Development*. New York. Dover Publications.
- Berlioz, Hector (1843): *Große Instrumentationslehre*. Leipzig. Breitkopf und Härtel. 1911.
- Berlioz, Hector (1863): *Instrumentationslehre*. Leipzig. Edition Peters. 1903.
- Berlioz, Hector: *Hector Berlioz emlékiratai. Utazásai Olaszországban, Németországban, Oroszországban és Angliában*. Budapest: Zeneműkiadó, 1956.
- Bogár István (1981): *Rézfúvós hangszerek*. Budapest. Zeneműkiadó.
- Gourley, James: The Cimbasso: Perspectives on Low Brass performance practise in Verdi's music. www.jamesgourley.com, date of downloading: 2007. 11.23
- Herbert, Trevor (2006): *The Trombone*. Yale University Press. New Haven and London.
- Heyde, Herbert (1987): *Das Ventilblasinstrument. Seine Entwicklung im deutschsprachigen Raum von den Anfängen bis zur Gegenwart*. Wiesbaden. Breitkopf & Härtel.
- Meucci, Renato (1996): The Cimbasso and Related Instruments in 19th-Century Italy. *Galpin Society Journal*, Vol. 49 Mar., 1996, pp. 143–79.
- Palmer, Philip (1987): In Defense of Serpent. *Historic Brass Society Journal*. New York.
- Tarr, Edward (2005): *Die Trompete*. Mainz. Schott Musik International.