

A COMPARISON BETWEEN TRAVERSIERE AND FLUTE

MARINA DE PALMA¹

СРАВНЕНИЕ МЕЖДУ TRAVERSIERE И ФЛЕЙТА

МАРИНА ДЕ ПАЛМА²

Abstract: This article intends to analyze the differences between the ancient and the current musical praxis, highlighting the technical difficulties of both traversiere and modern flute. The difficulty of an eclectic approach in performing this sonata, consists in knowing how to realise a historically informed performance while inserting one's own interpretation without being out of style. A further difficulty in performing the sonata with both instruments, consists in the awareness of technical and constructive differences, exploiting the strengths and masking the weaknesses. The enrichment resulting after this writing, will lead the performers not to be afraid to get involved in philological mistakes of *praxis* and to make them discover a critical approach to the text, inviting for a deeper reading of the score.

Keywords: Empfindsamer stil, Boehm system, Jacques Martin Hotteterre, messa di voce, traversiere – modern flute, philological praxis.

¹ **Marina De Palma** is a Ph.D. student at the New Bulgarian University in Sofia (Bulgaria), Department of Music – specialization: Flute, Research Supervisors Prof. Yavor Konov, D.Sc. and Prof. Luisa Sello, Ph.D.
(e-mail: marina.depalma2016@gmail.com)

² **Марина де Палма** е докторант в Нов български университет в София (България), департамент „Музика“ със специалност флейта, с научени ръководители проф. Явор Конов, д.н. и проф. д-р Луиза Село
(e-mail: marina.depalma2016@gmail.com)

Резюме: Тази статия има за цел да анализира разликите между древната и съвременната музикална практика, като очертава техническите трудности на напречната и на съвременната флейта. Трудността на еkleктичния подход при изпълнението на тази соната се състои в това да се знае как да се осъществи исторически информирано изпълнение, като същевременно се запазва собствена интерпретация, без да се излиза от стила. Друга трудност при изпълнението на сонатата с двата инструмента се състои в осъзнаването на техническите и конструктивните различия, използването на силните страни и прикриването на слабите. Този текст има за задача да обогати стила на изпълнение, да помогне на изпълнителите да не се страхуват от филологически грешки на практиката и да ги накара да открият критичен подход към текста, приканващ за по-задълбочен прочит на партитурата.

Ключови думи: чувствителен стил, „Бьом“ система, Jacques Martin Hotteterre, messa di voce, traversiere - модерна флейта, филологическа практика.

The structure of the sonata

The typical structure of Frederick's sonata is slow-fast-very fast, corresponding to the Prussian style of the time, a little different from the rest of Europe. The form of Sonata in B minor, follow the model of Giuseppe Tartini (1692-1770), using one general key and modulating to closely related keys. The first movement is in a binary structure, reflecting the classical sonata form, in which the king could shows his technical skills. On the contrary fast movements such as the second and the third, seems to be formulaic with repetitive passages and sequences. The time indications of this sonata should always refer to those written by J.J.Quantz, in fact the first movement should be in 80bpm, the second movement (referred to an half note) 80bpm, and the third 120 bpm. The harmonic analysis of the sonata is not the subject of this thesis, what is interesting to highlight is the agogics, dynamics and technical aspects of execution.

A comparison between traversiere and flute

The type of traversiere I am going to consider is called *Palanca*, made of boxwood. It is constructed in four separate sections: headjoint, two middle joints for left and right hand, and footjoint. The bore of the body is conical and the headjoint, pierced by a single hole, is cylindrical. In the three joints that constitute the body of the flute, there are seven holes (six are opened, three on the left and three on the right hand joints, on the contrary the seventh hole in the foot joint is covered by a simple key which is kept closed by a spring, pressed by the right pinkle). The traversiere has cylindrical headjoint and a conical body, narrowing towards the foot. The cone angle of the headjoint is greater in the traversiere so its bore is on average smaller than that of the flute.

The traversiere is generally pitched at 415 Hz, the modern flute is pitched at 442 Hz. The natural scale of the traversiere is D major, because the notes are produced when the holes are all closed and the fingers are raised one after another in sequence. Other notes are produced by *cross fingering*, because not all the fingers closing the holes are adjacent. *Cross fingerings* produced some less strong notes from the natural ones, for this reason it is difficult to play all notes equal and with the same timbre/volume. The traversiere has a playing range of approximately three octaves, from D under the staff to A above the staff. The lower register (first octave on the staff), the middle register (second octave of the staff) and the upper register (third octave above the staff) in this dissertation will be denominated first, second and third register.

The modern flute, was invented by Theobald Boehm (1794-1881), a German instrument maker who had the merit of designing the mechanisms we use today. The difference between the traversiere are the truncated conical headjoint, the cylindrical body, the embouchure (large, shaped like a rectangle with rounded corners) and above all the keys (almost completely absent in the traversiere). In fact Boehm decided to invent a system of keys able to completely seal the opening holes of the flute minimizing the slightest distortion of the sound, particularly evident in the traversiere. Boehm also reconsidered the material of construction and in his final model he decided to choose silver for its great ability to provide brilliance, volume and sonorousness to the

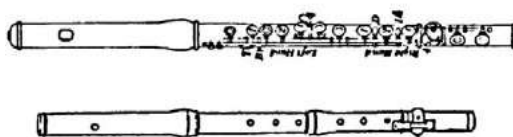
sound. Moreover, being a metal, it was much less sensitive to changes in temperature and it was not subject to cracks or splits, plus it did not need to be regularly oiled like the boxwood. The traversiere has a more sonorous low register, while the medium-high register is progressively thinning in terms of sound and richness of harmonics, a phenomenon that does not occur in the flute, having a cylindrical body. The result in the flute is that it has the different registers that are much more homogeneous compared to the traversiere.

Playing the same sonata with traversiere or flute requires the instrumentalist to make a change in terms of sound emission and fingering, as well as the type of attack. In the traversiere the slower the air emission is the more the instrument resonates, on the contrary in the modern flute the faster the air is and the more the instrument resonates.

Why do the *cross-fingering* of the traversiere produce a less brilliant sound? How come the modern flute has a louder, brighter, resonate sound and a wider sound range? It is necessary to explain the different physical responses of the two instruments.

The tone holes of woodwind instrument became larger, in relation to the bore, from the baroque to modern periods. The larger tone holes had several effects: they made the instruments louder and brighter in timbre and they allowed them to play the upper register. They also eliminated or reduced the use of *cross fingering* in all but the highest notes.

Figure 3. Graphical representation of flute (1) and traversiere (2).



The types of attacks are also different: in the traversiere they must be much more pronounced so that they are heard by a listener, while in the modern metal flute as soon as an attack is made, it is immediately heard. The type of traversiere called Palanca (from Carlo Palanca a fagottist and instrument maker who lived in Turin), unlike many instruments of the time, has a little oval hole as an embouchure, giving the instrument a warm sound. On the contrary the type of flute I discuss

about in this dissertation is a silver Burkart with a gold 9K embouchure, that produces a clear, clean, and much directed brilliant sound.

The embellishments, in particular the trills, require alternative fingering because the traversiere is an instrument without keys and mechanism. For example, at bar 18 of the first movement, the trill between F# and E# requires particular crossed fingering position to realize both the actual trill and its resolution. This is not the only difficult aspect of that passage, in fact even the intonation of the notes is particularly at risk. E# is very similar in pitch to the F# and playing a passage like this with such a sharp note can bother the listeners. For this reason it is far better to practice a lower pitch of the E# by slightly rotating the wrist of the left hand, in this way the performer can cover the embouchure and make the E# lower than the F#.



The same passage performed on the flute in my opinion is easier as fingering but more difficult to pitch. Since the original piece is designed for traversiere, the composer expects a certain type of intonation of the F sharp and E sharp semitones. To imitate the same result on the modern flute it is necessary to be inspired by the intonation of the traversiere and especially by the same type of attack. In this way the passage will be performed with the original intent of the composer. To achieve this, it is necessary to be extremely soft in the staccato, which is held and never pointed, and to bring the two semitones as close as possible, perhaps covering or uncovering the mouth hole.

At bar 32 we can see a crown written on note B in the traversiere part. That crown indicates a free *cadenza* at that precise point of the manuscript. At that time, composers often wrote cadences, passages in which musicians could delight the audience with their virtuosity and improvised phrases. In this case it is not a particularly long *cadenza*, but rather short and concise. It is in the ability of the performer to invent his own cadence that he matches with the musical taste of the time and with his musicality. Masters of traversiere, such as Marco Brolli, suggest to make a stop on the fourth grade of the tonality and to insert a descending scale from the B of the upper octave, perhaps using rhythmic variants and sweetening the descent with a nice resolving trill.

Often this type of cadences, faced with the modern flute, feel too exuberantly performed. This cadence must be simple and sober, that's why even with the flute it is better to be elegant and posed, dose the descending scales well and never let ourselves be carried away by the ease of the mechanics. For this reason I always suggest to perform a short but interesting cadence from the harmonic point of view in order to create tension but at the right point without ever overdoing it.

In the second movement of the sonata it is very important to hold the sixteenthths with a long staccato. In the traversiere the staccato are studied in a much more articulated way, in order to realize difficult technical passages like the one of bar 12 of the second movement.

The image displays a musical score for a piece titled "Allegretto". It consists of two systems of music, each with a treble clef staff and a bass clef staff. The first system is in the key of D major (one sharp) and common time. The second system is in the key of E major (two sharps) and common time. The notation includes various rhythmic values, including sixteenth notes, and dynamic markings such as accents and slurs. The piece is marked "Allegretto" at the beginning of the first system.

To make very high notes resonate on a carpet of low notes, it is fundamental to detach them in the correct way to make them resonate properly and all equal. Making the same passage with the flute is much easier because the mechanics help in the speed of movements. However, it is always appropriate to dose the sounds and never shoot the upper register too powerful, because in the traversiere were not. The homogeneity between the registers is greater in this case but you should never play too loud to not risk being out of style.

The most acute note of the whole sonata is the F of the third octave in bar 44 of the second movement (in the traversiere it is an extremely difficult note to be heard especially in a fast passage).

The image shows two systems of musical notation. The first system, starting at bar 43, consists of a treble staff with a complex rhythmic pattern of eighth and sixteenth notes, and a bass staff with a simpler, more rhythmic accompaniment. The second system, starting at bar 44, continues the treble staff's pattern with a prominent note marked '124' above it. The bass staff continues its accompaniment. A 'Basso' marking is present above the treble staff in the second system, and '12456' is written below the bass staff.

In the modern flute taking that F is quite easy, so you have to be careful in the crossbar to give yourself the right time to prepare the note, detaching it slightly from the others, taking it more calmly and do not miss it. It is necessary to make a targeted study on air pressure and finger position. Since the vault notes are in the low register of the instrument, and the air pressure must be slow in order not to break the sound, it is important to make a sudden change of pressure just to play that F. It is therefore recommended to study the passage slowly in order to identify the precise point of the air column where that F is able to emerge on the carpet of notes. Transferring this aspect into the flute means not indulging the ease of movement and giving the right musical importance to that note, lingering a little longer than necessary.

The most difficult aspect of the entire sonata is certainly the alternation between duine and triplet of the third movement. Some musicologists might argue that surely that duine is to be transformed into *inégales* notes, but it is important to reiterate that this is not an exceptional case. The overwhelming evidence is to be found in the bass line that in this case is in homorhythmia with the flute part, this suggests that the writing is deliberately written with the alternation between triplet and duine.

It is possible to play *inegal* even in the flute using a very sweet attack types like DAN -DA, DAN -DA, in order not to create a sound too marked and out of style.

Another technical aspect to be absolutely taken into account are *messa di voce*: every time the flute has to play long notes it must never think of playing them inexpressive. In the world of baroque music there are many ways to make even a very long and steady note, musically interesting and rich in nuances. This technique consists in creating a gradual crescendo by adding a very light vibrato towards the end of the long note to make it more dynamic and give a direction to the musical phrase. Using *messa di voce* with the traversiere is risky because the type of intonation varies a lot depending on the air pressure that is inserted in the instrument. We always have to listen carefully to the intonation, so we can work a lot with the left wrist and turn the instrument slightly in or out to adjust it and not play out of tune.

The *flattement* technique is also very useful in the case of long notes: Jacques Martin Hotteterre emphasizes that it was never noted in the manuscripts but at the time everyone knew when to use it and how in his *Principes de la flûte traversière* (1707). The performance of *flattement* involves a sort of trill on a sufficiently long sound whose auxiliary note is lower than the real note and the interval is achieved by tapping your finger on the edge of the first open hole, or by closing one or more distant holes altogether. An oscillation of the sound similar to vibrato is thus achieved, but in this case not through variations in the air pressure emitted by the performer, but through a digital technique. While in ordinary vibrato the pitch of the sound oscillates above and below the note, in *flattement* the actual note is repeatedly alternated with a slightly lower one, and consequently the frequency alteration occurs only downwards.

In the flute we can perform *flattement* only with an open keyboard. Just modulate slightly the sounds held by bringing one of the fingers of the right hand closer to the instrument (without closing the holes but only partially covering them). The *flattement* is a slight oscillation of the sound much more discreet and sober, so it is important not to overdo it with vibrato in baroque music. The *flattement* was so fast and imperceptible that it made the sound interesting, but it was noticed only by a really refined ear.

Conclusions

Performing this kind of repertoire with the modern flute means distorting it by force. The timbre and sound of the modern flute are completely different from the original instruments. What I recommend then is to try to maintain the strengths of the modern flute such as the brilliance and ease of the passages with fingers, but always referring to baroque musicality, trying to give the right importance to the right notes. Never exceed with the vibrato, never play the high notes too powerfully and decrease in dynamics following the writing. Use sweet and never dry attacks, think more about light dance movements than something static and immobile, to create dynamism and not to bore the audience.

Ultimately, a historically informed performance of this sonata can

completely change the character of the piece. Moreover, this kind of study makes this amateur music „speak“ and not only mechanically performed without soul or consistency. Surely playing the same sonata with the flute, respecting the rules of the music of the time and after reading Quantz's treatise, can help but this is not enough to achieve a convincing and solid performance. It is extremely important to have a critical approach to the score, focus on the aspects that make the difference and try to stand out in a highly competitive musical world, where everyone can certainly make their own valuable and essential contribution. It is not popular and famous music that makes a musician more capable than others: technical difficulties, questions, active and critical listening to ourselves make a musician valid and technically exceptional. It is not by copying from others that you create something new: it is the creative genius that emanates from knowledge and spontaneity that makes the performance unique and out of any monotonous repetition.

This article focuses on specific details that are not normally taken into account at all. Knowing certain technical details of the traversiere allows performers to transfer this knowledge to the modern flute as well, in order to characterize their performance and make it unique. Why is this important? Because since we do not have original recordings of the time, we can only rely on the treaties and the taste of the major interpreters. However, the major interpreters do not always have all the solutions in their pockets: it is necessary to develop an active and not just passive listening style. Knowing all these technical aspects and learning how to manage them both with the transverse and with the flute allows you to have a greater capacity for colour palette and create particular colours that otherwise you would not be aware of.

Many teachers and scholars are firmly convinced that it is a waste of time to study with ancient instruments: there is nothing more false. Studying the original ancient instruments allows the musician to enter into the role, like an actor, and highlight characteristics that are completely omitted by the majority of performers. In the study of the traversiere it is possible to acquire much more nuances of sound because there is not a large volume, so the performers concentrated more on different types of attacks and they moved the instrument much more

than the actual performers. It is fundamental to exploit all the colour shades of that our modern instrument is able to give us, despite the differences with its ancestor. When I play this sonata I always think about one thing: „*Do I want to surprise or remain anonymous?*“

REFERENCES:

- BOURKE, John, 1947. Frederick the Great as Music-Lover and Musician. *Music & Letters* [online]. vol. 28(1), pp. 63-77 [viewed 25/09/2020]. Jstor. eISSN 1477-4631. Available from: <http://www.jstor.org/stable/854712>.
- LOEWY, Andrea, 1990. Frederick the Great: Flutist and Composer. *College Music Symposium* [online]. vol. 30(2), pp. 117-125 [viewed 24/09/2020]. Jstor. e-ISSN 2334-203X. Available from: <http://www.jstor.org/stable/40374049>.
- MR 2301 – Frederick II, Sonata in B minor, Spitta n. 83.