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**Making the classical flute sound**

DLA thesis

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### **1. Preamble**

I am convinced that exhibiting utter humbleness towards '*the sound*' and the *musical instrument* is the only way for a musician to achieve the feeling of ecstasy in his or her audience. In my paper I strive to provide my readers with a complete picture of my musical-artistic-professional credo as well as of the instrument itself. Making musical sound is an everyday ritual in my life through which I am able to get closer and closer to both the instrument itself and the human soul. The thorough and complex process of developing such understanding is something that deeply interests me in all regards, which I would like to explain more in depth in this DLA paper.

### **2. The flute**

#### *2.1 Art-historical regards from the beginnings to the Middle Ages*

The flute, being one of the most ancient instruments, has undergone significant evolution and enhancements over the centuries or even millennia. Beside the artifacts preserved from the Ancient Cultures, we can also rely on written documents when analyzing the musical and instrumental developments of the period. In my research paper I intend to review those Ancient Cultures and territories, where the flute and music in general was treated with the utmost significance, which subsequently provided a basis for the development of the different instruments. First I examined Mesopotamia, where besides string instruments wind instruments were also treated with increasing importance within music. In terms of musical style, Mesopotamia and Palestine had tremendous influence on each other. At the banks of the Nile, Egypt showed significant developments in music compared to the above mentioned other territories as early as the Ancient Times. Concerning music, India was also a very important landmark. The material-based categorization of Ancient China's instruments was recorded and can be found in the book of Rituals. At last we shall examine the Ancient Europe, where music and musical instruments played just as important role in people's life as in the previously mentioned realms. In Ancient Greece all branches of art were considered invaluable. From an art-historical standpoint *Syrinx* was particularly important in the development of the flute, which has a story deriving from Greek mythology, as probably

known to most people. In Rome music evolved after the Ancient Times, more typically in the Middle Ages.

## *2.2 Recorder (end-blown flute) and transverse flute (side-blown flute)*

The conquest of the flute dates back to the 12th century, when the first flute appeared in Europe. During the 17th century there were two types of flutes enjoying equally great popularity. From the two flute types used in the 17th century, recorder was more widespread. Similarly to other instruments, it underwent numerous enhancements during its use. Its widespread success and popularity was a result of one main characteristic: it was very easy to generate sound with it without any particular technical knowledge, which made it ideal for amateur use. In line with the baroque musical taste, blockflöte received an increasing role as a solo instrument during the second part of the 17th century.

## *2.3 The spread of the transverse flute, the development of the flute*

Playing on a transverse flute was never an easy task, but during the 18th century a definite need arose for its flexible, bright and expressive sound. Thanks to the French theologian, *Marin Mersenne*, today we know precisely what flutes looked like back then. From the standpoint of enhancements, perfecting the intonation of the instrument was extremely important. Many improvements shall most likely be attributed to the *Hotteterre family* from Paris, though remarkable musicians were also typical in other countries, outside France. Johann Joachim Quantz contributed significantly to the development of the flute by his endless efforts to facilitate a finer tuning of the instrument. Still, it became obvious that another hole was inevitable to facilitate the production of the missing „C” sound. The task was carried out by a flutist from Leipzig; *Johann Georg Tromlitz*. And without doubt, the flute was perfected by *Theobald Böhm*'s work and contributions.

## *2.4 The structure of the flute, its acoustic and physical description and categorization*

A flute is an *aerophone* instrument; more precisely it belongs to the category of mouth-blown wind instruments. Of course, there are further categorizations which allow us to break down the different wind instrument types more closely. When playing the flute or any other wind instrument, the air begins a periodic vibration. Since flutes are mouth-blown aerophones, they are instruments which produce sound with the help of a nozzle working as an edge-sound source; concerning the production of the sound, this is one of the simplest instruments.

### **3. The sound**

#### *3.1 The sound as a physical phenomenon*

Basically, I would like to address sound as vibration in my paper; musicians consider complex vibrations to be more significant. The next important aspect of sound is its *movement*, after which I will talk about different wave types, too. Then I will explain the various characteristics of sound that are audible to the human ears. A somewhat more complex concept is *tone*, a psychoacoustic characteristic of sound, which leads us to the topic of *pitch*, which is necessary in particular when it comes to *musical sounds*. Musical sound is a complex sound phenomenon, and is overall identical to the concept of sounding.

#### *3.2 The classic flute sound*

In this sub-chapter I will provide a general overview of all concerns in connection with the topic of the classical flute sound, as I imagine it. A well-produced flute sound has certain unique criteria. Considering the acoustics is an essential aspect of sound production, but we shall not disregard its human aspects, which also contribute significantly to the uniqueness of a particular flute sound.

#### *3.3 Human aspects in flute sound production*

The purpose of sound production is to reduce or preferably eliminate the acoustic disharmony of the instrument. Just as any artists have, I also have my own unique sound ideal. A well-produced sound is mainly dependent on the following factors: the depth of inhaling the speed and volume of the exhausted air, the position and openness of the throat, the position of the tongue and lips, and the muscular system of the mouth. For a full understanding of all these factors, various anatomical aspects are to be taken into consideration.

#### *3.4 Balancing the different registers on a flute*

It is a well-known fact that making a sound on a flute is the easiest in the upper, third register. My idea is a so-called *pyramid* shape sound column. I believe that our final aim should be to produce a downward increasing sound in such way that allows us to keep both the sound tone and the content while increasing it on the instrument. The importance of the three-point stabilization (right hand, left hand and mouth) cannot be emphasized enough, whereas the angle of incidence shall also be mentioned. When examining the different registers

on the flute we have to be aware that the whole gamut cannot be played with the same physical attitude. Another equally important aspect is the channeling of the air. The tongue also plays an important role, as it is extremely important when, where and how it is positioned. Finally, we also need to pay attention to the opening of the larynx.

### *3.5 Musical pieces for flute from different eras – a performer's individual interpretation in light of the actual sound*

There are numerous performers playing musical pieces written for the flute at different times through history. In this paragraph I try to provide an overview of those outstanding pieces of flute literature that I have also played in my own interpretation in the past – bearing in mind the different aspects of sound. I have made a short comparative analysis, embracing different time periods in music history, of the performances of prestigious musicians from the past and those of contemporary artists on the one hand, and my own interpretations on the other.