

FACULTEIT Letteren en Wijsbegeerte

The simple system flute between 1790 and 1850, its performance practice and chamber music repertoire with pianoforte and / or strings

Proefschrift ingediend met het oog op het behalen van de graad Doctor in de Kunsten

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Brussel, 2016

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Preface

The present portfolio is a summary of the results of theoretical research that was done for my doctorate. Theoretical research was required in order to complete the primary object of my doctorate: artistic research. This included experimenting with sound, fingerings, musical language, time and different types of flutes during practicing and in rehearsals with other musicians. It also included consulting flute makers, flute collectors and musicians. The results of the artistic research can be heard in concerts, recordings and lecture performances.

Further results of the theoretical research can be found on my website http://anne-pustlauk.de/research-introduction/. It provides all research results on flute methods, repertoire and performance practice. The website is divided in following sections:

Instruments

• http://anne-pustlauk.de/instruments/ contains information on the key system of the simple system flute as well as historical comments on instruments and key systems.

Performance Practice

• http://anne-pustlauk.de/performance-practice/ contains a collection of the most important texts on performance practice in flute methods. They are sorted by the following keywords: Appoggiaturas, Articulation, Double Tonguing, Flute Methods, Gruppetto / Doppelschlag, Leading note, Ornaments, Sound, Tempo Rubato, Trills and Vibrato.

The simple system flute catalogue

- http://anne-pustlauk.de/wp-content/themes/vertue/fluit/ contains two databases
 - Database "Fingerings" contains at the moment 5621 fingerings for the simple system
 flute from flute methods between 1782 and 1891. Comments on the use of fingerings are
 added to the database if applicable. Information on methods can be found in this
 database as well: author, title, (approximate) year of publishing, publisher, place, number
 of keys on the flute(s) mentioned in the method.
 - Database "Repertoire" contains approximately 830 works that I have examined in the course of my research. It provides information on author, title, dedication, publisher, publishing place, (approximate) year of publishing, location of the work (library) and the content of the work such as instrumentation, tonality, movements, type of flute, distribution of parts, notes (evaluation). The last three items are based on my personal opinion.

Recordings

• http://anne-pustlauk.de/media-list/ contains several recordings which I have made during the research: *Grande Sonate pour Pianoforte et Flute* Op. 83 / 1 by Friedrich Kuhlau (recorded)

in January 2014), *Quatuor* Op. 17 by Peter Hänsel (recorded in November 2014), two versions of the *Adagio* Op. 3 by Christian Gottlieb Belcke (recorded in June 2015) and a transcription for solo flute of the *Chromatische Fantasie* by J.S.Bach made by Christian Gottlieb Belcke (recorded in October 2015). The last two recordings are part of two articles about Christian Gottlieb Belcke which were published in *Tibia* and *Flöte Aktuell* (Pustlauk 2015).

All databases are additionally made available to the jury as tables in a dropbox file including another table with the results of the research of instruments.

I would like to thank my promotors Dr. Peter Swinnen and Dr. Barthold Kuijken who advised me during my research. Thanks also to the team of the Brussels conservatory for their support. I am grateful to all the curators of the various museums and instrument collections who allowed me to deepen my knowledge of original instruments: Frank Bär – Germanisches Nationalmuseum Nürnberg, Géry Dumoulin – MIM Brussels, Mag. Barbara Hagen-Walther – Museum Carolino Augusteum Salzburg, Darcy Kuronen –Boston Museum of Fine Arts, Susan Marti and Tino Zagermann – Bernisches Historisches Museum Bern, Valentina Ricetti – Museo degli Strumenti Musicali Milano, Sabine Scheibner – Stadmuseum München, Kazuhiko Shima – Museum of Musical Instruments Hamamatsu, Adrian von Steiger – Burri Sammlung Bern, Bradley Strauchen-Scherer – Metropolitan Museum New York and Carolyn Ward-Bamford – Dayton Miller Collection Washington. I sincerely thank all the private collectors who shared their treasures with me: Masahiro Arita, Georges Barthel, Peter Bloom, Ueli Halder, Dr. Gunther Joppig, Mark Leone, Michael Lynn, Marten Root, Marlow Sigal, Peter Spohr and Peter Thalheimer. Thanks to all helpers and specialists Boaz Berney, Hiroko Huemer, Marika Oyama, René Pierre as well as the staff of libraries in Berlin (UdK and Staatsbibliothek), Brussels (KBR, KCB), Den Haag (NMI), Dresden (SLUB), Frankfurt (Senckenberg), London (British library), Milano (Conservatorio) and Vienna (ÖNB, GfM) who supplied me with hundreds of scores. A special thanks to Otto Armin who helped me translating my texts.

I am particularly grateful to the FWO who enabled me to spend an exceptional carefree period in which I could fully devote myself to my passion. As a result of my work, I am able to share my new found knowledge with colleagues, students and musical audiences worldwide.

Introduction

In the course of the last three centuries the flute has undergone significant changes. With regard to form, way of playing and design the renaissance flute and the baroque flute have almost nothing in common with the modern Boehm flute apart from the basic structure. In addition to the material, bore, size and form of the embouchure, size and number of tone holes and the key system have changed. Concerning playing technique, not only has the embouchure hole changed but also the articulation, body tension and fingerings were adapted to new designs and constantly changing musical compositional technique, style and taste. These adaptations were not one-sided. The technical demands of flutists influenced the design of the flute as well. As a result of this complete transformation of the flute no flutist with a classical education on a Boehm system flute will be able to play the transverse flute or the simple system flute just as a "pure" transverse flute player will not be capable of playing the simple system or Boehm system flute. In the course of the 20th century musicians have dealt more intensively with historical performance practice, mainly of the 18th century. Today numerous conservatories offer a curriculum called "Early Music". The term "Early Music" refers above all to baroque music, followed by renaissance music (An exception is the pianoforte which is treated as a separate instrument of the 19th century). Over the last years the historical performance practice of the 19th century has gained importance so that more and more musicians deal with this subject. The research, however, focusses mainly on string and keyboard instruments. Although helpful, this is not sufficient for wind instrument players since specific information about instruments is needed for a fundamental approach. Moreover, there has been done extensive research on the general development of musical style, composition technique, form, use of harmony etc. These aspects were not the main focus of my research. Being a performer in the first place, I tried to put myself in the position of a 19th century flutist, without being influenced by 21st century views and theories on music of past eras. For this reason I almost exclusively used primary sources, such as the instruments themselves, the methods written for them, treatises for other instruments or singing, newspaper and journal articles, concert reviews etc...

In this regard the flute is the best study subject of all wind instruments. One aspect is that it was one of the most popular wind instruments in the first half of the 19th century. Thanks to its popularity today we can fall back on numerous flute methods which were written and sold at the time. Instrument methods provide valuable information on the performance practice of a time failing aural documentation. Another aspect is that flutes are often preserved in their entirety. This does not apply for other wind instruments where reeds and mouth pieces are often lost. The research on the simple system flute is still in its infancy. There has already been done much research on the development of the instrument but there is much less information about the artistic aspects.

When learning the simple system flute or an instrument in general, students are confronted with a complex system which demands not only the **technical mastery** of the instrument (including many more aspects than just **practicing**) but the knowledge of **different types of flutes**, the **repertoire**

¹ see Hudson 1994, Brown 1999, Da Costa 2012

and the **performance practice** as well. Together with the **personal influence** on the interpretation these six items are the pillars of my Phd.

Pillar 1: The instrument – flute types

The term simple system flute (also keyed flute, Klappenflöte, flûte à clefs and wrongly Tromlitzflöte or Traversflöte) comprises all transverse flutes which, in addition to the D#-key, possess at least one additional key for the fingering of Bb, F or G#. Flutes with several keys such as the Quantz flute or one-key flutes with C#- or C-foot are not included.

Since the development of the simple system flute has already undergone fundamental research by several scholars, it is not relevant to this text (see, for example, the website by Rick Wilson http://www.oldflutes.com, Powell 2001, Giannini 1993 or Bigio 2011). One crucial aspect, however, is missing in most of these sources. In spite of its importance, the interaction of the development of the instrument and its performance practice is insufficiently investigated. In order to completely understand the development of the flute, we have to look at it from the point of view of the player. In the course of my research I have studied and (partially) measured approximately 400 simple system flutes, about 100 of which I was permitted to play. The research on the performance practice of different types of flutes was a learning process. It delivered valuable information, for instance in the use of keys, the different tone ideals (regional, national and international) as well as structural strengths and weaknesses of different flute types. Often inconspicuous instruments were more interesting than others. They did not excel in exclusivity or valuable materials but in their professional manageability, the ergonomic position of the keys and good intonation.

Research on the instruments

The instruments were examined with regard to the following aspects: 1) establishment of the flute maker or, if the mark was missing, an approximate classification of the place of origin, 2) establishment of the time of origin (often complicated since workshops produced instruments over decades, moreover, flutes are very seldom dated), 3) assessment of the general condition, 4) ascertainment of damages, 5) measurements of the embouchure hole, total length and acoustic length as well as 6) accessibility and handling of keys and, if the instrument was in playing condition, 7) determination of the pitch, 8) examination for characteristics of intonation and 9) tone. The last four items are of great interest for flutists, however, they are hardly mentioned in catalogues or other descriptions of the instruments. On the one hand they can only be evaluated subjectively, on the other hand, this examination can only be done by flutists who are capable of playing the simple system flute. For my research these last four items were the most important. Instruments are the only sound source that exist from the early 19th century. Since sound cannot be easily described in words they can never replace the sound itself. For this reason I played as many original flutes as possible. In this regard, private collectors are valuable contacts since their instruments are mostly in good condition. Moreover, they allow visitors to play the instruments. The database contains disproportionally many German instruments. Due to the fact that a great part

of the repertoire is German, German flutes were of great interest for this research.

Results

A general statement on the development or on the features of the flute cannot be made in view of the great diversity and because of regional differences. Since every flute is handmade, every instrument is unique. However, the construction of flutes built in larger workshops such as those of Boehm, Cahusac, Godfroy, Koch, Luvoni or Ziegler show certain similarities.²

It was often not possible to examine the tone colour, playing features or pitch because of the bad condition of instruments. The pitch is only an approximate result because it changes according to the player. Often flutes were not in good condition. The pitch could change if the pads closed better or if the flute is oiled. In the database this difference is taken into account. A possible tolerance of five to ten Hertz is included in the measurements.

Despite their differences flutes can mostly be attributed to a country or even a region. Especially French and English flutes are recognizable due to their particular design. One reason for that is the fact that flute making in France and England was concentrated in one city whereas Germany and Italy had several small cultural centers partially due to their political situation.

France

The earliest French simple system flute known today is, to my knowledge, an ivory flute made by Jean-Baptiste Prudent Thierrot.³ Its date of origin is estimated to 1785. I could not play or study any French flute from the following years. Tula Giannini (1993: 79, 83) mentions two simple system flutes from the period of 1795 to 1820 by Clair Godfroy aîné and Prudent Thierrot, but since these instruments are part of private collections, their location was not specified.

From 1821 the Godfroy workshop provided flutes for the Paris conservatoire. From this period numerous flutes can be found in collections. There are also several Tulou flutes. Jean-Louis Tulou, at this time the most famous French flutist, worked together with Jacques Nonon and later with Pierre Louis Gautrot. These flutes bear the mark of Tulou. During my research I was able to play several crystal glass flutes by Claude Laurent. They are the showpiece of every collection. If in good condition they sound very good. A huge disadvantage, however, is their weight and their fragility. Every time I played such an instrument I was happy to hand it back to its owner.



Illustration 1: A typical French flute by Godfroy ainé

French flutes are impressive because of their homogeneity. Most of the flute makers (Godfroy, Nonon / Tulou, Winnen, Bellissent, Laurent) worked in Paris or La Couture. They moved in the same circles (see Giannini 1993, Pierre 2016). This is not surprising since Paris was the musical center of France. French flutes are without exception of extraordinary technical beauty and

² Further information about flute makers see Waterhouse (1993)

³ In the private collection of Marlowe Sigal / Boston.

accurateness. The embouchure is mostly oval and relatively small compared to German or Viennese instruments. It is only with the spread of the Boehm system flute in the 1830s and 1840s that the embouchure got larger, probably in order to compete with the dynamic range of the Boehm flute. The instruments are very well balanced in tone. The French tone is clearly recognizable throughout the years. It is warm and round, the high register sounds better than the low register which is quite weak. Most flutes have a sharp F3. This could be explained by the distortion of the wood throughout the years, however, the same feature can be found on crystal glass flutes by Laurent. The E2 with D#-key is mostly too sharp but works well without it. The keys can be reached very well. The pitch of the playable flute is between 430 Hz and 443 Hz. There is one exception: a flute by Remy Genin whose pitch is approximately 448-455 Hz but whose tone is very bad (see database "Instruments"). Instruments from flute makers in Strasbourg such as those by Bühner & Keller, Dobner & Consort or Daniel Holtzapffel cannot be attributed to the typical French style. They differ both in design and in tone quality. One reason could be that Germany was much nearer than Paris. Holtzapffel developed a chromatic flute without keys which never caught on. Unfortunately I did not have the opportunity to play such an instrument.

England

The design of the English flute changed from a very elegant instrument with small embouchure and tone holes at the end of the 18th century (see flutes by Thomas Cahusac, Pietro Grassi Florio, Caleb Gedney and Richard Potter) to a completely different instrument with extremely large tone holes versus those of the 1820s (see flutes by Clementi workshop or Thomas Prowse). A reason for this change was the influence of the most popular flutist of his time, Charles Nicholson, who was praised for his extremely full flute sound.



Illustration 2: flutes by Gedney (1769) and Prowse (1816) (Boston, Museum of Fine Arts (MFA), Washington, Dayton Miller Collection in the Library of Congress (DCM)

His unique flute type requires a totally different approach. Since practicing this instrument would be extremely time-consuming, I decided to exclude later English flutes and their repertoire from my research. Moreover, English flutes have played rather a secondary role in my research for the simple reason that there is relatively little valuable chamber music repertoire for this instrument (see chapter "Repertoire").

In my database there are mostly early English flutes. One of the earliest flute known today is in the collection of the Museum of Fine Arts in Boston (MFA). This flute made by Caleb Gedney dates from 1769. I did not play that instrument on my visit in Boston because of conservational reasons. I could play only a few English flutes, mainly flutes by Cahusac, Potter and Florio around 1800. The tone is relatively small due to the small embouchure hole, but is is very beautiful, rather meant for a

Salon than for a big concert hall. The pitch was between 442 and 447 Hz.

Germany

The German flute landscape was varied because, unlike France and England, many German regions had one flute maker who influenced other flute makers around him. This can clearly be seen by the instrument makers Johann Gottlieb Freyer, Friedrich Gabriel August Kirst, Griesling & Schlott and Johann Wendelinus Weisse from Potsdam and Berlin or by Theobald Boehm and Rudolph Greve in Munich. The flutes often have the same sound quality and the same position of the keys (see below chapter "The keys").



Illustration 3: flutes by Freyer, Heinrich Grenser, Boehm, Johann Simon Stengel (DCM)

The embouchure holes are mostly oval. Only few embouchures holes are round (for instance flutes by Wilhelm Liebel, Kirst, Heinrich Grenser or Max Stiegler) or square with rounded edges just as on Viennese flutes. The latter can be found on flutes by makers from Southern Germany such as Munich, Stuttgart, Bayreuth but also in Mainz and Munster. The size of the embouchure holes varies from 9, 3 x 8, 55 mm (Johann George Tromlitz in Leipzig around 1800) to 12, 9 x 10, 1 mm (Leonhard Lintner in Augsburg, from the 1840s). Occasionally embouchure holes were enlarged later. One reason is the different sound concept. The volume of the tone enlarges with the size of the embouchure hole. Another reason could be a higher pitch since it rises with a bigger embouchure hole. The result of such an enlargement was a worsening of the sound quality and a worsening of the intonation because the undercutting of the embouchure had not been adapted and the whole concept of the instrument is changed.

The pitch rises in the course of the early 19th century. It ranges from approximately 415 Hz towards the end of the 18th century up to approximately 450 Hz after 1830. This was a general trend. Exactly how much the pitch changed in certain cities cannot be determined only by the flutes since it is not known for whom the flutes were meant and where the flutes were played. The tone colours of the flutes are very different, they range from bright and light to full and voluminous. The huge palette of tone colours does not only differ from place to place but also changes from one flute to another of the same maker (see for instance flutes by Liebel and Stengel). In addition to the material it is

also the embouchure hole that influences the tone. Ultimately good tone is a matter of personal taste.⁴

Today flute makers build only copies of German flutes from the Grenser workshop, Stephan Koch and Wilhelm Liebel. In view of the great variety of historical flute types this is unfortunate. Flutes by Boehm, Lintner, Johann Gottfried Martin or Wilhelm Hess, among others, would be very interesting as well. It is understandable why flute makers do not copy different instruments. Copying and building a simple system flute requires a lot of time and money. Another issue is the pitch which is seldom compatible with today's standards. Changing the pitch of a flute means changing the whole design. It is a challenge for flutists to motivate flute makers for this kind of work.

Austria

Most of the Austrian flutes that I could examine were built by the famous flute workshops of Stephan Koch (fl 1807- c 1866) and Johann Ziegler (fl 1821-c 1895). Over decades they were the leading flute makers in Austria. In the second half of the 19th century the term *Zieglerflöte* was generally used for the simple system flutes in order to distinguish them from Boehm system flutes.



Illustration 4: flutes by Koch and Tobias Uhlmann (DCM)

Vienna is the centre of Austrian flute manufacturing in the 19th century. I saw few instruments by flute makers other than the two workshops Koch and Ziegler; flutes by Franz Harrach, Augustin Rorarius, Carl Doke and Tobias Uhlmann. Flutes by Rorarius and Uhlmann are similar to the Ziegler-type. Harrach had been making flute years before Koch opened his workshop in 1807. The pewter plugs Harrach used reveal his familiarity with English flutes. In 1785 Potter patented pewter plugs in London. They replaced leather pads under the keys.



Illustration 5: pewter plug



Illustration 6: leather pad

Koch and Ziegler, too, used pewter plugs in the first years, first for all keys and later only for the low keys from C#. Pewter plugs, however, have one disadvantage: they clatter quite loudly because

⁴ See also http://anne-pustlauk.de/sound/

of the contact of the metal plugs with the metal seat. In his flute method of 1821 Nicholson complains about the noisy pewter plugs. He adds that the workshop Clementi & Co, with whom he cooperates, uses newly invented elastic plugs instead of the pewter plugs (1821: 21).⁵ In 1823 Ziegler states that he uses cork pads ("Pantoffelholz") for his new flutes instead of pewter plugs because of the foregoing phenomenon (1823: 1072). In the beginning Koch and Ziegler made flutes based on English models so Ziegler probably adopted this new idea by Clementi.

The Austrian / Viennese flute type has more keys and a unique shape of the embouchure which resembles an old television screen. Most of the flutes are very heavy because of all the keys and the metal tuned head joint. I have once used such a Viennese flute with a Bb-foot in a concert of the Requiem by Johannes Brahms. Towards the end of the concert I had to rest the instrument on the back of a chair because I was not able to hold it any longer.

The so called *Panaulon* (also *Panaylon*) has the longest foot joint of all flutes. It reaches to the low G.



Illustration 7: Panaulon by Ziegler? (DCM)

Koch invented the Panaulon in 1812. The initial idea was to have the same range as the violin.⁶ After several technical modifications (among others extending the range to A) the flute gained a certain popularity in Vienna and Italy. However, it did not spread outside of these countries. One important disadvantage of these flutes is that the lower keys did not close well and that the instrument was very heavy.

Today there are hardly any playable Viennese flutes. Most of the instruments have cracks because of the numerous holes, keys and the metal lined head joint. Koch flutes however, are very popular among flute collectors and I was able to play several restored instruments. In my experience flutes by Koch and Ziegler have a relatively full tone. Flutes by Ziegler have a somewhat rounder tone. The first octave sounds full, the third octave, however, is quite heavy. It does not have the same lightness and ease as French or German instruments but it does depend on the individual instrument. On many instruments the intonation is quite unbalanced. Thanks to all the keys this problem can be compensated for by using various alternative fingerings. The pitch is around 440 to 455 Hz resulting in a somewhat shrill sound especially on high pitched flutes. There are still quite a few Ziegler flutes available from the second half of the 19th century. However, because of their high pitch they can hardly be used in today's concerts.

Italy

During my research I could study mainly later Italian simple system flutes. Earlier flutes from the first decades of the 19th century were mostly one-key instruments. Most of the Italian flutes, that I

⁵ It is not clear what exactly Nicholson means by elastic plugs.

⁶ See Koch in Intelligenzblatt No. 1 of Wiener allgemeine musikalische Zeitung (WAMZ) 1819

saw, where built by Ubaldo Luvoni in Milan. The design of his instruments is based on Austrian flutes. They often look like good copies of flutes by Koch in Vienna. Other flute makers such Paolo Maino or Emilio Piana copied Austrian flute models as well. According to Francesco Carreras (Italian flute collector in Pisa who possesses the biggest collection of Italian flutes today) other flutists developed their own style. I did not yet have the possibility to visit Mr. Carreras. A visit to his collection would reveal more precise information on the development of the Italian flute. Since most of the Italian flutes in museums are in rather bad condition I could not play any of them.



Illustration 8: Flute by Piana (Leipzig, Grassi)



Illustration 9: Flute by Maino (DCM)

After the 1820s, flutes with A-foot were very popular. There is also a large repertoire for this flute type (for instance works by Ruggero Manna, Francesco Pizzi, Giulio Briccialdi, Giovanni Toja and Giovanni Daelli).

Belgium, The Netherlands, Denmark, Spain

The state of Belgium was founded in 1830 after France had annexed the region in 1794 and after it was awarded to the Netherlands at the Viennese congress in 1815. The flute makers in Malines, Brussels and Tournai have thus changed their nationality three times within a very short time. To simplify the complex situation I will call the region Belgium anyway. Thanks to Charles-Joseph Sax, the father of Adolphe Sax, flute making flourished in the first half of the 19th century in Belgium. Flutes of his large workshop are of elegant design and the proximity to Paris is noticeable, however, both flute types differ in tone quality. Sax' instruments have more volume but sound sharper as well. In addition to Sax there are several other flute makers such as Jean Arnold Antoine and Corneille Jean Joseph Tuerlinckx (Malines), Joseph Dupré (Tournai), Henri Le Brun (Brussels) or Benoit Antoine Steegmans (Malines), of whom only a few simple system flutes exist. Most of the Belgian flutes were made in the first decades of the 19th century. The pitch ranges from 415 to 442 Hz. The conservatoire in Brussels was the first to introduce the Boehm system flute (1841!).⁸ This could be a reason why there are less simples system flutes from that period on.

As mentioned above Koch himself copied English instruments in the beginning of his career. Interestingly the first English flute makers who added keys to the flute were of Italian origin (Florio and Tacet).

⁸ See Fétis 1866: 25



Illustration 10: Flute by Sax (Brussels, MIM)

I could only examine very few flutes from the Netherlands, Denmark and Spain. There is an interesting flute by Michael Duval in Maastricht that has a unique design (ill. 11).





Illustration 11: Duval key, app. 1800 (Brussels, MIM)

Niels Christensen Thorsen, Jacob Georg Larshof and Henning Andersen Skousboe were flute makers in Denmark. I was able to play an 11-key flute by Thorsen and another by Larshof but they were not in good condition so that I could not form an opinion about Danish flutes. Danish flutes are of great interest because Friedrich Kuhlau, who composed many important works for the flute, lived in Copenhagen. He was surrounded by the Danish flute sound, and many of his works were tried out and presented to the public by Danish flutists before they were sent to the publisher (Erichsen 2011: 205, 257, 340).

Spain is still a blind spot on the flute landscape. I know very little about the Spanish flute world in the 19th century. I could only find two flute methods of the late 19th century, both translations of methods by François Devienne, Louis Drouët, Anton Bernhard Fürstenau and Tulou). In 1825 an article on music life in Spain was published in the Harmonicon (1825: 130). The author states:

I was rather surprised to meet in this city [Madrid] with three very skilful *female* players on the *flute*; so skilful indeed, that one cannot hear their performance without pleasure. Yet to my taste, beautiful women were not created to be accomplished on an instrument so entirely masculine.

It is not known which instruments these female players have used. There are several Spanish flute makers in the first half of the 19th century as Joacquín de los Reyes, Francisco España, Francisco Bernareggi, Arcarons, Clemens Peichler and Llado, however, I could not examine any of their flutes. In the review *La Iberia Musical y Literaria* from 1843 different instrument methods are listed. For the flute there are only French methods. This could indicate that Spanish flute players played French models as well. According to Angel Juan Benito Cuesta the Tulou flute was taught at the conservatoire in Madrid until 1882. It would be helpful to do further research about Spanish

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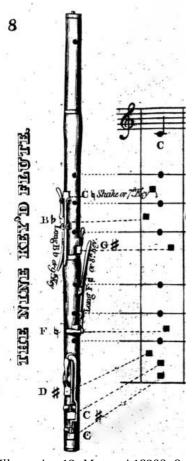
flutes in situ.

Summary instruments

As stated above it is not possible to make general conclusions about European simple system flutes in the first half of the 19th century. There are nevertheless tendencies and regional characteristics such as the English flute type with big holes and a big tone, French flute types with small holes and a smaller tone, Viennese instruments with many keys and a square embouchure or Italian instruments made after the Viennese model. This, however, is only partially true. Instrument making was influenced by strong personalities as Tulou, Nicholson, Fürstenau or Boehm, but they did not monopolize it. Flute makers made different models (see flutes by Stengel in Bayreuth or Sax in Brussels). The number of keys could differ as well as the form and position of the keys, the size of the embouchure and tone holes (only a precise measurement of the instruments would show if the bore and undercutting changed as well). Several flutists and flute builders moved during their career and brought their sound ideal or instruments to the new places (for instance Holtzapffel in Paris or Drouët in London).

Another interesting aspect is that it is often clearly noticeable if a flute maker was flutist himself (as Boehm) or if flute makers worked closely together with flutists (such as Drouët – Cornelius Ward, Nicholson – Clementi, Tulou – Nonon). These instruments are often of very good quality and their handling is particularly comfortable.

The keys



Keys have basically just one function: they enable fingers to close tone holes which are a) out of reach and / or b) too numerous. These additional holes have three basic functions. They 1) avoid cross-fingerings and as a result produce a bigger sound, 2) extend the range and 3) enable playing correct trills. All keys can be related to at least one of three functions. With the new holes further advantages evolved: they 4) corrected naturally out of tune notes such as F# and F, and, 5) increased the number of alternative fingerings.

Illustration 12: Monzani 1820?: 8

1) Avoiding cross-fingerings

Since the one-key flute is not equipped with 11 tone holes, some notes have to be played with so called cross-fingerings, which differ in tone from open fingerings. While in the early 18th century this difference in tone was described as the natural character of the flute it was more and more regarded as deficiency in the course of the following decades. This concerned the notes F, G# and Bb especially in the first octave (see Devienne 1794: 1, Antoine Hugot / Antoine Wunderlich 1804: 26, Tromlitz 1785: 106). By adding tone holes at the proper acoustic location, which resulted in adding keys, the acoustical problem was solved. At the same time, however, new problems evolved. These problems were solved in different ways as the following examples show.

Short F-key

- Problem:
 - o The ring finger of the right hand operates a tone hole and a key. Because of that in note passages as Eb/D# − F (F#) or Ab/G# − F it is necessary to glide on or off the short F-key. This does not work well with small keys or keys that are farther away because when

gliding from the key to the hole and vice versa the E will be unavoidably heard. Moreover, the resolution Eb-F-G of a G-F trill with a short F-key can only be done with a cross-fingering.

• Solutions:

- 1) By adding a long F-key, operated by the little finger of the left hand, the use of the key-fingerings in fast passages is facilitated. The father of the blind virtuoso Friedrich Dülon invented this key in 1783 (Dülon 1807: 180).
- 2) The short F-key is ergonomically adapted to the finger and its movement by shortening the distance to the tube and adapting the direction of the movement of the lever or by flattening the edges of the lever (see ill. 13).
- 3) The flute is constructed in such a way that the cross-fingerings stay stable. As a result
 it is possible to use it as alternative to the key-fingering, however, an old problem
 reappears: the F# without the key is relatively flat and the F-cross-fingering is sharp
 again.

Illustration 13: different short F-keys from left to right:

Italy early 19 th century	Le Brun / Bruxelles 1800-1820	Johann Heinrich Gottlieb Streitwolf / Göttingen 1820s-30s	Altorfer / München 1830-50	Fehr / Mainz 1820s
Duval / Amsterdam 1780-1815	Drouet / London 1810s	Ghizzoni / Italy ? early 19 th century	Tulou / Paris 1850s	Carl August Schaufler / Stuttgart 1820s?

Illustration 13 depicts different sizes and forms of the short F-key. It shows clearly that on earlier flutes it was quite difficult to glide from the hole to the key. Later flutes feature a larger key or keys with rounded edges which made rapid gliding possible.¹⁰

Bb-key

- Problem:
 - The trill A/Ab Bb is made by moving the Bb-key which is operated by the thumb of

¹⁰ See also: Pustlauk:2018

the left hand. By trilling with the thumb the position of the flute becomes unstable.

• Solution:

• Add a second Bb-lever which is operated by the index of the right hand.

G#-Key

Problem:

∘ In passages such as D/D#/Eb − F/F# − Ab/G# (both directions) either the F-cross-fingering, the F# without the key or the G#-cross-fingering has to be used because the little finger of the left hand operates the long F-key and the G#-key. It impossible to glide from the long F-key to the G#-key and vice versa.

Solution:

- 1) Add a second G#-key which is operated by the thumb of the left hand.
- 2) strong F- and G#-cross-fingerings.

2) Extend the range

Flutes with extended foot joints were already built in the early 18th century. With the rise of the simple system flute the C#- and C-foot were already common in the 18th century, mainly in England. As mentioned above, the first flutes with B-foot appeared in Austria in the end of the 18th century. From 1812 on Koch built flutes with G-foot and later with A-foot. Koch, however, was not the first one with this idea. Giovanni Battista Orazi, an Italian flute maker, described a flute with G-foot in his method of 1797. Today none of his flutes are known. Flutes with D-, C,- and B-foot were common until the late 19th century. The C#-foot was popular in England in the end of the 18th century and in southern Germany until the 1820s (see simple system flutes by Boehm and Greve). Longer foot joints have one important advantage: The number of alternative fingerings increase. Moreover, they improve the quality of the high notes as Fürstenau (1826: 10) describes in his first method:

Die am Fussstücke angegebene H-Klappe wäre auch noch leicht zu entbehren, trüge sie nicht zu einer besseren Höhe bei.

As early as in the 18th century flutists discovered the alternative fingerings (in German: "Applicaturen" or "Hilfsgriffe") which changed the tone colour without changing the embouchure (see chapter "Fingerings"). It is the great number and especially the spectrum of the alternative fingerings which distinguishes the simple system flute from the Boehm flute. They were one reason why the Boehm flute was not immediately accepted in certain regions.

3) Possibility of playing pure trills

Problem:

o On one-key flutes the trills B-C / B-C#, E-F / E-F#, D3-Eb3 / D3-E3 or G3-Ab3 / G3-A

¹¹ See for instance flute depicted in Majer 1732: 33 or Powell 2002: 81

sound the same (the trills on B and E form a whole tone, the trill on D3 and G3 form a half tone). They have to be played in the same way because of a lack of alternative fingerings.

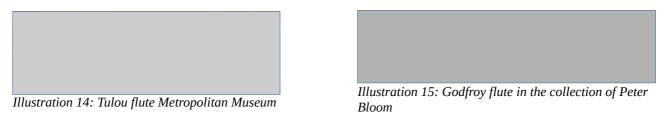
• Solution:

 Trill keys are added such as the C-trill key (first appeared on German flutes around 1800), the D3-E3 trill key (Eugène Walckiers states (1829: 1) that Godfroy adapted this key in 1827) or the high G-A key.

Special keys

Some flutes have key systems which are called after their inventors and which, aside from some exceptions, can only be found on their flutes (see the Tromlitz flute or Tulou's "flûte perfectionnée"). There are no specific reasons why these systems did not spread. The systems could have been too strange and consequently too uncomfortable for customers, or maybe the strong competition of other workshops precluded the success of these flutes.

There are flutes that have unique keys whose function is not always immediately evident (see ill. 14 and 15). Their function can only be discovered by playing the instrument (and even then it is not always clear). Since museums not always allow one to play their instruments, one can only speculate about it.



In the 19th century different opinions existed about the correlation between keys, holes and tone quality. Some argued that additional holes (and different lengths) would influence the tone of the flute in a negative way (Hugot / Wunderlich 1804: 2, 3, Fürstenau 1826: 10). Others argued that the number of keys did not influence the tone if the bore was adapted accordingly (Drouët 1830: 40). It would be necessary to study several instruments with the same bore and a different number of holes in order to establish their theory. I myself did not notice any big differences in this respect. In my experience the length of the foot joint had a much bigger influence on the tone.

Pillar 2: Mastery of the instrument – The correct style

Several methods speak about two kinds of style / performance: the correct style ("richtiger Vortrag", "Exécution correcte") and the fine style ("schöner Vortrag", "belle Exécution"). ¹² The correct style is the basis and prerequisite of the fine style. Correct style includes following issues: 1) a good tone, 2) the correct use of fingerings, 3) pure intonation, 4) good articulation, 5) correct respiration, 6) proper division of bars, 7) keeping the time without hurrying or slowing down, 8) a correct execution of noted dynamics (Fürstenau 1844: 89).

Most of the issues differ from today's practice and will be studied more closely in the following chapters.

The methods

I was able to locate 161 flute methods (see database "Methods"). Principally there are four categories of methods (sorted by popularity):

- re-editions of methods that are either copied exactly from the original or enlarged and shortened respectively (97)
- methods written by flutists who illustrate their way of playing (37)
- methods by theorists, flutists or non-flutists who published a summary of other methods (16)
- methods by anonymous authors who copied, probably for monetary reasons, other methods and sold them under a different name (11)

The second category provides the most information on performance practice. However, they always have to be studied in context to avoid false conclusions. Flutists often react on current fashion or defend their personal performance style against those of their competitors. In this context terms such as "never" or "moderately" could have different meanings.

The flute methods were 1) categorized in time and place and 2) examined for their relevance. After that 3) information was gathered and 4) the most important texts were published on my website. The research results were, if possible, 5) directly applied to my playing.

¹² See Spohr 1833: 195, Fürstenau 1844: 89, Jancourt 1847: 52

1) Tone

Qu'est-ce qu'un bon son sur la flûte? C'est le son qui se rapproche le plus de la voix humaine. (Tulou 1852: 2)

A good tone is the most important requirement for every good flute player, but what is a good tone? There are and have always been different opinions about this issue, however, in one point most authors agree: the tone should resemble the human voice. Singing has always been the ideal way of making music, but what is good singing? There is no simple answer to that question either since in the course of the centuries the singing technique and the way of interpreting vocal works have changed immensely.¹³

It is not easy to describe tone in words. In French methods of the early 19th century authors describe a good flute tone with adjectives such as "doux", "tendre", "moëlleux", "sons graves pleins et sonores", "sons aigus doux et nets" and later "son plein, mais agréablement timbré", "large", "rond et moëlleux". In England authors use adjectives such as "full", "round", "sonorious" and later "", "full", "clear", "steady and round", "firm", "brilliant" but also "soft and pleasing". In Germany the flute tone is described as "hell und singend", "gleich" and later as "voll", "schön", "biegsam" and "sanft", "schmelzend".

Basically every flutist has his own personal opinion about that subject. John Gunn (1790: 1) summarizes this dispute about the ideal tone in a very wise manner:

Two opinions seem chiefly to prevail on the method in which this instrument ought to be played: the first is, that an equal fullness of tone ought to be aimed at throughout; and this, when acquired is thought to be the greatest excellence of which the instrument is capable. The favourers of this opinion have on their side, the example and practice of almost every public performer. The other opinion is in direct opposition to this: those who adopt it being chiefly pupils of nature, and speak from their own conviction and feelings, without any great deference to authority, say that this kind of tone is contrary to the very nature of a Flute; the character of which, from its affinity to the female voice, is softness, grace, and tender expression, and can by no means be the bold and warlike expression of those full and loud tones, which seem to emulate the notes of the trumpet; they therefore contend that a soft tone is always to be preferred. I have often smiled at the conflict of these jarring opinions, when called upon to give mine, and have given little satisfaction to either party, by declaring that neither of them appeared to me to be right; that it was like asking a painter whether it were better for a picture to be all light, or all shadow.

His statement is still valid today. It is a fact that the individual flute tone of individual players could shape generations of flutists. Three flutists exerted a dominating influence in the first half of the 19th century: Charles Nicholson, Anton Bernhard Fürstenau and Jean-Louis Tulou. Not only did they epitomise the general taste, but also influenced the history of the development of the flute. Whereas Tulou and Fürstenau, both representatives of the rather moderate and soft flute tone, retarded the

¹³ See Toft 2013

rapid success of the Boehm flute, Nicholson, representative of the sonorous and full flute tone, (probably) encouraged the development of the Boehm system flute in the first place. Boehm writes in a letter to Broadwood in August 1871: "I did as well as any continental flutist could have done, in London, in 1831, but I could not match Nicholson in power of tone, wherefore I set to work to remodel my flute. Had I not heard him, probably the Boehm flute would never have been made". ¹⁴

A definite conclusion about the flute tone cannot be made, however, tendencies can be recognized. With the rise of Nicholson's success in the 1820s the English flutes differed more and more from the Continental flutes. Flutists from the Continent had a hard life in London since Nicholson's big and voluminous tone had become the epitome of the ideal flute tone as the following reviews of the *Quarterly musical Magazine and Review* (1821: 391, 1826: 146) show:

At the third and fifth concerts appeared M. Tulou, a flute player and idol of Paris, from whence he comes. His success, however, has not been so great in this country. Compared with Nicholson, his tone is thin, and his execution neat and delicate rather than commanding. M. Tulou is a man of lively sensibility, and though of great merit, has not (we fear) attained all he might have been led to hope, by the favouritism into which he had risen in the French metropolis.

Mr. Fürstenau, first flute at the Chapel Royal of Dresden, played a fantasia. His execution is brilliant, but his tone is thin; he falls infinitely short of Nicholson. We believe this quality, or rather defect of tone, appertains to the instruments now generally in use throughout Germany; it resembles the flageolet. Mr. F. has been heard at several other concerts, but this defective tone always operates as a drawback from his general ability.

Nevertheless, not everybody agreed with the majority as the following example in the same *Magazine* (1825: 5) shows.

"The soft complaining flute" takes either a wailing or a shrill and sprightly character as it is employed – but its true nature is soft, tender, and lugubrious. In such a disquisition as this we must not suffer ourselves to be led away by the improvements or the powers of an individual artist. Mr. Nicholson can make the flute speak the language of almost any passion.

It is not possible to understand the flute tone just by reading flute methods. Associating the words with the corresponding instruments can help. Many authors, for example Fürstenau and Antoine Bernard Tranquille Berbiguier, have given their opinions about instruments. Other flutists such as Tromlitz had their own workshops, others commercialized their own flute models such as Drouët, Nicholson and Tulou. In all cases the descriptions of tone fit quite well to the flutes.

Tone Exercises

Since Devienne, tone exercises are an inherent part of flute methods. The "Messa di Voce" or "Son Filé" appears in his method for the first time (see ill. 16). Later this is used by many authors as tone

¹⁴ See Boehm 1871 (1964): 8

exercise.

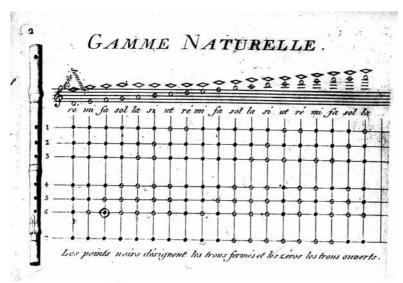


Illustration 16: Devienne 1794: 2

Nicholson (1821: 4) describes this basic exercise as follows:

... commencing very piano, and making a regular crescendo, until arriving at the fullest extent of the Tone; after which, strike the Note as firmly as possible, and gradually diminish the sound until it again becomes so very piano as to be reduced to a mere whisper.

However, achieving a good tone is just the beginning. After that alternative fingerings have to be adapted.

2) Fingerings

Généralement parlant les Professeurs de Flûte en France accusent les Flûte faites dans l'Etranger d'être fausses; c'est probablement parceque la manière de doigter des Pays ou ces Instrumens ont été fabriqués ne leur est pas connue. (Drouët 1827: 38)

The use of fingerings seems to be quite simple at first sight: you replace a cross-fingering by a key-fingering and you have good results immediately. This first step, however, is already problematic since one single finger has to operate a finger hole and a key as explained above. Moreover, different types of flutes require different fingerings as well. Whereas for instance a cross-fingering of an F-natural still works well on a French flute from around 1830 it can hardly be used on a German or English flute with big finger holes of the same period because of the poor sound. Experienced flutists knew the differences between the flute models and adapted their way of playing to the respective flute. Several authors of flute methods, among others Drouët and Nicholson, mention fingerings for different flute models (with small or big holes respectively) in their fingering charts.

Around 1800 the preference for the new key-fingerings becomes apparent. In fingering charts the key-fingerings of F/E#, Ab/G# and Bb/A# replace the cross-fingerings or are mentioned as preference (ill. 17).

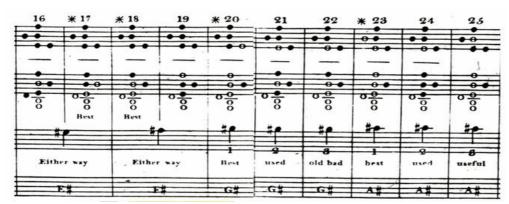


Illustration 17: Tebaldo Monzani 1801: 18/19

Key-fingerings, however, were not always accepted with such enthusiasm. Imagine a flutist who has used the one-key flute throughout his career and is suddenly confronted with more keys. He would probably prefer to play fast passages with familiar fingerings and use key-fingerings only for notes which need a certain colour. Devienne (1794: 1) describes this situation in his flute method:

Il ne s'en suit cependant pas de là que je veuille blâmer les petites Clefs que des recherches justes on fait ajouter à la Flûte ordinaire pour remedier aux Sons bouchés qui se trouvent dans le bas, tels que le SOL dièze ou LA bémol et le SI bémol ou La dièze elles sont d'une grande nécessité dans les morceaux lents et surtout quand les Notes ci dessus désignées, sont soutenues. Quoique je ne m'en serve point je les approuve, mais dans ces cas là seulement, car pour les traits, elles deviennent inutiles et ne servent qu'à ajouter à la difficulté, la manière la plus simple étant suivant moi la meilleure je ne puis trop recommander aux Ecoliers de la mettre le plus qu'ils le pourront en pratique.

Hugot and Wunderlich (1804: 26), contemporaries of Devienne, had a different opinion as they point out in their flute method. They praise the advantages of the small keys ("petites clefs") not only in the Adagio but in many other situations as well:

1°. Pour tous les morceaux, quand il se trouve un ou plusieurs bémols, ou dièzes à la clef. 2°. Pour la justesse de tous les demi-tons en général, et principalement pour ceux de l'octave en bas, tel que si bémol, ou le la dièze qui naturellement sont sourds et faux. 3°. Pour donner plus de force et de justesse au fa dièze ainsi qu'au fa bécaré. 4°. Pour égaliser les sons foibles [sic] et leur donner plus de force dans le grave. 5°. Pour toutes les octaves et sur-tout par demi-ton. 6°. Pour la facilité de beaucoup de traits qui seroient [sic] souvent très difficiles et sans aucun effet. 7°. Pour la justesse des trilles majeurs et mineurs, et enfin pour rendre parfaite et brillante l'exécution sur cet instrument.

The use of key-fingerings is not only a question of personal preference but also a question of dexterity. ¹⁵ Most authors agreed on standard fingerings: there is one fingering per note except for

¹⁵ More citations on the use of keys can be found on the website.

the C2 where two fingerings are used equally (OXX/OOO/o and OXO/XXX/o). If a note can be played with a key, such as Bb/A#, F/E# and G#/Ab, the key-fingering is preferable. Alternative fingerings are used for the following reasons: 1) for a technical simplification of connections of fingerings, 2) for a change of pitch, 3) for a better legato, and 4) for a change of tone colour depending on the character of the melody. While the technical simplification of connections of fingerings and the change of pitch belong to the correct style, the better legato and the change of tone colour are part of the fine style.

Many authors explain with the help of examples when to use which fingerings. Today these examples are an important document for the proper use of fingerings. I collected all the fingerings which I found in flute methods in my database "Fingerings". 1623 of 5561 fingerings were commented. The illustrations 17 to 19 show some examples.



Illustration 18: Monzani 1813: 47 the two first of 83 examples in total

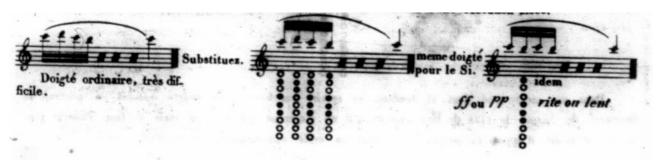


Illustration 19: Berbiguier 1838: 83



The interplay of key and fingering

In addition to flute methods, the various types of instruments make very clear how, in which situations and to which extent keys were used. The different ways of mounting the keys on the flute show the different methods of the use of fingerings. In this context it becomes apparent that there are definite regional differences.

In **England** of the second half of the 18th and beginning of the 19th century the keys are very small (see flutes by Cahusac, Gedney, Potter etc.). Fork fingerings still work very well. They can easily be used in fast passages. Because of their small size and the short lever the keys are rather uncomfortable for bigger hands (at that time the flute was a masculine instrument), however, they can be used easily for long notes. In the following decades the situation changed. Keys were used more frequently also because cross-fingerings did not work as well anymore (generally cross-fingerings do not work as well on flutes with bigger finger holes). The keys were ergonomically adapted in size and position.

In **France** the four- and later the five-key flute was the standard instrument until the late 1820s. Additional keys were not a prerequisite since cross-fingerings still worked very well. The handling of the keys is generally very good. There is one peculiarity however. On earlier flute the short F-key is mounted in such way that the hole is situated at the north-side of the flute (ill. 21).



Illustration 21: Hugot 1807: 11

The direction of the lever action is towards the palm of the hand. This direction is not very comfortable in the ergonomic sense. Later the hole is mounted on the south-side of the flute, the direction of the lever action goes together with the direction of the movement of the ring finger. It is thus more natural (ill. 22).



Illustration 22: the short F-key of an early (above) and later (below) flute by Dupré / Tournai

In **Vienna** and **Italy** flutists apparently preferred to use keys in every situation because the number of keys of these flutes was enormous. Many notes had double keys (C, Bb, G#, F, D#). As a result there was always an alternative in case that a finger was needed in order to cover a hole. Thanks to the great number of keys plus the lower keys Bb, A, G# and G, flutists had, as already mentioned above, a greater choice of alternative fingerings. Moreover, the high register sounded better – if all keys closed well. This was almost never the case. The following anecdote about the virtuoso Johann Sedlatzek and his Panaulon depicts the problem of the malfunctioning of keys very well:

It is said that on one occasion only, Sedlatzek succeeded in sounding the [lowest] *g*, and that he was so delighted at his unexpected success that he stood the flute up in a corner and saluted it with a profound obeisance! (Rockstro 1890: 304)

In **Germany** the regional differences of flute design can be illustrated by the position of the keys. One example: The levers of keys at flutes from Potsdam and Berlin (Freyer, Kirst etc.) around 1800-1820 are mounted very far off the tube. Because of this long distance the finger needs a relatively long time to reach it. Moreover, the position of the short F-key is very uncomfortable – very far from the hole of the right ring finger – therefor it is scarcely possible to use the key rapidly. Is this a sign that cross-fingerings were used for fast passages? A completely different situation is presented in Dresden at the same time. Here the keys of the flutes by the famous workshop of Carl Augustin and later Heinrich Grenser are ergonomically placed so well that they can be used without strain. Simple system flutes by Theobald Boehm from the 1820s are exceptionally comfortable to play. It is very clear that Boehm was a flutist who knew exactly were to position the keys in order to use them with ease.

Another example for the interplay of key-design and fingerings can be found on flutes by Drouët. From 1815 to 1819 he produced flutes in London together with flute maker Cornelius Ward. Their flutes seem to have enjoyed such a great popularity that they were imitated quite often. One characteristic of the imitations was a different length and placement of the C-key. Drouët is one of just three authors (besides Berbiguier and Walckiers) who use a specific fingering for the A3 (OoXX|XXO). For this fingering the right index has to close a hole and, at the same time, open the C-key. This works only if the C-key is long enough and bent to the direction of the index so that the joint of the index can reach the key. The C-key of real Drouët flutes possess a long and bent C-key

while the C-key of imitations is almost always too short and straight.



Illustration 23: Drouët flute – imitation (DCM)



Illustration 24: Drouët flute – original (Tübingen collection Klangkörper)

3) Intonation

It will be also necessary to augment any note whatsoever when it is a sensible note. We know that a sensible note is the third of the dominant. (Drouët 1830: 17)

Every musician should master perfect intonation, but what exactly is perfect intonation? The rule of a low major third, a pure fourth, fifth and octave is still valid in the 19th century. However, towards the end of the 18th century authors of flute methods do not differ any more between sharps and flats. In France three different fingering charts are mainly depicted ("Gamme naturale, Gamme Bémolisée, Gamme Diézée"), although the same fingerings are used for flats and sharps without mentioning an alteration of the pitch with the embouchure. At the end of the 18th century however, there are first signs of a shifting of the pitch of the leading note. One early example in **German** sources concerning the flute comes from the second book of Tromlitz which dates from 1800. Here he describes "durchgehende" or "zufällige" notes that are not part of the harmony. These notes should be played higher (1800: 51, 56, 76).



Illustration 25: Tromlitz 1800: 55 "Das darauffolgende ais im vierten Tackte, kann, da es kein wesentlicher, sondern ein zufälliger Ton ist, ohne Hinzuthun des vierten Fingers, sowohl mit der langen als kurzen b Klappe genommen werden."



Illustration 26: Tromlitz 1800: 76 "Da das dis im dreyzehnten [hier im dritten] *Tackte kein wesentlicher, sondern nur ein durchgehender Ton ist, so kann man ihn mit der es Klappe* [anstatt mit der dis] *nehmen."*

Even earlier sources such as *Bemerkungen über die Flöte* by Justus Johannes Heinrich Ribock and an article by August Eberhard Müller in the AMZ mention high leading notes as well. In his comment about a high fingerings of B2 Ribock (1782: 20) states:

Man wird sich erinnern, daß ein guter geschmackvoller Sänger in solchen Passagien [C3-B2-C3] allemahl den kleinern Halbenton nimmt, wenn gleich die Vorzeichen den grössern zu verlangen scheinen sollte.

Müller (AMZ 1798: 196) writes:

Bekanntlich ist das erste und zweyte Fis auf jeder Flöte, bald mehr, bald weniger – zu tief. Um diesem Uebelstande abzuhelfen, greifen die meisten Flötenspieler diesen Ton, besonders wenn sie ihn in g dur als grosse Septime gebrauchen, so, dass sie nur den Zeigefinger der rechten Hand aufheben, und alle übrigens Finger liegen lassen. Es ist wahr, das fis wird dadurch reiner: aber im Verhältnis mit den anderen Tönen zu schwach. Hier ist also die f Klappe mit Nutzen zu gebrauchen.

Later only scattered references can be found in German flute methods (Müller 1815: 6, Fürstenau 1844: 20).

In **France**, on the other hand, from 1818 most flute methods provide additional fingering charts for leading notes. Berbiguier (1818: 210) is the first French flutist who describes leading notes:

Un trait quelqu'il soit ne doit jamais commencer par une note sensible altérée, par la raison qu'on serait obligé d'attaquer cette note avec un coup de langue, ce qui doit être expressément défendu pour éviter de jouer faux. Ce semi-ton altéré, doit toujours être précédé par un intervalle d'un degré au-dessus, comme on le verra dans les exemples ciaprès. Le coulé est de rigueur. On évitera de se servir de ce doigté particulier dans toute autre gammes, que dans celles par degrés conjoints, tant en montant qu'en descendant. Il est aussi expressément défendu de s'en servir dans les sauts de tierce, quarte quinte, etc. etc. etc. parcequ'on ne saurait le faire sans altérer la justesse.

L'avantage de ce doigté se fait sentir principalement dans le piano et dans la douceur. Il serait inutile, pour ne pas dire vicieux, de l'employer dans les forté, où l'on a des genres de traits, où non seulement ce doigté est essentiel pour la justesse, mais il l'est encore pour la facilité. ... (Na. 2a) Cette altération des Notes sensibles n'est appréciable que dans les deux octaves supérieures; encore y a-t-il quelques Sons qui ne sont pas susceptibles de ce volume de souffle; ou, en tournant l'embouchure en dedans pour baisser le Son, et la tournant en dehors pour le hausser. Tels sont l'Ut # et le Ré # de la 2e [read: 3me] octave, l'Ut # naturellement un peu plus haut est aisé à altérer.

Drouët (1827), Walckiers (1829) and Tulou (1852) follow Berbiguer and add fingering charts for their part. In some re-editions of Devienne's method fingering charts can be found as well. The tradition of playing high leading notes must have continued until far into the 19th century. The flute method by Joseph-Henri Altès (1880 ii: 119-135) contains a chapter with fingering charts and exercises for high leading notes.

In **England** Charles Weiss (1824: 1) was probably the first one who mentions high leading notes:

But little ear for Music is necessary to perceive that F# taken as a sensible Note of the Key of G, is necessarily higher than the same F# taken as the third degree of the Key of D Major. This difference exists in all the Modes; and although it is trifling, yet it is necessary to conform to it as much as possible; otherwise certain Notes become equivocal, and one is considered as playing out of tune. — The question, then, is to find out for the Flute, a fingering, varying in conformity with the nature of the Instrument. This has been done, and it may be laid down as a general and indispensable rule, not to play in all the Modes with an exclusive fingering; and it is necessary to know which is adapted to alter any particular Note.

In 1830 Thomas Lindsay publishes his flute method. In the preface he states that he has consulted several flute methods, mainly French and English methods. His chapter on leading notes and the use of augmented fingerings is mainly based on Drouët's text with few additions. Lindsay (1830: 101) frames nine rules on the use of augmented fingerings:

1st. — The advantage of the augmented fingerings will be principally felt in the *Piano* and *Dolce*. It would be injudicious to introduce them in the *Forte*, where it is necessary to employ the full vibration of the instrument. 2nd. — Augmented fingerings are only applicable to slurred, or *Legato* passages. 3rd. — No passage, or division, should therefore be begun with an augmented note; because the first note of every passage requires a stroke of the tongue. Nor ought any note, which demands a powerful accent, to be produced by an augmented fingering. 4th. — Augmented fingerings should not be applied to the notes of the lower octave, which they would render too sharp; and which, moreover, are so feeble, as to be on that account, also, ineligible. 5th. — Any note whatever ought to be augmented, when placed a semitone below, between two integral notes of a single chord. 6th. — The performer is expected to augment the *leading* or sensible-note, when it passes to, or resolves upon the Tonic. Harmonists describe the sensible-note as being the third of the Dominant, — but see the note at page 42. 7th. — An augmented note which is proper in the ascending scale of one key, would not be so on the scale of another: thus, the augmented fingering for F#, although properly used on that note, when it is the sensible-note of the key of G, would be false if introduced in the scale of D, A, or E. 8th. — They are also expressly forbid in all passages proceeding by regular intervals of the chord, such as the 3rd, 4th, 5th, &c. because, if augmented, the intervals would be heard out of tune. 9th. — Nor should they be employed when playing in thirds, in sixth, in octaves, or in unison, with the Piano-Forte, or with any other instrument, which dies not admit of the notes being correspondingly altered during performance.

The pitch of the leading notes can turn out differently. While some fingerings hardly change the pitch others are extremely high. It is nearly impossible to compensate the differences in fast passages.

Comments on high leading notes can also be found in several other wind instrument methods as in the clarinet method of Iwan Müller (1826: 10) or the horn method of Frédéric Duvernoy (1802: 24).

4) Articulation

Bey genauer Untersuchung wird man bemerken, daß die Zunge durch ihre Bewegung

bey Hervorbringung der Töne, eine Art von Sylben, und nach deren Zusammensetzung, Wörter, und endlich eine Sprache bildet die sich nach gehöriger Einrichtung überall anwenden lässt. (Fröhlich 1811: 31)

As in the 18th century, the variation of articulation played an important role in the 19th century. The different grades of the single tongue, which are described by Jean-Jacques Hotteterre and Johann Joachim Quantz with syllables as "tu, ru" and "ti, di" or "ri" respectively where then augmented by new syllables such as "ta, te, teu, reu, le" or "ha".

Single tonguing

Germany

Phonetic pronunciation of German vowels: ta, da, ra, ha [a], te [ə], ti, di, di-ti-ri [i], tö [ø], tü, dü [y]

Author	Position of the tongue			
Tromlitz 1791	- "Die Spitze der Zungen oben hinter die Zähne an den Gaumen"			
Müller 1815	- "so nahe an die Lippen, dass der Luft dadurch der Ausgang versperrt, und ihr Ausströmen nur durch das schnelle Zurückziehen der Zunge möglich wird"			
Fürstenau 1826	 - "so nahe an die Lippen, dass der Luft dadurch der Ausgang versperrt, und ihr Ausströmen nur durch das schnelle Zurückziehen der Zunge möglich wird" / - Ti: "die Zunge muss bei deren Aussprechung am Gaumen, gleich hinter der oberen Reihe der Zähne, leicht anschlagen." 			
Soussmann 1843	- "für ein sehr scharfes Staccato (Sprünge) halte man die Zunge spitz zwischen den Zähnen an den Lippen, und man ziehe sie schnell aber stets spitz gehalten, wieder zurück"			
Kummer 1843	- "Die Zunge zur Hemmung der Luft an die Lippen bringen und schnell zurückziehen"			
Fürstenau 1844	- "am Gaumen, gleich hinter der oberen Reihe der Zähne"			
	Articulation	Strokes	Dots	Dots under slur
Tromlitz 1791	ta, da, ra	ta	tat	ra
Müller 1815	ta, da	half of the value of the note	half of the value of the note	with breath
Bayr 1823	ti, di, di-ti-ri	-	ti, harter Schlag, Stoß	di, weich
Fürstenau 1826	ti	kurz abgestossen	kurz abgestossen	di, Portamento di voce mit besonders zarten aber doch hervorstechendem Drucke
Fahrbach 1835	te, de	-	te or de, staccato	-
Soussmann 1843	tü, dü, tara	-	kurz abgestossen	getragen
Kummer 1843	te, tö, tü, ti	-	-	zuweilen nur durch Hauch angegeben / weniger abgestoßen (¾ des Notenwertes)
Fürstenau 1844	tü	-	staccato	mezzo staccato, sanft aneinander anschmiegend

The spirit of Quantz is still present in the middle of the 19th century. His description of articulations such as "ti-ri", for instance, can still be found in methods by Heinrich Soussmann (1843). Tromlitz, who is rather known for his critical mind, "improved" Quantz' technique of articulation. Tromlitz suggests to better use the vowel "a" instead of "i". He is also of different opinion what concerns the use of certain articulations (more about that next chapter "Articulation").

Müller (1815 Suppl. 1: 1) states about articulation:

Es ist schon oben bemerkt worden, dass jede einzelne Note, wenn sie nicht gebunden oder gezogen vorgetragen werden soll, durch eine Zungenbewegung, den Zungenstoss genannt, angegeben werden muss. Soll nun dieses Verfahren mit Gleichheit, und so, dass der Ton dabey voll und hell bleibt, statt finden: so muss in dem Augenblick, wo die Zunge von den Lippen rasch zurückgezogen wird, die Sylbe ta oder da, jedoch ohne die Stellung der Lippen zu verändern, ausgesprochen werden.

Fürstenau on the other hand, who in his first method copied all texts by Müller, relates to Quantz. In contrast to Müller he articulates the notes by "ti" or "di" "am Gaumen, gleich hinter der obern Reihe der Zähne" (Fürstenau 1826:20). He also recommends to practice the single tongue very well in order to imitate the different bow-strikes of the string instruments. Caspar Kummer (1843: VI) describes the same articulation as Müller, but leaves the choice of the vowel to the student himself:

Aber es muss jeder Ton mit dem einfachen Zungenstosse (Zungenbewegung): ta oder auch tö, tü, ti angegeben werden; nur die aneinander gebunden Töne machen eine Ausnahme davon, sowie diejenigen, welche mit einem Hauche, ohne Zungenbewegung, hervorgebracht werden, weil die sehr leise und zart beginnen sollen. Den nötigen Zungenstoss macht man aber, indem die Zunge zur Hemmung der Luft an die Lippen gebracht ist und schnell zurückgezogen wird, als wollte sie die Sylbe ta aussprechen.

Soussmann does not mention vowels at all. He gives three short examples of slurred, shortly articulated (with dots) and sustained notes (with dots under a slur). Later on he added some music examples. Georg Bayr and Joseph Fahrbach, both Austrian authors, mention this subject very shortly as well. Even though they hardly write anything about it, their opinion becomes clear in their musical examples.

A noticeable number of authors recommend that the pupil put the tongue at the lips. Today this kind of articulation is seldom used in Germany except for practice. Since Müller, Fürstenau and Kummer mention this kind of articulation in the beginning of their methods, it could have been used primarily for beginners who had to find the right embouchure. Later in his first method Fürstenau stated that the tongue should be placed at the palate in order to articulate the syllable "Ti" whereas Müller does not mention it.

France
Phonetic pronunciation of French vowels: te, le [ə], teu, deu, reu [ø], tu [y], tou [u]

Author	Position of the Tongue			
Devienne 1794	-			
Hugot 1804	 "Pour les sons soutenus et pour les traits en simples croches: L'extrêmité de la langue étant légèrement portée vers les lèvres doit être retirée () toutes les fois qu'on aura respiré" "Pour les traits de vitesse, pour ceux marqués deux notes coulées et deux détachées et pour ceux totalement détachés: en portant la langue légèrement au palais au dessus des dents supérieurs et en la retirant" 			
Berbiguier 1818	 "Derrière les dents touchant légèrement au palais" "Tu très séchement: avancer la langue sans inconvénient sur le bord des lèvres, pas exemple, dans les noires ou croches détachés, dans un rhythme lent (voilà le seul cas)" 			
Drouët 1827	-			
Walckiers 1829	- "Contre les o	dents et à l'ouverture d	les lèvres"	
Tulou 1852	- "tu" - "sur le bord des lèvres simple" - "du" – "au palais un peu au-dessous"			
	Articulation	Strokes	Dots	Dots under slur
Devienne 1794	tu, <u>not</u> te or ta	détaché staccato	-	-
Hugot 1804	tu, du	tu, détacheé / coupé du for past passages	-	du, plus de légèreté
Berbiguier 1818	tu, du	très séchement	tu, détaché, du, semiquavers staccato	du, louré
Drouët 1827	teu, tu, te, tou, tu	teu	deu, moins sec	deu, "avec beaucoup de douceur"
Walckiers 1829	te	tet, te, brève, énergique, staccato	de, piqué, détaché adouci	le, louré
Berbiguier 1838	tu, teu, deu	-	tu, détaché, sec	deu, "soutenue et louré"
Tulou 1852	tu	-	tu, staccato?	du, louré

The different positions of the tongue is remarkable. All authors place the tongue at the teeth or lips in order to articulate slow and accentuated notes. For faster passages the tongue is put slightly behind the teeth against the palate (except in Walckier's method). The transition from the stroke (') to the dot (.) is an interesting feature. The early flute methods use strokes exclusively. From 1818 to 1828 both articulation marks appear in methods. The stroke is used for a stronger articulation, the dot is used for a soft articulation. From 1838 on strokes are not used anymore. Dots under a slurs are always articulated softly. In French methods the varied use of articulated and slurred notes is also very important. In every method pages are filled with music examples for the proper use of different kinds of articulation.

England

Phonetic pronunciation of English vowels: te, de [e], tee, dee [i:], too, doo, roo, tu [u:]

Author	Position of the tongue				
Arnold 1787	- "Tip of the tongue between the lips, and withdrawing it with a smartish stroke of the breath"				
Gunn 1793	- "Against the	- "Against the palate"			
Keith 1816	- "Fast passag	- "Against the lips" - "Fast passages and Mezzo Staccato: Doo, tongue should be carried to the extremity of the palate above the Teeth lightly"			
Nicholson 1816	-				
Bown 1825	- between the	lips			
Lindsay 1828	- "Smartly struck against the upper gum near the teeth" - "Some self-taught amateurs suffer the tongue to protrude between the teeth, and articulate by striking the inner part of the lips; but very little reflection is required to perceive that this method must necessarily be equally fatal to clear tone and distinct articulation"				
Dressler 1828	- "Point of the	tongue above the up	oper teeth"		
Weiss 1829	 - "Against the lips, keep lips well closed, but great care must be taken to prevent a disagreeable whistling as well as meagreness in Tone" - "Double Tongueing: tongue against the roof of the mouth" 				
Nicholson 1836	- "Against the	roof of the mouth no	ear the gum, do not touch th	e teeth"	
	Articulation	Strokes	Dots	Dots under slur	
Arnold 1787	tu, ur [sic]	staccato, reverse of slur	-	-	
Gunn 1793	te tee, de dee	ted-dy, Staccato	-	-	
Wragg 1806	too	staccato	staccato	-	
Keith 1816	too, doo	Too quavers Doo semiquavers Staccato	doo, mezzo staccato, note a little more distinct than legato	doo, mezzo staccato, note a little more distinct than legato	
Nicholson 1816	too, tee	-	longer than half of their value	(strokes under the slur - double tonguing)	
Bown 1825			same as dots under a slur	Detached but not struck so strong as staccato notes	
Lindsay 1828	too	smartly staccatoed	distinctly tipped	(strokes under the slur - double tonguing)	
Dressler 1828	too, doo, roo	-	too, half of their value	doo	
Weiss 1829	tu, du	tu, staccato	staccato	du	
Drouët 1830	teu, deu	teu	deu	deu, with great deal of gentleness	
Nicholson 1836	too	-	-	legato style (strokes under slur: double tonguing)	

English authors have different opinions about the right position of the tongue. The majority place the tongue against the palate, others place the tongue against the lips. There is a slight difference between the French and German authors. Most of the English authors who prefer the second method are not flutists. Samuel Arnold was a composer and organist, William Robert Keith was an organist

as well. It is quite possible that they copied passages from other flute methods. Keith, for instance, uses the same articulation and position of the tongue as Hugot / Wunderlich. Weiss describes this position as well. The vowel "oo" is used by the majority of the English authors with one exception: Gunn prefers "ee". His reference to Quantz could be an explanation. Unlike his colleagues who use "tootle" for the double tongue, Gunn uses "diddle" just as Quantz does. Gunn, moreover, writes about a new articulation that he said to have stolen from a foreign amateur from the Continent: the staccato "teddy". According to Gunn this articulation derives directly from the articulation of dotted notes "ti, ti-ri" by Quantz. Gunn also included the ornamented Adagio of Quantz at the end of his method. Obviously Gunn must have known the *Versuch* of Quantz.

The articulation of the dotted notes can be found in the method of Dressler as well. He uses the syllables "dootoo rootoo" (1827: 52). Arnold uses the peculiar articulation "ur". According to him it is produced "by an aspirative forcing of the breath through the aperture of the lip without the assistance of the tongue". He probably meant slurred notes. There is no music example for the use of "ur". Arnold states that it can only be learned with the help of a teacher. His description of the syllable "tu" is strange as well: "The Staccato is marked with short perpendicular strokes over the notes in giving them a smart articulate effect, detaching each from the other, with the tongue and the breath" (1787: 23). It would be extremely exhausting to separate every note with a breath.

Dots under a slur indicate the softest articulation. Nicholson (and later Lindsay) use this notation (here with strokes instead of dots) for specifying double tonguing.

In the chapter about articulation in his method of 1836, Nicholson (1836: 46) mentions an interesting aspect which I noticed in my studies of original instruments and which puzzled me for quite a while:

There is also an articulation of the fingers; these should be lifted and not drawn off the flute: the performances of those persons who have accustomed themselves to the latter mode are languid and unsatisfactory to the ear. It is easy to tell by the appearance of the flute (if it has been long in use), if this is the way the fingers are removed from the instrument, as the holes become quite round at the edges. The flute of a friend of mine, an old professor, was so much rubbed down, that it became quite out of tune; and from its appearance I could scarcely imagine it was possible that the fingers could have had such an effect on so hard a substance as cocoa-wood: but such was the fact. The fingers should come as freely from the holes as the keys do.

In the early 19th century the term "staccato" has different meanings. On the one hand it describes the opposite of "legato" (Arnold 1787, Gunn 1793, Devienne 1794, Berbiguier 1818, Walckiers 1829, Fahrbach 1835, Kummer 1843, Soussmann 1843, Weiss 1829, Keith 1816, Nicholson 1821, Bown 1825, Fürstenau 1844), it can thus be related to the "non-legato". On the other hand the term was used for shorter notes (Wragg 1793, Gunn 1793, Dressler 1828, Müller 1815, Fürstenau 1826, Alexander 1830, Fürstenau 1844, Tulou 1852). In music examples a staccato note shortens the note to half of its value. Some authors, however, disagree with that point. Nicholson writes that staccato notes must keep their proper length. Other terms of staccato are: "short" (Dressler 1828: 8), "kurzes

Abstossen oder Absetzen" (Müller 1815 Suppl.: 3), "besonders scharf und elastisch" (Fürstenau 1844: 39), "sec" (Tulou 1852: 8), "distinctly, with spirit" (Wragg 1793: 12), and "short and distinct" (Weiss 1824: 89). The term "non-legato" does not appear in any of the flute methods.

Double tonguing

Double tonguing is a fairly controversial subject among flutists. ¹⁶ It often depended on the personal taste of individual flutists.

The double tongue consists basically of an alternate movement of two different areas of the tongue in order to prevent a rapid exhaustion¹⁷: the tip of the tongue ("ta") for the first syllable and the side ("t'll") or the backside ("ke") for the second syllable. The double tongue can be executed in two different ways: by "tootle" or "dougue". Both sorts of double tongue could be used with different vowels and consonants. One exception is the double tonguing by Drouët. It does not correspond to the former principal since it only alternates between a hard ("deu") and soft ("reu") syllable executed by the front of the tongue.

The following table illustrates the appearance of the different kinds of double tonguing in methods. The black text shows the favoured articulation; the grey text shows the articulation that was incorrect.

	German speaking countries	France	England
1790-99	tad'll	dou gue tou rou / tu ru	tootle diddle (teddy, tiddy for staccato)
1800-09			tootle
1810-19	tad'll dad'll	dou gue dou gou du du	tootle
1820-29	title ta ki, du ke just single tongue	deu gue deu-reu	tootle dig-ga, tuc-ca, tit-le doodle-loodle teth-thy, to-dy just single tongue
1830-39	di gi di-l dö rö	dugue turu, tigle	tootle du ru
1840-49	ti ka, tik ka tat'll dücke dide (did'l) just single tongue	dou-gue didel	
1850-59		tu que	tootle

¹⁶ Maria Bania has dealt at great length with articulation of fast passages in the 18th and 19th century in her Phd (Bania 2008).

¹⁷ Walckiers and others describe this alternate movement as action and reaction (1829: 142)

Preferences are clearly visible: French flutists prefer "dugue" while English and German speaking flutists prefer "tootle" and "tad'll" or "did'll" respectively. The German "did'll" and "dad'll" has a long tradition which has its origin in the method of Quantz. Since in Italy and Spain most of the flute methods are translations of French and Drouët's methods, they might also have adopted their double tongue. Six flutists reject double tonguing: Devienne, Hugot / Wunderlich, Monzani, C. Grenser and Fürstenau. They maintain that double tonguing is too monotonous and simply bad. Carl Grenser, first flutist at the Gewandhaus orchestra in Leipzig did not write a flute method. Nevertheless he expressed himself frequently in the AMZ. In a review of the book *A word or two on the flute* he agrees with William Nelson James that the double tongue is just "Babylonish Gabble" (AMZ 1828: 156-158). Grenser stays with single tonguing whereas James praises the double tongue of Drouët (here "teth-thy, to-dy").

In 1830 Drouët (1830: 14) describes in detail the regional differences which have basically not changed since the end of the 18th century.

In Holland they use the word Tutel (pronounced with the french U). This produces a weak, but good effect. In Germany and in all the north of Europe some pronounce the word Tatel (as sounded in the preposition at) some Tetel, some Titel, some Totel, some Tutel some use the same syllable, but instead of the 'tad' as for instance Dadel, Dedel &c.&c. - Again many say Take, Teke, Tike, Toke, Tuke. In Italy, Spain, and in the south of France, they have not yet adopted any articulation for Double Tonguing; and in France, they have for the last 40 years used Dougue with which method I never heard thirty notes played well. It would be superfluous to mention what articulations are used in this country [tootle] - They are well known - My method is simply Deureu or Doro according to the Flute on which I am playing, and I was happy to find on my return to this country, that some pupils to whom I had formerly given instructions, used this articulation with success.

Drouët states clearly what he thinks about the different types of double tonguing. As many flutists do, he defends his own personal way of playing in his method. The reason for Drouët's rejection of the French "dougue" probably originates in his past. In 1814 Drouët was first flutist of the French royal music. At the same time, his big adversary, Jean-Louis Tulou, who played the first flute at the Opéra in Paris, finally overwhelmed the Parisian public by his masterful playing in the opera *Le Rossignol* by Lebrun. Drouët left the country and tried his luck outside of France.

In 1818 Berbiguier states that the syllables "te" and "ke" could fall both on a strong and a weak note of a group depending on the beginning of a passage (1818: 250). Walckiers, however, disagrees with Berbiguier. He writes: "Le Double coup de Langue ne doit jamais être fait à contre-temps: la 1er syllabe s'y fait sur la partie forte du tems, la 2me sur la partie faible" (1829: 147).

¹⁸ Fétis in article about Tulou: "Dans toute la durée de l'opéra il fit entendre des accents si nouveaux, si purs, si tendres et si brillants à la fois, qu'une admiration frénétique se manifesta dans toute l'assemblée." (Fétis 1868 viii: 268)

¹⁹ Drouët, born in Amsterdam, led an extraordinary interesting and successful life as virtuoso and chapel master. Of all flutists at his time he traveled the farthest. This is a reason for his knowledge of other styles.

Triple tonguing

	German speaking countries	France	England
1790-99	tad'll da da'dll da or tad'll da ra'dll da	-	too-tle too, too-tle too
1800-09	-	-	-
1810-19	tad'll da da'dll da or tad'll da ra'dll da	-	too-tle too, too-tle too
1820-29	ti-tl ti, ti-tl ti	deu gue deu, gue deu gue or better deu gue deu, deu gue deu deu-reu-deu, deu-reu-deu	too-tle too, too-tle too / doo toodle, loodle loo / doo toodle, doo toodle / doodle too, doodle too depending on the position of the accent
1830-39	di-l di, di-l di / di-gi di, di-gi di / dö_rö dö, dö_rö dö	tu, du-gue, due-gue du	too-tle too, too-tle too
1840-49	ketüke, tüketü		

Triple tonguing is mentioned by several authors. Most of them repeat the syllables of the first three notes. Berbiguier is the only one who uses the double tongue on triplets. Dressler uses the syllables in quite a flexible way. He always puts a single tonguing ("too") on the accented note.

The following Ex: exhibits various passages in which there is a wide interval from the first to the second note, with an accent on the second. This accentuation is produced by the syllables which I have marked, and the effect will be found most excellent.



In the following passages the second and third notes are separated by the wide interval, and there is an accent on the third note. The peculiar and striking effect communicated by the syllables I have marked, for this accentuation, will not fail to recommend its use.



Illustration 27: Dressler 1828: 51

5) Breathing

Que dirait-on d'une personne qui lirait sans observer avec soin les points et les virgules? Elle serait souvent incompréhensible; il en est de même en musique, car la musique a aussi sa ponctuation et sa prosodie. (Tulou 1852: 9)

Breathing technique

Because the air consumption is relatively high compared to other wind instruments, the ability to breathe correctly and deeply is an important element of learning how to play the Boehm flute. In the methods of the early 19th century breathing technique is, with the exception of a few authors, seldom mentioned. No English flute method deals with this subject except for the Drouët method which is a translation. Only Tromlitz, Fröhlich, Müller, Fürstenau and Soussman as well as Drouët and Berbiguier mention breathing.

To **breath in** deeply was rather considered to be bad. Authors warned relatively often against it. One should "die Brust niemahls zu sehr voll sacken" (never overfill the lungs) (Tromlitz 1791:318) and "zu tiefes Atmen vermeiden, da das Flötenblasen, unkünstlerisch und gar zu anhaltend betrieben, der Gesundheit nachtheilig ist, und oft die Brust lebensgefährlich verletzen kann. Aus eben diesem Grunde ist das Blasen gleich nach dem Essen, wie auch kaltes Trinken während dem Blasen, gänzlich zu vermeiden" (Müller 1815:33). The aspiration should happen "ohne Gewalt" (Soussmann 1843: 4).

Drouët (1827: 49) describes quite clearly the process of breathing and blowing:

Avant d'attaquer une Note qu'on veut filer, il faut aspirer lentement, la bouche placée comme elle le serait si l'on voulait prononcer la Voyelle A. Cette opération soit se faire pendant qu'on met la Flûte à la bouche. Il faut respirer de façon: qu'une personne à côté de vous puisse à peine l'entendre. Observez encore qu'en aspirant il faut faire rentrer la Ventre, et qu'en soufflant, il faut le faire un peu ressortir. Lorsque vous avez aspiré autant d'Air que vous pouvez en contenir, sans faire d'efforts, qui vous fatiguent, vous attaquez bien doucement la Note que vous voulez filer en prononçant la Syllabe Teu.

In his singing method of the Consevatoire in Paris Bernardo Mengozzi (1804: 2) describes breathing as follows:

...dans l'action de respirer pour chanter, en aspirant, il faut aplatir le ventre et le faire remonter avec promptitude, en gonflant et avançant la poitrine. Dans l'expiration, le ventre doit revenir fort lentement à son état naturel et la poitrine s'aibaisser à mesure, afin de conserver et de ménager, le plus longtemps possible, l'air que l'on a introduit dans les poumons; on ne doit le laisser échapper qu'avec lenteur, et sans donner de secousses à la poitrine: il faut ainsi dire qu'il s'écoule.

The lower body is only employed after the singer has breathed in, however, he clearly uses the whole body while singing.

Twenty years later Fürstenau would not quite agree with Drouët and Mengozzi. The stomach should

not be drawn in since this manner is very disadvantageous and defective. The breath should only be taken by a "leises Anziehen des Leibes" (soft contraction of the body) (1844: 10). In 1838 Berbiguier provides another explanation: "L'air doit être comprimé et pour ainsi dire en reserve dans le Larynx, il n'en doit sortir que la quantité nécessaire et en très petit volume pour constituer le son" (1838: 9).

The support, which is so important for playing the modern Boehm flute, is never mentioned. Authors rather write that the lungs should be fully filled with air (Fahrbach 1835: 42) or that a maximal quantity of air should be absorbed into the lungs. By breathing out the chest sinks slowly, and the air should flow out without agitating ("erschüttern") the chest (Fürstenau 1844: 10). Walckiers writes in 1829: "Dans l'état habituel de la vie, le Ventre ressort en Aspirant; il rentre et la Poitrine se gonfle en chantant ou en jouant d'un instrument à vent. Par ce moyen l'Expiration est plus longue et moins fatiquante" (1829: 5).

The procedure of **blowing** is described as follows: "souffler modérement" (Devienne 1794: 6); "enfin le soufle sera poussé dans l'instrument sans saccades et sans efforts de poitrine" (Hugot /Wunderlich 1804: 9). A good tone is not produced by "starkes Blasen, wohl aber durch eine sparsame und zweckmässige Anwendung des Windes" (Müller 1815: 4). "One should blow downwards gently and steadily into the Flute" (Nicholson 1816: 4); "blow gently into the Embouchure" (Dressler 1828: 7); "blasen ohne alle Anstrengung, da die Flöte, nur wenn sie mit Zartheit und Leichtigkeit behandelt wird, den saften und schmelzenden Ton hervorbringt, welcher diesem Instrumente eigen ist" (Fahrbach 1835: 16). "Vor allem suche man aber, selbst bei Stellen, die mit Kraft gespielt werden müssen, so wenig Athem auszuströmen als nur immer möglich" (Fahrbach 1835: 43) and "souffler sans force" (Tulou 1852: 5).

The use of force is never mentioned. In the most cases the aspiration is very high compared to breathing technique on the modern Boehm flute where the abdomen is incorporated in the respiration. The descriptions of breathing technique makes clear why flutists usually took a breath more often. The warning against deep aspiration now makes sense as well. It is indeed not very comfortable to inhale a lot into the chest after having a meal.

Drouët was considered to master the breathing in an astonishing way. A review in the AMZ (1839: 519) praises his long breath:

Drouet scheint es weniger auf seelenvollen Vortrag als auf Bravour abgesehen zu haben. In dieser aber dürfte er schwerlich übertroffen werden. Auch seine Ausdauer ist bewunderungswürdig. Acht 2/4 Takte blies er (in lauter 32 Theilen), ohne Athem zu holen, und zwar in dem nicht sehr raschen Tempo nach M.M. [Viertel] 82. Er machte Furore.

Eight 2/4 bars in a tempo of 82 equals approximately twelve seconds. From today's perspective it is not long at all.

Different kinds of breathing

Authors differentiate between two types of breathing technique: the full and semi breathing (Hugot / Wunderlich, Drouët, Lindsay, Fürstenau and others). A full breathing is used if time allows it, for instance at the beginning of a phrase or in a pause. Contrary to singing where breathing is used as a means of expression, where the text dictates when to breath, flutists are asked to play longer passages without breathing. A semi breathing can be used if the flutist is not able to play the whole phrase in one breath. It is considered a necessity. There are different opinions about the proper length of a phrase. With a full breath a flutist should be able to play at least four bars (Hugot/Wunderlich 1804: 16) or, in an *Allegro*, six up to eight bars (Fürstenau 1844: 11). Berbiguier writes in 1820 that in *Allegro* passages of semiquavers or triplets breath was usually taken after two bars (1820: 28) respectively. Drouët, however, indicates longer *Allegro* phrases, up to nine bars without breathing, in his last Grande Exercise no. 30 (1827: 102-113).

In longer passages of semiquavers it is allowed to either skip notes (Tromlitz, Hugot) or to shorten the value of the following note (Tromlitz, Fürstenau) in order to take a semi breath. Authors generally recommend to take a semi breath at the beginning of a bar or between the first and second note of a bar (Dressler 1828: 16, Berbiguier 1838: 11). As always there are exceptions (Fürstenau 1844: 12). There are different opinions about the proper place of taking breath in triplets. Tromlitz suggests to breath after two notes of a triplets, Drouët recommends to breath after the first note.

Since flute methods address mainly beginners one could presume that phrases are kept short in deference to the students, however, exercises make clear that the length of phrases without breathing increases with the level of exercises.²⁰

Musical phrasing

The rule of breathing after a comma, semicolon or a dot of a phrase has not changed until the present. Lindsay (1830: 102) summarizes these rules as follows. One may breathe:

1st, After a Perfect Cadence, or Cadence on the Tonic; - 2nd, After an Imperfect Cadence, or Cadence on the Dominant – (the Dominant is the 5th of the key); - 3rd, After a marked Point or Design in the Melody; - 4th, Before a swelling a note of very considerable length, or before a sustained Shake;- 5th, Previous to beginning a long Passage, or a Cadenza; - 6th, Before commencing any chord, which continues throughout several bars without interruption; - 7th, at the end of certain dotted notes; - 8th, After, or upon, the first note of a Bar, or of a group, in certain passages of execution; - 9th, After a Pause, or during the time of a Rest, &c.

Drouët says furthermore: "8th. On the same chord which contains many bars, 9th. After the 1st note of a group. 10th At the end of a dotted note. These rules are not general and admit of a number of exceptions" (1830: 3). Some of these exceptions differ slightly from today's understanding as the following illustrations show.

²⁰ Drouët's exercises in his English method are a good example concerning this matter.



Illustration 28: Kummer 1843: 20

Kummer (ill. 28) follows rule no. 5 to breathe "previous to beginning a long Passage and a sustained Shake". Today one would preferably breathe after the C3 in the fourth bar instead of after the second bar.

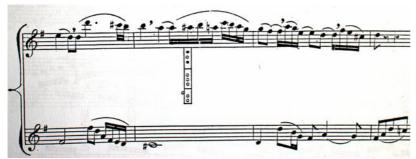


Illustration 29: Drouët 1830: 63

In Drouët's transcription of Beethoven's Romance for violin and orchestra op. 40 (ill. 29) one would not breathe after the first note in the second bar in order to not separate the dissonance from the resolution nor would one breathe that often. Here Drouët, too, makes use of rule no. 5. This exercise, however, is from his *Preparatory Lesson*. It is thus meant for beginners. This would explain the frequent breathings marks.



Illustration 30: Fürstenau 1844: 13

The breathing in bar two of the first exercise is most unusual in Fürstenau's method (ill. 30). It is situated after the resolution of the trill, the reason being the rule of not breathing in places where a new melody or tempo is introduced. As always there are exceptions: If an introduction ends with the same note as the beginning of a new period one should breathe between these notes. Today one would preferably breathe after the sustained note (here after the F3). Fürstenau never separates a sustained note under a fermata from its resolution.

Breathing belongs to the correct style and is mainly regarded as a technical means of separating phrases logically. It is important to understand the harmonic units and to relativize them correctly. Here singing is not the role model, on the contrary!

C'eût été un grand service à rendre à l'art et à l'exécution particulièrement, que d'avoir adopté, et fixé, une ponctuation pour déterminer le sens de la phrase et du discours musical: en effet, quel moyen prendre pour expliquer clairement ce point? Si on se sert des expressions, de DEMIE CADENCE, de CADENCE PARFAITE, de MEMBRE de PHRASE, de PERIODES &: l'élève, qui n'aura appris que la musique vocale, totalement étranger aux termes techniques, adoptés dans l'étude de l'harmonie et de la composition, pourrait-il vous comprendre? Toutefois il est pourtant indispensable à cet égard, qu'il sache respirer à propos, pour ne pas jetter [sic] la confusion, et défigurer, par son ignorance à cet égard, une pièce d'exécution quelconque (Berbiguier 1838: 9).

The correct relativisation of phrases, helps unify the performance in the musical sense. There are two authors though who use breathing as an artistic tool. Dressler (1828: 15) writes:

To respire in the proper places is of the utmost consequence in flute-playing, as the effect of any passage or melody may be materially injured by respiring at an improper time; while on the contrary, a correct division of the subject will be the result of a judicious choice of places for respiring; and sometimes, as in singing, the expression may be greatly increased by it.

Fürstenau (1844: 15) states:

Es ist oft nöthig (selbst wenn man das physische Bedürfnis dazu nicht fühlt) Athem zu nehmen, um den kleinern Einschnitt einer Periode durch eine Unterbrechung bemerkbar zu machen, damit der Vortrag nicht monoton werde (ill. 31).



Illustration 31: Fürstenau 1844: 15

The following review in the *Wiener allgemeine musikalische Zeitung* (WAMZ 1822: 303) depicts well how much influence good breathing can have on the artistic performance.

Drouet [sic] spielt wirklich im buchstäblichen Sinne des Worts sein Concert mit *einem* Athemzuge und verwandelt diesen in so vielfältige Gestalten, dass der Zuhörer von freudigem Staunen ergriffen wird. Man hört bey ihm kein Geräusch, wie bey manchen das Schaufelwerk an der Mühle. Allen Athem, den er verbraucht, verarbeitet er auch künstlerisch, und beseelt ihn mit süssem Wohllaut.

6) Subdivision of the bar

A musical performance, in short, improperly accentuated, is just about as intellectual as a Schoolboy's readings from MILTON or SHAKESPEARE. (Lindsay 1828/30: 32)

Today the importance of bar hierarchy in the 18th century is well known. Every treatise mentions long and short beats of a bar. The first beat of a bar is more important than the second, third, or fourth beat. Tromlitz talks about inner or intrinsically long ("innerlich lange") and inner or intrinsically short ("innerlich kurze") notes. Intrinsically long notes get a certain weight or emphasis because the accent falls upon them. The same applies to groups of two or more notes of the same value: here the first (third etc.) note is longer than the second (fourth etc.) in accordance to its intrinsic value (1791: 165). In the 19th century the same rules can be applied on the melody. In addition to that a hierarchal subdivision of smaller units is applied. This subdivision is called the musical accent or "l'Aplomb". It plays an important role in the forming of phrases. Besides the basic principles of the bar hierarchy the arrangement of articulation is of great importance for the musical accent. Depending on the use of slurs the musical accent is shifting since in a group of slurred notes the first note gets a little accentuated in terms of dynamic or length. Lindsay gives the following examples:



Illustration 32: Lindsay 1828: 36

Walckiers (1829: 224) describes in detail the basic rules of the musical accent and how it is changed by using different articulations.

..on appuie sur certains mots, sur certaines syllabes; c'est ce que les grammairiens nomment Accens; il en est de même en musique. Or, l'Accent étant, dans le discours, une modification plus marquée de la voix pour donner au mot, à la syllabe qui en est frappée une énergie particulière, l'Accent musical (1) est donc une énergie plus marquée, attachée à une note particulière de la mesure, du rythme, de la phrase; soit 1. en articulant cette note plus fortement; 2. en l'allongeant un peu; 3. en la détachant des autres; 4. en la commençant piano, en enflant graduellement le son jusqu'au piano; 6. en la commençant piano, en enflant le son et en le perdant; 7. en arrivant sur elle par une succession quelconque de sons, gradués dans leur force &&.

Ainsi, ce qui constitute l'Accent musical, ce sont les différens coups de langue, le mélange des sons doux et forts et les diverses gradations de leurs successions. Ces moyens-là, qui forment la partie matérielle de l'expression, quand la sensibilité est la force motrice qui les met en jeu, ont le pouvoir de tout vivifier.

(1) Le vrai musicien a le sentiment de l'Accent musical, et c'est ce qui le distingue. Mais, comme ce sentiment manque presque toujours aux élèves, on a besoin de leur inculquer de bonne heure. Voici, à peu près, comment on peut y réussir:

Quand ils ont, si l'on peut s'exprimer ainsi, le morceau dans les doigts, il faut le leur faire jouer phrase par phrase, (le plus communement elles vont de quatre mesures en quatre mesures,) en leur faisant expliquer 1. la contexture de chaque phrase; 2. quelles sont les notes qui doivent être accentuées; 3. quels sont les passages qui doivent être faits crescendo ou decrescendo; 4. et les endroits que choisit leur sentiment pour mettre une expression particulière. Leur intelligence et l'audition de bons modèles feront le reste.

7) Keeping the tempo

In beating Time the heel of your foot should be kept down to avoid making disagreable [sic] noise, the toe being sufficient and genteelest for that purpose. (anonymous n.d.: 7)

In today's music schools students learn to keep one single tempo for a whole piece and to play the exact length of notes (play what's written!). Therefore they are encouraged to practice regularly with the metronome. Later on at the conservatory the metronome is a constant companion of the student. The foregoing paragraph shows that in the 19th century playing the true length of a note could have quite a different meaning.

Keeping the tempo was interpreted differently as well. Sticking to the tempo was principally very important, but the mastering of Tempo Rubato raised the correct style to fine style (see chapter on Tempo Rubato). Walckiers (1829: 222) writes in his article on keeping the tempo about the use of the metronome:

Ici, tous les avantages de l'usage du Métronome doivent se présenter à l'exécutant. Par lui, il acquerra un aplomb imperturbable et l'art si difficile de savoir posséder. Qu'il ne craigne point de devenir froid: s'il a de la chaleur, il saura s'affranchir du jou tyrannique du Métronome sans enfreindre les lois de la mesure. D'ailleurs l'usage ne doit point en être continuel: il cesse, pour céder ses droits au sentiment, dès que le morceau a été suffisamment travaille.

Walckiers makes very clear that the metronome disturbs a fine performance. Metronome indications are only a guide to the basic tempo.

Sometimes metronome indications are incomprehensible. They are either so fast that the piece is unplayable or they are so slow that it is impossible to play any phrase coherently. Examples for the fast tempi can be found in Fürstenau's *Reminiscence de Rienzi* Op. 143, the eighth *Grand Solo* by Tulou or the last movement of the *Sonate Concertante* op. 35 by Conradin Kreutzer. It is out of question to play half of the tempo. In that case it would be much too slow.



Illustration 33: Tulou 8me Solo, minim = 120

Drouët (1827: 13) describes the tempo of an *Allegro* in a different way:

Afin de donner un point de départ pour toutes ces expressions, un peu plus vîte, un peu moins vîte, je dirai, que quarante mesures d'Allegro doivent durer environs une Minute. / Um einen Ausgangspunkt für die Ausdrücke etwas geschwinder, etwas weniger, geschwind anzugeben, nehme ich an, dass 40 Tackte Allegro eine Minute dauern.

Unfortunately Drouët does not precisely explain the meter he used. According to his calculations a three-four bar would be slower than a four-four bar. Drouët, moreover, relativises this (at least in the French text). It is thus impossible to establish an exact metronome speed. Drouët does not mention this calculation in his English method. At any rate, this comment is interesting. According to his calculation the crotchet of a four-four bar would be 160 bpm and the crotchet in a three-four bar would be 120 bpm. 160 is extremely fast for an *Allegro*. How fast would a *Presto* be?

The following illustrations show examples of extremely slow tempi: the *Nocturno Adagio espressivo* op. 142 by Fürstenau and the *Adagio* op. 3 by Carl Ferdinand Becker.



Illustration 34: Fürstenau op. 142, quaver = 76



Illustration 35: Becker Adagio op. 3, crotchet = 56

What do the metronome speeds really mean? Do they indicate an approximate direction or do they differ from today's metronome numbers? I do not have a conclusive answer to these questions. The latter, however, can probably be excluded since the majority of the metronome indications by the same composer are very logical.

Concerning variations the question occurs sometimes whether the same tempo should be used for

all variations. In his piano trio op. 78 Johann Nepomuk Hummel added metronome numbers to every variation. They differ slightly, between tempo 69 and 92 for a crotchet, according to the character of the variation.

Pillar 3: Performance practice – The fine style

The mastery of fine style distinguishes the virtuoso from the amateur, the good from the less good musician. It includes:

1) the right choice of alternative fingerings which connect the notes in the best way and which have the proper tone quality respectively, 2) accentuation and division of musical phrases (Tempo Rubato), 3) different ways of articulating and slurring notes, 4) use of embellishments (Fürstenau 1844: 89).

1) Fingerings

... wobei man jedoch zugleich jenen ersteren ästhetischen Zweck der Griffvermehrung - S c h ö n h e i t der Tonfolge – so viel wie möglich im Auge behalten hat. (Fürstenau 1844: 18)

As already explained above the correct use of fingerings serves above all the facilitation of fingering sequences and the change of pitch. In the course of the beginning 19th century key-fingerings were established and new possibilities were explored in order to broaden the spectrum of flute tone. Flutists took advantage of that opportunity. Several flute methods illustrate the rising number of fingerings very well. The following graph shows the number of fingerings in different flute methods written by the same flutist. While their first method contains the smallest number of fingerings it increases with every new method.

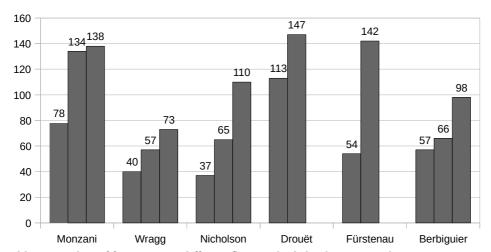


Table 1: Number of fingerings in different flute methods by the same author

The earliest example is the flute method by Monzani, published in London in 1801. It contains 78 fingerings. Twelve years later the number increases to 135 fingerings. Monzani added mostly fingerings which facilitate difficult technical passages as can be read in his comments (see ill. 18 p.

24). Today those comments are very important. They describe exactly how to apply fingerings. Without these comments we could only speculate about their proper use. Most commentaries can be found in methods by Fürstenau (1844), Berbiguier (1818, 1838), Monzani (1820), Drouët (1830), Alexander (1830), Weiss (1829), Nicholson (1821, 1836) and Müller (1815). The following graph shows the number of fingerings in fingering charts

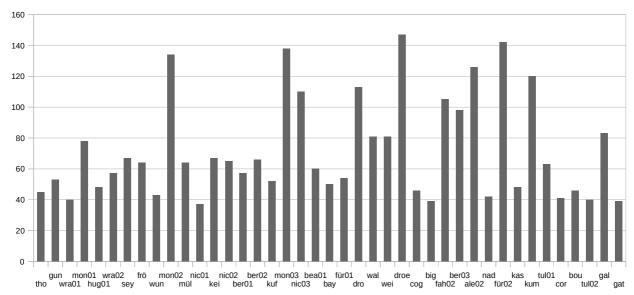


Table 2: Number of fingerings in methods (for abbreviations see database "Fingerings")

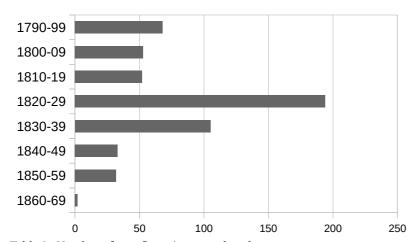


Table 3: Number of new fingerings per decade

As in the beginning the key-fingering was considered as the better fingering, some cross-fingerings were "rehabilitated" later. They were used as tone colour such as the Bb2 for instance.

Fürstenau (1844: 19) describes exactly what a good tone implies with ideal fingerings: he prefers covered fingerings which means that as many holes as possible are to be closed.

Alle Töne welche mit möglichst wenigen offenen Tonlöchern sich ausführen lassen, oder deren Griff an beide Hände vertheilt [sic] werden kann, sind meistens angenehmer, als jene, bei denen die eine Hand alle Tonlöcher bedeckt hält, während mit der anderen einige offen gelassen werden. Erstere sind voll und wohlklingend, letztere hingegen stets leer und hohl.

By using a longer sounding tube the tone sounds fuller and rounder. A bad fingering would thus be XoOO/OOO/o for the C3. The following fingerings are considered to be far better than the former one: XOX/XOX/o and XOX/XXX/XX. The first fingering is in perfect balance between both hands. The second fingering closes as many holes as possible.

A contemporary of Fürstenau, Soussmann (1843/3: 3), advocates another view:

Um die Fertigkeit beim schnellen Blasen zu fördern, empfehle ich im allgemeinen, stets jeden Griff mit so wenig Fingern als möglich zu machen, besonders aber Griffe mit zwei oder noch mehreren Klappen zu vermeiden, da in schnellen Passagen die häufige Anwendung der Klappen, wie sehr natürlich, nur Undeutlichkeit hervorbringen kann. Bei dem Adagio aber, so wie überhaupt bei langsamen Tempos ist die fleissige Anwendung der Klappen zur Beförderung der Reinheit und des vollen Tones unentbehrlich.

Nevertheless, this advice is addressed to beginners who are still on the search of a good embouchure. Nicholson is as is Fürstenau, an advocate of covered fingerings. In his later methods he uses "harmonics", that is overblown low notes, however, his foremost reason of the use of harmonics is the simplification of passages. It nevertheless gives the notes a deeper tone colour. While many authors speak about the simplification of passages with the help of fingerings only few authors provide information on the fine style.

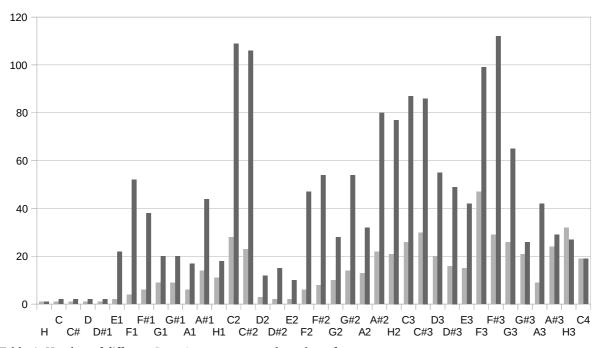


Table 4: Number of different fingerings per note and number of comments

Example: In my database there are 28 different fingerings for C3 of which 23 are commented. In total there are 249 entries and 87 commentaries for this note. They refer to technical simplification (50), pitch (12), tone quality (10) and tone colour (6). Other commentaries are undefined (14). The following table shows an extract of the four most commented fingerings.

Fingering	Comment	Flute Method
1 XOX/XOX/o	- "sharper & best, B sharp" - "am besten" - "besserer Griff, im Adagio wie auch besonders bey aushaltenden Stellen sehr zu empfehlen"	England: Monzani 1801 Germany: Fröhlich 1811 Germany: Fürstenau 1826
	 - "This is rather sharp, but very good when sweetly used in passages similar to those of No.3." - "Peut s'employer par fois dans le piano surtout quand l'Ut à la position ordinaire est trop bas" - "fictitious note, good or bad, according to the flute" - "im Adagio empfehlenswerter" 	England: Weiss 1829 France: Walckiers 1829 England: Drouët 1830 France: Hugot / Wunderlich 1856
2 OXO/XXX/o	- "old, good, B sharp" - "best fingering" - "doigté ordinaire" - "wird von Vielen zum gewöhnlichen Gebrauch genommen, doch ist der Griff nicht so wohlklingend, als No.9 und beziehe mich dabei, was ich in § 49 über gedeckte Töne gesagt habe. Indessen ist dieser Griff durchaus nicht zu verwerfen, sondern sogar unentbehrlich."	England: Monzani 1801 England: Drouët 1830 France: Berbiguier 1838 Germany: Fürstenau 1844
3 XoOO/OOO/o	- "ganz rein und stark zu nehmen; der Gebrauch der C-Klappe findet hauptsächlich nur im langsamen Vortrage, und beym Triller über h statt. Wenn diese Klappe in geschwinden Passagen angewandt werden soll, so dürfen diese das C nicht überschreiten" - "vollkommen rein" - "Sert à l'Ut naturel dans les tenues fortissimo" - "very good, generally used in shaking B natural"	Germany: Müller 1815 France: Berbiguier 1819 France: Walckiers 1829 England: Weiss 1829
	- "ist bei Octavenfolgen und in vielen anderen Fällen unentbehrlich"	Germany: Fürstenau 1844
4 XXX/XXoO/o	- "I strongly recommend the acquirement of this fingering (the harmonic of F), as it facilitates many difficulties that would otherwise occur. On flutes, with small holes, it is more easily produced, when the second finger of the left hand only covers half the hole. In passing from F to C, I should generally finger it in this way, as it is the only fingering to make a perfect shake do D, which is produced by the first and second fingers of the right hand."	England: Nicholson 1836
	- "hat einen zarten, etwas gedämpften Klang, und ist bei sanften Stellen anzuwenden."	Germany: Fürstenau 1844

In the example above authors agree about the quality of the fingerings. Interestingly their opinion does not change much, neither in the course of the years, nor in the different countries. The C3 however does not belong to the "bad" cross-fingerings. Naturally there are different opinions in cases where the design of the flute differs greatly (such as flute with big and small holes respectively).

How to learn the correct use of fingerings?

As mentioned above, flute methods provide flutists with many examples of how to apply fingerings. Today flutists should choose the appropriate method according to the instrument, period and place as for instance the method by Müller or Fröhlich for a flute by Grenser, Fürstenau for a flute by Liebel, Nicholson for an English flute with big holes, Berbiguier for French flutes and so on. It is important to understand the concept that authors have in regard to the proper use of fingerings. This will help to apply fingerings independently afterwards.

2) Tempo Rubato

Ein Beyspiel dieser Vortragsart, die man überhaupt nur Virtuosen zu seltenem Gebrauche überlassen muß, läßt sich durch Noten nicht ausdrücken. (Koch 1802: 1503)

Only five authors of flute methods mention tempo rubato: Berbiguier (1818), Drouët (1827/1830), Walckiers (1829), Lindsay (1830) and Fürstenau (1844). They describe three different types of tempo rubato:

- 1) lengthening one or several notes of a phrase (Fürstenau)
- 2) changing the basic tempo of certain passages. One could play lyrical melodies slower or play exciting passages faster than the basic tempo (Berbiguier, Drouët, Lindsay, Fürstenau)
- 3) accelerating or slowing down at the end of a phrase and arriving before or after the accompaniment respectively (Berbiguier, Fürstenau)

As usual the authors warn against too frequent use of the tempo rubato.

Berbiguier (1818: 23) restricts the tempo rubato to the concerto:

Le CONCERTO est le morceau de musique qui exige le plus de talent pour l'exécution. Il ne s'agit pas, comme dans la SONATE, de jouer régulièrement la valeur de toutes les notes sans déranger la mesure. Il faut savoir presser et rallentir à propos, et surtout ne pas laisser entraîner par l'orchestre, qui, dans les TUTTI, tend toujours à presser, principalement dans les 2me et 3m, attendue qu'il y est excité par la partie principale qui, d'ordinaire, pour réchauffer de trait, se presse surtout quelques mesures avant la cadence. Il faut avoir soin de recommencer le 2me SOLO dans le mouvement du 1er. Il est permis de ralentir dans le chant, sans affectation toutefois, et d'animer surtout le dernier trait.

This statement is only found in the first edition of his first method. Drouët (1830: 7) speaks quite negatively about the use of tempo rubato.

To accompany well, is a peculiar talent. For this purpose, we must read with the greatest facility, so as to be able effectually to follow one of those singers, or performers, who every instant change their movement. In order to put him who sings, or, who plays a solo, at his ease, you ought to decypher by a single glance two, four, and sometimes six bars; and whilst you are playing them, you must look at him who plays the principal part, or the chief of the orchestra, follow with your eyes his movements, guess his intentions, and leave the principal performer, as free, as if he was singing or playing alone. As for myself, I greatly disapprove of

changing the movement on every slight occasion, but however that may be, he that accompanies ought to follow, as that is his duty.

Fürstenau, on the other hand, considers the tempo rubato as an essential part of the fine style (1844: 89). Walckiers, too, speaks positively about it. He is the only author to call the tempo rubato or tempo disperato by its name. The shifting of time, in which the soloist slows down the tempo whereas the accompanist strictly keeps the tempo, reflects in his view a disorder of passions ("désordre des passions") (1829: 222).

Explanations of tempo rubato can mainly be found in singing and piano methods. Above all the first and second type of tempo rubato are mentioned (see Garcia 1847, Czerny 1839). It is, however, difficult to know to what extent it was used in flute playing. Since the statements concerning tempo rubato are quite vague and since none of the authors gives musical examples, it is not possible to know how much tempo shifting was done. There are several early recordings of flutists who use tempo rubato to a certain extent. Two completely different examples can be heard on recordings by Adolphe Hennebains (1862-1914) and Philippe Gaubert (1879-1941), both famous French flutists. In his recording of the Allegretto of the Suite by Benjamin Godard (1908), Hennebains uses very subtile tempo changes mainly in rising passages of semiquavers and at the very end of the piece. Gaubert, on the other hand, in his recording of the Fantaisie Hongroise by Franz Doppler (1920), plays very freely, seemingly without consideration of the score or of the pianist. He does the same, although more moderately, in a recording of variations from the ballet *Asciani* by Camille Saint-Saëns.

It is questionable to what extent performance practice around 1900 can be linked to performance practice of the first half of the 19th century. However, the use of tempo rubato around 1900 is much closer to the descriptions in the methods than in our "classical" way of playing. Today the execution of the musical accent, as described above, would probably already go beyond our rhythmic precision. From childhood on musicians are trained to play rhythmically exact. For me it has been very difficult to step out of this rhythmical comfort zone, but with increasing familiarity with the new rhythmic freedom, I cannot imagine playing 19th century music without it.

3) Articulation

Daß man beym guten Vortrage, auf diesem Instrumente eine gewisse Ordnung in Regierung des Windes beobachten müsse, wird jeder der nun einigermaßen weiß, was Vortrag ist, einsehen und zugeben. (Tromlitz 1791: 154)

The "wahre Sprache der Flöte" (Müller 1815: 33) was not just limited to the use of different syllables. Musicians rather focussed on different combinations of slurred and articulated notes resulting in a greater variety of expression (Hugot / Wunderlich 1804: 7). Explanations about the use of different combinations filled numerous pages in flute methods. Instructions of that kind can already be found in the method by Antoine Mahaut (1759: 23). Since Devienne's method from 1794

²¹ Robert Bigio has an interesting collection of early recordings by flutists on his website: http://www.robertbigio.com/recordings.htm

every French flute method illustrates different combinations of articulation. Every combination is explained ("Notes coulées de deux en deux, deux notes détachées et deux coulées, deux notes coulées et deux détachées" etc.) and examples show how these combinations can be adapted to passages in the most advantageous way. English and German methods contain long explanations on the language of the flute too. If a composer does not notate the articulation in passages it is the duty of the musician to choose the most appropriate combinations (Devienne 1794: 10, Fürstenau 1844: 89).

No one devotes as much thought to articulation as Tromlitz. On 83 pages, almost a quarter of his method (1791), Tromlitz (1791: 156, 157) gives 14 rules and eight exceptions on how to articulate well. The singer is always the role model:

Wenn nun ein solcher guter Sänger unser Muster seyn soll, wie er es denn ist, so müssen wir seinen Vortrag, sowohl in dem schönen Gesange, welcher fließend, sanft und gefühlvoll seyn soll, als auch in den runden und laufenden Passagen, welche deutlich und ausdrucksvoll seyn sollen, vollkommen nachzuahmen suchen. Er giebt seine Töne nicht hart an, sondern jeder Ton wird bey ihm gelinde markiret, dahero sind sie einander immer gleich; es ist nicht einer länger oder kürzer, härter oder weicher, heller oder stumpfer als der andere; sie scheinen alle an einander zu hängen, kleben aber nicht zusammen, sondern sind alle besonders bezeichnet, und jedes, aus das kleinste, und in der größten Geschwindigkeit hervorgebrachte Intervall ist richtig. Das stärker und schwächer spielen, oder Schatten und Licht im Vortrage ist durch die obigen Ausdrücke hier nicht gemeynet, sondern nur das runde, deutliche und gleiche im Vortrage. Auf unserem Instrumente müssen wir alles dieses eben so nachzuahmen suchen.

Furthermore he writes:

Auf der Flöte muß der Ton in einem zusammenhangenden Sinne nicht anders unterbrochen werden, als da, wo der Sinn sich endiget, oder bey einer Pause, oder wo der Componist Striche oder Punkte gesetzte hat, wodurch er verlangest, daß abgesetzet werden soll, sondern der Ton gehet immer fort, und hängt zusammen, und man spricht stets dabey. Man betrachtet den Ton als einen Faden, woran man seine Noten durch die Sprache nach einander anknüpft. (1791: 169)

Syllables he uses are "ta" for every first note, "a", "da" and "ra" for the following notes and *ha* for dotted or tied notes. In his examples he writes the syllables under every note. The following examples show the rule (0) and six exceptions (1-6).



Illustration 36: Tromlitz 1791: 205

It is remarkable how little the tone is interrupted. Upbeats are always long and connected to the first notes of the bar. Even if no slurs are marked in the music, Tromlitz often slurs notes by the use of the syllables "ta-a, ra-a, da-a, ra-a". In addition to the slur Tromlitz says to clearly mark the second note "a" with the breath. From his point of view the second note is often played too soft even if it is just an intrinsic short note (1791: 163). Müller (1815: 43) reacts on this issue as follows:

Da nun aber nach seiner [Tromlitz'] Vorschrift die Aussprache des a mit der Brust gemacht werden soll, wodurch die Gesundheit nothwendig leiden müsste, auch eine solche Ausführung dem Vortrage zu schleifender Noten wohl nicht ganz angemessen seyn dürfte, so ist aus diesem doppelten Grunde von jener Sprache in dieser Schrift [seiner Flötenmethode] kein Gebrauch gemacht worden.

Tromlitz surely had a good reason for his statement. It is possible that the rule of playing a decrescendo under a slur was still present at that time. Flutists could have exaggerated this mannerism so that Tromlitz reacted to that. The music pedagogue Joseph Fröhlich published besides other instrumental methods a flute method. He copied long passages from Tromlitz. His music examples about articulation are copied as well. However, Fröhlich adapts some statements to his time. Successors of Tromlitz address articulation in a much smaller way although it does play an important part.

Fürstenau (1844: 38/39) dedicates a longer paragraph to articulation in his second method. He differentiates between two types of articulation: the *staccato* ("die Hauptzierde des Flötenspiels")

and the *legato*.

Es gibt sehr verschiedene Grade des Abstossens, die durch Tempo und Charakter des Tonstücks, oder der einzelnen Perioden desselben, bestimmt werden. Ein langsames Tonstück erfordert einen gesangreichen Vortrag, und also auch die einzelnen Töne darin einen gedehnten Klang, als in einem schnellen Tempo, wo der Klang des abzustossenden Tones und der klangleere Zwischenraum von den aufeinander folgenden Tönen kürzer sein muss. Ähnlich verhält es sich auch mit dem Abstossen beim piano und beim forte; es liegt hier schon im Charakter der Wörter, dass die Zunge bei piano=Stellen delicater als bei forte=Stellen angewendet werden muss.

Interestingly he equalizes staccato passages of different intervals. According to Fürstenau, bigger intervals sound shorter. For this reason sixths, octaves or bigger intervals should not be played too short unless the lower notes form a melody. In this case the lower notes should be played stronger and longer than the upper notes.

Articulation is associated with musical accentuation (see above), affecting the different strength of accents in terms of dynamics as well as length.

4) Embellishments

He who attempts to improve HAYDN with an embellishment, MOZART with a vibration, and BEETHOVEN with a glide, injures these distinguished masters. In trifling music on the repetition of a phrase, an embellishment may find its place, a vibration may be used, and a gliding produce a pretty effect; but the frequent employment of those charlatanisms, are redundancies, which destroy the sense of a melody and make a caricature of it. (Drouët 1830: 18)

In the course of the 19th century the art of ornamentation in flute methods gradually receded to include a few such as the appoggiatura, trill, gruppetto, gliding and vibrato.

What concerns the use of embellishments in flute music the relationship to singing is very clear. As usual the singer is the role model. Hugot / Wunderlich copied the whole paragraph on the appoggiaturas from the singing method of the Paris conservatory. Fröhlich (1811) does not mention appoggiaturas in his flute method. Instead he refers to the singing method where he deals with this subject in detail. Lindsay cites the singing treatise by Richard Bacon.

Appoggiatura

(Vorhalt, Petites Notes d'agrément)

All of the authors of flute methods from 1790 to 1850 write that an appoggiatura falls on the beat. Appoggiaturas always reduce the duration of the main note. In 1791 Tromlitz still deals with appoggiaturas in detail. Thirteen pages in total are addressed to appoggiaturas. Müller, Drouët (1827), Lindsay and Fürstenau (1844) explain the appoggiatura exhaustively. A few authors do not mention appoggiaturas at all; most of them give at least some musical examples. Here are the most common types of appoggiaturas:

Long appoggiatura

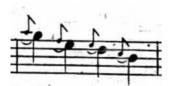


Illustration 37: Nicholson 1836:69

In his method Müller (1815: 22, 23) describes situations in which long appoggiaturas (he calls them "veränderlich-lange Vorschläge") occur:

Die gewöhnlichsten veränderlich-langen Vorschläge (melodischen Vorhalte) stehen: a) vor Noten von zwey gleichen Theilen, wo der Vorschlag den halben Werth der Note (in Ansehung der Zeit) erhält, vor welcher er steht b) Vor Noten von drey gleichen Theilen, wo der Vorschlag zwey Theile von dem Werthe der Note erhält, vor welcher er stehet c) Vor Noten, an welche, vermittelst des Bogens, eine kürzere gebunden ist, wo der Vorschlag den Werth der ganzen ersten Note erhält. Ist die erste der durch den Bogen verbundenen Note punktirt, so erhält der Vorschlag auch den Werth des Punkte.

The emphasis falls on the appoggiatura instead of the main note. Only Gunn (1793: 19) describes which form exactly the accentuated appoggiatura should have:

The appoggiatura, in its proper sense, is a grace which requires great management to execute with all the expression of which it is capable; and it will therefore come again to be mentioned, under another point of view, in its proper place. It is so called from the Italian verb appoggiare, to lean upon, to press, or express; it is begun with a soft tone, which is first increased, and afterwards diminished.



Here again Gunn follows Quantz (see Quantz 1752: 78). Nicholson (1836: 69) describes a special case of an appoggiatura:

As the Ear is gratified by being kept in suspense, the Appoggiatura (particularly in slow plaintive Melodies) should seldom be hurried. - When it precedes the last note of a Phrase, or termination of a Melody, its time may be prolonged, and the effect highly improved by gradually incorporating it with the last note, be the Aid of the Glide, and subduing the tone during its performance to a mere whisper.

His use of appoggiaturas must have been impressive as we learn from Lindsay (1830:85):

No man, perhaps – whether vocalist, or instrumentalist – better understands and feels where the pathetic Appoggiatura can be well introduced in plaintive, or impassioned melody, than Mr. Nicholson; and, trifling as this ornament may appear to the unobservant, it is a fact, that many of those truly exquisite little touches of fine feeling, which so often, in the course of his Flute-Playing performances, not only thrill in the sense, but likewise penetrate the hearts of his listening admirers, may clearly be traced to originate in judicious introduction, and, as regards accent and modification of tone, a feeling delivery, of this simple, but powerful little agent in Expression.

As for every rule there are exceptions, however, they seem to be rather seldom. One is described by Dressler (ill. 39).

20

Generally when small Notes are prefixed to dotted Notes, the small notes occupy two thirds of the value of the larger Note.



But there are some cases in which a superior effect may be produced, by giving the small Note only one third of the value of the larger Note.



Illustration 39: Dressler 1828: 20

Dressler notes in another example that the main note after a long appoggiatura is shortened.



Yet the rules did not seem to be so clear. Tromlitz complains in 1791 that the proper length of the appoggiaturas is not always evident from the context of the notation. It would therefore be desirable to notate it more precisely (1791: 243, 244). Fürstenau (1826: 20), however, writes in his first

method:

Ueber die Schreibart dieses einzelnen Vorschlages und dessen Ausführung hat man keine bestimmten Regeln, er wird vom Componisten dem Spieler zum willkürlichen Vortrage überlassen.

Short Appoggiatura



Illustration 41: Nicholson 1836: 69

Short appoggiaturas are sometimes but not always notated with small barred notes (Dressler 1828: 20, Kummer 1843: 15, Fahrbach 1843: 75) or small semiquavers (Dressler 1828: 20, Kummer 1843: 15). They have to be played as short as possible. Fürstenau mentions one exception: "Doch darf die Schnelligkeit ausnahmsweise im Adagio mitunter ein klein wenig gemässigt werden" (1844: 76). Müller (1815: 23, 24) summarizes clearly in which situation short appoggiaturas are used:

Unveränderlich-kurz werden diejenigen Vorschläge genannt, die äusserst kurz vor der Note, vor welcher sie stehen, angeschlagen werden, und ihr deshalb nur sehr wenig von ihrer Dauer entziehen. Der kurze Vorschlag findet in der Regel statt: a) Zu Anfange eines Stückes b) Vor mehrmal nach einander anzuschlagenden Noten c) Vor springenden Noten d) Wenn der Vorschlag einen Sprung gegen die Note macht (Ausnahmen hiervon finden statt, wenn bey Schlüssen der kurze Vorschlag so gestellt ist, dass er von oben herunter einen Sprung (gewöhnlich eine Sexte) macht; wo seine Dauer der Willkühr des Ausführenden überlassen wird, und daher, nach Befinden des zum ganzen Stück passenden Ausdrucks, verschieden vorgetragen wird e) Vor Figuren, die aus einerley Notengattungen bestehen f) Vor synkopierten Noten (Rückungen) h) Vor Noten die kurz abgestossen werden i) Vor zweygliedrigen Figuren k) Vor dreygliedrigen Figuren l) Vor allen Triolen m) Vor sechsgliedrigen Figuren.

On l'emploie aussi bien en descendant.

L'Appoggiature courte se passe rapidement, en n'enlevant presque point de la valeur de la grande note, qui recuit l'accent. Pour distinguer cette Appoggiature de la précédente, on l'écrit en croche barrée.



Illustration 42: Walckiers 1829: 129

Again the appoggiatura is played on the beat. There are cases where the length of short appoggiaturas can vary as the following illustration from Walckier's method shows.

Nicholson disapproves of this idea. He explicitly points out that the appoggiaturas should be played short (Nicholson 1836: 69).



Illustration 43: Nicholson 1836:69

Double Appoggiatura (Schleifer, Doppelvorschlag, L'appoggiature double)



Illustration 44: Nicholson 1850: 20

The double appoggiatura consists of two little notes which are slurred into the main note. In most of the musical examples it is written on the beat. The two small notes are executed rapidly. Nicholson (1836: 70) and Fürstenau (1844: 78) also mention alternatively to play the small notes in a different tempo and before the beat.

Oft ist es schwer zu errathen, ob der vorhergehenden oder der folgenden Note die Zeit, welche die Ausführung der Verzierung erfordert, abgezogen werden soll. In solchen Fällen muss wieder der besondere Charakter des Musikstücks oder der einzelnen Stelle muss über das Eine oder das Andere entscheiden.



Illustration 45: Fürstenau 1844: 78

Other sources describe only vaguely how the appoggiatura has to be executed. Lindsay writes "the emphasis must still be thrown upon the principal Note". This would indicate that the appoggiatura is played before the beat. In his musical example, however, it is clearly notated on the beat (1830: 87)

Hugot / Wunderlich mention a double appoggiatura whose execution is not very clear. They copied the passages from the singing method of the Paris Conservatoire.



Illustration 46: Hugot 1804: 20

Other appoggiaturas

In addition to the preceding appoggiaturas, few authors mention the *Anschlag* (Tromlitz, Müller). In the course of the 19th century it went out of date, yet it did appear occasionally (see Walckiers 1829: 129).



Illustration 47: Walckiers 1829: 129

Appoggiaturas with three or more small notes were played either before (Fürstenau 1844: 78) or on the beat (Soussmann 1843 vol. 2: 6). Other versions of appoggiaturas are shown in the following illustration:



Illustration 48: Keith 1816: 7

Hugot / Wunderlich (1804: 21), Müller (1815: 24) and Walckiers (1829: 120) mention another type of appoggiatura that is borrowed from singing methods: the cerca della nota. Hugot / Wunderlich

write: "Les compositeurs employent quelquefois la petite note pour indiquer le portamento, ou port de voix" (1804: 21). Read more about that subject in the chapter on gliding.

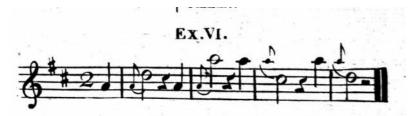
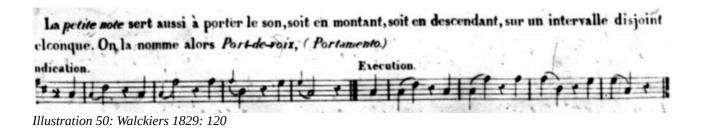


Illustration 49: Hugot / Wunderlich 1807: 29



Le Port-de-loix descendant a de la grâce. L'ascendant est peut-être un peu suranné. Les bons chanteurs ont une manière de porter le son qui nous paraît préférable; la voici :



Illustration 51: Walckiers 1829: 121

As for every ornamentation there are warnings against a too frequent use. Berbiguier (1818: 24) puts it as follows:

On ne doit jamais mettre des notes d'agrément que lorsqu'elles sont notées; il faut se garder scrupuleusement d'ajouter la moindre petite note, par exemple devant une blanche, une noire, et même une note quelconque, qui commence un chant. Cette manie d'ajouter est insupportable; c'est à cela surtout qu'on reconnait une bonne ou une mauvaise école.

Weiss warns his readers about using ornamentation excessively. He uses similar argumentation as Berbiguier. It seems as if Weiss was inspired by Berbiguier's (1829: 46) statement:

Care must be taken not to introduce Appoggiaturas where they are not marked. This knack of making additions is insupportable, and it is generally in such cases that we discover if an Amateur has imbibed correct principles of taste. A great number of Pupils are possessed with a continual desire of moving their Fingers, in parts where an Air should be chastely executed. A Virtuoso or an Amateur, when extraordinarily gifted,

may allow himself to introduce ornaments, here and there; and there are cases in which they have a very good effect: I shall give some examples of it on this first part. The great art however, consists in giving an Air its true expression, & not in seeking to dazzle by false means: such are usually the resources of people without taste.

Trill

(trill, Triller, Trille, Cadence)

The trill consists of one, two or three parts: 1) the preparatory note (optional), 2) the movement of the trill and 3) the ending. There are perfect and plain trills (Pralltriller, mordent, trille). A perfect trill consists of at least two parts (trill and ending). The plain trill consists of the trill itself with neither the preparatory note nor ending. It is used for series of trills and shorter notes.

1) Preparatory note

The question arises when and where the trill should begin; on the upper or on the main note. There is no clear answer to that. Certainly all forms of trills were still used far into the 19th century. Carl Baermann(1864/75: 17, 18) states:

Es gibt verschiedene Gattungen von Trillern, (...) welche aber im Ganzen genommen, nicht sehr wesentlich von einander verschieden sind. So fangen einige den Triller mit der obern Note an, andere, denen ich mich selbst anschliesse, fangen den Triller mit der Note an, auf welcher der Triller steht. Die Gründe warum ich letztere Art vorziehe sind: erstens, dass der Ton, auf welchem der Triller steht, bestimmter angegeben ist, und zweitens, dass ich mich in der ersten angegebenen Art eines Gefühls der Herabtrillerns nicht erwehren kann.

It is remarkable that, apart from Fürstenau and Tulou, every author who describes the trill beginning on the main note also mentions the trill beginning on the upper note. Fürstenau (1844: 17) has a very clear opinion about how a trill should be played:

Die stets zu beobachtende Regel, jeden Triller mit der Hauptnote sowohl beginnen als aufhören zu lassen, welche von Hummel, Kalkbrenner und Spohr in ihren Schulen neuerdings festgestellt und von ersterem besonders gründlich motivirt, auch in meiner älteren Flötenschule vom Jahre 1826 bereits aufgestellt worden-, beruht sowohl auf dem natürlichen Gesichtspunkte, dass eben die tiefere Hauptnote, die mit Hilfe der höheren (die gerade daher Hilfsnote heisst) auszuschmückende, es ist, welche dem Ohre am wichtigsten sich darstellen soll, als auch andererseits auf der Rücksicht, welche die genaue und deutliche Hervorhebung der aus der Trillerbewegung hervorgehenden Harmonie verlangt.

Tulou does not mention the preparatory note. Drouët on the other hand states in 1827: "On a du remarquer: que les Trilles commencent par une Note en dessus" (1827: 77). Methods are not very helpful in finding a clear answer. It seems as if personal preferences were followed. A clear classification as to time and place cannot be made as the following examples illustrate:

Christian Gottlieb Belcke (flutist in Leipzig) Adagio et Variations in A-major Op. 3 app. 1835



Illustration 52: Belcke op. 3. Adagio non troppo. b. 25-28

Unlike Fürstenau's rules, Belcke explicitly notates trills with preparatory notes.

Friedrich Kuhlau *Grande Sonate* Op. 85 (Copenhagen, 1827)



Illustration 53: Kuhlau op. 85. Allegro con passione b. 41-43, 89/90

Here Kuhlau writes preparatory notes beginning on the main note. Later he does not specify any note. Should both trills be played differently?

There is a third way to execute a trill: beginning under the main note. Hugot / Wunderlich mention it in 1804. They see it as one of the predominant ways of trilling. In their opinion taste should decide how to begin a trill.

2) Movement of the trill

There is relatively little information about the movement of the trill, however, authors agree that it should be equal. Every finger should be practiced. Different speeds are possible. It apparently depends on personal taste. All personal opinions could be summarized in the following international way:

When a shake is to be made, its excellence will depend on the exactness, spring, and energy of its beats, the management and variety of *tone* during its continuance, and the justness of the two intervals of tune, of which it consists (Gunn 1790:18). The notes should be put into equal motion, but not so rapidly as to prevent the ear from distinguishing them (Wragg 1793:14). Il faut observer que les cadences des morceaux lents comme Andante, Adagio, ou Largo, doivent être en général moins vives que celles des Allegro, ou Presto. Pour avoir un beau Trille, il faut lever le, ou les doigts avec souplesse et agilité, et les faire retomber de même avec aplomb (Hugot / Wunderlich 1804:21, 22). Der Grad der Geschwindigkeit des Trillers muss sich nach der Bewegung und auch nach dem Charakter des Stücks richten (Müller 1815:27). In adagios I frequently commence the shake very slow, and as I decrease in tone I increase in rapidity (Nicholson 1836: 82).

The dynamic shaping of the trill, as mentioned by Nicholson, is fairly illustrated by Drouët:



Illustration 54: Drouët 1830: 76

Sometimes accents are notated under a trill. They are executed by the breath and appear mainly under a rest or at the end of a piece.

e.g.:



Illustration 55: Nicholson 1821: 65. Roslyn Castle:End



Illustration 56: Fürstenau op. 143. 1844. Rondino b. 260-263

As already mentioned it was very important to play the trills correctly in tune. Even if trill keys were added some trills were still very complicated to execute, especially those in the third octave. For this reason every method included a fingering chart for trills. Unlike plain notes it is not about the quality or colour of the tone but simply about the technical aspect of playing trills in tune. Advocates of the Boehm flute used the difficulty of the execution of trills as a main argument for the superiority of the new system.

3) Ending

In most cases the ending consists of two notes. There are, however, endings with three, four or even more notes. It is up to the personal taste of the performer to choose the proper ending. In 1836 Nicholson illustrates with impressive examples which dimensions of endings, turns or cadences can be reached (1836: 83-94). The following illustration shows still quite moderate versions.

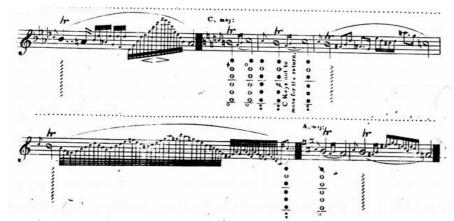


Illustration 57: Nicholson 1836: 86

Needless to say that his opponent Drouët expresses himself extremely sceptically on such long endings. He disparagingly calls them fooleries (1830: 23).

Turn

(Doppelschlag, Groupetto, Gruppetto, Groupe, Cadence brisée, Trille, Mordent)

The turn is generally written out or marked with the sign ∽ or ≁. According to Hugot / Wunderlich, Bayr, Lindsay, Nicholson 1836 and Walckiers the turn always consists of a small or diminished third. It can be executed in different ways.

There are several statements about the execution of the turn:

Gunn (1790: 19): The *turn* is an elegant grace, requiring great evenness and neatness of fingering; it is much used by fine singers and performers in taking ascending and descending intervals of various kinds.

Devienne (1794: 15): Les cadences brisées se font ordinairement sur les notes pointées, et servent a donner au chant, de la grâce, de l'élégance et plus d'énergie aux traits.

Hugot / Wunderlich (1804: 24): Pour le bien faire on doit marquer la premiere note plus fort que les autres, et la soutenir plus longtemps.

Fürstenau (1844: 65): Übrigens ist das Zeitverhältniss und die Geschwindigkeit der Ausführung der einzelnen Töne des Doppelschlags mannigfachen, meistens vom Tempo und Charakter des Musikstückes abhängigen, Modificationen unterworfen, deren Bestimmung dem Gefühle und Geschmack des Spielers überlassen bleiben muss. Nur hüte man sich, Töne des Doppelschlags auf der einen Seite so schnell zu spielen, dass Hastigkeit oder gar Undeutlichkeit in der Bewegung entsteht, und auf der anderen Seite so langsam, dass ihre enge und saubere Verbindung gestört wird, oder etwas Schleppendes in die Bewegung kommt; wiewohl in besonderen Fällen möglichst grosse Schnelligkeit, wie auch möglichst langes Anhalten bei einzelnen Tönen erlaubt, ja oftmals nothwendig sein kann.

1) Turn above a note



Illustration 58: Wragg 1808: 9

Until the late 1840's the **common turn** above a single note consists of three fast notes, commencing with the note above the main note. Fürstenau and Tulou write in 1844 and 1853 respectively that this turn is out-of-date. It should commence on the main note and consist of four fast notes. The turn with four notes can be found in earlier methods as well, especially in English methods (from Gunn 1793 on) where it is notated with an additional grace note on the line of the main note (ill. 58). Fröhlich does not mention the turn in his flute method. He refers to the singing method instead where both kinds of turns, with three and four notes, can be found. The latter is used in slow movements. Here the first note is held longer than the following three notes. Müller (1815: 30) also mentions a rare kind of turn from above:

Der Doppelschlag kömmt fast auf allen Notengattungen vor, sowohl in springender, als stufenweiser Fortschreitung. Stehet er auch auf veränderlich langen Vorschlägen, so wird er dennoch ganz, wie über einer Hauptnote stehend, ausgeführt.

The **inverted turn** is mentioned by just few authors. It is either fully notated or depicted with another sign (see ill. 58 figure two and five above).

Nicholson (1836: 79) describes the execution of turns as follows:

When it [the turn] is placed before, or immediately over the Note, if the principal be succeeded by a higher note, then the Turn must begin with the note above, and when succeeded by a lower note, commence with the note below.



Illustration 59: Nicholson 1836: 79

The common as well as the inverted turn are always notated on the beat.

2) Turn between two notes

The turn between two notes can be executed in several ways. Generally the first note is played longer or more accented and slurred into the following four fast notes.



Illustration 60: Berbiguier 1818: 19



Illustration 61: Nicholson 1836: 79



Illustration 62: Lindsay 1830: 95

3) Turn after a dotted note



Illustration 63: Hugot / Wunderlich 1804: 33

The turn after a dotted note can be executed in many different ways. The length of the first note as well as the rhythm of the last notes varies.



Illustration 64: Weiss 1829: 46



Illustration 65: Walckiers 1829: 16

In lyrical passages all notes of the turn can be played equally (see Hugot / Wunderlich, Berbiguier). Hugot / Wunderlich also mention another embellished version of the turn (ill. 66).



Illustration 66: Hugot / Wunderlich 1804:34

Since the execution of the turn in the third octave is difficult, authors such as Berbiguier, Fürstenau, Drouët and Tulou added fingering charts.

Gliding

(Durchziehen der Töne, Überziehen der Töne, Glissando)

Gliding has its origin in the so called *cerca della nota*, a manner which has been common in singing since the 18th century. Today it is usually called Portamento.²² In his singing method Fröhlich describes two types of *cerca della nota*. The first is a sort of ending and the second an "unmerkliches Auf- oder Unterziehen mit der Stimme von einem Tone zum andern" (Gesangsschule 1811: 58, 59). The second manner would also be executed on string and wind instruments. Fröhlich advises oboists, clarinetists and bassoonists to consult the article on gliding in his flute method. He copied the paragraph about gliding from Tromlitz.

The most common kind of portamento amongst flutists is gliding. In gliding, two adjacent notes and also larger intervals are connected by a gliding movement of one or several fingers over one or several tone holes. The gliding of chromatic notes is executed upwards and downwards. Larger intervals are only connected upwards.

Gliding technique

Gliding can be executed in various ways: 1) by pulling or pushing the fingertip from or off the hole (Tromlitz, Fröhlich, Nicholson Dressler, Wragg, Alexander, Lindsay, Fürstenau), 2) by a sort of rolling movement or a gradual opening and closing of the hole by a hole finger (Tromlitz, Fröhlich) or, 3) by a gradual and sideward lifting or lowering of a finger from or off the hole respectively (Fürstenau 1844). The first manner seems to be the most common. Tromlitz prefers the second method because the first would not work well with humid fingers. The movement would become uneven ("höckerig") (1791: 264).

Gliding in practice

Gliding on adjacent notes must have been very popular in the end of the 18th century. In 1791 Tromlitz (1791: 264) describes it as a very fashionable ornament:

Man untersuchet nicht, wo sie sich hinschicket; man bedenket nicht, daß sie nur selten, sehr selten gehöret werden müsse, wenn sie nicht Ekel erregen soll, sondern man macht sie zehnmal in einem Satze, und heult bey jeder Gelegenheit runter und nauf, daß es kaum auszustehen ist.

He did not completely condemn gliding yet. It would make a good effect if applied sparingly ("selten, sehr selten") and in the appropriate place ("im Gesange auf Gänge, die durch halbe Töne abwärts oder aufwärts steigen"). Gliding downwards was more common than gliding upwards (1791: 264). Fröhlich takes over the complete passage from Tromlitz without adding details. Fürstenau uses gliding only on half tone steps and on passages without accompaniment because it would otherwise cause a fluctuation of the harmony ("Schwanken der Harmonie"). Fürstenau warns against excessive use, because it would otherwise evoke surfeit and disgust, however, if executed without howling it would make a good effect ([wenn es] "nicht ins Heulende fällt, [macht es] eine sehr schöne Wirkung.") (1826: 22). According to Fürstenau gliding would sound best in the second and third octave and in pieces of tender character. In any case it should not be executed to frequently since it would otherwise cause tedium ("Überdruss") and disgust ("Ekel") (1844: 84, 85). Fürstenau shows several musical examples from his flute concertos where gliding could be applied. They are limited to chromatic passages under a rest. Besides, he adds fingering charts for the most common glides and a table of trilled glides. He does not mention gliding over larger intervals.

Nicholson is the only author who describes gliding over larger intervals. He applies gliding to all possible situations. He uses it frequently in slow as well as in fast movements, between long as well as short notes, over two to five successive notes, on main notes as well as on appoggiaturas or (seldom) over trills. In exercises of his *Preceptive Lessons* from 1821 Nichsolson notates 21 glides in the first octave, of which seven glide over several notes; 101 glides in the second octave including nine glides over several notes and finally just two glides in the third octave of which one is over several notes. Nine glides are downwards, the rest are upwards.

Unfortunately Nicholson does not describe how to glide through larger intervals. In his method of 1836, however, he explains that if several fingers are involved in gliding, their movement must be simultaneous (1836: 70). This means that not all of the notes in-between the interval can be heard. In a re-edition of the method by Wragg from 1818 and 1825 the (anonymous) author writes that many flutists fill in larger intervals with a rapid chromatic run which would almost have the same effect as a glide (1818, 1825: 66).

The following illustration shows an exercise of Nicholson's *Preceptive Lessons*. The glide is depicted by a crescent-shaped figure.



Illustration 67: Nicholson 1821: 57

A remarkable glide over five notes appears at the end of the first part. This kind of gliding can only be found in Nicholson's music. I am not familiar with any other example in music for other instruments or voice. Nicholson created his own personal style which was highly esteemed (see next citation).

In French methods gliding cannot be found. One could assume that the small holes on French instruments had little effect on gliding, but there is one argument against it: in his review on *A Word or Two on the Flute* by W.N. James, C. Grenser (1794-1864) dedicates a long passages to gliding. The whole passage will be cited here since it is a rare document about the use of this ornament (AMZ 1828: 115):

"Eine andere Verbesserung und grössere Schönheit," fährt der Verfasser [James] fort, "welche ohnlängst ins Flötenspiel eingeführt wurde, ist das Durchziehen oder Gleiten von einem Tone zum andern. Ich glaube, Hr. Nicholson nimmt die erste Anwendung dieser Ausdrucksart in Anspruch" (NB. in England). "Wenn sie jedoch nicht seine eigene Entdeckung ist, so ist es doch gewiss, dass er sie auf die höchste Stufe der Vollkommenheit gebracht hat. Die Wirkung dieser Zierde ist ausserordentlich schmeichelnd und schön; doch muss sie, gleich der Bebung, mit Bedacht und nur sparsam gebraucht werden. Wenn zu oft Zuflucht zu ihr genommen wird, so übersättigt

sie bald, wie alle andere sehr süsse Sachen, und wird ekelhaft mit ihrer eigenen Annehmlichkeit. Sie hat schon überdies einen Anschein von Ziererey, wider welche man sich aufs Sorgfältigste verwahren sollte."

Wie wahr spricht hier der Verfasser über die Wirkung dieser Zierde; und hier in Teutschland wissen wir diess zu würdigen, wo diess agrement schon die Periode des Misbrauchs durchlaufen hat, und nur noch hier und dort von Einzelnen als Manier ausgeübt wird. Ursprünglich war wohl dieses Durchziehen der Töne aus der gutgemeynten Absicht entstanden, auch dadurch der Menschenstimme in der Nachahmung näher zu kommen. Da es aber nur selten einem Künstler gelang, das kaum bemerkbare Durchziehen von einem Tone zum andern, eben so leise, oder auch nur nahe daran, auf einem Instrumente hervorzubringen, so wurde dadurch öfter mehr an gewisse Thierstimmen, die eben nicht zu den angenehmeren gehören, erinnert und also die Absicht verfehlt. Letzteres geschah am meisten von denen, welche nur Spieler auf Instrumenten, die diese Zierde anwandten, zu copiren suchten und bloss eine besondere Manier zu spielen darin sahen. Hingegen die, welche merkten, was die wahre Absicht dabey sey, belauschten einen guten Sänger und suchten diesem nachzuahmen; solchen glückte es eher noch. Ueberhaupt ist aber die Nachahmung der Menschenstimme in dieser Eigenschaft leichter auf Bogen- als auf Blas-Instrumenten zu machen, und darum auch häufiger und glücklicher auf jenen als auf diesen ausgeübt worden. Derselbe Fall ist es auch mit der schon erwähnten Bebung.

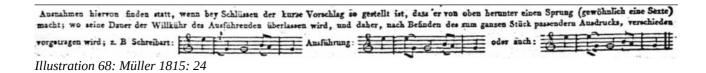
Unter den teutschen Virtuosen auf Blasinstrumenten, die ich zu hören Gelegenheit gehabt habe, erinnere ich mich hierbey an zwey, die mit Geschmack das Durchziehen der Töne anwendeten, nämlich an den verstorbenen Oboisten Thurner, und an den berühmten Flötisten Fürstenau; aber auch an einen, der Missbrauch mit dieser ihm vorzüglich gelingenden Fertigkeit trieb, nämlich an den Flötisten W. aus W..

Interestingly Grenser mentions an oboist²³ in the context of gliding. The holes of the oboe are extremely small compared to the holes of a flute. However, Thurner could of course execute glides with the help of the reed. Grenser states that the origins of gliding are vocal. Nicholson does not mention singing. He writes that gliding is often performed by violinists (1816: 21). Later flute methods adopt his statement (Wragg 1818: 66, 1825: 66, Alexander 1840: 30).

"Cerca della nota"

Even if gliding is not mentioned in French methods there are examples of an early form of portamento (see Hugot / Wunderlich and Walckiers in the chapter on appoggiaturas). Another example of that kind can be found in Müller (ill. 68).

²³ Friedrich Eugen Thurner (1785-1827)



Müller and Fürstenau (who copied the passage from Müller) use the term *portamento* in a different context. Here Müller calls it "*Tragen der Töne*" or "*portamento di voce*". Notes on the same pitch are connected with dots under a slur. Every note is marked with a particularly gentle but still noticeable pressure (Müller 1815: 20, Fürstenau 1826: 8).

Gliding in practice

Since the glide is a discretionary embellishment it is scarcely notated in music (Nicholson's published works are an exception). Therefore it is difficult to understand how much and on which notes it was applied. In flute methods warnings against the misuse of gliding reveal how frequently it must have been used.

I know of only one source of a German piece in which glidings are marked (apart from flute methods). Belcke notates two glidings (*glis*.) in the transcription of his *Adagio* op. 3. He also adds a fingering to the first glissando.



Illustration 69: Belcke op. 3. b. 4-7



The *cerca della nota* can be found in several German works. Here are two examples.



Illustration 71: Kummer quartet op. 102 (app. 1840) Adagio poco Andante b. 39-46



Illustration 72: Kuhlau Op. 68 no. 6. bars 27/28 plain version, 35/36 ornamented version with "cerca della nota" in bar 36

Vibrato

(Vibration, Bebung, Klopfen)

Vibrato is a hotly debated subject among today's musicians. The question about when, how much, in which form and to which extent vibrato was used is subject of numerous books.²⁴ Maria Bania has done extensive research on that subject in her Phd. Very little can be added to her thesis.

Technique

Vibrato can be executed in several ways: 1) by pulsing the breath (through the chest), 2) by waving a finger over the next open hole below, 3) by closing a hole or half of the hole with the finger, 4) by shaking the chin or, 5) the whole flute (for a faster vibrato). The treatment of vibrato in flute methods varies as the following illustration shows.

²⁴ See, for example, Bania 2008, Brown 1999, Stark 1999, Toft 2013

Words in grey show kinds of vibrato which were disapproved by the authors.

	Deutschland	England	Frankreich
1790-99	Tromlitz – finger, breath	Gunn – finger Miller – finger	-
1800-09	-	-	-
1810-19	Fröhlich – finger, breath Müller – breath, chin	Nicholson – breath, tremulous motion of the Finger immediately over the Hole and sometimes with the fingering covering about one half the Hole. Wragg – Finger over the hole, Finger on the hole, breath	-
1820-29	C.A. Grenser – (citing Nicholson) finger, breath – rather used by English flutists	Nicholson – Finger Lindsay – breath, shaking finger over a hole, shaking finger on half of a hole Weiss – finger	-
1830-39	-	Alexander – breath, shaking finger over a hole Nicholson – breath, flute, Shake	Coche – breath
1840-49	Fürstenau – breath, chin, finger	Alexander – breath, shaking finger over hole, shaking finger on half of a hole	-

Only Nicholson and Fürstenau talk about the speed and amplitude of the vibrato. Both of them were of opposite opinions. According to Nicholson the amplitude of the vibrato is small and the vibrato fast in piano. In the course of a crescendo the amplitude grows and the frequency of the vibrato decreases. Fürstenau does not mention amplitude but states that the frequency of the vibrato increases with the volume. Both refer to the sound of a bell.

They also speak of technical limits of the vibrato. Nicholson limits the speed of the chest vibrato to eighth notes. For faster vibrato one should shake the flute. Fürstenau states that more than three to four pulsations on a note would be technically impossible. Bania assumes that Nicholson and Fürstenau restrict the vibrato to movements of the large muscles such as the diaphragm, abdomin and thorax. They probably did not use the vocal chords. According to Gärtner (2011: 68, 83, 84) the movement of the big muscles is limited to 5,5 to 6 Hz.

In **France** vibrato is only mentioned by Victor Coche in 1838 as a sort of accentuated chest vibrato. He does not describe how exactly it works. No French author between 1790 and 1850 mentions the vibrato apart from Coche. It is possible that wind instrumentalists did not use vibrato, however, it was used by string players and singers as Gunn (1790: 18) states:

Among these [former graces] was the dumb shake, on stringed instruments, corresponding to what the French call *Flattement*, on the flute, and in our language, I

think, called *Sweetenings*, made by approaching the finger to the first or second open hole, below the proper note that is sounded, and moving it up and down over the hole, approaching it very near each time, but never entirely upon it; thus occasioning an alternate flattening and sharpening of the note, and, like the dumb shake, producing a trembling palsied expression, inconsistent with just intonation, and not unlike that extravagant trembling of the voice which the French call *chevrotter*, to make a goat-like noise; for which the singers of the Opera at Paris have been so often ridiculed.

Mengozzi (1804) does not mention vibrato in his singing method of the Paris Conservatoire. Has the style of singing changed that much since Gunn? Or was vibrato not taught at the Conservatoire?

In **England** flattement was apparently outdated towards the end of the 18th century as Gunn states (see above). In 1799 Miller mentions it shortly, but the chest and finger vibrato evolved into a fashionable ornament only through Nicholson. From 1816 on several English authors take over Nicholson's explanation of the vibrato, among others Wragg, Lindsay and Alexander. Dressler, Keith and Weiss do not mention vibrato at all.

In **Germany** both types of vibrato were used, but much less compared to England. Tromlitz mentions the finger vibrato ("Bebung") but warns against the chest vibrato (1790: 239). Fröhlich copies Tromlitz' text (1811: 87). In his singing method Fröhlich calls the chest vibrato a "beynahe veraltete Manier der Bebung". He does not recommend it for the singer because [es] "äußerst selten gut vorgetragen wird, und derselbe mehr und nähere Ausdrucksmittel hat, als diese gefährliche Manier" (1811: 65). According to Müller the chest vibrato can only be produced by a moderate increasing and decreasing of the air pressure (1815: 31). He does not mention the finger vibrato. Fürstenau who in his first method (1826) copied almost all passages of Müller does not take over this paragraph. It is only in his second method that he talks in detail about two sorts of vibrato. It could be that at the time when Fürstenau wrote his first method, vibrato was not used any more in his environment. In 1826 he went together with Weber on a concert tour to London via Paris where he met Tulou. At that time Nicholson was very famous for his vibrato as James (1826: 99, 100) states:

The lower tones that this gentleman [Nicholson] produces approach more nearly to the notes of an organ, perhaps, than any other instrument. No bell, no musical glass, can exceed the clearness or correctness of its vibration; and whether (to speak comparatively) the pealing tone of the organ, or the whisper of a vibration, is to be produced, the flute, in the hands of a master, is capable of effecting it.

In London, Fürstenau certainly heard Nicholson perform. Fürstenau probably brought both types of vibrato to Germany. C. Grenser (AMZ 1828: 101, 102) writes two years later in his review on James' book:

Uebrigens wird sich Mancher erinnern, diese Zierde theils gut, theils schlecht auch an teutschen Flötenspielern schon gesehen und gehöret zu haben; nur hat dieselbe, seit Tromlitz sie in seiner Flötenschule beschrieb, Niemand meines Wissens, ausser Nicholson und James wieder schriftlich erwähnt.

He does not mention Müller although he, as a literate person, would have been acquainted with Müller's method. Furthermore Grenser (AMZ 1828: 115) writes:

Ueberhaupt ist aber die Nachahmung der Menschenstimme in dieser Eigenschaft [des Durchziehens der Töne – Portamento] leichter auf Bogen- als auf Blas-Instrumenten zu machen, und darum auch häufiger und glücklicher auf jenen als auf diesen ausgeübt worden. Derselbe Fall ist es auch mit der schon erwähnten Bebung.

Here Grenser adopts the opinion of Tromlitz. Kummer, Fahrbach and Soussmann do not mention vibrato.

Since in **Italy** and **Spain** most of the published flute methods were translations of French methods, vibrato is not mentioned. In Italy, however, opera plays a major role in musical life. Therefore it is probable that flute playing was orientated towards singing where vibrato surely was used as embellishment.²⁵

Vibrato in practice

In flute methods vibrato belongs to the category of ornaments. It is not seen as an intrinsic part of the tone. Vibrato is used mainly in slow movements on longer notes. In England it is used more frequently than in other countries. Only Nicholson and Fürstenau explain which sort of vibrato is used in which situation. According to Nicholson the chest vibrato is always executed together with a *messa di voce*. The effect of the chest vibrato has "some similitude to a state of exhaustion or panting". The effect of finger vibrato is "inconceivably delicate" and "sweet" especially in adagios and other slow movements (1816: 22). It is not clear whether the latter effect can be applied to the chest vibrato. Fürstenau (1844: 79) goes more into detail. He describes the effect of the vibrato as follows:

Das Beben- oder Erzitternlassen eines Tones ist die Nachahmung eines derartigen Ausdrucks der menschlichen Stimme beim Gesange, wie er als Offenbarung einer leidenschaftlichen inneren Bewegung und Aufregung oft natürlich und deshalb von ergreifender Wirkung auf den Zuhörer ist. Besonders bei Streichinstrumenten üblich und dafür geeignet, lässt sich diese Manier auch mit Vortheil beim Flötespiel anwenden.

Furthermore he states that the chest vibrato ("Bebung") should happen not more than once or twice on one single note. It should be done on the climax of a piece, "in welchem der Culminationspunkt des leidenschaftlichen Gefühls enthalten, (…) wo dann ein, je nach den Umständen, damit verbundenes crescendo oder sforzato die Wirkung noch bedeutend erhöht" (1844: 79). The finger vibrato ("Klopfen") is used for long notes during which the dynamic is changing (crescendo or decrescendo), preferably in the third octave. It should be used very sparingly as well.

Apart from works by Nicholson and one other exception I have not found any indication of vibrato in published music. In a fantasy by Briccialdi from app. 1844, vibrato is mentioned at the beginning of a quite passionate but also lyrical variation. This piece was written for the simple system flute

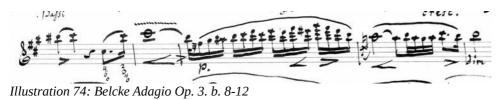
²⁵ See Toft 2013

since Briccialdi did not adopt the Boehm flute before 1847. Moreover, a low B appears in the piece which is below the range of a common Boehm flute of the time.



Illustration 73: Briccialdi, Il Primo Amore Op. 21, app. 1844, Var. 2: 26-63

Belcke, whose autograph was already mentioned above, indicates vibrato as well in his transcription of the *Adagio* op. 3.



In the second bar he notates a wavy line above the C3. It is connected to a *messa di voce*. Here a finger vibrato would fit well. In this case Belcke would follow Nicholson's notation. According to Fürstenau this line would indicate a chest vibrato.



At the end of the Adagio there is a dotted line above two upbeats (bar three and ten). I think that this line is illustrating a sort of vibrato. Fürstenau notates the finger vibrato ("Klopfen") with dotted

lines inside of a box. The place of the vibrato, however, is rather unusual if one follows Fürstenau's idea about the finger vibrato. The dots could also illustrate a chest vibrato as Müller describes it, however, since it is executed quite slowly, as described above, there would not be enough time. In this case the finger vibrato feels more natural.

Discretionary embellishments

(broderies, willkürliche Verzierungen)

Adding embellishments to the music was a common practice but not favoured by everybody. In his Mémoires Hector Berlioz (*Mémoires*) mentions an awkward situation in a concert with the court orchestra in Dresden (1842/43):

Le premier hautbois a un beau son, mais un vieux style, et une manie de faire des *trilles* et des *mordants*, qui m'a, je l'avoue, profondément outragé. Il s'en permettait surtout d'affreux dans le solo du commencement de la *Scène aux champs*. J'exprimai trèsvivement, à la seconde répétition, mon horreur pour ces gentillesses mélodiques; il s'en abstint malicieusement aux répétitions suivantes, mais ce n'était qu'un guet-apens; et le jour du concert, le perfide hautbois, bien sûr que je n'irais pas arrêter l'orchestre et l'interpeller, lui personnellement, devant la cour et le public, recommença ses petites vilenies en me regardant d'un air narquois qui faillit me faire tomber à la renverse d'indignation et de fureur.

Camille Saint-Saëns (1913) mentions another situation:

Unhappily, I was not present at the soiree during which Patti was heard at Rossini's for the first time. It is known that when she had performed the aria from *Il Barbiere*, he said to her, after many compliments: 'By whom is this aria that you just have let us hear?' I saw him a few days later: he still had not calmed down. 'I know perfectly well,' he told me, 'that my arias must be embroidered; they were made for that. But not to leave a note of what I composed, even in the recitatives-really, that is too much!'

The application or non-application of discretionary embellishments is a discussion which occurs in many flute methods. All authors who deal with this subject warn against the application of embellishments without any knowledge of harmony. Embellishments are appropriate for adagios but also appear in fast movements.

According to Gunn embellishments help "rendering dry and uninteresting passages, more flowing, elegant, and graceful" (1790: 31). The proper application of embellishments can only be learned by following good examples since it is easier "to acquire a facility in making embellishments than a correct taste do direct their applications, which ought, therefore, to be the first cultivated" (1790: 32). Gunn's musical examples, his examples for embellishments as well as the embellished adagio are taken from the *Versuch* by Quantz.

Tromlitz, too, illustrates discretionary embellishments with the help of an Adagio. Tromlitz thinks, as does Gunn, that only by studying good examples is the student able to learn how to embellish well. His adagio has five different versions: one with essential and some discretionary

embellishments, one simple version and three differently embellished versions. Tromlitz recommends to study all the versions well and to think about the relation between the embellishments, the emotion and the harmony. The embellishments should correlate to the melody (1790: 353).

There are other examples of embellishments in methods by Michel (1802), Nicholson (1821) and Drouët (1827). Drouët (1827: 65) forbids the addition of embellishments of any kind in music of Mozart, Haydn, Beethoven and other composers of similar quality. In trifling music on the repetition of a phrase embellishments and other ornaments (graces) could be added, "but the frequent employment of those charlatanisms, are redundancies, which destroy the sense of a melody and make a caricature of it – To acquire a pure style, nothing can contribute so much, as the study of good composition". Nicholson (1821: 11), too, has a strong opinion about the application of embellishments.

A mistaken idea has long prevailed with regard to Slow Airs or Adagios, - namely, "that Melody is greatly improved by the introduction of a variety of Embellishments." My opinion is, that in all Slow Movements or in National Airs, the simple, unadorned Melody, is not only more pleasing to the Ear, but affords the greatest latitude for the display of the most refined *Expression*; a beauty for which the Flute is justly celebrated, but which seldom succeeds in the practice of rapid Passages.

By studying his musical examples such as in the following illustration it is hard to comprehend this statement. The text below the adagio says that the depicted version is written "as nearly as possible as [Nicholson] has been accustomed to play it ... at many of the Public Concerts, in London and elsewhere" (1821: 63). The song is hardly recognizable.



Illustration 76: Cease your funning – plain version



Illustration 77: Nicholson 1821: 63 – ornamented version

Nicholson probably addressed his students who had not yet possessed the mastery of embellishing music in a tasteful manner.

Berbiguier, too, thinks that only virtuosos endowed with extraordinary talent should add embellishments ("broderies"). The art of embellishing consists of finding the expression in the melody itself instead of degenerating it in with wrong means (1818: 24). Fürstenau does not mention discretionary embellishments ("willkürliche Veränderungen"), however, he talks about discretionary graces such as the vibrato ("Bebung" and "Klopfen") and gliding.

Discretionary embellishments in practice

There are some examples of embellished melodies in printed music. Two versions of a melody are needed in order to recognize the embellishments. Here again the *Adagio* op. 3 by Belcke is a very good example. The relatively simple Adagio changes into a virtuoso piece equipped with many effects. Another example can be found in Kuhlau's sixth *Divertissement* op. 68 already mentioned above.



Illustration 78: Kuhlau op. 68: 27-30 plain version, 35-38 ornamented version

The third example shows an extract from solos played by Georg Bayr during the performance of several melodramas, ballets and other stage performances. There are six solo pieces in total.²⁷

²⁶ See my article on the Adagio op. 3 in Tibia 2015/3

²⁷ Bayr, Georg, Solos für die Flöte, Wien, Cappi und Diabelli 1820



Illustration 79: Bayr solo, Der süsse Brey first version b. 18-41



Illustration 80: Bayr solo Der süsse Brey second version b. 59-83

Pillar 4: Repertoire

Anekdote. Ein Dilettant kam in eine Musikhandlung, Noten zu suchen; er fand unter andern einen Musiktitel, der nicht gut ausgedruckt war, und las: Quintett für Flöte, Guitarre, zwei *rasschen* (Bratschen) und Violoncello. "Diese Zusammenstellung muß einen besondern Effekt machen", meinte er, und kaufte es auf der Stelle (WAMZ 1818: 432/480).

It is commonly held that flute repertoire from the early 19th century is rare. In the preface of the Henle edition of the Rondo by Franz Xaver Mozart the following can be read:

Das schmale Repertoire an Originalkompositionen für Flöte und Klavier aus dem frühen 19. Jahrhundert erweiterte er [Mozart] mit dem Sonatensatz jedenfalls um ein dankbares, wahrhaft "singendes" Werk. (Nottermann 2013)

There is also a common negative opinion about the quality of the repertoire compared to that of the 18th or 20th century. Hans-Peter Schmitz (1989: 355), for instance, writes in his article on the flute in the MGG:

In der, von wenigen Ausnahmen abgesehenen, recht unbedeutenden solistischen und Kammermusikliteratur für Flöte spiegelt sich deutlich der Niedergang des Instrumentes im 19. Jahrhundert. Das begleitende Flötensolo des 18. Jh. wurde einerseits von dem begleitenden Klavier-Solo (Cramer: "avec accompagnement d'une flûte ad libitum") abgelöst; andererseits bildete sich, vor allem in der 2. Hälfte, eine ebenso umfangreiche wie seichte (hier übergangene) Salonliteratur heraus, zu der gerade die Flötisten die schwächsten, aber effektreichsten Beiträge lieferten. Gegenüber der Sololiteratur ist die Kammermusik für Flöte mit Streichern oder Bläsern etwas besser bedacht. ²⁸

From my personal experience I understand his opinion. In education as in concert life, chamber music with flute from the first half of the 19th century plays a marginal role. Whereas pianists, violinists, cellists and clarinetists enjoy many solo and chamber music works by the most famous composers such as Beethoven, Brahms, Chopin, Liszt, Mozart, Schubert, Schumann, Weber etc., masterworks for the flute from this period can be counted on one hand. These include isolated chamber music works by Beethoven, Hummel, Schubert and Weber. This fact could explain why so little repertoire from this time is known today. One can only speculate about the reasons why the flute was neglected by great composers. This is my thesis:

Popularity

• The flute was a popular instrument which was probably badly played at every street corner. Some composers seemed to have grown tired of all these flute amateurs. Beethoven, for instance, in a letter to the publisher Friedrich Hofmeister from April 22nd 1801, writes disparagingly:

Es wäre recht hübsch, wenn der Herr Bruder auch nebst dem, daß Sie das Septett [Op. 20] so herausgäben, dasselbe auch für Flöte z.B. als Quintett arrangirten; dadurch würde den Flötenliebhabern, die mich schon darum angegangen, geholfen und sie würden darin wie die Insecten herumschwärmen und davon speisen (NZfM Vol. 19 1837: 77).

Friendship

- Compositions are often encouraged through friendships between composers and musicians.
 The friendships between clarinetists and composers such as Wolfgang Amadeus Mozart and Anton Stadler, Carl Maria Weber and Carl Baermann, Johannes Brahms and Richard Mühlfeld or Louis Spohr and Johann Simon Hermstedt resulted in valuable compositions.
- Friendships between flutists and composers are relatively rare, and despite the fact that Drouët and Felix Mendelssohn-Bartholdy or Fürstenau and Weber knew each other very well, no solo or chamber music works emerged because...

²⁸ In the new edition of the MGG flute repertoire is not mentioned.

Virtuosi

• ...as many virtuosos Drouët, Fürstenau and Nicholson and other flutists played their own compositions almost exclusively. Unfortunately they were not first-class composers as reviewers often criticized. They impressed the public by their artistic personality and their performance rather than by the quality of their compositions.

Composers – Instrument

• Great composers were often pianists who composed primarily for their own private or public concerts. Many wrote larger works such as string quartets, symphonies or operas as well.

The construction of the flutes

• In conversations with Boehm flutists I often hear the statement, "would he (Bach, Beethoven, Brahms etc.) have known the Boehm flute he would surely have composed great works for the flute". This hypothesis is pure conjecture and cannot be proven. The inferior quality of the instruments is often criticized, mainly relative to newer inventions. One example of such criticism can be found in Berlioz' treatise on instrumentation from 1843/44. Here he writes:

Cet instrument, qui pendant fort long-temps resta si imparfait sous une foule de rapports, est actuellement, grâce à l'habilité de quelques facteurs et au procédé de fabrications mis en usage par Boëhm [sic] d'après la découverte de Gordon, aussi complet, aussi juste et d'une sonorité aussi égale qu'on puisse le desirer [sic] (1843: 152).

- This statement could be seen as proof for the insufficiencies of the simple system flute. In the context of the Berlioz' whole text, however, the first statement becomes relativised. He describes in which situations the flute can be utilised (the old as well as the new flute). He also gives musical examples of operas by Willibald Gluck and Weber. In his description of Gluck's *Air pantomime* he even mentions (though indirectly) the one-key flute with its *sonorité faible, effacée, voilée du Fa naturel du medium, et du premier Si bémol au dessus des lignes* (1844:154), which in this aria is used to its best advantage. Ultimately it concerns the proper use of the instrument rather than its shortcomings. Incidentally Berlioz composed very few chamber music works. In his youth he played the flute and composed some works for it, but they have been lost. The perfection and evenness of tones that Berlioz praises on the newly invented flute, was sharply criticized by others. Richard Wagner was one of the most famous opponents of the Boehm system flute. He called it *Gewaltsröhre* and *Kanone* and banned it from his orchestra (Wagner 1869:26, Tillmetz 1890:VI).
- The argument "would he have known the Boehm flute" cannot be proven. Nevertheless the flute has very important demanding and virtuosic solos in numerous orchestra works and operas (see works by Beethoven, Brahms, Mozart, Rossini, Schumann, Verdi etc.).

In summary it can be said that great composers did not often have the opportunity to write works for

the flute because there was no need for it. This fact did not change after the spread of the Boehm flute. Nevertheless, compositions for the flute from the first half of the 19th century are extremely varied and more numerous than one might think. As mentioned above, the flute was the most popular wind instrument among amateurs. This explains the high number of flute methods and works for the flute. People could make money with it. The following graphs illustrate the proportion of new literature for flute and other wind instruments such as oboe, clarinet and bassoon. It shows entries of new editions in the monthly reviews of the publisher Friedrich Hofmeister between 1829 and 1855 (Hofmeister 1828-1900). The difference between the flute and the other instruments is very clear.

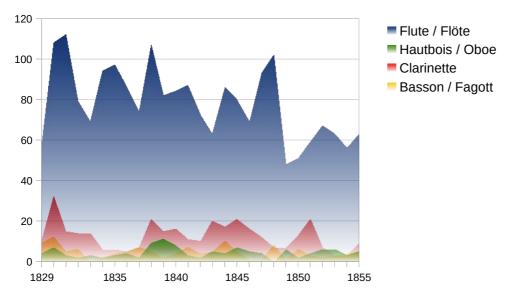


Table 5: Number of entries per instrument in Hofmeisters Monatsberichte 1829-50

Within 26 years 2107 entries appear for the flute opposed to 120 entries for the oboe (hautbois), 338 entries for the clarinet and 126 entries for the bassoon (Fagott).

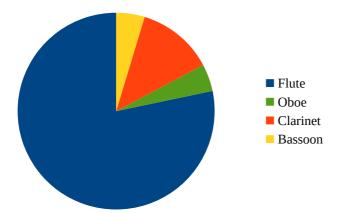


Table 6: Percentage of the instruments in entries of Hofmeister Monatsberichten between 1829 and 1855

The quantitative advantage of the flute becomes quite apparent, however, this fact is a blessing and

a curse at the same time because quantity does not say anything about quality. No catalogue rates the quality of works, it is thus necessary to study them in order to decide whether a work is suitable for a concert or not. I studied as much chamber music repertoire as possible in order to 1) get a better inside in the music taste of that time, 2) understand the music better and 3) gather sufficient material that could be used for concert programs.

Concert repertoire

Concert programs of the 19th century differ in all possible aspects from today's programs. It was unthinkable to play a whole concert with only one single group or player. Franz Liszt was the first musician who played a whole solo concert in the late 1830s (Weber 2007-2016, Walker 1987: 355-359). Often concert programs were very divers. The following concert took place in Pesth, 20th April 1818 (WAMZ 1818: 228, 229):

Concert. Zum Vortheile der sämmtlichen Mitglieder des Opern-Orchesters der beyden k. städt. Theater in Ofen und Pesth wurde am 20. d. in dem letzteren eine musikalischdeclamatorisch-plastische AbendUnterhaltung veranstaltet.

1) Ouvertüre aus der Oper Anarkcon, von Cherubini. 2) Arie mit Chor, aus der Oper: Italina in Alghieri, von Rossini 3) Adagio und Rondeau, für die Clarinette, componirt von Spohr 4) Arion, ein Gedicht von Schlegel 5) Rondeau brillante für's Pianoforte von Hummel in A 6) bekanntes Quartett für Männerstimmen: Stille, stille ohne alle Begleitung 7) Grosse Jagd-Ouvertüre (la Chasse), mit ganzem Orchester und 10 Waldhörnern, von Mehul 8) Johann Hunyadi Corwin, von Caroline Pichler gedichtet 9) Phantasie für die Flöte, componirt von A. E. Müller 10) Romanze aus der Oper: Joseph und seine Brüder 11) Unten und Oben, ein komisches Gedicht 12) Variationen für die Violine, von Herrn Maurer 13) Beschluss: grosses Tableau: den Tod des Fürsten Ponialovwky.

Today this kind of concert program is no longer played. It would (unfortunately) exceed any budget. Normally chamber music concerts are limited to rather small ensembles. In addition to the smaller number of musicians the repertoire differs as well. Flute quartets, quintets, piano trios other other sorts of chamber music were not performed publicly. Some of them could probably be heard in private circles. Professional flutists played a totally different repertoire as the following example shows: The flutist Christian Gottlieb Belcke (1796-1875) was second flutist at the Gewandhaus orchestra in Leipzig. He also travelled through Europe, mostly together with his brother Friedrich Belcke who was the first virtuoso ever on the trombone. Reviews, above all the *Allgemeine musikalische Zeitschrift* (AMZ), reported often on his concerts. Between 1818 and 1863 the AMZ mentions 62 works that Belcke played in several concerts. He played:

• Concertos (15), Concertinos (12), Fantasies (8), Divertissements (5) undefined pieces (4), Variations (3), Trio with voice (3, of which at least once his brother played the voice part of his trombone), Potpourri (2), Andante with variations (2), Adagios (2), Concertino for two

²⁹ More information about Belcke can be found in my three articles in Tibia (2015/2, 3, 4) or Flöte aktuell (2015/4, 2016/2)

flutes (1), Concert-variations (1), Rondeau (1), Adagio and Rondo (1), Concert-Polonaise (1) and Melodies (1).

The works are composed by:

• C. G. Belcke (12), P. J. von Lindpaintner (11), A.B.T. Berbiguier (6), C. F. Becker (5), J. W. Kalliwoda (3), A. B. Fürstenau (3), J. L. Tulou (3), A. Eberwein (1), R. Dressler (1), J. B. E. Dupuy (1), C. Grenser (1), C. Heinemeyer (1), Ch. Keller (2), J. Ch. Lobe (1), C. Reissiger (1), not mentioned (12).

Compared to other flutists such as Nicholson, Fürstenau and Drouët, Belcke's choice of composers is still varied. These flutists had a distinct personal style which they could express in the best way through their own compositions – noblesse oblige. The majority of Belcke's works are virtuosic solo pieces with orchestral accompaniment, and a few works are for a small ensemble (voice or organ among others). The virtuoso pieces serve their purpose: In one single piece flutists could display all their abilities – a slow introduction for the melting tone and fast *Allegros* for virtuoso fingers and fast tonguing. These are the features of which critics report as the following review of a concert in Berlin in the hall of the Royal Theatre on October 23d 1826 shows (BAMZ 1826: 352):

In einem etwas langen Flötenkonzerte von Tülou [sic] und vorzüglich in einem Konzertino eigner Komposition, hatte Referent Gelegenheit, auch des Konzertgebers Bruder, Flötisten in dem rühmlichst bekannten Leipziger Orchester, zu bewundern. Was man von einem Flötisten verlangen kann, gab uns dieser: einen dicken Ton, Sicherheit im Vortrage der schwierigsten Passagen, selbst in As-moll, und ein ausgebildetes Stakkato; auch seine Komposition ist rein, alles zweckmäßig angelegt (also keine leichte Modeware) und dürfte daher, wenn der Komponist die öffentlich machen wollte, einem der Herren Musikverleger nicht unwillkommen sein.³⁰

Then as now it would be inappropriate to play a whole concert with solo pieces. It would be far too monotonous. Moreover, today a flutist does not often have the opportunity to play a 19th century concerto with an orchestra.

The solution can be found in the world of amateurs. It was amateurs who played chamber music in all kinds of formations, it was amateurs who bought music and instruments and it was amateurs who constantly wanted to be fed with new literature. And yet they were not undemanding. There are compositions for every level. This is the repertoire which can be presented in concerts today.

At the beginning of this research I could not imagine the scope the search for repertoire would have. After the first investigations I realized that there is far more chamber music repertoire than I thought. It was necessary to limit the research in order to fulfill this task in a satisfying manner. I chose chamber music for flute with pianoforte and / or strings for two up to six players, duets for flute and strings excluded. After five years of research my database consists of approximately 1230 works of which I have seen and analyzed 828.

³⁰ The *Concertino* op. 1 was published by Breitkopf & Härtel / Leipzig in 1827.

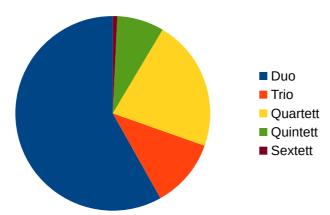


Table 7: Percentage of instrumentations of flute works in database

Duos		Trios		Quartets		Quintets		Sextets	
fl pf	349	pf fl vc	58	fl vn va vc	230	fl vn 2va vc	49	fl 2vn va vc cb	4
pf fl	223	fl vn vc	37	pf fl vn vc	9	fl 2vn va vc	34	fl va vn 2va vc	1
fl pf acc.	123	fl vn va	14	pf fl va vc	8	pf fl vn va vc	9	fl vn va vc 2vc	1
pf fl acc	11	fl vn b	5	fl vn va vc acc	6	fl vn va vc b	3	pf fl 2vn va vc	1
pf vn (fl)	4	fl vc pf	5	fl vn va pf	4	fl vn va vc pf	1	pf fl vn 2va vc	1
fl b	3	pf fl vc acc.	5	fl 2vn vc	3	fl vn va vc pf acc.	1	fl vn va vc cb pf	1
fl cemb	2	fl va vc	3	fl pf va vc	2				
		fl vn pf	3	fl va vn pf	1				
		pf vn (fl) vc	3	pf fl (va vc ad lib)	1				
		pf 4h fl	3	pf fl 2hn (2va)	1				
		pf fl va	2	pf fl vn vc acc.	1				
		pf fl vn	2	pf vn vc cl / fl	1				
		fl va pf	1	va / fl vn va vc	1				
				vn / fl vn va vc	1				
total	715	total	141	total	296	total	96	total	9

The bulk of the repertoire consists of works for flute and pianoforte which are mainly fantasias, potpourris, divertissements, sonatas, concertos, nocturnes, solos or caprices. While virtuoso works are widely spread in all countries, the sonata is found mainly in Germany. Quartets form the second group. Most of them are soloist quartets in which the strings take over the part of the accompaniment. Quintets and trios with strings have usually more equal parts.

Only a fraction of the works could be dated exactly. In most cases publishing dates could be determined by plate numbers. In some cases catalogues of publishers as well as reviews in periodicals helped further. The main criteria for the evaluation of the works was the suitability of the works for concert performance. This evaluation can only be subjective. It is based mainly on the experience I developed in the course of my research coupled with my own personal taste. Nevertheless, there are some criteria on which the quality of piece can be measured: the quality of

the melody (theme, passage works), the length of a piece or the distribution of the parts (especially in quartets). Often it is more interesting to play the pieces by oneself than to listen to them. This aspect flows into the evaluation as well.

There are quite a few interesting reviews by contemporary critics. Here are some examples of reviews in the AMZ.

Le Défi, Mélodie concertante pour Piano et Flûte — par T. Berbiguier. Oeuv. 129. Leipzig, chez Breitkopf et Härtel. Pr. 16 Gr.

Diese Ausforderung gehört keinesweges unter die schwierigen oder gefährlichen, vielmehr lässt sie sich für beide Instrumente bei einiger guten Fertigkeit in Handhabung ihrer klingenden Waffen sehr glücklich und mit Erfolg bestehen; namenlich ist die Klavierpartie so leicht französisch µ. angenehm gehalten, dass jeder Spieler, der über die Schule hinweg ist oder auch nur einen Theil derselben vollendet hat, ohne Schwierigkeit damit zu Stande kommen wird. Die Flöte ist das Hauptinstrument, bietet aber auch keine eigentlichen Schwierigkeiten und setzt nur eine verhältnissmässig etwas bravourmächtigere Bildung voraus. Häuslichen Zirkeln liefert das Werkchen eine gefällige Unterhaltung, wie man sie von diesem Comp. gewohnt ist

Illustration 81: AMZ 1836: 205

Variationen für eine Flöte über das Schottische Lied aus der Oper: '"die weisse Dame," komponirt von Wilh. Klingenbrunner. Op. 59. Preis 20 Xr. Conv. M. Allen denen anzuempfehlen, die gerade

Variationen für eine Flöte über dieses schottische

Illustration 83: BAMZ 1828: 458

Lied suchen.

Grande Sonate brillante pour Pianoforte et Flûte, comp. — par F. Kuhlau. Oeuv. 64. Hambourg, chez Cranz. (Pr. 1 Thlr. 18 Gr.)

Ein kräftiges, wirklich brillantes Allegro aus Es dur; ein altdänisches Liedchen, nach kurzer Einleitung achtmal variirt, mit freyerem Ausgang; ein lebhaftes, heiteres, an Figuren reiches Finale, aus Es dur. Beyde Instrumente reichlich, doch nicht allzuschwierig beschäftigt. Der Erfindung nach, das Finale der anziehendste Satz. Beyde Allegro's sehr in die Breite, und alles mit achtungswerther Rechtlichkeit ausgeführt. Stich und Papier gut.

Illustration 82: AMZ 1826: 272

Kunze Anzeige,

Serenade für Pianoforte und Flöte, comp. — — von H. Soussmann. Werk 12. Berlin, bey Lischke. (Pr. 1 Thlr. 4 Gr.)

Andante arioso zur Einleitung, Allegro, Andante, Menuett mit Trio und Rondo: alles ziemlich kurz, auf gefällige Melodie angelegt, für das Pianoforte sehr, für die Flöte ziemlich leicht, und für Scholaren oder Liebhaber, die Schwierigeres nicht bezwingen können, nicht unpassend. Manches, z. B. die Menuett, hört sich recht gut an; zuweilen senkt sich der Verf., um recht leicht und gefällig zu bleiben, doch wohl zu sehr zum Trivialen. Stich und Papier sind gut.

Illustration 84: AMZ 1823: 196

1) German speaking Countries

In German speaking countries numerous large publishing houses, such as Simrock, André, Peters, Breitkopf & Härtel, Schott, Hofmeister, Hummel oder Artaria, were situated. Publishers constantly released new flute works. The instrumentation ranged from flute solos through chamber music to

flute concertos. In addition to original compositions many famous pieces were arranged for flute. Amongst them are violin sonatas by Beethoven (Drouët), string quartets by Mozart (Caspar Fürstenau), violin concertos by Spohr (Belcke), symphonies by Beethoven (Hummel) and many more.

Interesting original compositions are quartets, piano trios, duos for flute and pianoforte as well as sonatas by L. van Beethoven, J. E. Brandl, C. Czerny, F. Fränzl, A. B. Fürstenau, P. Hänsel, J. Haydn, J. N. Hummel, Hünten, C. Kreutzer, F. Kuhlau, C. Kummer, W.A. Mozart, G. Onslow, A. Reicha, K. G. Reissiger, F. Ries, B. Romberg, L. Spohr and C.M. Weber.

2) Bohemia

Many interesting musicians, above all A. Gyrowetz, F. Krommer and J. L. Dussek, were Bohemian. These three composer wrote many works for the flute. The majority of works were written for amateurs, but they could also be used in concert programs. Gyrowetz composed works for many instrumental combinations whereas Krommer restricted himself to quartets and quintets. Dussek wrote mainly for the piano with the accompaniment of a flute or violin and several trios for pianoforte, flute and cello. Other less known composers who composed for the flute are G. Druschetzky, J. Fusz, Jirsa, F. Lessel, P. Masek, A. Matauschek, V. Pichl, F. Raiger, J. J. Ryba, J. B. Vanhal and P. Wranitzky. Most of their works originate from the end of the 18th or the beginning of the 19th century. They can be played on the one-key flute. Transcriptions by flutists of other works are rare. The flutist Joseph Cichocki transcribed works by George Onslow.

3) Italy

Opera was very popular in Italy and dominated the Italian flute literature. Most of the works are technically demanding, especially works written by flutists. The typical chamber music work is a fantasy, a divertimento or a capriccio on a motive of an opera by Vincenzo Bellini, Gaetano Donizetti, Gioacchino Rossini or Giuseppe Verdi for flute with accompaniment of the pianoforte. Most of them consist of a fanciful introduction, not seldom built up as a recitative, a theme, two to four variations and a virtuoso ending in form of a rondo, valse or polonaise. The preferred tonalities are D-major, G-major and A-major. E-minor appears quite often, too. While in the first decades of the 19th century most of the works are by foreign composers, more and more Italian flutists write their own pieces from the end of the 1820's on. Chamber music such as trios, quartets and bigger instrumentations are scarce in Italian literature. In the few existing chamber music works, such as quartets by Saverio Mercadante, the flute mostly takes over the solo part. Composers whose works excel are Donizetti, Mercadante and Giuseppe Rabboni but these names are no guarantee for an excellent composition.

4) England

What the opera is for Italy, the air is for England. Airs from all corners of Great Britain were not only played in private circles but also gained great popularity in public concerts. Nicholson very often played airs in concerts. Airs were often embellished and variations were added. Airs with

variations were meant rather for domestic pleasure than for public performance. Today these airs are less suitable for concerts since they are, at least outside of Great Britain, relatively unknown. The public and most of the musicians have no affinity for it any more. Opera arias were arranged for flute and other instruments as well and published en masse as the following extracts of the Quarterly Musical Magazin and Review from 1825 show.

ARRANGEMENTS.

Overture to Preciosa and favourite Airs, for two Performers on the Piano Forte; by T. Latour. Chappell and Co.

Overture to Preciosa, for Harp and Piano Forte, with Flute and Violoncello Accompaniments; by N. C. Bochsa.

The Beauties of Preciosa, adapted for the Piano Forte; by the Author. R. Cocks and Co.

Overture to Preciosa, for two Performers on the Piano Forte, with Accompaniments for Flute and Violoncello (ad lib); by D. Bruguier. Gow and Son.

Two Books of Music in Preciosa, for the Piano Forte, with Accompaniments for the Flute and Violoncello (ad lib); by D. Bruguier.

No. 6, Klose's Operatic Divertimentos, from Preciosa. Chappell and Co.

La belle Sorciere, Romance, Ballet, and Chorus, from Preciosa, arranged for the Harp and Piano Forte; by C. N. Weiss.

Spanish National Dauce, from Preciosa, arranged for the Piano Forte; by J. Calkin.

Overture to Der Freyschutz, arranged for Harp and Piano Forte, with Flute and Violoncello Accompaniment (ad lib); by G. Holst. R. Cocks and Co.

Illustration 85: QMMR 1825 vol. Vii: 260

Grand Trio for three Flutes, by Tulou. Lavenu & Co.
Fantasia Brilliant, on "Viola le plaisir mes Dames, viola le plaisir,"
composed for the Flute, with a Piano Forte Accompaniment, by
Tulou.

The Nightingale, consisting of twelve short Solos for the Flute, composed in the style of Improvisation, by J. N. Weiss. Lindsay and Co.

A favourite Irish Melody, with an Introduction and Variations for the Flute, and an Accompaniment for the Piano Forte, by T.C. Weidner.

Introduction and Waltz for the Flute and Piano Forte, composed by T. C. Weidner. T. Boosey and Co.

Cease your funning, with Variations, as sung by Mrs. Salmon, composed by C. N. Bochsa, arranged for the Flute, with an Accompaniment for the Piano Forte, by W. Card. Lavenu & Co.

Illustration 86: QMMR 1825 vol. Vii: 404

In the beginning of the 19th century numerous simple sonatas were published for piano with an accompaniment of a flute or a violin by composers as J. B. Cramer, L. Dussek, J. Mazzinghi or I. Pleyel. They were intended for domestic use. Later, flutists who emigrated to London, such as Dressler, Drouët, Robert Frisch or Johann Sedlatzek, composed virtuoso works or airs. Few are suitable for today's concert programs since most of them contain endless variations. One very famous work of this kind is Drouët's variations on *God save the King* (1816). Beethoven also wrote for this genre. He composed several national airs with variations commissioned by the Scottish folk-song collector George Thomson in 1818 (London, Preston 1819). These are probably the only works that he composed for pianoforte and flute.

There are also many arrangements of other works such as symphonies by Haydn, arranged for two violins, flute, viola, cello and pianoforte ad libitum by Johann Peter Salomon or *Introduction et Polonaise* op. 3 for cello and pianoforte by Frédéric Chopin, transcribed for flute and pianoforte by Sedlatzek.

5) France

I have found relatively little information about public concert life in France after 1800. Music life took place in the opera and "Salons" in Paris. The following illustration shows the program of a

concert in the workshop of piano builder Jean-Henri Pape in 1830.

Première partie. 1° Fantaisie pour stûte et piano composée et exécutée par M. et M. Farrenc; 2° air chanté par M. Bordogni; 3° fantaisie pour l'Eol-harmonica et deux guitares, composée par M. Schulz, et exécutée par l'auteur et ses deux fils; 4° variations de Moschelès, exécutées sur le piano par M. Rhein; 5° duo chanté par M. Fortunata Marinoni; 6° polonaise de Mayseder, exécutée sur le violon par M. Ebner, de la musique du roi de Prusse; 7° duo chanté par M. Mallibran-Garcia et M. Bordogni.

Deuxième partie. 1° Variations pour deux pianos, composées par M. Payer, exécutées par M. Farrenc et l'auteur; 2° variations chantées par M. Mallibran; 3° rondeau militaire pour le piano, composé et exécuté par M. Schunke; 4° air chantée par M. Marinoni; 5° ouverture de la Flûte enchantée de Mozart, arrangée pour trois pianos à douze mains par M. Payer, exécutée par lui et MM. Pixis, Schunke, Liszt, Rhein et Schulz. Tous ces morceaux ont été rendus avec Illustration 87: Revue musicale 1830: 41

It is not clear which fantasy Mr. and Mrs. Farrenc played. It was probably the *Fantaisie concertante pour Piano et Flûte sur des thêmes de Masaniello, musique de Carafa* published around 1830. In France many amateurs must have played the flute because many publishing houses such as Richault, Farrenc, Janet & Cotelle, Naderman, Imbault, Brandus & Compagnie or Pleyel have published works for the flute. The repertoire was international. Especially German and Italian composers as A. Gyrowetz, J. N. Hummel, F. Kuhlau, C. Kummer, G. Rabboni, A. Rolla, as well as immigrated musicians as L. Drouët, F. W. M. Kalkbrenner, I. Moscheles, J. P. Pixis, or D. Steibelt are represented in the repertoire. French musicians have contributed flute music mainly for domestic use as well, above all Berbiguier, Pleyel and Tulou. Tulou is known mainly for his *Grands Solos* which he composed for the examinees at the Conservatoire but he also composed numerous Salon pieces. Some of the *Grands Solos* can definitely be played in concert. Berbiguier composed more than 200 works for the flute, most of them music for amateurs. He composed only one quartet for flute and strings. Other composers who wrote works for the flute are P.-H. Camus (who already wrote for the Boehm flute), J. Demersseman, A. de Garaudé, A. Reicha and E. Walckiers.

There are also several transcriptions of sonatas or piano trios by L. van Beethoven, N. C. Bochsa, H. Herz, K. G. Reissiger or P. Rode. It is not easy to find good French concert music because the majority of the pieces is rather simple in technical and musical terms. Works by J. Demersseman, L. Gianella, J. P. Pixis, A. Reicha, L. Tulou and E. Walckiers are the most useful.

6) The Netherlands, Belgium, Spain

Dutch repertoire, just as Belgian and Spanish repertoire, is very limited. Most of it consists of

simple pieces for amateurs. Dutch composers as J. Fastré, C. F. Ruppe, C. H. Steup or J. W. Wilms composed mainly simple sonatas and Salon music. Drouët, born in Amsterdam and one of the most famous flutists of his time, is an exception. As already mentioned above, his compositions are of his own personal style. They are extremely virtuosic, yet rather monotonous.

In addition to works by Martin Mengal and Benoit Constant Fauconier I am not familiar with any other Belgian compositions. Both of these composers wrote their flute works in the second half of the 19th century. Hendrik Messemaeckers, born in Venlo, resided for many years in Brussels. He composed several sonatas for flute and pianoforte.

Spanish compositions form the first half of the 19th century are very rare as well. The most famous Spanish flute virtuoso of the time, José María del Carmen Ribas (1796-1861), went to England in 1825 where he took over all of the orchestra positions of Nicholson who died in 1837. Ribas' works can be related to the English style. Other Spanish composers such as Ramon Carnicer, Mariano Rodriguez de Ledesma or Baltasar Saldoni composed simple music mainly for domestic use.

Pillar 5: Practicing

One important subject cannot be found in the source material: practicing. After studying the Boehm flute, the transverse flute and preparing my Phd, playing the simple system flute was the biggest challenge. Not only the different types of flutes with their different keys but also the overwhelming number of alternative fingerings make it very difficult. It is surely possible to play the simple system flute without being familiar with the old flute methods. Probably one would even find the same number of fingerings. I think however, that the fingerings would be applied differently if one does follow the methods of the time. This works very well with the second method by Fürstenau. He added exercises with precise information on the fingerings that enable me to understand very well which fingering has to be used in which situation. It is very helpful to practice his exercises on an appropriate instrument, for instance a flute by Koch or Liebel. I have strictly followed and practised his exercises for months. At first some fingerings felt very uncomfortable and sometimes I could not quite understand why he recommended certain fingerings for specific situations. After having understood his sound concept I got used to them. It took a while to memorize and to apply the fingerings (109 in total). As a result my repertoire of fingerings has increased dramatically although it is still a big challenge to apply the right fingerings immediately at the right moment. Sight reading remains difficult since one must always think in advance in order to use the proper fingerings. This aspect renders the simple system flute into a sort of intellectual instrument. After having gathered a big stock of fingerings however, it is a pleasure to apply them. The tone quality is, just as Fürstenau described it, a huge advantage of the simple system flute.

In addition to choosing the appropriate fingerings I found it very challenging to vary the rhythm, and to apply the musical accent and the tempo rubato. As mentioned above, it was very difficult at first to step out of my comfort zone and become more flexible. Another challenge was to apply it to chamber music. It has been time consuming to find the right way. The big danger is that it should not sound as if it has been under rehearsed. I am still looking for the right proportion.

Pillar 6: My path

Remember that in music, as in all other arts, when you have passed through the gradation of the necessary rules, your mind, assimilating the various parts of this acquired knowledge, creates, as it were, a new perception that renders all your farther progress easy and pleasant (Corri 1810: 6).

After all the research on instruments, performance practice and repertoire is done, the final interpretation of the sources is entirely in my hands. Ultimately the personal factor plays the dominant role. No two musicians will perform a piece exactly in the same way and yet everybody uses the same sources, reads the same texts. In the end the results are always different. Several other approaches, for example based on musical analytical techniques or centred on the use of harmony, melody, rhythm, or form, could have served as starting point for research into the chosen time and repertoire segment. My personal goal, however, was to learn how to play the simple system flute using historical sources to better understand the development of the flute repertoire (with piano and/or strings) of the early 19th century.

How was the flute played and which repertoire was played? Is the repertoire really as inferior as its reputation would suggest or did we simply forget its musical language? These questions were the core of my research.

It is a life's work to find answers to these questions. Through the research I gained an insight in the complex world of the performance practice and repertoire. However not every issue could be clarified. Since I can only consult silent witnesses, I can only guess how the flute was played at the time. Soon it became apparent that the performance practice of the time differed greatly from performance practice today. It begins with the type of instrument followed by the different applications of fingerings, articulation, ornaments and finally the choice of repertoire. Today we are confronted by the obligation to master several types of flutes as we try to do justice to the music by using the appropriate instruments. On the other hand this situation offers a great chance: the public derives a maximum of enjoyment from the great diversity of the flute and its performance practice.

As explained above I could investigate only parts of the solo and chamber music repertoire. Despite the limitations I gained sufficient insight into the repertoire of the flute. It is true that the majority of these works cannot be rated as master works. According to my database approximately 90 percent of the repertoire is not suitable for concerts. Research revealed, however, that approximately 95 percent of these works were never meant to be played in public. Most of the concert repertoire consisted of virtuoso solo works with orchestral accompaniment. Despite this fact there are many works that are suitable for today's concert programs. These works can be played more expressively by respecting their musical context and background. Through my awareness of historical performance practice sources, I have found a musical language that allows me to present music of the early 19th century with total conviction. It is not one detail that improves the interpretation, nor is it the trill played from the main note or the note above, nor the fingering which fits into this or that situation; it is the whole concept. I had to examine the simple system flute from every point of

view in order to unite all factors. Through this research my interpretation has gained in authenticity and the resulting confidence. Musical interpretation delivers, just as in art, only momentary results and it changes constantly. This change is for the most part based on my research, but is also influenced by my outlook on the music of the 19th century.

Résumé

After having researched the six pillars it is now possible to put the whole puzzle together. All of the basic components needed for a concert performance on the simple system flute are present: repertoire, mastery of the flute and knowledge about the instruments and their particularities. After having done all research I can take advantage of it comprehensively. Thanks to the databases and the website I have created, flutists and other musicians can make use of the research results. The following example shows how the preparation of a concert could work and which obstacles have to be overcome: A flutist would like to prepare a program of approximately one and a half hour together with a violinist and a cellist.

Step one: Instrument

• The most difficult step is to find the right instruments. Often compromises have to be made since a musician seldom owns all the different types of instrument. The problem begins with the pitch. Copies of flutes exist in only two pitches: approximately 430 Hz or, for later flutes, 435-440 Hz. The pitch of original flutes ranges between 420 Hz and 455 Hz. In the ideal situation string players would have to be very flexible. The instruments themselves set limits as well. An early flute, for instance, does not go with a later violin bow because of the difference in attack.

Step two: Repertoire

• If instruments are chosen first the repertoire has to be suitable or vice versa. Choosing the instruments first is probably the easiest way. In the database "Repertoire" there are 41 entries for the above mentioned instrumentation of which seven works are rated as "good". These works are by Walckiers, Gyrowetz, Kummer, Pössinger, Richter, Raimondi and Zamboni. They were published in Italy, France, Germany and England, between 1800 and 1830. The choice is quite wide. The database lists the libraries in which the works can be found. If we assume that the flutist plays a Grenser flute the most suitable pieces would be trios by Gyrowetz (1808), Richter (1800) and Raimondi (1804).

Step three: Performance Practice

• In the database "Fingerings" the flutist can find the appropriate flute method. In this case the flute methods by Fröhlich and Müller would be the most convenient. They correspond to the period and to the instrument. On my website the most important citations can be found on the most important aspects as trills, articulation etc. If there are questions about fingerings the database "Fingerings" could be consulted.

Step Four: Marketing

• This is a crucial point which is often an obstacle to the realization of this type of program in a concert. Concert programs have to be sold. Gyrowetz, Richter and Raimondi are not good sales arguments. Their names are completely unknown and therefore unmarketable unless some brave concert organizers or special festivals dare to take this program into their concert agenda. It is always good salesmanship to add a famous name. Luckily Haydn composed some works for this instrumentation as well.

In this example the choice of instruments was relatively simple. It gets much more complicated if a transcription, let us say a string quartet by Mozart, composed in 1782, is chosen for a concert. What would you do if the transcription is made by a German who published it in France in 1819? Do you play it in the style of Mozart with instruments of 1782 or in the style of 1819 with instrument of that period? German or French style? Mozart 1782 – Germany 1819 – France 1819 – Brussels 2016?

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Illustration 13: F-key drawings: Anne Pustlauk © Hanna Petruschat

Illustration 14: Tulou 2009.024: Metropolitan Museum, New York

Illustration 21: Dupré 2688, 2686: Muziekinstrumentenmuseum Brussel

Illustration 22: Drouët DCM0317: : Dayton C. Miller Flute Collection, Library of Congress, Washington, DC

Illustration 23: Drouët: Instrumentensammlung Klangkörper, Tübingen