



Boaz Berney
Historical flutes

The Flutes

- Renaissance flutes -

Medieval flute

The Medieval flute I make is a result of collaboration with Claudio Santambroggio ([link](#)), who has done a great deal of research about the transverse flute in the middle ages, both in iconography as well as in literature. Claudio is also an inspiring player who is active in several groups performing music of the late middle ages. The idea of experimenting with constructing a mediaeval flute came from Claudio's search for an instrument suitable for the performance of this music. We were looking for an instrument that would be more flexible and open on the lower register than the renaissance flute, as well as being tuned in d Dorian in Pythagorean tuning. Inspiration for the design came from a very unusual original in the Musikinstrumenten Museum in Berlin, made in maple, with two horn rings. The instrument, which at first glance looked like a renaissance flute, has several features which are not found on originals made in the sixteenth century. The most striking is its wide bore and thicker walls - more than on any surviving tenor renaissance flute. Another interesting feature is the grouping of its holes, not two groups of three holes, but a single group of six holes, more or less equally spaced. The first reconstruction of this original showed another difference, namely that the fingering for B and C# (I----- and -----) gave sounding B flat and a C natural. We found the sound (concept) of the instrument very appealing, it had a wonderful low register and was capable of a large range of colors and dynamics. We decided to base my Medieval flute on this original, but to alter the hole positions, so that it would play with in D Dorian in Pythagorean tuning with renaissance fingerings.

Copies are available in two sizes: a tenor in D and a descant in g, at A=440 and 465.

Schnitzer consort

The Schnitzer flutes are copied after three originals in the *Biblioteca Capitolare* in Verona. The library, which belongs to the city cathedral, owns a small collection of instruments, all of which are known to have been donated to the cathedral in 1631. Among these are eight renaissance traversos, three of them (two tenors and a bass), marked with the brand mark "AA". This mark is attributed to either Sigmund or Arsazius Schnitzer, both of whom belonged to the Schnitzer family of woodwind and brass instrument makers, active in Nuremberg. Although it was donated relatively late to the Cathedral, the instruments can probably be dated to the second quarter of the sixteenth century. The originals play at A=428 and are made maple. I have scaled them up to play at 440, keeping all of the measurements in proportion so that the copy will be as close to the original as possible. This model has a slightly larger bore than the Bassano instruments and a unique embouchure which is overcut to enhance the volume of the instrument. This special overcut, masterfully executed, is found on all three instruments and is, in my opinion, original.

Copies are available in maple and in a variety of fruit-woods: pear, plum or cherry. The bass is made with two horn rings as is the original.

Bassano consort

The Bassano flutes are copies of originals found in the Musée Instrumentale in Brussels and the Biblioteca Capitolare in Verona. They are marked '!!' and are attributed to the Bassanos, a family of woodwind makers and players. There are over sixty different instruments found throughout Europe; cornets, recorders, flutes and crumhorns, all of which are stamped with this mark, or variants of it. This mark has been recently identified by David Lasocki as moth wings and associated with the Bassanos, who were of Jewish origin and were active in Venice and London during the sixteenth and seventeenth centuries.

The Brussels consort is composed of two tenors and a bass. Of the latter, only the headjoint has survived. These flutes are made of boxwood and are pitched at approximately $A=408$. The Verona consort is pitched half a tone higher, about $A=425$, and is also composed of two tenors and a bass, all made of boxwood. Having measured these two consorts with their half tone difference, I used the relationship between them to re-calculate the instruments to play at 415 and 392, keeping all of the measurements in proportion, so that the copies will be as close to the originals as possible. I offer complete consorts (ATTTB) at 392, 415 and 408.

Copies are available in boxwood, maple, pear, plum or cherry, as well as a variety of other softwoods.

Lissieu

This unusual model is a copy of an original in the Kunshistorisches Museum in Vienna, made by the French maker Lissieu, active in Lyon during the second half of the seventeenth century. Little is known about his life, but his instruments appear to have been well known for their quality and fine workmanship. One of the references to this maker are found in the Musette method of Piere Borjon de Scellery (Lyon, 1672):

"Le sieur Lissieux, qui depuis quelques années'est établi à Lyon, en construit [des musettes] avec beaucoup de propreté et de justesse, aussi bien que toute sorte d'autres instruments à vent. Je n'en connois point qui approche davantage de l'adresse des sieurs Hotteterre."

("Mr. Lissieux, who has been established in Lyon for a few years, makes them [musettes] with great accuracy and good intonation, as well as all sorts of other wind instruments. I don't know any other maker who approaches him in quality of work, apart for the Hotteterres")

Apart for the flute there are only two other surviving instruments by Lissieu: a small recorder in a private collection in Boston, MA, and a beautifully made *musette de cour* surviving in the collection of Moreph Chantry Bagpipe Museum in England. The musette can be dated to the 1670's.

The flute is a high pitched instrument, playing at $A=460$ and is, acoustically speaking, of a renaissance design. With a cylindrical bore, six finger holes it works well with renaissance fingering. The wall thickness is slightly larger than an average renaissance flute, which, combined with the high pitch, give this instrument a sweet, well-focused, almost recorder-like sound. The ornamental turning on the flute, on the other hand, is baroque, and its proportions and style reminiscent of another seventeenth century flute by the Dutch maker Haka.

As for the instrument's repertoire, it is difficult to say what French flutists during this time period would have played on such an instrument. The high pitch, and the type of sound and response are, however, most suitable for playing earlier seventeenth century repertoire, such as Italian Canzonas and early Sonatas, and can be combined well with other wind instruments at high pitch such as cornettos, dulcians and trombones.

This model is available at the original pitch, $A=460$, as well as with an extra lower body part for $A=465$.

- Baroque flutes -

Three-part Naust

This model is the earliest Baroque flute that I copy. It is made in three parts, in the style of the so-called "Hotteterre" flute. The original, found in the Musikinstrumenten Museum in Berlin, is one of four surviving three-part Naust flutes, the other two of which are found in museums in St. Petersburg, Paris and Vermillion, SD. This rare original is in excellent condition, and is inspiring both to play and to look at. This model is available with two different styles of embouchure: one after the Berlin original, which is oval and has the longest dimension in the blowing direction (much like the embouchure of a renaissance flute), and the other after the St. Petersburg flute, which is slightly smaller and rounder.

This type of instrument is ideal for playing French repertoire of the late seventeenth and early eighteenth centuries: Lully, Charpentier, Hotteterre, Marais, de la Barre and others. The Naust flute is available in boxwood at the original pitch (396) or at 392.

Four-part Naust

This interesting original comes from a private collection in Germany and is probably one of the earliest surviving four-part baroque flutes. It is dated from roughly the same period as other early four-part originals such as those made by Denner, Bressan and I.H. Rottenburg. The Naust workshop is unique in that it is one of the few workshops that made both the earlier three part as well as the later four-part models. The transition from three to four parts probably took place between 1710 and 1720, but it is a bit of a mystery as to where it took place. A sales bill dating 1721, drawn for *Sieur Dejardin*, a flutist at the Paris opera, for a flute with three *corps*, or *corps de rechange* indicates that by that time the Naust workshop was producing the new four-part flutes. As Pierre Naust died in 1709, it is unlikely that this flute was made by him, but rather by either his widow, Barbe Pelletier, or by Antoine Delerablée, who became a partner in the workshop in 1722. Both he and the widow Naust continued to make instruments using the "Naust" stamp (with the sign of a lion rampant) from Pierre's death in 1709 until the 1730s, when the shop was taken over by Thomas Lot.

This original forms a link between two other models that I copy, the earlier, three part Naust and the later four part flutes made by Thomas Lot. Although there is a gap of about one generation between the two Naust models, there are some characteristics common to both: they are at the same pitch (roughly at A=398), share similar internal tuning, voicing and undercutting. On the other hand, the dimensions of the four-part original are almost identical to the early Lot flutes, although they differ greatly with regards to voicing and undercutting.

This model has a full, round sound, with strong cross fingerings. This model is extremely versatile, and works well for both early and high baroque repertoire; Couperin, Leclair, Blavet, Telemann and J.S. Bach.

The four-part Naust flute is available in boxwood or ebony at the original pitch (A=398) with extra middle joints for A=392 or A=415.

Thomas Lot

The Thomas Lot model is based on an original found in the collection of the Gemeente Museum, The Hague. Lot had a thriving workshop which was active in Paris from 1730 until his death in 1787. His instruments were sold all over Europe, and professional flutists, such as Blavet, Boismortier and Dejardin, played on his instruments. The original in The Hague can be dated to an early stage in Lot's career, probably around 1740. This model is available with interchangeable middle joints for A=396 and A=415 (as per the original in The Hague) as well as an A=392 joint after a similar original

in the Bate collection.

My Stanesby copies are based on two instruments in a private collection in Frankfurt, made by the English maker Thomas Stanesby Junior. Stanesby Junior was active in London from before 1713 until his death at the age of 62 at 1754. He started his career in his father's (Thomas Stanesby Senior) workshop and soon become an independent maker of all types of woodwinds: recorders, flutes, oboes and bassoons. The famous contra-bassoons used for the London performance of Handel's Water Music were made by him. His trade card of 1728 reads:

"Stanesby Jun. In the Temple Exchange Fleet Street, London. Makes to the greatest Perfection, all sorts of musical instruments. In Ivory or fine wood; Plain, after a very neat manner or curiously Adorn 'd with Gold, Silver, Ivory &c. Necessary to preserve them; approv'd and recommended by the best masters in Europe. Sold as above and no where else."

As advertised, Stanesby Junior's surviving instruments do indeed display masterful craftsmanship and ingenious design. Of the two instruments on which I based my copy, one is in ivory with very elegantly turned silver rings, the other is made of Lignum Vitæ or Violet wood with beautifully turned wide ivory rings.

This model is available at A=415 in grenadille, lignum vitae and other exotic woods.

August Grenser

The Grenser copy is based an original in the Gemeente museum, The Hague, made by the German maker August Grenser and stamped 1796. Grenser was active between 1744 and 1798 in Dresden, during this period the design of the flutes made in his workshop evolved, passing through several phases. This particular original, dating from a late period in his life, is of his last models, and continued to be used by his nephew, Heinrich Grenser, who took over the workshop when August died. Heinrich Grenser added from four to eight keys to his uncle's basic design.

This model is perfect for playing the music of Mozart and Haydn, although its full tone and the quality of its low register will also allow you to play Baroque music, especially when playing with larger groups or in big halls. It is available in pitches A= 415, 417, 422, 430, 434 and 440.



An alternative 'look' for this model with horn rings

Van Heerde Flute d'amour

This model is made after an original found in the Gemeente Museum in The Hague. The original is made of blackwood, possibly ebony, and plays at a pitch of A=415 as an instrument in B natural. It is stamped 'VAN HEERDE' and can probably be attributed to Jan van Heerde, an Amsterdam flute maker active in the second quarter of the eighteenth century. The van Heerde family were active as woodwind instrument makers in Amsterdam for three generations beginning around 1670. The style of ornamental turning used on the flute, as well as the fact that Jan van Heerde died in 1750, leads one to believe that this instrument was made between 1730 and 1750. The proportions of the division of this flute's parts, as well as the only other surviving van Heerde traverso (a standard one, in d) are similar to other early four-part flutes such as J. Denner and I.H. Rottenburg. In comparison with later four-part traversos, all of these flutes have a relatively long headjoint. This unusual division probably stems from an earlier, three-part design of the Baroque traverso.

I.H. Rottenburg piccolo

This three part piccolo is modeled after a boxwood original in the Musikinstrumenten Museum in Berlin. Piccolos from the first half of the 18th century are quite rare, although we know from several sources that they indeed exist. This original is probably one of earliest surviving ones (check dates). They are regularly called for in French opera music, especially in the works of Rameau and Rebel.

- Romantic flutes -

S. Koch

The Romantic flute that I make is the result of a one year research project. During this year I examined and measured a great number of flutes made by the workshop of the Viennese maker Stephan Koch (1772-1828) and was able to learn about their special playing characteristics as well as to establish guidelines for dating them.

Stephan Koch was the most important woodwind instrument maker in Vienna at the turn of the nineteenth-century and made czakans, flutes, oboes, clarinets and bassoons. Koch's instruments were very progressive for his time and he is best known for the improvements that he made to the flute and oboe. Establishing his workshop around 1807, Koch undertook a new approach to flute making. As opposed to the earlier generation of flute makers such as Grenser and Kirst, who added keys to the basic one-keyed flute model, Koch flutes were re-designed for an extensive use of the keys. His concept of sound was also different: he aimed for a brighter, louder sound that would carry well in bigger halls and with symphonic orchestras. His flutes were designed to produce a full, equal tone in all keys and throughout the instrument's three octaves. This was achieved, in part, by the addition of a metal-lined headjoint and a tuning slide, as well as by an angled e-hole, which improved the volume and response of the e. His model was later copied by many flute makers, Viennese, German and Italian, and he is considered the father of the Viennese school of flute-making. Koch was reputed to be one of the best makers of his time, and his instruments are recommended in treatises of the period by A.B. Fürstenau and George Bayr, the Viennese flute virtuoso.

My Koch model is available in two versions: an 1815 model in four parts, and an 1825 one in three parts. Both are based on several originals from various European collections. Keys are for C, Bb, G#, F (long and short), Eb, and low C#, C and B. They are pitched between 430 and 440, with the optimal pitch being somewhere in the middle, around 435. It is the ideal instrument for playing Beethoven and Schubert symphonies as well as chamber music of the time. It is available in boxwood and in ebony.

The recommended fingerings for this model are the ones found in Viennese and German methods of the 1820s: Fürstenau, Bayr, and Fahrbach.