

An overview of the historical development of the bassoon

Part 1 in the series “A Bundle of Joy, handbook for the bassoon”

by Maarten Vonk



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An overview of the historical development of the bassoon

Musicians have been travelers for centuries, a privilege they shared – often through necessity – with noblemen, peddlers, soldiers and pilgrims. They played in groups attached to bishoprics, courts of the nobility, towns, army battalions or theatrical companies for as long as the boss would pay them, and if a band or orchestra was reduced in ranks or done away with altogether, they would take themselves off to pastures new to show off their artistry. Wind players and percussionists, with their loud and portable instruments, often played in the open air at processions, celebrations or pitched battles. Double reed instruments were already being used on such occasions in classical antiquity, and the middle ages saw the development of instruments like the crumhorn, shawm, korbholt and bombard, the last of which played in the bass register.

In the Renaissance period, polyphonic music was played on instruments from the same family and a quartet of crumhorns or viols was then described as a consort.

A first possible mention of the bassoon, or “fagotto”, occurs at the court of Ferrara, 1516, when a musician is named as “sonator de fagoth.” A range of names – curtal, dulcian, bassoon and fagotto (each one in a whole range of spellings) – were used to designate a bassoon-like instrument in those days. But “fagoth” could also possibly refer to the “phagotum,” a type of bagpipe documented in Ferrara, 1539, so the evidence is ambivalent.

The dulcian was an instrument comprising a long piece of wood with two parallel bores machined through it. One of these bores went downwards, increasing in diameter, to a connecting piece at the foot of the instrument, from which the second bore travelled upwards with its diameter continuing to widen. This is how the characteristic double bore came about and we can still see this today as the basis for modern bassoons. A short bell was attached to the widest and highest part of the bore, as a sound amplifier, while a tapered, bent brass pipe was attached to the narrowest entrance to the bore, to which a double reed was attached as the mouthpiece.

The dulcians, ranging in size from soprano to contra-bass, were often used to support church choirs, making sure they kept the correct pitch. The bass dulcian, also referred to as the Chorist bassoon when used for this job, appears to have been very flexible, with 2 keys and a range of 2 octaves and a fifth, (from C-g¹), inspiring a number of composers to write the earliest virtuoso compositions, including J.C. Böhdecker’s “Sopra la Monica”, published in 1651.

Click here for a new video. Thomas Oltheten is playing the dulcian with his own Apollo Ensemble. <http://www.youtube.com/watch?v=HcB1ybT-1C4>

In general the pitches that were used depended on the pitch of the organ they would accompany, and included A = 440 and A = 466.

Antonio Vivaldi wrote over thirty bassoon concertos in the later Baroque period and J.S. Bach's Orchestral Suites and cantatas contain extensive bassoon parts. Handel had a great success with his Concerti Grossi in England; his op. 3 contains solos for 2 bassoons playing in thirds. This music was played on the 4-keyed bassoon, which consisted of the bocal, the wing joint, the butt joint, the long joint and the bell.

The pitch used for playing in those days varied quite widely. Nowadays, we generally use a Baroque pitch of A = 415 Hz, a semitone lower than the modern standard of 440 Hz.

At that time, Denner was making bassoons in the French style in his Nuremberg workshop. Some of these have been preserved and they are the oldest signed bassoons. The surviving bassoon by Richard Haka (Amsterdam) is from the same period.

The first four-piece bassoons were probably made by Hotteterre in France in the second half of the 17th century.

Later on, Rameau also used the instrument in his works (up to high Bb). Compared with modern instruments, the pitch was really low (at A = 390 Hz). Manufacturers such as Prudent Thierrot and Porthaux also made a large number of bassoons with bocals of wood, brass or German silver. Savary Sr. worked in Paris from about 1788 until 1826. His son, Jean-Nicolas Savary Jr., was the solo bassoon player at the Théâtre des Italiens in Paris. He started building bassoons in his own workshops in 1819/ 1820, and his instruments are still highly prized.

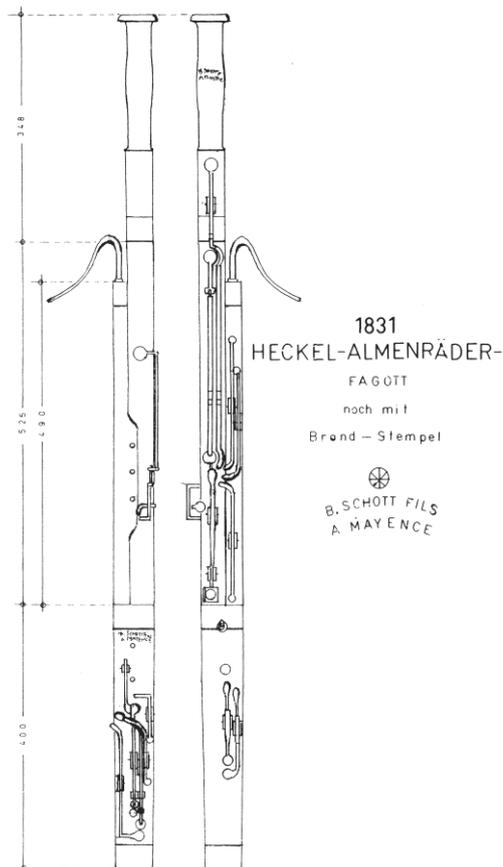
The French bassoonists travelled from one court to the next and ended up bringing their instruments to England in 1680. One of the earliest English makers was Stanesby.

Prompted by the changing music of Haydn, Mozart and other composers, the varying tonalities, larger ensembles, larger orchestras using more and more varied instrumentations, new solo works and so on, various manufacturers looked into the possibilities of enhancing the bassoon with a broader tone and greater projection. The expressive tenor register of the bassoon was ripe for exploitation. The first key was fitted to the wing joint in 1787, followed by further keys on the long joint and the butt joint. The overall pitch also changed, rising locally up to A = 430 Hz in Paris. This development in particular demanded major adaptations to all woodwind instruments.

Carl August Grenser (1725-1807) came from Dresden. The instruments he manufactured were so fine that Leopold Mozart ordered some oboes and bassoons from him. However, his nephew, Heinrich Grenser was the first to give the bassoon a significant push forwards. He did so by enlarging the bore, changing the conical progression and ultimately extending the length of the bassoon. Heinrich shuffled off his mortal coil on December 12, 1813. In line with the traditions of the age, his surviving widow went on to marry the master craftsman at the workshop, Samuel Gottfried Wiesner.

From then on, the instruments were stamped GRENSER-WIESNER. After the widow Grenser died, the name was cut back to just Wiesner.

The industrial revolution was sweeping through Europe. Ludwig van Beethoven was just 14 years old when the first steam train made its way through England in 1784. Interest in practical technology was growing apace. In the manufacture of woodwind instruments, greater attention was being focused on acoustics and applied physics. The tone holes were placed at more mathematically and acoustically correct positions, resulting in a change to the proportions of the bassoon.



Carl Almenröder was born in Ronsdorf, now Wuppertal, on October 3, 1786. Almenröder later became a very fine bassoon player, performing solos throughout Europe. He was deeply interested in the theoretical principles behind the bassoon and took a job with the music publisher B. Schott & Söhne in Mainz. He published a papers on improvements to the bassoon and went on to develop a bassoon with 15 keys with shortened butt joint and extended wing joint, allowing the C# key to be fitted to the wing joint and leading to stable intonation and a better sound. Around about the same time in 1829, he wrote an article about reed-making.

At Schott Almenröder worked some time with the instrument maker Jehring. Some years later he met the 18-year-old Johann Adam Heckel, who had the technical talent to develop needed to realise Almenröder's ideas. This led to a close collaboration in 1831, the year we now regard as the foundation date for what was to become the firm of Wilhelm Heckel. Shortly before Almenröder's death on September 14, 1843, his highly influential "Fagottschule" was published in German and French, for what was at the time a revolutionary bassoon with 17 keys.

In 1839, James Goodyear developed the process of vulcanisation, which produced a watertight substance through the addition of sulfur to rubber. This process opened up the path for fitting the descending bore of the bassoon, in the wing and butt joints, with a smooth lining, which counteracted rot and thus extended the instrument's lifespan.

The Heckel company obtained a patent for the use of this hard rubber in 1889.

In 1847, the influential player Eugene Jancourt published his *Theoretical and Practical Method for the Bassoon*. He was a product of the Paris school of bassoon playing, epitomized in the second half of the 20th century by players such as Maurice Allard and later others including Gilbert Audin. Jancourt's Method focuses on conspicuous virtuosity, an extremely important element of the French style, which led to many composers from that country to pack their music with virtuoso passages.

New materials make their appearance

Ebonite was used towards the end of the 19th century by manufacturers such as Boosey & Co, Mahillon and Rudall, Carte & Co to make a large number of bassoons.

In 1873, at the World Fair in his home city of Vienna, Wenzel Braka displayed an ebonite bassoon with two wing joints, one for Viennese pitch and one for Paris pitch.

Theobald Böhm was experimenting with different theories at around the same time. His successes with the clarinet and flute did not translate successfully into bassoon manufacture. The different tone quality of these instruments was not appreciated by the cognoscenti, and the systems did not last.

The material Plexiglas was invented in 1935. Mönning and Kohlert were among the first to jump on the bandwagon and make musical instruments from this material, starting with flutes and clarinet but later including bassoons.

From the start of the 20th century, the French bassoon, based on Savary's design, was manufactured by Mahillon and others. Buffet Crampon, Evette & Schaeffer developed the basic ideas of the Triebert bassoon of 1860.

Nowadays, the instrument is made mainly by Buffet Crampon, although Selmer also produce it in smaller numbers. The French bassoon is manufactured from the hardwood palisander and has six open finger holes, a narrower bore than the German maple bassoon and different keywork.

The tone color of the French bassoon is tighter and not quite so loud.

The French bassoon is extremely supple in the high register, providing a complete and fascinating register for the instrument.

Stravinsky wrote his opening solo in *The Rite of Spring* for the French bassoon in the Orchestra of the Ballets Russes. Despite the fact that the French



bassoon is more easily playable in the extreme upper register than the German bassoon, Louis Speyer, the first oboist in the Ballets Russes Orchestra, recalled that his colleague *“Abdon Laus, who later became first bassoon of the Boston Symphony Orchestra under Monteux, was the first to attack this difficult solo; he had to find fingerings, which was a terrible experience”*.
(Quote James. B. Kopp)

The new company of Almenräder and Heckel, founded in 1831, had embarked on a new development that is even now marketed as the Heckel system. This system ultimately led to a division between the German (Heckel) system and the French bassoon system as we now know them.

All of the current German bassoons are now built to this system.

Through more than 180 years of its existence, Heckel has held a leading

position. For instance, it was Heckel that obtained a patent for using rubber in the downward bore of the instrument. And Heckel that invented the familiar automatic whisper key mechanism. Savary’s automatic whisper key mechanism, activated by the wing keys, was later built by most French makers.

Heckel was also first to manufacture a bell to play the low A, first asked for by Richard Wagner.

Nowadays the Heckel bassoon is still generally regarded as the best bassoon for a professional player. This assertion is, of course, open to debate, but the high prices that people are prepared to pay for a Heckel bassoon and the very long waiting list that is accepted as a matter of course for these instruments tend to support the theory.

The development of musical instruments can stem from two different directions

We have just described how manufacturers developed the bassoon in the past.

The most innovative manufacturers nowadays are Guntram Wolf and his son Peter. At this point, Wolf is most innovative company in the bassoon world. They have manufactured a

completely new instrument in addition to the contrabassoon, which they call the Contraforte. It has a new mechanism, different wood and a different bore. The instrument can play really softly but also very loudly. Playing a whole octave higher than the standard contrabassoon presents no problem. The main thing, however, is that the sound quality always has a clear presence. Another new instrument from them is the Lupophone, a bass oboe, reaching



down a fourth lower than the Heckelphone and with plenty of volume available. The technology is based on the new key system used on the Contraforte. They are now working on a Bassoforte, a bassoon going down to low A and based on the same technical and acoustical principles.

In Dresden Johannes Wahrig has developed a new type of children's bassoon "Fagonello", a non transposing instrument and it goes down to low C. This is a bass-instrument, in contrast to the Fagottino in F or G made by Wolf or Bassetto.

Another reason for continuing to develop instruments is that particular musicians sometimes ask for this. Just think of the examples of Almenräder with Heckel and Jancourt with Buffet.

This is still happening nowadays.

Sergio Azzolini asked Peter de Koningh to build bassoons in the style and sound that might well have been experienced by Vivaldi. In Venice at that time, the pitch was set at 440 Hz. The bassoon had 4 keys.

Robert and Kristian Oma Rønnes, father and son and both of them bassoonists and composers, are captivated by the bassoon's extreme high register. They asked Bernd Moosmann to make bassoons with keys that would allow easy chromatic progress up to high G.

Arlen Fast, contrabassoonist with the New York Philharmonic, wanted better attack for the contra in the troublesome overblown register.

He thought up modifications including extra octave keys that are comparable to the flick keys on the bassoon's wing joint, and Fox ultimately put this model into production.

The foremost bassoon manufacturers nowadays are Amati, Adler & Co, Bell, Buffet Crampon, Fox, Heckel, Moosmann, Gebr. Mönnig. Mollenhauer, Püchner, Schreiber, Walter and Yamaha.

Of course there are also a number of smaller-scale manufacturers and a number of factories in China, of which little detail is known.

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Much, much more information about bassoon history you can find in a fantastic the new released book by James Kopp.

James.B. Kopp, 2012. The Bassoon; Yale Musical Instrument Series.

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