EVOLUTION OF THE CLARINET - 1600-1800

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The so-called chalumeaux may be allowed to voice their somewhat

howling symphony of an evening, perhaps in June or July and from a distance, but

never in January at a serenade on the water.1

With the stream of negative comments like the one above found throughout writings of

the 16th and 17th centuries, it is a wonder how the early clarinet, known as the chalumeau,

survived to become the instrument we all know today. Surely Mozart would not have written his

Concerto for Clarinet for an instrument described as having such a harsh and intolerable sound.

While listening to the slow and tender second movement, it is evident that this version of the

clarinet was not the instrument he had in mind to play that piece. It is also safe to assume that

this early clarinet is not the same as the one chosen for the modern-day orchestra; it would most

likely draw the wrong kind of attention to itself and not blend within the rest of the woodwind

section.

There was a limited selection of music written and little interest in including a single-

reeded instrument in the orchestra or chamber ensembles before Mozart wrote his Clarinet

Concerto and Quintet for his friend and fellow musician, Anton Stadler. Though Stadler was

partly responsible for the acceptance of this instrument, it was through the growing popularity of

works by composers during the late 18th century and a concerted effort from other performers

around Europe that the clarinet gained a more permanent spot in chamber ensembles, woodwind

¹ Johann Mattheson, Neu-Eröffnete Orchestre, oder Universelle und Gründliche Anleitung (Hamburg: B. Schiller,

1713), 272, quoted in Albert R. Rice, *The Baroque Clarinet* (Oxford: Clarendon Press, 1992), 20.

quintets, and orchestras before it obtained acceptance as a solo instrument. This paper will use selections of Mozart's clarinet repertoire and other various early clarinet works to explore the origins and usage of the modern-day clarinet. However, the main intention is to shed light on the clarinet's early beginnings, how and why it was chosen by composers of the era for ensembles and solos, and lastly why it was able to survive through the 19th century and on into today's modern ensembles.

The chalumeau seems to have come into existence around 1687 and was at first an attempt to expand upon the range and volume of the recorder.² The French had recently improved the shawm, an early ancestor to the oboe, and it is thought that someone in Germany started to improve the chalumeau in an effort to compete with this newly renovated shawm.³ The Hotteterre family, it is rumored, may be credited with originally making the chalumeau⁴, while other sources cite the first known existence of a chalumeau in an inventory listing. An order for musical instruments for the Hofkapelle (court chapel) of Duke Heinrich of Saxe-Römhild shows "Ein Chor Chalimo von 4 stücken" ("a four-piece chalumeau ensemble") purchased from a woodwind maker in Nuremberg. The date corresponds to the emergence of Johann Denner, the father of Jacob Denner, both of which were woodwind makers located in Nuremberg. It can be concluded that these instruments were made by them.

² Colin Lawson, "Chalumeau." In The New Grove Dictionary of Music and Musicians [database on-line]. Accessed 31 October 2006. Available from http://www.grovemusic.com; Internet.

³ Karl Geiringer, *Instruments in the History of Western Music* (New York: Oxford University Press, 1978), 154.

⁴ Albert R. Rice and Colin Lawson, "The Clarinet and Chalumeau Revisited," *Early Music* 14 (November 1986): 552.

Originally, the chalumeau was considered to be any pipe-shaped reed instrument. Though this does not include specifications about using a single reed, illustrations from the early 16th century have been interpreted as depicting musicians playing single-reed instruments.

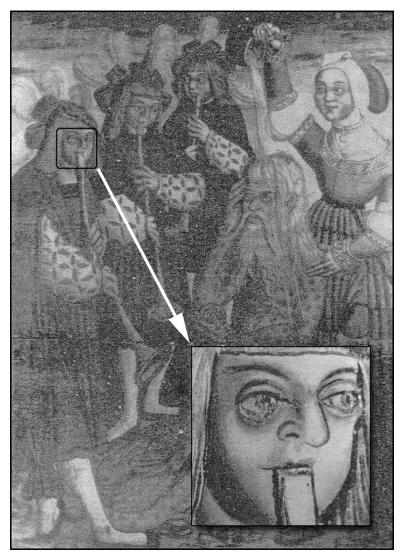


Figure 1. A painting on an altar in the Stadtkirche, Bitterfeld, Germany (c. 1525) (Heyde 1970, *Abb. I*)

This painting is depicting three musicians playing on instruments shaped like a pipe, ending in a trumpet-like bell, and possibly having a mouthpiece with a single reed on the top; historians speculate that this painting is of three chalumeaux, though it is not conclusive.⁵ It is

⁵ Rice, *The Baroque Clarinet*, 7.

important to note that though the chalumeau is a single-reed instrument, the main differences between the chalumeau and the clarinet are found in the design. While the clarinet had a register key and a separate bell, the chalumeau did not. The earliest chalumeau had only one key and nine tone holes, one being a double-hole at the bottom resembling a recorder (the only other woodwind in the Baroque era to have a register device). The instrument seems to have been used mostly in small chamber groups of soprano, alto, tenor, and bass chalumeaux, indicating that the instrument by itself did not have much range. It is also indicated to be an instrument used early in the 1700s as an obbligato color and possibly as a companion to the oboe in operas and early instrumental ensembles.⁷ The instrument's original design was rudimentary, but over time more keys were added. During Beethoven and Mozart's time, experimentation was quite common, and not only with woodwind makers. As the need or curiosity arose, players took the time to try adding new keys to the instrument in an effort to expand its range, improve intonation, and make it easier to facilitate the more challenging music that started to come about for the clarinet during the 18th century.

Another interesting aspect of the chalumeau is the placement of the mouthpiece, which has the reed turned onto the top, which is considered backwards compared to today's single-reed playing technique. The reasoning behind this placement seems to be due to the placement of keys on the upper joint and the location of the maker's stamp. If the mouthpiece is turned reed-down, the key that was on the front side will get in the way of the thumb which will then be unable to cover the thumb hole. Also, it seems the instrument makers of the time put a stamp on the front

⁶ Ibid., 3.

⁷ Colin Lawson, *Mozart: Clarinet Concerto* (Cambridge: Cambridge University Press, 1996), 3.

of each part, and if we use these stamps to align the pieces of the instrument, then the same side of the mouthpiece as the reed should turn towards the front, as the maker's stamp was located on that side as well. It seems the first woodwind maker to design a clarinet for use with the reed on bottom was Theodor Lotz, a collaborator with Anton Stadler, who helped to not only improve the clarinet but create the basset-clarinet, as will be discussed later in this paper.⁸

Early in the 18th century, Johann Denner and Johann Schell petitioned the Nuremberg city council to allow them to create woodwind instruments. Though the oboe and recorder are mentioned in the petition, one new instrument, the single-reed chalumeau, is recorded as having been ordered from Denner's son. This indicated that the making of instruments was passed down through the family.9 It seems Denner's invention of the clarinet came about due to an interest in extending the range of the chalumeau; he tried adding a register key and created the first clarinet. This addition created the ability to overblow a twelfth above and allowed access a whole new register. The earliest known orchestral inclusion of this instrument is recorded in the form of an order for two instruments from Denner in 1710.10 This addition was a wonderful improvement for the clarinet, but ultimately meant the demise of the chalumeau.

However, the clarinet was not quite stable enough to handle tuning in this new register; some notes would be perfectly in tune, but then moving to another note would create new tuning problems. Denner and Schell were not the only makers of this early baroque clarinet; they were located in Germany, however many others were creating versions of this new experimental instrument in Austria, Belgium, Czechoslovakia, and the Netherlands. Experimentation in design

⁸ Ibid., 44.

⁹ Rice, The Baroque Clarinet, 15-16.

¹⁰ Albert R. Rice, "The Baroque Clarinet in Public Concerts, 1726-1762," Early Music 16 (August 1988): 39.

and length of different parts of the instrument continued throughout the century and on into the 1800s. Though there are standard two-key, three-key, etc. samples of clarinets, there are many experimental clarinets left over from this time period.

It can be concluded that the demand for this new instrument not only drove production, but it also encouraged experimentation with the placement of keys, tone holes, reed usage, and even types of wood and metal used. The clarinet went through transformation after transformation before it attained its current construction. The most commonly played baroque clarinet from the early 18th century was the three-key clarinet. It did eventually give way to the five- and six-keyed clarinet, however the addition of the third key was the first alteration that allowed for playing lower notes. With each change, the clarinet's range was expanded downwards and upwards, until the final design included fifteen keys, seven original tone holes, and a range close to if not more than of four octaves. The altissimo register, the highest register of the clarinet, is an 'iffy' area, as the player's ability to reach high notes ultimately determines the instrument's full range. On average, the range is a little under four octaves.

There is a moment in history when the chalumeau and the clarinet are characterized as two different instruments, whereas the chalumeau could play in a low range similar to today's alto clarinet, and the baroque clarinet had a range similar to that of the middle range of the modern day clarinet (middle-line Bb to one octave above). Due to this lack of functionality in the clarinet's lower register, the chalumeau did remain as a popular chamber instrument for a short time. However, there is no evidence of any French music for chalumeau during the 18th century. This seems to indicate that the clarinet had, by that time, already taken over the chalumeau's place in ensembles.

One confusing aspect concerning accuracy of the history of the clarinet involves the use of terms that have duplicate meanings. Some early 18th century Italian music contains notation for an instrument called a clareni. This term is closely related to the term clarino which means clarinet or trumpet, however it is not clear which instrument was being called for. The Italian word clarino can refer to the upper register of the instrument and was also used as shorthand for clarinetto, or little clarinet, thusly causing confusion for musical historians attempting to differentiate between the instruments. ¹¹ Due to the use of the shorthand *little clarinet*, it is possible that Vivaldi was still using the chalumeau, since the soprano of the family was somewhat smaller than the baroque clarinet of the same time period.

Below is an example of the clarinet part taken from Antonio Vivaldi's *Juditha Triumphans*. This piece was written in 1716 and is possibly the earliest known orchestral clarinet music found.

Figure 2: Antonio Vivaldi, *Juditha Triumphans*, chorus 'Plena nectare': 'clareni' part, mm. 22-34



After viewing this example of early *clareni* music, one can see that it is difficult to determine whether the music is for trumpet or clarinet due to specific musical aspects. The range used in this example is extremely limited due to the lack of facilitation; the clarinet from this time period simply was not built to play in a large range, which again is indicative of its use as a

¹¹ Francis G. Rendall, *The Clarinet* (Liverpool, London and Prescot: Philosophical Library, Inc., 1954), 1.

choir or small ensemble instrument. There is no dynamic marking for this piece which may indicate that it was again written for the early clarinet and not the trumpet, as the early clarinet had limited ability to create a wide dynamic contrast in sound. It is also possible that the sound produced in the extreme lower or higher registers of this instrument may not have been desirable to Vivaldi. The argument for this being written for trumpet is similar; music written for trumpet does not usually contain leaps due to facilitation of the jumps being difficult to accomplish. The one difference could be discovered when considering the dynamic contrast that the trumpet, when compared to the clarinet, may be able to perform.

The confusion of distinguishing between the early clarinet and trumpet is further muddied by the existence of an instrument known as the mock trumpet. This instrument is known by name only, as only descriptions and no actual instruments have survived the time period. It was described as a "leather-covered seven-holed reed instrument" with the main difference between it and the chalumeau being the lack of a separate mouthpiece or a double-hole on the eighth finger. Some historians believe it to be the name the English bestowed on the chalumeau. Though there are no surviving instruments, there is quite a lot of documentation on the mock trumpet. Many books on this instrument were published around 1702, the titles of which have been found in newspapers of the time.

Composers such as Telemann, Groupner, and Fasch wrote lyrical melodies for the chalumeau, while the clarinet was used as a replacement instrument for the trumpet.¹⁵ The

¹² Cary Karp, "The Early History of the Clarinet and Chalumeau," Early Music 14 (November 1986): 545.

¹³ Rice, *The Baroque Clarinet*, 25.

¹⁴ Ibid., 11.

¹⁵ Rice & Lawson, "The Clarinet and Chalumeau Revisited," 553.

limited range and use of a fanfare style of writing in the clarinet parts reflect this trend. With the limited knowledge on which instrument was actually called for, it may be possible that the elusive mock trumpet would have been used here instead of the clarinet; the sound is supposedly similar, so the instruments could have been interchangeable. Below is an example of possibly the earliest concerto for clarinet, written by Johann Rathgeber in 1728.¹⁶

Figure 3: Johann Valentin Rathgeber, Concerto No. 19



Before the creation of Mozart's *Concerto for Clarinet*, the baroque clarinet was limited in playing range, and thus was not used soloistically but more as a color instrument in small

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¹⁶ Rice, *The Baroque Clarinet*, 93.

ensembles or in choir settings. This caused music for the chalumeau to depend upon a choir setting including soprano, alto, tenor, and possibly bass chalumeaux in order to create a full sound. This requirement was implied due to its small range, which was an octave or twelfth on average. However, when he wrote the Concerto for his friend and fellow musician, Anton Stadler, there was another instrument he had in mind.

Stadler was trained by his father at a young age to play the clarinet, though this instrument was new in the 18th century. Vienna was largely considered a cultural center for music and the arts during that time, and the fact that his family lived there gave Stadler the perfect opportunity to broaden his musical education.¹⁷ Stadler continued his musical education throughout his life and became an accomplished and well-known performer of his time. Clarinet makers would approach him, asking about ways to improve upon the instrument, and this allowed for Stadler to have access to the latest in clarinet design. By the time the 1770s and 1780s arrived, the Bb clarinet had become so popular that it was the one instrument chosen over all other clarinets to play concertos. However, during his time as Mozart's personal clarinetist, Stadler was playing on a new instrument, a basset-clarinet. Though Stadler is credited with its invention, it was made for him by woodwind maker Theodor Lotz. This instrument had a thinner bore which made playing more difficult, but Anton seemed to have perfected a playing style and was able to produce quite a beautiful sound. It has a darker tone and provides more control over timbre. Lotz seemed to have designed the basset-clarinet with quite a bit of ingenuity, as can be gleaned from this excerpt from Stadler's own report:

. . . Playing on the Lotz clarinet, complete in all its components, was certainly a gratifying experience. It probably possessed the largest, 'thickest' sound of any

¹⁷ V. J. Rufino, "Stadler: Mozart's Clarinet Muse," *The Clarinet* 31 (September 2004): 74.

eighteenth-century clarinet that I tested, rounded and woody throughout its entire range, in the tradition of the best German players (and instrumentalists!) of today. Particularly impressive were the good intonation between the registers and the evenness of scale in the lower register.¹⁸

This basset-clarinet (also called the basset-horn) could play a major third lower than the modern-day clarinet due to the existence of two extra keys near the bottom of the instrument. Below are examples of the basset-clarinet from the 18th century.

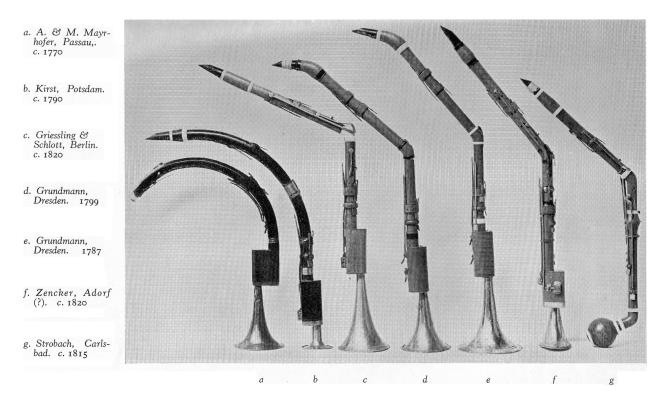


Figure 4: Basset-Horns from the Museum Für Hamburgische Geschichte

As you can see from the example, there were many variations of basset-clarinets made in the 18th century. This was due to a debate over which design created easier playing ability, which design could cause better sound production, and which design was easier to hold. Some players (who used the basset-clarinet shown in example *a* through *f*) were forced to hold the instrument in such a way as to have the bell rest on both thighs. This not only created an

¹⁸ Lawson, Mozart: Clarinet Concerto, 43.

uncomfortable playing position, but it was also uncomfortable to view. The last example was the most commonly used design due to the ability to rest the bell on one leg and not have any loss in tone production. According to the dates given, it is possible that the basset-clarinet Stadler used when premiering the *Concerto for Clarinet* was either example *b* or *e*, though Stadler is listed as having altered his own basset-clarinet. Today's basset-clarinets are designed without the "elbow" and are straight, same as the modern clarinets made today, only longer to accommodate the extra keys.

Mozart's friendship and masonic tie with Stadler not only prompted a truly great friendship, but it also inspired Mozart to consider writing for this new instrument. After hearing Stadler play the basset-clarinet, he was inspired to not only write this instrument into his *Wind Serenade in B major*, but he wrote a *Clarinet Quintet* for clarinet and string quartet and the *Concerto for Clarinet*, which was written specifically for Stadler's basset-clarinet. It has a few spots containing notes written so low that only this instrument could have played it; modern versions of the concerto have these lower notes written up an octave so as to be played by the modern clarinet in A or B b. This basset-clarinet, however, is the instrument Mozart had in mind when writing his chamber pieces, though it should be noted that Mozart later rewrote the *Concerto for Clarinet* in A. This particular clarinet, along with clarinet in B b, is used prominently in orchestras today. The fact that Mozart felt it important to rewrite the piece is a sign that the soprano clarinets were becoming a more desirable solo instrument. Today, the

¹⁹ Colin Lawson, *The Early Clarinet: A Practical Guide* (Cambridge, UK: The Press Syndicate of the University of Cambridge, 2000), 103.

²⁰ Lawson, *Mozart: Clarinet Concerto*, 37.

basset-clarinet is known and is still made, but it is not as popular and is not as mass produced as the modern-day soprano clarinet.

Though Mozart included clarinets in only four of his symphonies, his *Concerto for Clarinet* was received with great admiration. It can be speculated that, should Mozart have lived past his late thirties, he would have included many more works for the clarinet. Below is an example taken from the Concerto. Note the range used in this passage.

Figure 5: W. A. Mozart, *Concerto for Clarinet*, Movement 1 'Allegro Moderato': clarinet solo, mm. 70-76



In contrast, Mozart's pieces for clarinet employed a greater range, more artistic contrast, and gave the soloist a chance to truly explore what the instrument could do. It is important to note that Mozart loved the low register of the clarinet, as did Stadler. It could be concluded that Stadler had a hand in helping Mozart write the Concerto, since the low register is explored quite often, and there is also no record of any commission given to Stadler for the piece. Additionally, with Stadler playing on such a wonderful basset-clarinet (as was mentioned in his review of the Lotz clarinet), he surely wanted to show off this new and robust sound. It is said that it is because of Mozart's writing for the clarinet that it was finally a mainstay in ensembles and, specifically, the modern-day orchestra.²¹ Vincent J. Rufino comments on this composition, saying "...the

²¹ Rufino, 78.

beautiful melodic lines given to the soloist, along with an orchestral part that supports without overpowering the soloist makes this composition unsurpassed by any other composer for the clarinet."²²

That he established himself as a great and versatile clarinetist can be evidenced by this quote from Gabriel Wilhelm Steinfeld, a critic from the 18th century, who wrote a review of one of Stadler's concerts:

My thanks to thee, brave virtuoso! I have never heard the like of what thou contrivest with thy instrument. Never should I have thought that a clarinet could be capable of imitating a human voice so deceptively as it was imitated by thee. Verily, thy instrument was so soft and so lovely a tone that nobody can resist it who has a heart, and I have one, dear Virtuoso: let me thank Thee!²³

This quote gives an example of just how far the clarinet had come since its inception, however it is more a praise of Stadler's ability, that he was able to play the instrument in such a way that it truly emoted. The review mentioned above demonstrates the public view of the clarinet, which has drastically changed since the mid- to late- 17th century.

²² Ibid., 76.

²³ Otto Eric Deutsch. *Mozart: A Documentary Bibliography* (London, 1965), n.p., quoted in V. J. Rufino, "Stadler: Mozart's Clarinet Muse," 75.

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