What About Vibrato?

An investigation into the use of vibrato in bassoon music from the sixteenth to the twentieth century.

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During the past 400 years, much has been written about what we now call vibrato, and it is both informative and revealing to compare the opinions and tastes of our colleagues from the past with our current practices. Investigating the historical meaning and the possibilities of vibrato, or, on the contrary, the power of leaving it out, provides a much more nuanced understanding of this tool for musical expression. This article seeks to shed light on the use of vibrato by following the instructions of authors who over the past centuries took the time to express themselves on this intriguing topic.

When I first started at the conservatoire as a fifteen-year-old boy playing the recorder, my teacher was shocked by my vibrato and requested that I get rid of this bad habit. I loved vibrato, and my previous teacher at the local music school had had no problems with it. He promoted vibrato as a means to "put soul in the music." I remember that it felt like losing a limb when my teacher at the conservatoire forbade me to use it. A tool of expression was taken away from me. When I started on the historical bassoon, vibrato was also not an issue: you should not use it.

In the jury for my final solo examination on the historical bassoon at the conservatoire, Brian Pollard was invited as a guest juror. He had been solo bassoonist of the Concertgebouw Orchestra for over forty years. He was already retired and in his seventies. Mr. Pollard took me aside after the exam and said he liked my playing and was so kind to offer to work with me. I went to his house in Amsterdam, drank the goatmilk he always offered, and there our three-hour sessions started. Vibrato was also on the program. Around the centre of the note as a mild vibrato. Above the centre to make a more brilliant sound. Slow and under the centre of the note for a lazy and sad vibrato. I discovered the beauty of it and the ways to use it. But at that point in my life, I had gone from a lot of vibrato to nothing at all because my teachers had opposite and very outspoken ideas about it. To this day, I regularly work with students on the historical bassoon who have never even thought about using vibrato. But I also coach modern bassoonists who are unable to produce a tone without it!

It is not my intention to go into detail about the physical aspects of air vibrato. Two relevant articles dealing with this aspect are "Woodwind Vibrato from the Eighteenth Century to the Present" by Dwight C. Manning, and "Observations of Laryngeal Activity of Woodwind Instrumentalists During Performance Using a Fiberoptic Laryngoscope" by Charles O. Veazey.[1] A detailed overview of the use of vibrato in the baroque era is given in the book *Das Vibrato in der Musik des Barock* by Greta Moens and in the article "Untersuchungen zur historischen Auffassung des Vibratos auf Blasinstrumenten" by Bruce Dickey.[2] Aurea Dominguez discusses nineteenth-century sources that deal with vibrato on

the bassoon in her dissertation *Bassoon Playing in Perspective*.[3] There is also an abundance of historical treatises discussing various kinds of what in this article we will call vibrato.

First, we need to get an idea of what we are talking about when addressing vibrato. One complicating factor is that the term vibrato was not in use during most of the period in question. Instead, we find words such as *tremolo*, *flattement*, *bebung*, *chevrotement, sweetening,* and *vibration*. Finger vibrato (*flattement* or *sweetening)* is a technique where the finger strokes one of the holes beneath the tone that is being played, creating a slight variation of pitch. For some notes this stroking would cover an entire hole and for others only the hole's edge. *Chevrotement* is described during the baroque era as a vibrato caused by a contraction of the larynx. The term *Bebung* was used for both finger vibrato and air vibrato. Tromlitz writes in 1791:

> I remind you once again that on the flute, vibrato [*Bebung*] may not be made with the chest, because if it is, one can easily get into the habit of wobbling [*zittern*], which results in a miserable performance.[4]

When reading these kinds of comments about the flute and other instruments, we can ask ourselves the following questions:

- Was finger vibrato, or *flattement*, used on the bassoon?
- When did bassoonists start using air vibrato?
- Does the absence of air vibrato mean a straight, dull sound?

Unfortunately, when Etienne Ozi published the first treatise on playing the bassoon in 1788 and then a subsequent much-expanded method for the Paris Conservatoire in 1803, he did not answer any of these questions. The topic of vibrato was simply omitted. So, for this period and before, we must rely on treatises for other instruments. (Flute players prove to have been especially concerned about this topic—often with contradicting opinions.) Many of the sources from as early as the beginning of the sixteenth century until the nineteenth century clearly express that the wind instruments should aim to imitate the human voice. However, depending on the period, this ideal of vocalistic playing as it applies specifically to vibrato leads to different opinions on how to achieve the best results.

1500–1700

As early as 1535, in a treatise for the recorder by Sylvestro Ganassi (1492–1565), we find evidence for the use of finger vibrato. Only six years earlier, in 1529, Martin Agricola (1486–1556) wrote about *zitternder odem* [vibrating breath].[5] In the seventeenth century, we find treatises that speak about vibrato by singers. Friderici (1585–1638), Praetorius (1571–1621), and Bacilly (1625–1690) all talk about a natural vibrato that can be found in the voice.[6]

Michael Praetorius:

The requirements [of the singer] are the following: first, that a singer has a beautiful trembling and vibrating voice [*eine schöne, liebliche zitternde und bebende Stimme*], (however, not like some people are used to in school, but with particular moderation). . .[7]

Daniel Friderici mentions in his treatise on singing from 1624:

The boys [*Knaben*] should be accustomed from the beginning to form a fine, natural, trembling, vibrating [*bebende*] or quivering voice in the throat [*Gutture*] or neck [*Halse*].[8]

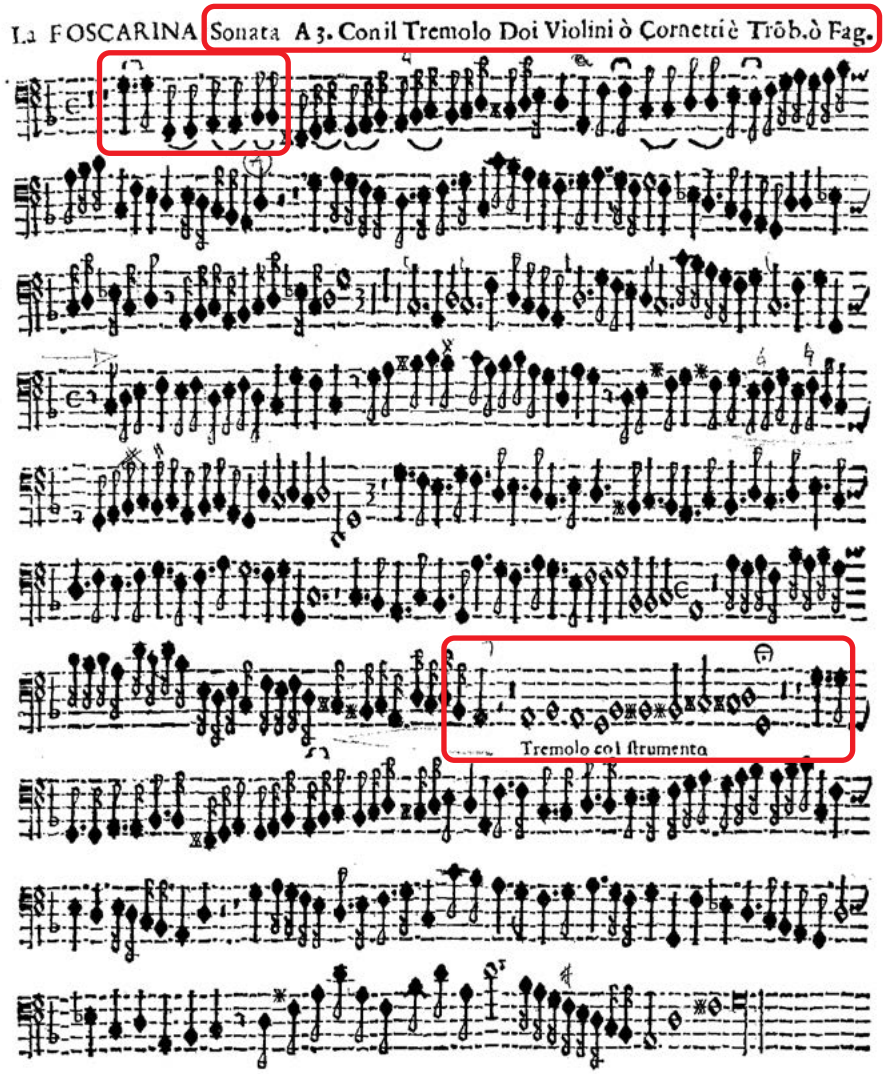


Figure 1. Biagio Marini, *La Foscarina*. Fagotto part.

Back to Table of Contents

In the fagotto part of the sonata *La Foscarina con il tremolo* by Biagio Marini (1594-1663), we find a passage with the indication *tremolo col instrumento* (fig. 1, see prev.). At the beginning of the piece, we find repeated notes tied over. This is likely to be an indication for a rhythmical air vibrato like the organ tremulant, a mechanical vibrato, or *bogenvibrato* on a string instrument. *Bogenvibrato*, or bow vibrato, is executed by the index finger applying pressure to the bow, resulting in a rhythmical pulsation of the sound, unlike the continuous vibrato we often hear today on string instruments, made by the movement of the wrist and fingers of the left hand. We can also find this notation of slurred repeated notes in compositions by contemporaries such as Castello (see fig. 2). Here the *tremolo* is clearly used as an ornament.

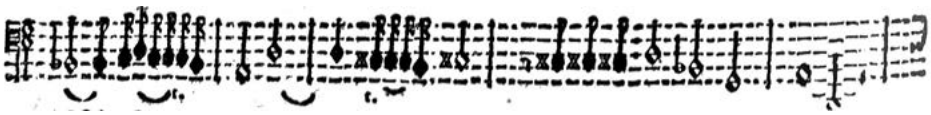


Figure 2. Dario Castello, Sonata Ottava from *Libro Secundo*, 1644. Fagotto part.

To execute this kind of vibrato, one has to be careful that the air moves fast and precisely enough to come across as pulsations (see fig. 3). It is possible that in a resonant acoustic, such as a church, this air vibrato might fade away and be lost. In this case, one could use a smooth tonguing.

Figure 3. Sharp pulsations of the air on top of the centre of tone.

1700–1800

In the high baroque we find remnants of the seventeenth-century tremolo practice we discussed above: a rhythmical air vibrato imitating the *bogenvibrato* on string instruments and the tremulant on the organ. Mattheson described tremolo as trembling and hovering [*zittern und schweben*].[9] Walther calls it in his Lexicon an imitation of the organ tremulant.[10] The most famous example is probably the Quoniam from Bach's B-Minor Mass as shown in Figure 4. The use of this kind of regular air "vibrato" was common in the high baroque and can also be found in the bassoon part of cantata 42 as seen in Figure 5 (next page).

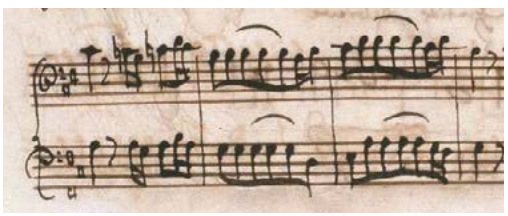


Figure 4. J.S. Bach, Mass in B Minor, BWV 232, Quoniam, detail from the bassoon part.

From the eighteenth century—the period that spans roughly the high baroque and the classical era—no sources

Back to Table of Contents

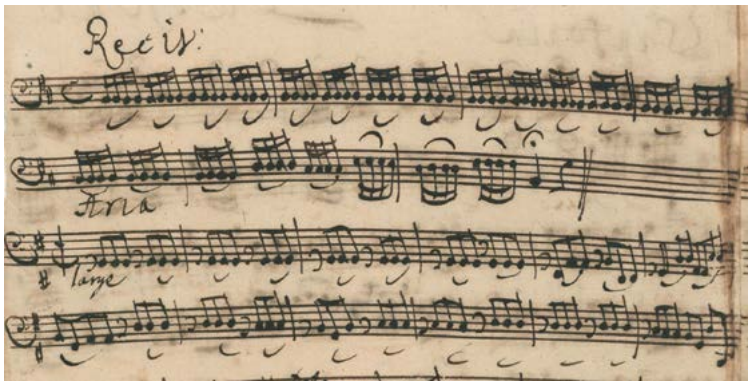


Figure 5.Detail from the bassoon part of BWV 42.

survive that discuss the use of vibrato on the bassoon. However, plenty of treatises speak about vibrato on other wind instruments, such as the recorder and the flute. These ideas likely still apply to our instrument since most wind players from the time were skilled on a variety of instruments, including the bassoon.

The first text discussing finger vibrato, or *flattement*, is a 1707 treatise by Jacques Hotteterre on playing the traverso, the recorder, and the oboe.[11] While he describes in detail the fingerings for executing flattement on the traverso and the recorder, Hotterre only says about the oboe that one should follow the instructions as given for the other two instruments.[12] However brief, it is a clear indication of the use of flattement on a reed instrument. The bassoon is not mentioned.

Hotteterre recommends in the preface to his *Premier livre de Pieces*, op.2 to use this kind of vibrato on almost all long notes [*presque sur toutes les notes longues*]. However, he does not attribute a symbol to it, unlike all the other ornaments as can be seen in Figure 6.

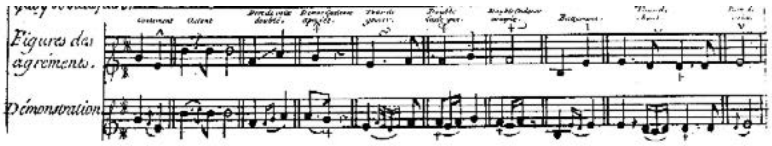


Figure 6. Chart of ornaments by Jacques Hotteterre.

The composer and instrumentalist Pierre Danican Philidor (1681-1731) is one of the few composers who seems to have indicated *flattement* in his compositions. Regrettably, he did not write a preface to his works explaining his symbols. However, the wavy lines above the long notes, as can be seen in Figure 7, are likely an indication of this ornament.

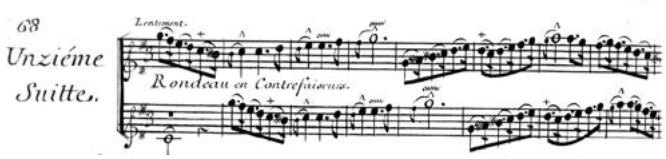


Figure 7. Pierre Danican Philidor, Unziéme Suitte.

Back to Table of Contents

Joachim Quantz mentions *flattement* [in German, *Bebung*], as "... making a vibrato with the finger on the nearest open hole."[13] Forty years later, in 1791, Johann Georg Tromlitz explicitly addressed vibrato in his traverso school. Tromlitz writes about the *Bebung*:

> Vibrato [*Bebung*] is an undulating, fluctuating motion, which is made on a long note, and can be slow or fast, uniform or waxing and waning. On the flute it is produced by repeatedly partially or halfway closing and opening the next hole down from the long note with the finger, or another hole complete, according to the demands of the circumstances. It is not done with the breath on the flute: this does not have a good effect, but ruins his playing altogether, for he loses its firmness, and then cannot keep a firm and pure tone; everything wobbles [*zittert*] out from the chest. It is not advisable to use this ornament frequently. A very fast Bebung is in my opinion a bad ornament, Examples of this technique do not lend themselves to being written down...
>
> I will remind you one again that on the flute the Bebung may not be made by the chest, because if it is, one can very easily get into the habit of wobbling, which results in a miserable execution.[14]

What does this imply for bassoonists? I would say there is no reason not to follow Quantz's advice on the use of the bassoon in his *Versuch*:

> Except in matters of fingering and embouchure, the oboe and the bassoon have much in common with the transverse flute. Hence those who apply themselves to one of these two instruments may profit not only from the instructions given for the use of the two kinds of tongue-strokes with ti and tiri, but, in general, from the entire method for the flute.[15]

When, how much, and by which fingers vibrato is to be created are evidently to be decided by the good taste by the bassoonist. No treatises written in the eighteenth century advocate the use of air vibrato on wind instruments. However, this does not mean that long notes should be played straight and without direction. Even though the use of vibrato as an ornament on long notes was generally not indicated [the example by Philidor (fig. 7) being an exception], abundant historical sources suggest that long notes in music from the eighteenth century should be embellished with some kind of ornament. It was up to the performer to determine if it would be a *messa di voce* (a crescendo and decrescendo on the same long note), and/or a *flattement* (finger vibrato), a trill, or another ornament.

1800–1900

The nineteenth century is the century of conservatoire methods for bassoon, starting with Ozi's *Nouvelle Méthode de Basson*.[16] When in 1795 the Conservatoire de Paris opened its doors, the newly appointed teachers were asked to produce a method for their respective instruments. These treatises dealt with topics such as articulation, reeds, dynamics, ornamentation, music theory, and maintenance of the instrument—a full package.

Etienne Ozi (1754–1813) was asked to produce the bassoon method. Ozi was one of the top players of his time and one of the first teachers at the newly established Paris Conservatoire.

His resulting work was translated into several languages and reprinted by Ricordi until even the twentieth century. Although this treatise deals with many aspects of playing the bassoon, such as articulation, breathing, holding the instrument, ornamentation, dynamics, and shaping notes, vibrato is not discussed. Again, this does not mean Ozi recommends dull, straight long notes. He takes painstakingly effort to show minute dynamics, calling them nuances, as can be seen in Figure 8. He does not bring up regular air vibrato.

Figure 8. Etienne Ozi, *Nouvelle Méthode de Basson* (Paris: Imprimerie du Conservatoire de Musique, 1803), 13.

The other authors of wind methods, Garnier for the oboe, Lefèvre for the clarinet, and Hugo & Wunderlich for the traverso, also do not address vibrato.

The bassoon treatise by the German bassoonist Franz Joseph Fröhlich published in 1811 also omits vibrato.[17] Then, around the 1830s, the situation seems to change. The English flutist Charles Nicholson includes in his *School for the Flute*, published in Boston, 1836, a chapter on vibrato in which he explains three kinds of vibrato:

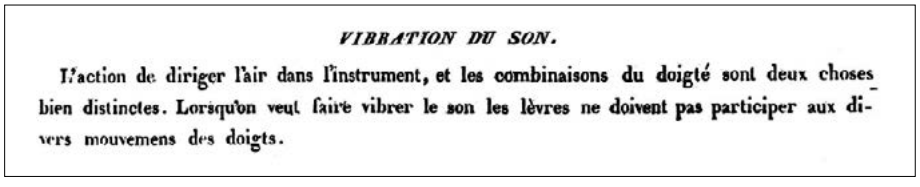
1. By the breath
2. By a tremulous motion of the flute
3. By the shake (finger vibrato)

Nicholson:

> Vibration is an embellishment deserving the utmost attention of all those who are anxious to become finished performers on the flute, it ought to resemble the beats, or pulsations of a bell, or glass, which will be found to be slow at first, and as the sound gradually diminishes, so will the Vibrations increase in rapidity.[18]

Nicholson indicates vibrato using the same wavy line Philidor used in the eighteenth century, as can be seen in Figure 9 (see next).

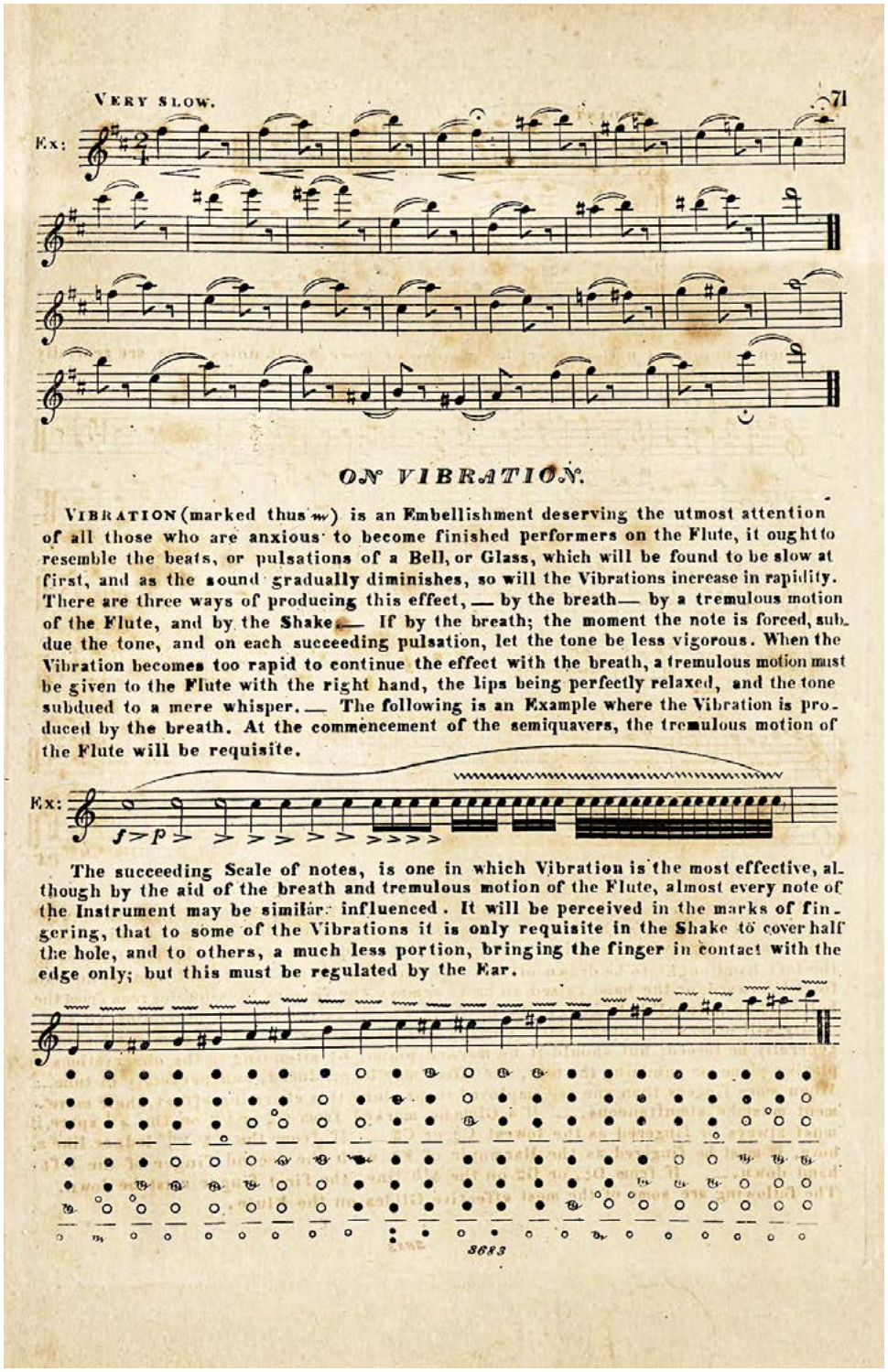
Friedrich Berr (1794–1838) seems to be the first bassoonist to mention vibrato, however briefly, in his method from 1836.[19] His paragraph on *vibration* consists only of three lines and says not much more than to not to move the lips when one vibrates by using the fingers.



VIBRATION DU SON.

L'action de diriger l'air dans l'instrument, et les combinaisons du doigté sont deux choses bien distinctes. Lorsqu'on veut faire vibrer le son les lèvres ne doivent pas participer aux divers mouvemens des doigts.

Figure 10. Friedrich Berr, *Méthode complète*, p. 21.



VERY SLOW. 71

Ex:

ON VIBRATION.

VIBRATION (marked thus ~) is an Embellishment deserving the utmost attention of all those who are anxious to become finished performers on the Flute, it ought to resemble the beats, or pulsations of a Bell, or Glass, which will be found to be slow at first, and as the sound gradually diminishes, so will the Vibrations increase in rapidity. There are three ways of producing this effect, — by the breath— by a tremulous motion of the Flute, and by the Shake — If by the breath; the moment the note is forced, subdue the tone, and on each succeeding pulsation, let the tone be less vigorous. When the Vibration becomes too rapid to continue the effect with the breath, a tremulous motion must be given to the Flute with the right hand, the lips being perfectly relaxed, and the tone subdued to a mere whisper. — The following is an Example where the Vibration is produced by the breath. At the commencement of the semiquavers, the tremulous motion of the Flute will be requisite.

Ex:

f > p

The succeeding Scale of notes, is one in which Vibration is the most effective, although by the aid of the breath and tremulous motion of the Flute, almost every note of the Instrument may be similarly influenced. It will be perceived in the marks of fingering, that to some of the Vibrations it is only requisite in the Shake to cover half the hole, and to others, a much less portion, bringing the finger in contact with the edge only; but this must be regulated by the Ear.

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Figure 9. Charles Nicholson, *A School for the Flute*, (Boston, 1836).

Wenzel Neukirchner's (1805–1889) *Theoretisch practische Anleitung zum Fagottspiel*, published in 1840 for the Prague conservatoire, is the first treatise that discusses bassoon vibrato more extensively.

From its chapter on *Bebung*:

> When the speaker, who feels warmly and deeply what he is saying, is so powerfully seized by the subject of his speech that the feeling threatens to overwhelm the speech, this is evidenced by a very peculiar trembling or wavering of the voice.
>
> This breaking, this quivering or trembling (tremolo) in the tone—so soulful, so touching, where it emerges truly and purely from the feeling (for besides, it is adverse distortion) —could be perfectly compared to an echo that follows itself often and more or less quickly, continuously fading away, and which dies away.[20]

This quote makes it clear that Neukirchner acknowledges the value of vibrato. Part of a long line of writers, Neukirchner underscores the need to imitate the human voice. In vibrato, he sees it as a way to express passion in a "soulful and touching" way to the audience [*so seelenvoll und rührend*]. He cautions that it should emerge "truly and purely from the feeling," otherwise he says it will sound like "adverse distortion" [*widrige Verzerrung*]. Vibrato [*Bebung*] should be used in an "outburst of heightened passion" [*ausbruch gesteigerten Leidenschaft*].

Neukircher continues by explaining that vibrato is not a trill-like ornament. He describes vibrato as waves in water or waves in sound as can be heard when striking a bell with force:

> From this follows the nature of the vibrato for the singer and the instrumentalist: it is not a trill or rapid alternation of intervals lying very close to each other, but one and the same tone, in shorter or longer swells, like a wave [in the water] which itself consists of several or more larger or lighter waves flowing together under itself, similar to the oscillations of a strongly struck bell.[21]

Neukirchner explains that on musical instruments one has to find a way to imitate the vocal vibrato by looking for a very small interval:

> What nature and passion cause in the singer, has been endeavoured on musical instrument by the art of imitation, namely by taking an interval as close as possible to the tone that is to vibrate, which is less than a half tone, or even less than a 1/4 or 1/8 of a tone, and therefore not contained in the scale, but is all the better the closer it is to the tone that is to make the vibration.

He then shares how the vibrato can be accomplished:

> On the bassoon, then, the vibrato can be done on most notes by trilling with the third finger of the right hand on the G hole, and this can be done from the second C upward to G, and so on in the octave. For vibrato on the other notes one has to find holes that work, even on the same kind of bassoons [*Fagotte von derselben Mechanik*].[22]

Neukirchner states that this finger vibrato technique is "a mere imitation and not yet a truth." He continues by describing a technique that we have not seen before in bassoon playing, though it was mentioned as a technique on other instruments by other writers (such as Nicholson in his 1836 *School for the Flute*): a trembling of the instrument.

> However, this is not entirely the case, and in fact the bassoonist has a means at his disposal by which he can execute vibrato perfectly as they sometimes emerge in song from a deeply moved chest. This happens when he brings his instrument into a trembling motion through an imperceptible quivering of the hands. Perhaps this means may seem a bit clumsy to some; but it must be practiced, just as the violinist must practice his right hand for the fastest trembling staccato for a long time until he achieves mastery. The trembling movement must only be made well and easily from the joint of the hand, without disturbing the arms themselves, and, executed in this way, the exercises on the bassoon leave nothing to be desired; they are similar to those of the deeply moved human voice, similar to the magical sounds of faded bells, and perhaps no other instrument comes so close to the human voice in this, even surpasses it to a certain extent, as far as the intensity of the sound is concerned.[23]

Neukirchner claims that this technique surpasses the human voice in its expressiveness and acknowledges that this technique may seem clumsy at first. However, he recommends practicing it, nonetheless. This technique raises the question: What causes the vibrato? Is it the movement of the reed between the lips, or a variation in air pressure?

Before continuing with the next treatise dealing with vibrato on the bassoon, let us first turn to an important vocal method: *École de Garcia: Traité Complet de l'Art du Chant* or *Garcia's Complete School of Singing* first published in 1840, translated into English, German and Italian with at least eleven reprints until 1924.

Garcia:

> The *tremolo* is employed to depict sentiments, which, in real life, are of a poignant character,—such as anguish at seeing the imminent danger of any one dear to us; or tears extorted by certain acts of anger, revenge, &c. Under those circumstances, even, its use should be adopted with great taste, and in moderation; for its expression or duration, if exaggerated, becomes fatiguing and ungraceful. Except in these especial cases just mentioned, care must be taken not in any degree to diminish the firmness of the voice; as a frequent use of the *tremolo* tends to make it prematurely tremulous. An artist who has contracted this intolerable habit, becomes, thereby, incapable of phrasing any kind of sustained song whatever. Many fine voices have been thus lost to art.

From this, we see that García sees vibrato as an ornament to express a particular emotion rather than as a regular, continuous fluctuation in sound.[24]

Also in the 1840s, Carl Almenräder writes the following in his treatise (1843):

> On wind instruments with tone holes, a kind of ornamentation is sometimes used, which consists in the fact that during a long, sustained tone, by closing and opening another

> tone hole more often in succession, a throbbing is produced which is imitated from the stringed instruments...
>
> The sustained tone must not become either higher or lower as a result of the closing and opening of the other tone hole that takes place at the same time but must only be distinguished by a different color.[25]

Almenräder is talking, without doubt, about finger vibrato. He discusses using the E hole, the F key, the D key, and other possibilities to make this "throbbing" effect [*Pochen*], warning against causing a pitch difference. Almenräder is only after a vibrato in sound color.

> The too frequent use of this ornamentation, as well as vibrating of every tone [*beben*], is rejected by all good masters, and probably rightly so; for with frequent repetition of it, one involuntarily doubts whether the performer is capable of performing a beautiful tone, evenly strong or weak, without wavering, swelling on and off, which is of course not so easy, but nevertheless truly far preferable to this frequently repeated throbbing and quivering, if it does not arise from the innermost feelings.[26]

When Almenräder writes: "The too frequent use of this ornament, as well as vibrating of every tone [*Beben*]," he seems to imply that this finger vibrato is a separate technique from the *Bebung*, which could be air vibrato. The intriguing fact is that he discusses anything one can imagine in his treatise except for air vibrato. In any case, he does emphasize that both ornaments should be used in extreme moderation. Otherwise, ". . . it does not arise from the innermost feelings."

In 1847, Eugène Jancourt published his *Méthode Théorique et pratique pour le basson* in Paris. Chapter nine is called "*De la Vibration du Son*" or "On the vibration of the sound." Jancourt connects vibrato on the bassoon again to the passion of the soul like ". . . the singer who vividly feels what he is expressing."[27] And he continues that the bassoon is, in his opinion, especially suited to imitate the human voice:

> What nature has done for the singer and the orator, has to be done by art and feelings together for the bassoon, this instrument, which, by the way, is so wonderfully suited for it, since amongst all, —we repeat—, it is the one that is the closest to the human voice.[28]

Jancourt explains that one obtains this vibrato by trembling the holes with the right hand and some with the fingers of the left hand.

> This vibration can be obtained by means of the right hand trembling above the holes, for the G and the F♯ above the stave; the sound color of these notes produce a sympathetic effect. The same applies to the C natural, C♯ and D; The notes in the left hand are less brilliant and effectful. For the E and D, however, the vibrato can be realized with the 3rd and 2nd of the left, which are free.[29]

Jancourt does not mention any vibrato executed by air or embouchure. And he warns against over-using finger vibrato:

> One must however not over-use it, since it lacks its effect as soon as it seems to be calculated; only the artist who deeply feels and whose soul is moved, can make the listener understand the emotion he is experiencing; only then the trembling is certain to produce a correct effect, as it is dictated by feelings; otherwise, it becomes ridiculous.[30]

Jancourt included a musical example, "Andante con expressivo," in which he indicates the use of vibrato on long notes indicated by dots.

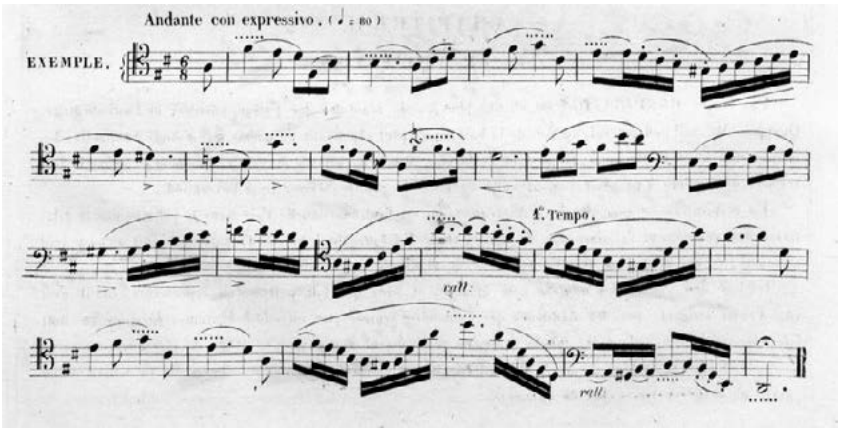

Figure 11. Eugène Jancourt, "Andante con expressivo," with vibrato indicated by dots.

Recordings

Before the age of recordings, we can only try to grasp players' and composers' intentions from written text. But from the twentieth century onwards, we have the possibility of actually listening to them. What can we learn about vibrato from these early recordings? Did bassoonists apply vibrato in the same manner as we can hear nowadays? Did they use a continuous air vibrato? Or can we perhaps recognize the use of finger vibrato as described by Jancourt, Almenäder, or Neukirchner? The recordings discussed here can be easily found on YouTube.

An early recording from November 26, 1911 starting with a bassoon solo is the aria *Una Furtiva Lagrima* by Donizetti featuring the famous Caruso. It was recorded by the Victor Talking Machine Company in Camden, New Jersey. The rhythmically free bassoon solo is without a trace of continuous air vibrato. It is unclear which orchestra or bassoonist is performing. Of course, Caruso has a distinctive vibrato. Still, the other wind instruments, including the bassoon, the clarinet, and the flute, refrain from imitating it.

A recording from 1926 by the Berlin State Opera Orchestra of the second movement Larghetto of the Beethoven violin concerto also shows a total absence of vibrato in the solo bassoon parts. In the solo violin part, played by Fritz Kreisler there is plenty of vibrato. The contrast in the use of vibrato between the two is surprising.

Two recordings of *Scheherazade* by Rimsky-Korsakov provide an interesting contrast in this investigation into vibrato. The first recording is from 1934 by the Philadelphia Orchestra conducted by Stokowski. Julius Walter Guetter was principal bassoon of the Philadelphia Orchestra from 1922 until 1937. In the bassoon solo in "The Kalendar Prince," the bassoonist uses a fast throat vibrato. The second recording is also from the USA and dates from 1939. In this recording by the Cleveland Orchestra, which was possibly played by Frank Ruggieri, who was principal bassoon at the time, the same solo is played without any continuous vibrato.

The French bassoonist Fernand Oubradous, in a recording dating from 1936 of the Mozart bassoon concerto, presents us with a rather quick continuous vibrato. In his playing, especially obvious in the second movement, the vibrato is part of the general sound and not used as an ornament.[31]

In the first recording of Ravel's *Bolero* with the Orchestre Lamoureux in 1928,[32] we can hear a bassoon solo without a continuous vibrato. The lines are straight, but with rhythmical flexibility and direction of sound. Ravel conducted and recorded *Bolero* again with the same orchestra in 1930 and also in this recording there is no trace of a continuous vibrato.

Nine years later, in 1939, the NBC orchestra (orchestra of the Radio Corporation of America) recorded Ravel's *Bolero* conducted by Toscanini. The bassoon sound in this recording is adorned with a fast, continuous vibrato. In 1950, The New York Philharmonic recorded it conducted by De Sabata in which the bassoon soloist used a similar vibrato. The *Bolero* seems to have been popular because in 1958 the Detroit Symphony Orchestra recorded it again under the direction of Paul Paray. In this recording we can recognize a vibrato that seems familiar to what many of us are used to hearing nowadays. In this recording, the bassoonist's vibrato is continuous, plentiful and has a variation in tempo.

Summation

The way bassoonists use vibrato greatly defines their sound and style. Nowadays, vibrato has become, in a way, the signature of a player. From as early as the sixteenth century, players have tried to pass on ways of ornamentation and ways of embellishing sound to students and colleagues. Vibrato is one of them; however, the term is quite a modern one. In the past, words like *Bebung*, *tremolo*, *flattement*, *vibration*, or *sweetening* were mainly used.

During the sixteenth, seventeenth, and eighteenth centuries, air vibrato on wind instruments as we know it today was largely disapproved of, except when it was used as a regular rhythmical vibrato imitating bow-vibrato or the organ tremulant. Most sources promote the use of finger vibrato.

Finger vibrato has been described as part of wind instrument playing from the sixteenth century onwards. Several authors described the use of finger vibrato [*Bebung* or *flattement*] in detail in the eighteenth century. Some of them—Quantz for example—recommend that techniques given for the flute should be applied by the oboe and the bassoon as well. It seems that finger vibrato could have been part of the range of ornaments at the bassoonist's disposal during the eighteenth century. But even among historically informed bassoonists, finger vibrato can seldom be heard and still is a sound world that should be explored.

From the 1830s onwards, several bassoon methods describe vibrato on the bassoon, linking them to emotion and passion. The singer and the orator should be examples to the bassoonist. However, what singers can do with the voice, the bassoonist should accomplish with the fingers or, as claimed by Neukirchner, bringing his instrument into a trembling motion through an imperceptible quivering of the hands. All authors warn against an overuse of vibrato: vibrato should be used as an ornament on specific notes, otherwise, they claim, it would lose its expressive power and would sound "ridiculous."

It seems that a continuous vibrato gradually became incorporated as part of the bassoon sound around the 1930s. It is unclear from where the urge arose to add continuous vibrato as an ingredient to the general bassoon sound instead of vibrato as an ornament on specific notes. Recordings from the early twentieth century show that between WWI and WWII, air vibrato became more and more common practice. No recordings seem to indicate the use of finger vibrato.

Finally, the use of vibrato today is obviously up to the performer's taste. However, insight into the taste and opinions of bassoonists who were first performing the music we love and perform today can perhaps lead to a revived understanding of their sound world and their musical aesthetics.

Wouter Verschuren specializes in the performance and research of music from the 16th and 17th century through music of the romantic era, as well as contemporary music written for historical bassoon. He makes regular appearances in Europe, North and South America and Asia. Wouter is principal bassoonist of The Amsterdam Baroque Orchestra conducted by Ton Koopman and is co-founder of Concerto delaBorde and The Caecilia-Concert. Wouter can be heard on countless orchestral and chamber music CDs on labels such as Globe, Sony, Alpha, Erato and Antoine Marchand. He participated in the recording of the complete Bach and Buxtehude Cantatas with The Amsterdam Baroque Orchestra. Besides his positions at the Royal College of Music in London and The Royal Conservatoire in The Hague, Wouter regularly gives master classes in Europe, the USA and the Middle East. Wouter is also active as a researcher, with the primary aim to rediscover forgotten repertoire for dulcian and (historical) bassoon. He is currently pursuing a PhD and writing his dissertation on "Giants of the Dulcian Family."

Endnotes

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Back to Table of Contents