

When is an Alto Trombone an Alto Trombone?  
 When is a Bass Trombone a Bass Trombone?—  
 The Makeup of the Trombone Section in Eighteenth-  
 and Early Nineteenth-Century Orchestras

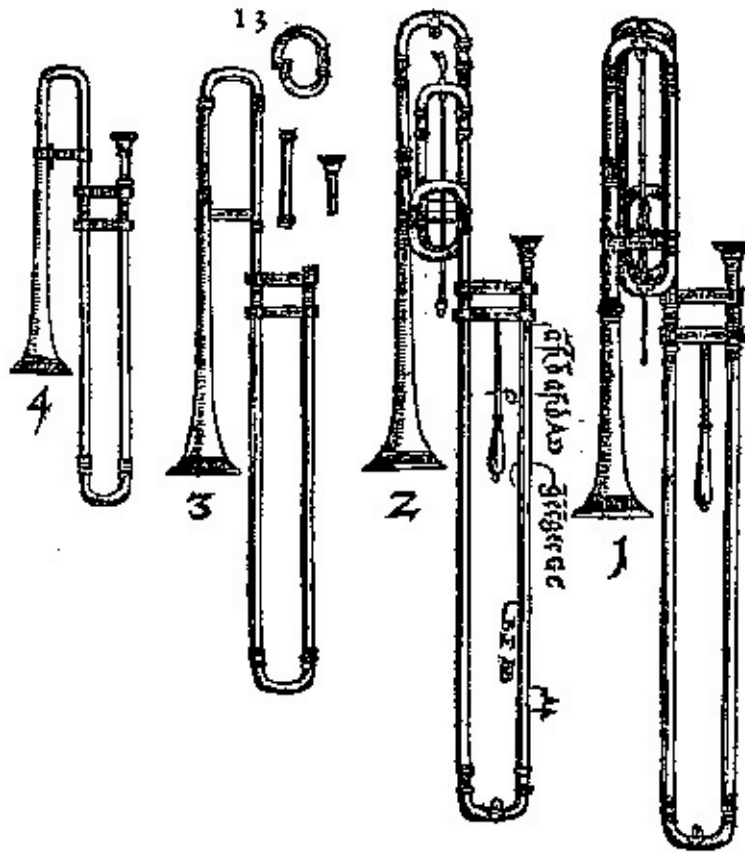
Howard Weiner

From an organographical point of view, the identification of an alto or a bass trombone does not normally pose a problem. From the performance practice point of view, however, the questions “When is an alto trombone an alto trombone?” and “When is a bass trombone a bass trombone?” are not as straightforward as they might seem, since the concepts of “alto trombone” and “bass trombone” varied, depending on the time and place. When our orchestras of period instruments perform works of the late eighteenth, early nineteenth centuries, works such as Mozart’s *Requiem*, Haydn’s *Creation*, or Beethoven’s *Fifth Symphony*, these questions are very rarely asked and the trombone section is inevitably made up of an alto in E $\flat$ , a tenor in B $\flat$ , and a “quart” trombone in E $\flat$  or F. Although this ubiquitous “authentic” formation may be appropriate for some eighteenth-century works, I intend to show that it is anachronistic for much of the eighteenth- and early nineteenth-century repertoire and, in particular, for music of the Viennese Classical composers.

A note about nominal pitch: The nominal pitch of the early tenor trombone was A, the alto trombone was in D, and “quart” or “quint” trombone in D or E. Early in the eighteenth century, however, pitch standards started to change, at first in Vienna, later elsewhere. Since the instruments themselves remained basically the same, it was their nominal pitches that changed, but not everywhere at the same time: the tenor trombone turned into a B $\flat$  instrument, the alto into an E $\flat$  instrument, and the quart/quint trombone into an E $\flat$  or F instrument.<sup>1</sup> Thus in the following we will encounter the tenor trombone as an instrument in A in some sources, and as an instrument in B $\flat$  in others, the alto trombone as an instrument in D or E $\flat$ , etc.

What is an alto trombone? What is a bass trombone? Let’s take a look at what the historical sources have to offer in the way of answers:

- Michael Praetorius, *Theatrum Instrumentorum* (Wolfenbüttel, 1620). Where better to start than with Praetorius? In this often-reproduced illustration (Figure 1) we find an alto or discant in D, a tenor in A, and two quart trombones, probably in D and E, respectively.<sup>2</sup> Praetorius does not refer to the latter two as bass trombones, but when “bass” trombone is mentioned in the context of historical performance practice, the image that comes to mind is of an instrument much like these.



**Figure 1**

Praetorius, *Theatrum Instrumentorum* (Wolfenbüttel, 1620)  
(Reprinted by permission, Bärenreiter-Verlag).

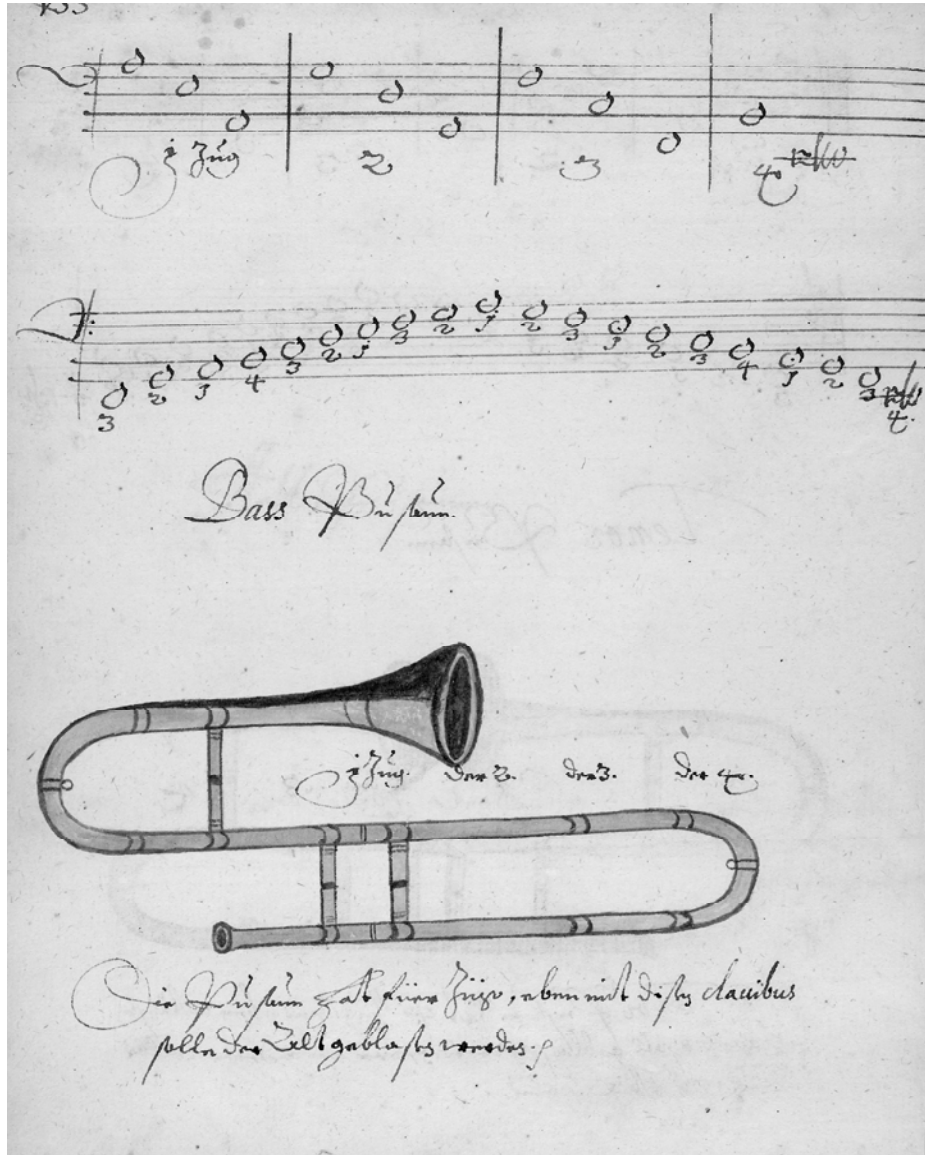
- Anonymous, *Instrumentälischer Bettlermantl* (ca. 1650). In this anonymous South-German manuscript written around 1650 we find an alto in A (Figure 2), a tenor in A (Figure 3), a bass in A (Figure 4), and a quart trombone in E (Figure 5).<sup>3</sup>



**Figure 2**

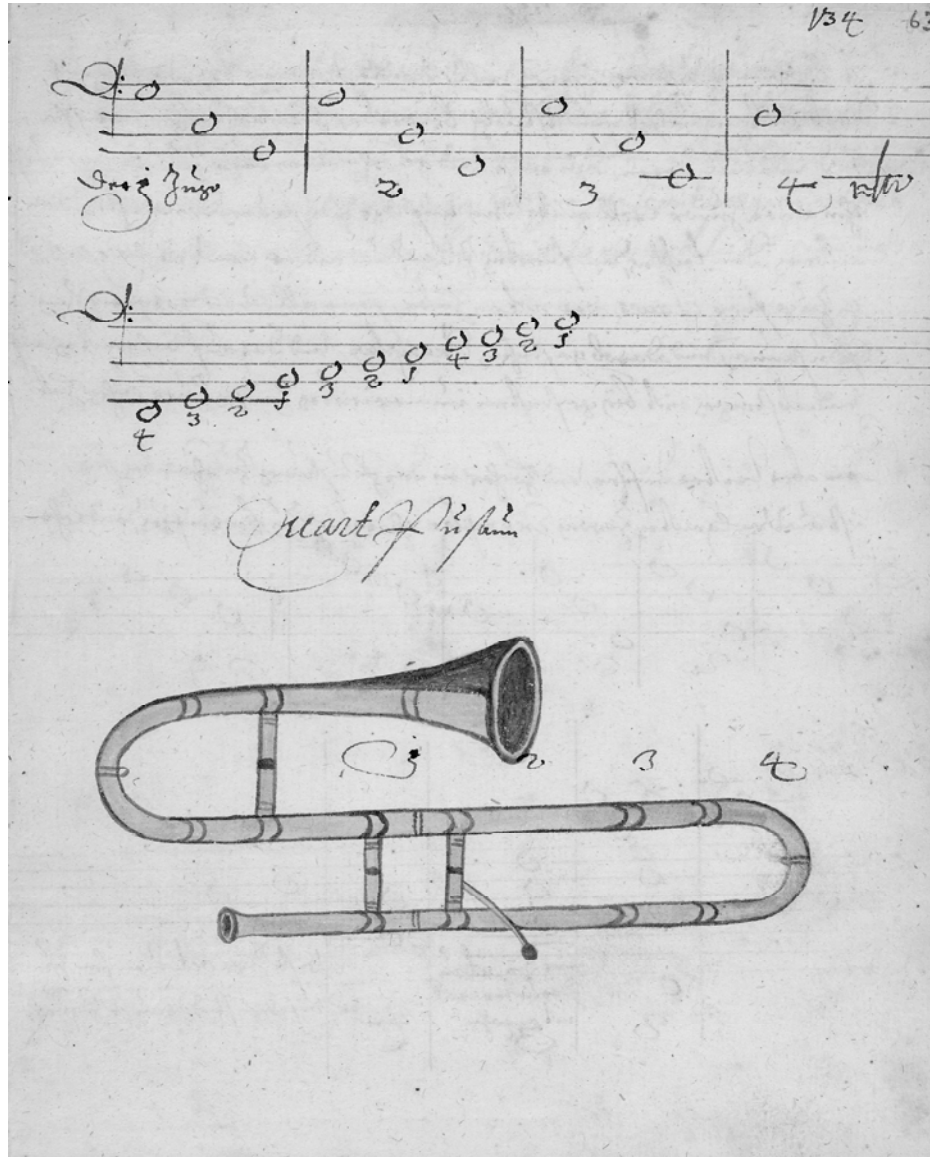
Anonymous, *Instrumentälischer Bettlermantl* (ca. 1650), alto trombone in A, p. 131  
(Reproduced by permission, Edinburgh University Library).





**Figure 4**

Anonymous, *Instrumentälischer Bettlermantel* (ca. 1650), bass trombone in A, p. 133  
(Reproduced by permission, Edinburgh University Library).



**Figure 5**

Anonymous, *Instrumentälischer Bettlermantl* (ca. 1650), quart-trombone in E, p. 134  
(Reproduced by permission, Edinburgh University Library).

- Daniel Speer, *Grundrichtiger Unterricht* (Ulm, 1687 and 1697). In both editions of his treatise, Speer described the tenor trombone as in instrument in A (Figure 6), and the alto and quint trombones as being in D, an octave apart (Figure 7).<sup>4</sup>

**Erster Zug.**



A e a c e g und a.

Dieser Buchstaben Ton werden alle im ersten Zug gefunden / außer / daß das c. um zwey quarte Singer etwas vorwärts muß gezogen werden / bey welchem Zuge auf das f. ♯. sich befindet.

Der ander Zug ist bey dem Hauptstuck / und befinden sich folgende Buchstaben darinnen / wie zu ersehen -

**Anderer Zug.**



c d g f d

NB. Bey diesem Zug ist zu merken / daß das b. mol. um zwey quarte Singer hinaufwärts muß gezogen werden.

Figure 6

Speer, *Grundrichtiger Unterricht* (Ulm, 1697), tenor trombone in A  
(Reprinted by permission, Edition Peters).

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**Von einer Alt- und Quint-Posaun.**

Eine Alt- und Quint-Posaun haben auch drey / und zwar einerley Züge / wie auß beygesetztem Exempel ersehmet:

**Alt- und Quint-Posaunen erster Zug.**



D a d f a c

Dieser erste in ersiehender Buchstaben Zug / ist bey dem Mundstuck.

**Anderer Zug.**



c g c e g f

Dieser andere in ersiehender Buchstaben Zug / ist bey dem Hauptstuck.

**Dritter Zug**



f f

Figure 7

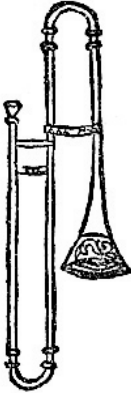
Speer, *Grundrichtiger Unterricht* (Ulm, 1697), alto and quint trombones in D  
(Reprinted by permission, Edition Peters).

- Joseph Friedrich Bernhard Caspar Majer, *Museum musicum* (Schwäbisch Hall, 1732). Majer depicted an instrument in A, characterizing it as a tenor and bass trombone (Figure 8); he also described an alto and a quint trombone in D.<sup>5</sup>

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der rechten Hand / die Scheibe zwischen die Finger fasset / und mit deren Auf- und Nieder-  
ziehen den Ton formiret. Es hat aber eine Tenor- und Bass-Posaune in allem 4. Züge / als:



Erste ist bey dem Mundstück / welcher 7.  
Sonos angibt / nemlich:


A a c a c c g



Dieses c muß ein paar  
Finger breit vortwärts ge-  
zogen werden.

Andere / ist bey dem Hauptstück / und gibt  
folgende 5. Tone von sich / als:


g d g b d



Dieses b wird gleichfalls  
um ein paar Finger breit vor-  
wärts gezogen.


Dritte / ist 4. Finger breit auffer dem  
Hauptstück / und gibt diese 3.  
Tone an / nemlich:

f e f



Vierte / ist so weit hinaus / als man mit  
dem Aem fast erreichen kan / und  
hat diese 3. Sonos, als:

c h b



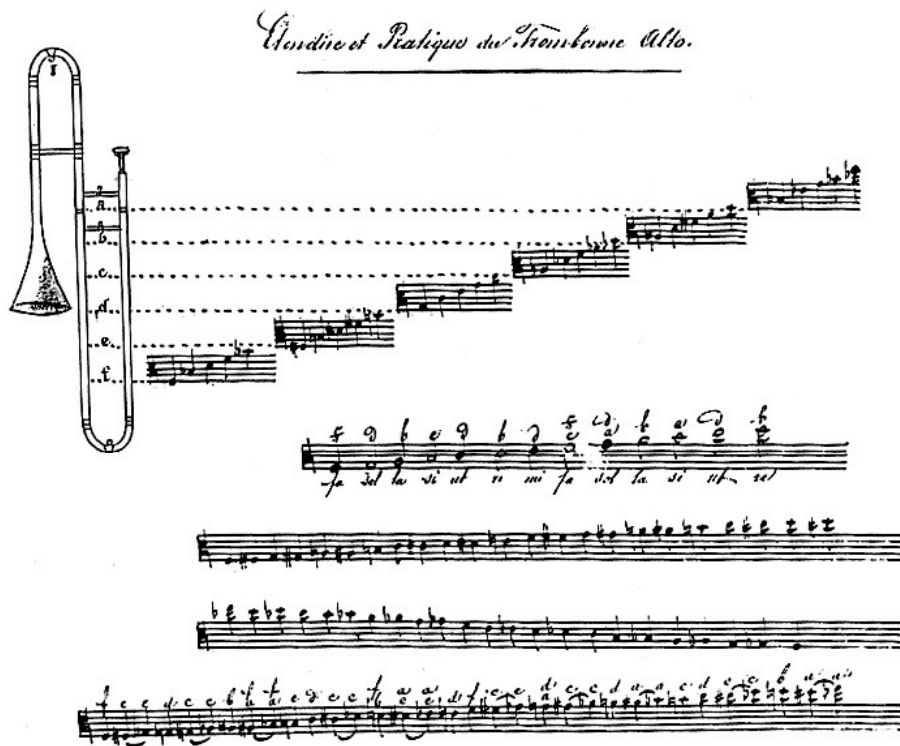
Fine

**Figure 8**

Majer, *Museum musicum*, Schwäbisch Hall, 1732, tenor and bass trombone in A  
(Reprinted by permission, Bärenreiter-Verlag).

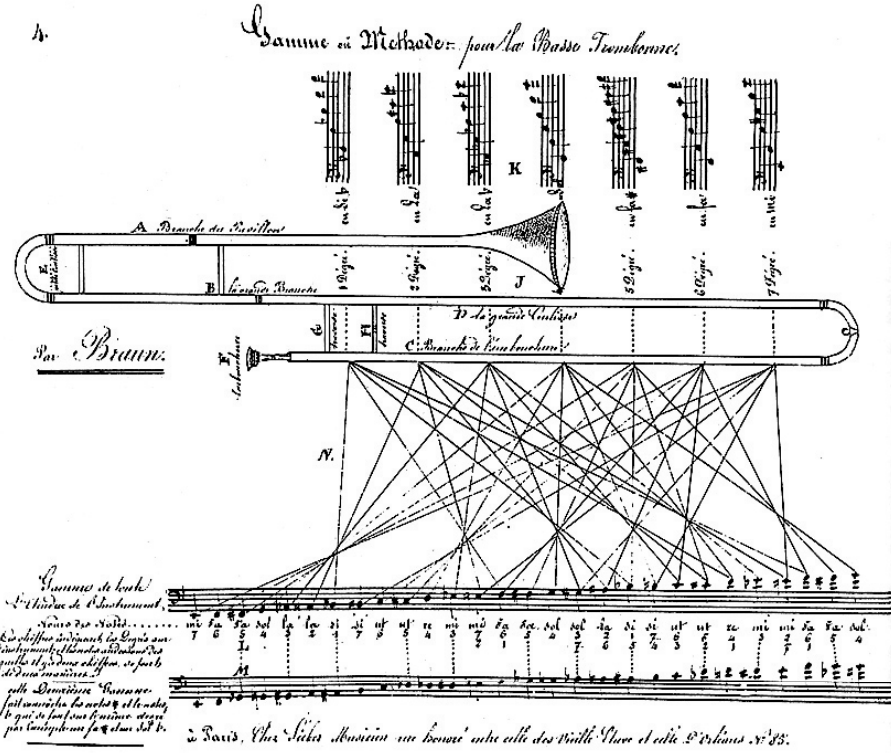


- André Braun, *Gamme et Méthode* (Paris, ca. 1795). In Braun's trombone method, published in Paris, we find an alto in E $\flat$ , (Figure 9) a tenor in B $\flat$ , and a bass in B $\flat$  (Figure 10).<sup>6</sup> The Italian edition of Braun's method, published in Milan around 1827, refers only to a B $\flat$  bass trombone (Figure 11).<sup>7</sup>

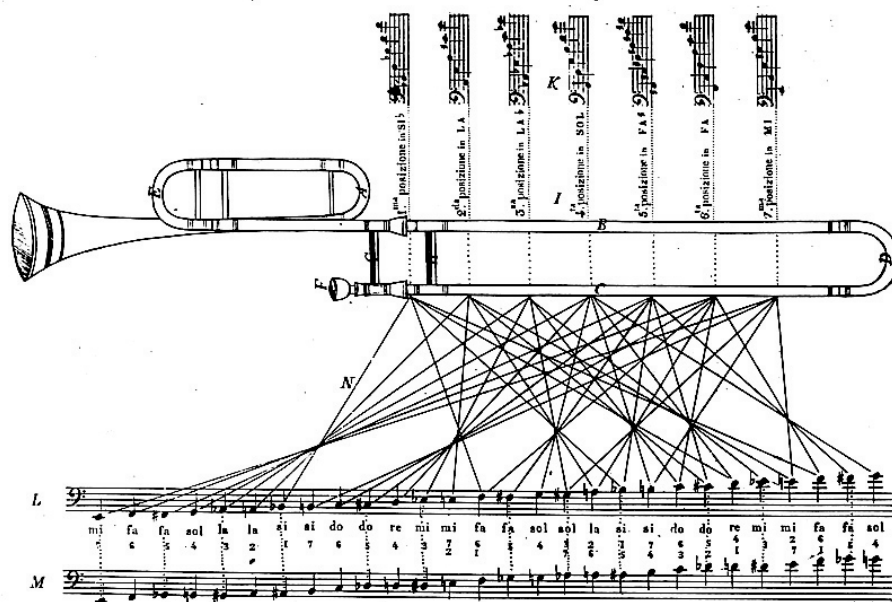


**Figure 9**

Braun, *Gamme et Méthode* (Paris, ca. 1795), alto trombone in E $\flat$   
 (Reproduced by permission, Bibliothèque nationale de France).



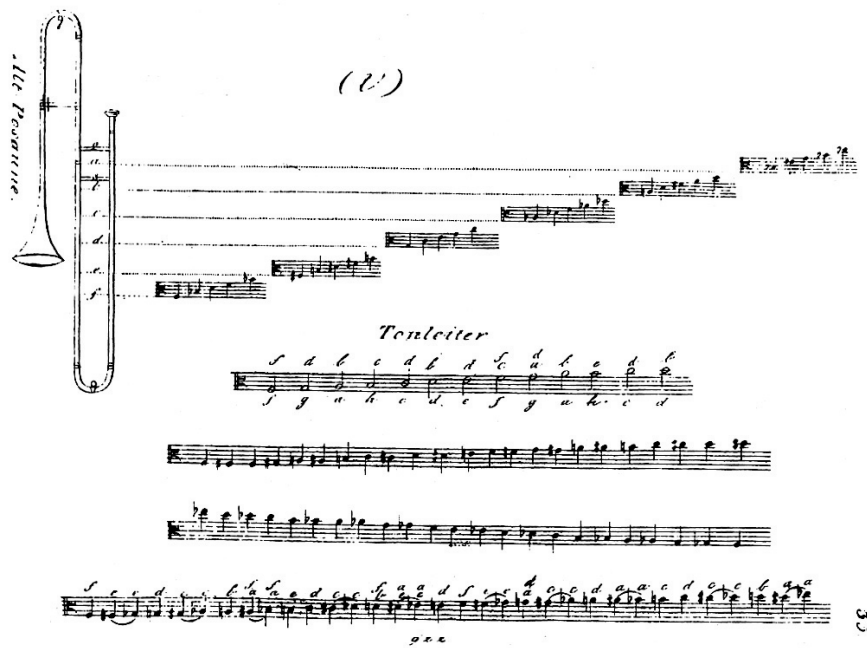
**Figure 10**  
 Braun, *Gamme et Méthode* (Paris, ca. 1795), bass trombone in B $\flat$   
 (Reproduced by permission, Bibliothèque nationale de France).



**Figure 11**

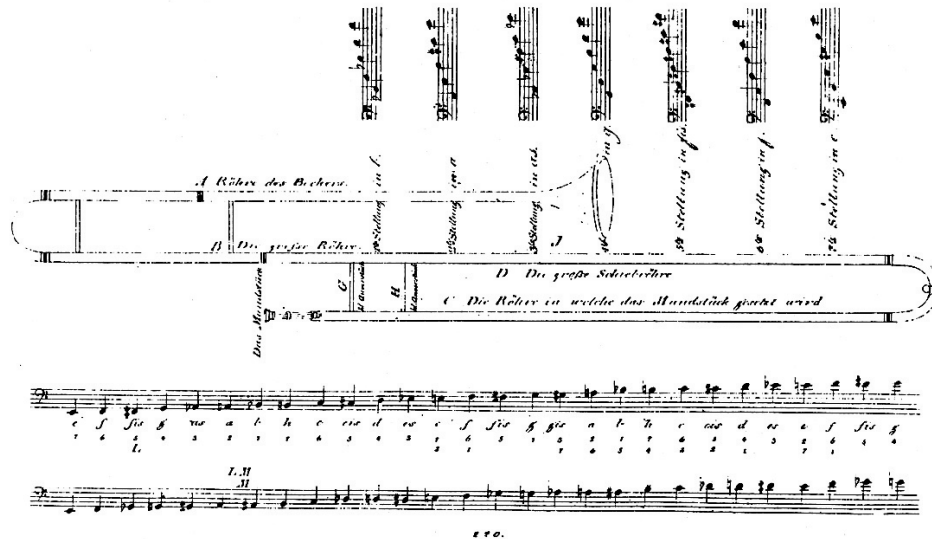
Braun, *Scale e Metodo* (Milan, ca. 1827), bass trombone in B $\flat$   
 (Reproduced by permission, Österreichische Nationalbibliothek, Musiksammlung).

- Joseph Fröhlich, *Vollständige Theoretisch-practische Musikschule* (Bonn, ca. 1811). From Fröhlich's trombone method of ca. 1811, we have an alto in E $\flat$  (Figure 12), a tenor in B $\flat$ , and a bass in a B $\flat$  (Figure 13).<sup>8</sup> Although Fröhlich shows an E $\flat$  alto, he remarks: "In more recent times, in some places the three types of trombone have been built in the same size... Here, nothing is different other than the mouthpiece, especially for the alto trombone, which requires a smaller one."<sup>9</sup>



**Figure 12**

Fröhlich, *Musikschule* (Bonn, ca. 1811), alto trombone in E $\flat$ .



**Figure 13**

Fröhlich, *Musikschule* (Bonn, ca. 1811), bass trombone in B $\flat$ .

- Gottfried Weber, “Versuch einer praktischen Akustik“ (1816). In his essay on the acoustics of instruments, Gottfried Weber used a “bass” trombone to illustrate the use of a slide to vary the length of a tube. He wrote:

In principle, this bass trombone is merely a B $\flat$  trumpet.... The tenor trombone is exactly the same instrument as the above-described bass trombone... The alto trombone, too, can be exactly the same instrument (namely, for all practical purposes, a B $\flat$  trumpet), only that, by means of an even smaller mouthpiece, still higher partials can be used.

He also mentioned an alto trombone in E $\flat$ , and a discant trombone that is the same as the E $\flat$  alto.<sup>10</sup>

- Johann Georg Albrechtsberger, *Anweisung zur Composition* (Vienna, 1826 and 1837). In the editions of Albrechtsberger's *Anweisung* revised and published in 1826 and 1837 by Ignaz von Seyfried, the position charts allow us to recognize an alto in E $\flat$ , a tenor in B $\flat$ , and a bass in B $\flat$  (Figure 14).

Auf der Alt-Posaune:



deren vollständige Scala ist:



Die Züge auf der Tenor-Posaune sind:



und ihre Scala:



Endlich die Züge auf der Bass-Posaune:



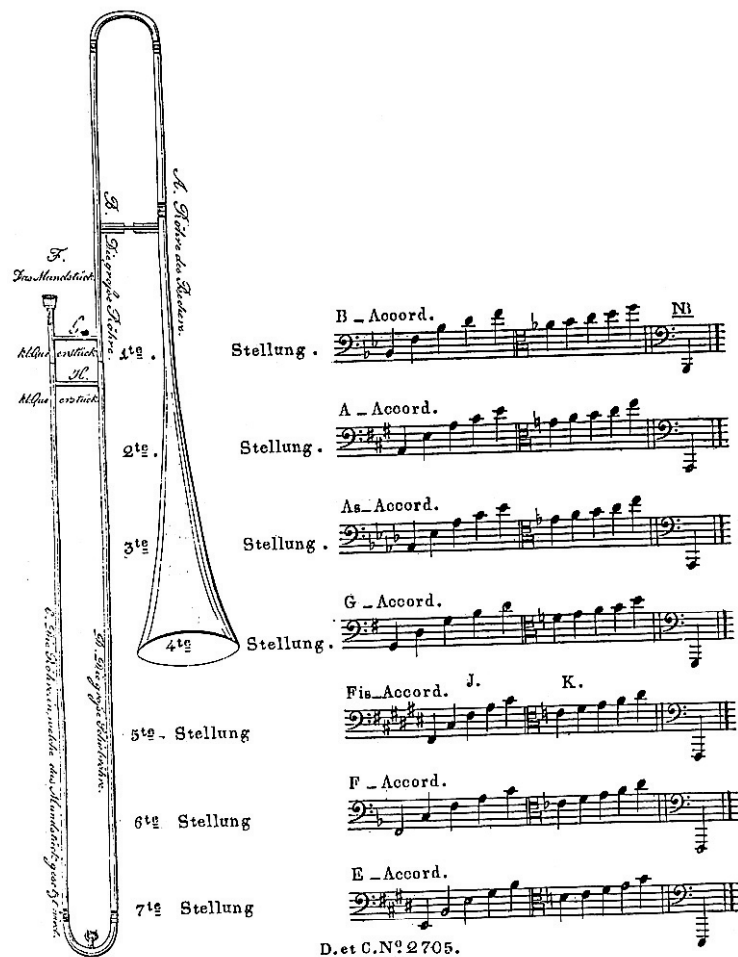
und ihre Tonleiter von  bis 

durch alle halbe Kreuz- und We-Töne.

Figure 14

Albrechtsberger, *Anweisung zur Composition* (Vienna, 1826),  
alto trombone in E $\flat$ , tenor in B $\flat$ , bass in B $\flat$ .

- Andreas Nemetz, *Posaun-Schule* (Vienna, 1827). In his trombone method, Nemetz wrote, “The illustrated bass, tenor, and alto trombone is pitched in B $\flat$ ,” allowing that “the mouthpiece must be different for each of the three types of trombone”<sup>11</sup> (Figure 15). From the position numbers printed above and below the notes in Nemetz’ scales and etudes, it is obvious that he indeed considered all three sorts of trombone to be in B $\flat$  (Figure 16).



**Figure 15**

Nemetz, *Posaun-Schule* (Vienna, 1827)

(Reproduced by permission, Österreichische Nationalbibliothek, Musiksammlung).




Figure 16

Nemetz, *Posaun-Schule*, detail, scales for alto and bass trombone with position numbers.

- Augustin Sundelin, *Die Instrumentierung für das Orchester* (Berlin, 1828). Sundelin's "Trombone Basso," which has a range from C to e', is clearly a quart trombone (Figure 17).<sup>12</sup>

### Trombone Basso.

Die Baß-Posaune hat den im Orchester zu benutzenden Umfang vom C der großen Oktave

bis zum eingestrichnen e. № 131.  Sie spielt immer im Baß-

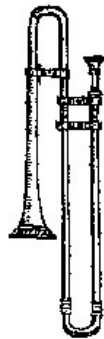
schlüssel und steht mit dem Violoncell ganz im Einklang, und kann in dem angegebenen Raume alle ganzen und halben Töne blasen, weßwegen auch alle Tonarten ausführbar sind, obgleich die mit vielen Vorsetzungszeichen bedeutend schwerer. Das von der Alt-Posaune Gesagte gilt hier ebenfalls, nämlich vom schnellen Tempo, von schwerer Aussprache der äußersten Höhe, aber auch hier anwendbar auf die äußerste Tiefe, vom Stoßen der Töne, vom Anfang der Musik-

Figure 17

Sundelin, *Die Instrumentierung*, Berlin, 1828, bass trombone.



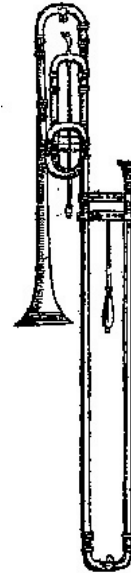
Let's pause here and summarize:



Discant in D  
 Discant in E $\flat$   
 Alto in D  
 Alto in E $\flat$



Alto in A  
 Alto in B $\flat$   
 Tenor in A  
 Tenor in B $\flat$   
 Bass in A  
 Bass in B $\flat$



Quart in E  
 Quart in D  
 Quint in D  
 Trombone Basso

As we can see, an “alto” trombone can be in D, E $\flat$ , A, or B $\flat$ , and a “bass” trombone in A, B $\flat$ , E, or D. The B $\flat$ /A instrument served not only to play alto, tenor, and bass parts—as Speer and others remarked<sup>13</sup>—but at times also found itself designated as an “alto,” a “tenor,” or a “bass” trombone. So how do we know what types of trombone were used in a given situation? To try to determine this, I suggest we take a quick tour through Europe:

### Paris

The trombone was practically unknown in Paris during the first seven decades of the eighteenth century. When the trombone was reintroduced there in the mid-1770s it was played as a doubling instrument by trumpet and horn players. One such trumpet player was André Braun, whose name appears in documents starting in 1773. As we have seen above, in his trombone method Braun depicted the tenor and the bass trombones as being in B $\flat$ , and the alto in E $\flat$ . But as I've shown elsewhere, Braun was probably not very familiar with the alto trombone.<sup>14</sup>

Two important sources shed light on trombone usage in France in the early 1840s: The first is Georges Kastner's 1844 *Supplement* to his *Traité général d'instrumentation* of 1837. According to Stewart Carter, Kastner commented on the use of alto and bass trombones in Germany, but said that French composers used only the tenor trombone, for which they wrote in three parts, although they frequently continued to employ the designations alto, tenor, and bass.<sup>15</sup> Hector Berlioz, in his *Grand Traité d'Instrumentation et d'Orchestration modernes* of 1843/4, remarked that "it is unfortunate that the alto trombone is currently banned from almost all French orchestras."<sup>16</sup> Considering these two contemporary reports as well as the largely moderate ranges of French "alto" trombone parts of the time,<sup>17</sup> I think we can safely assume that the typical Parisian trombone section, from the mid 1770s to the mid 1840s at the very least, was made up of an "alto" in B $\flat$ , a tenor in B $\flat$ , and a "bass" in B $\flat$ .

### Example 1

Handel, *Saul*, no. 1, "How excellent thy Name, O Lord," Trombone 3, mm. 45-73.

### London

In England the trombone had fallen out of use toward the end of the seventeenth century and was unknown for much of the eighteenth.<sup>18</sup> But the trombone did make a short guest appearance in Handel's oratorios *Saul* and *Israel in Egypt*, both of which were premiered in 1739. Judging from the range of the third trombone parts in these two oratorios and the frequency with which they descend to low *D* and *C* (Example 1), it is hard to imagine them being played on anything but a quart trombone in *D* or *E♭*. The first trombone parts, which generally stay between *c'* and *c''*, work well on an alto in *D* or *E♭*, but an "alto" in *A* or *B♭* would also be a possibility.

The trombone then disappeared again until the 1784 Handel Commemorations, when six musicians who played "three several species of sackbut" were found after a long search.<sup>19</sup> In 1792 a single trombonist was listed among the members of the orchestra of the Professional Concert, which performed that year under Pleyel's direction.<sup>20</sup> Indeed, there exist three symphonies by Pleyel, but possibly from a later date, that call for a single trombone to double the bass line.<sup>21</sup>

In 1807, John Marsh published an essay, *Hints to Young Composers of Instrumental Music*, in which he wrote,

[T]he TROMBONE, of which there are three different sizes of trombone, forming respectively, a counter-tenor, tenor, and bass to the trumpet.... These instruments, being the most powerful of any in the orchestra, are only used in the very full, or tutti parts, when the bass-trombone plays as simple a part as can be formed from the general bass, the other two playing at the same time in harmony and making a kind of thorough bass with it.... Except however in orchestras of the very first magnitude, the bass-trombone is the only one used.<sup>22</sup>

An article published over twenty years later, in 1830, in *The Harmonicon* also refers to three sizes of trombone (Figure 18): "No orchestra is complete today without three trombones, viz. – an alto, tenor, and bass; but the latter is the one mostly in use." The position charts included in the article are for alto trombone in *F*, tenor trombone in *C*, and bass trombone in *G*. The author further notes that the military bass trombone is in *F*.<sup>23</sup>

**THE TROMBONE.**

No orchestra is complete now without three trombones, viz. —an alto, tenor, and bass; but the latter is the one mostly in use; however, I shall give the scale and compass of each for the guidance of young composers.

The *alto-Trombone* stands originally in *f*.

These notes may be produced without moving.

1st move      2nd

3rd      4th      5th

The notes above *c* become the trumpet tone, and should not be introduced.

The *tenor-Trombone* in *c*.

Natural key

1st move      2nd

3rd      4th      5th

The *bass-Trombone* in *a*. (Military ones are in *f*.)

Natural notes

1st move      2nd

3rd      4th      5th

Figure 18

I.P., "On the Serpent, Bass-Horn, and Trombone," *The Harmonicon* 1830.

### Leipzig

In Germany, too, the trombone had fallen out of favor by the beginning of the eighteenth century, although not as completely as in France or England. It continued to be one of the instruments played by the *Stadtpeifer* in a number of German towns. One of these was Leipzig, where Johann Sebastian Bach used trombones in fifteen cantatas performed during the first two years of his tenure as *Kantor* of the Thomaskirche. In 1769 Johann Gottlieb Doles, Bach's pupil and successor, reported the results of an audition held to fill a *Stadtpeifer* position. Of the candidate Johann Michael Pfaffe, he wrote,

The simple chorale on the soprano, alto, tenor, and bass trombone (the last of which none of his colleagues plays better than he and his brother, and which requires good lungs) he played well.<sup>24</sup>

and of the second candidate, Johann Gottlieb Herzog,

His performance on the alto trombone of the alto voice of the simple chorale was mediocre. On the other trombones, particularly on the bass trombone, he could not even get anywhere, and yet they are inevitably required for the church and the playing of the hours.<sup>25</sup>

From this we can deduce that four sizes of trombone were employed in Leipzig during the eighteenth century: soprano, alto, tenor, and bass, most likely in A, D, A and D, respectively. (The surviving trombone parts to Bach's cantatas are all transposed down a tone, indicating trombones with the nominal *Chorton* pitches of A and D. As late as 1773, a new organ in the Thomaskirche was built in *Chorton*,<sup>26</sup> showing that the change in pitch that would have made the trombones into B $\flat$  and E $\flat$  instruments had not yet reached Leipzig.)

I have not been able to find much information about trombones in early nineteenth-century Leipzig. But it is perhaps of interest that the third trombone part of Mendelssohn's Second Symphony, premiered in 1840 in Leipzig, does not go lower than *F*, while that of his Fifth Symphony, premiered eight years earlier in Berlin, often descends to low *D*. This may indicate that in Leipzig the tenor and "bass" trombones, at least, were in B $\flat$  at that time.<sup>27</sup> Moreover, according to Ottmar Schreiber, in 1850 a quart-trombone was ordered in Leipzig for the bass trombonist so that the imitative bass passage E $\flat$ -D-C in the overture to Carl Maria von Weber's *Der Freischütz* could be played as written, and not transposed up an octave as had been done previously.<sup>28</sup>

### Salzburg

Salzburg was another German town in which the *Stadtpeiffer* continued to play trombones well into the eighteenth century. In his "Report on the Current State of the Musical Establishment of His Highness the Archbishop of Salzburg," Leopold Mozart wrote in 1757: "Lastly, one also needs for the choir three trombonists. Namely, to play the alto, tenor, and

bass trombone, which the master of the town waits with two of his subordinates have to perform for a certain annual salary.”<sup>29</sup>

For Salzburg, Wolfgang Amadeus Mozart composed twelve Masses<sup>30</sup> and seven other sacred works<sup>31</sup> for which trombone parts have survived. In most cases, the trombone parts are strictly *colla parte*, so it is difficult to deduce from them anything about Mozart’s trombone writing or the intended instruments. In two Masses, however, in passages where the trombones are independent of the choral parts, the third trombone does have some low Cs to play. And in the incidental music to *Thamos, König von Ägypten*, the third trombone part is clearly intended for a quart trombone (Example 2). Since the Baroque *Chorton/Cammerton* dichotomy still existed in Salzburg as late as the 1780s (as witnessed by the transposed trombone parts for the first performance in 1783 of Mozart’s C-Minor Mass K. 427),<sup>32</sup> it is probably safe to assume that the *Stadtpfeifer* in Salzburg used an alto trombone in D, a tenor in A, and a quart trombone in D.

Maestoso

9

15

### Example 2

Mozart, *Thamos*, “Schon weichet dir, Sonne,” Trombone 3, mm. 1-22.

### Vienna

As mentioned above, and as I’ve shown in detail elsewhere,<sup>33</sup> Andreas Nemetz considered the alto, tenor and bass trombones to be in B $\flat$ . As a trombonist in the Imperial Royal Court Theater Orchestra, Nemetz has to be regarded as an important—and above all, competent—source of information on trombone playing in early nineteenth-century Vienna. His information is confirmed, at least as far as the bass trombone is concerned, by Ignaz von Seyfried in the revised and enlarged editions of Albrechtsberger’s *Anweisung zur Composition* that Seyfried published in 1826 and 1837.<sup>34</sup> Here, too, the bass trombone is clearly in B $\flat$ . The alto trombone, however, is in E $\flat$  (Figure 14).

The original 1790 edition of Albrechtsberger’s *Anweisung*, which by 1821 had been reprinted at least three times, does not provide enough information to allow us to specify the pitch of the various trombones with certainty.<sup>35</sup> It is interesting, however, that the range he gives for the alto trombone extends down to *c*, a fourth lower than the lowest note

given by Braun, Fröhlich, and Seyfried for the E $\flat$  alto trombone, and includes *e* (Figure 19), which on the E $\flat$  alto would be in seventh position; it should be noted, however, that most E $\flat$  altos from the eighteenth and early nineteenth centuries had a short slide and consequently only six positions.<sup>36</sup> Therefore, I think we can assume that Albrechtsberger, like Nemetz, considered the alto to be a B $\flat$  instrument.



Figure 19

Albrechtsberger, *Anweisung zur Composition*, Leipzig, 1790, alto trombone.

In seventeenth-century Vienna, trombones were often used in sacred music to double the alto, tenor, and bass vocal parts. But by the early eighteenth century this was no longer the case. As Johann Joseph Fux wrote in 1725 in his *Gradus ad Parnasum*: “I know that the trombones usually go along in unison with the alto and tenor.”<sup>37</sup> Indeed, the voice parts in Viennese sacred music of the first half of the eighteenth-century were frequently doubled by a *ripieno* group made up of cornetto, two trombones, and bassoon, with the trombones covering the alto and tenor parts.

#### The Viennese “alto” trombone

Let’s take a closer look at the Viennese “alto” trombone. As we know, many of the works written for the Vienna court chapel by Johann Joseph Fux, Marc Antonio Ziani, Antonio Caldara, Johann Georg von Reutter, and others call for two trombones as doubling and solo instruments. This practice was also found at Austrian monasteries outside Vienna.<sup>38</sup> Until now it has been taken for granted that these trombone parts were for an alto in D/E $\flat$  and a tenor in A/B $\flat$ , respectively.<sup>39</sup> It is my contention, however, that the parts for “alto” trombone were intended to be performed on an instrument in A/B $\flat$ .

The parts in question have one thing in common: they are in alto clef. It is surely this that has led people to assume that the alto trombone in D/E $\flat$  was intended. However, there are other aspects that must be taken into consideration.

One aspect, for example, is the range of the part. In his study on trombone obbligatos in Viennese oratorios, Stewart Carter has written that “the customary range for the alto trombone is *g* to *e*<sup>2</sup>,” noting that “slightly narrower ranges occur in some arias, but parts that exceed these limits are rare; *d*<sup>2</sup> for the alto appears infrequently, and only in liturgical works.”<sup>40</sup> Yet, it is not necessarily the upper range that is decisive in identifying an “alto” trombone part, since a tenor trombone can play just as high as an alto, but rather the low range. I was able to find a number of liturgical alto trombone parts that go below the *g* that Carter gives as the lowest note for the alto trombone in the oratorios he examined. In a Requiem by Georg Reutter,<sup>41</sup> for example, the solo “alto” trombone (designated *Trombone Imo*) goes down to *B* $\flat$ (Example 3); this passage is certainly not optimal for, but actually still playable on an alto trombone in E $\flat$ . Example 4, however, poses more of a problem for an E $\flat$  alto trombone: This solo passage for the *Alto Trombone concertato* in the Christe of the *Missa Corporis Christi* by Johann Joseph Fux has as its first and penultimate note an *e*,<sup>42</sup> which as I mentioned above, did not normally exist on the E $\flat$  alto at that time.

*Soli*

### Example 3

Reutter, Requiem, “Te decet,” Trombone 1, mm. 53-63.

*Andante*

### Example 4

Fux, *Missa Corporis Christi* (K. 10), “Christe,”  
*Alto Trombone concertato*, mm. 49-54.



Something else to consider is the fact that Austrian composers frequently wrote for pairs of solo instruments, usually two violins, two clarini, or two trombones (Example 5).<sup>43</sup> These solo instruments often have passages, for example, with more or less long strings of parallel thirds. With violins and clarini, the tonal balance is undoubtedly aided in each case by the use of pairs of equal instruments. Is it not logical, then, to assume that the trombone parts, too, were played on equal instruments, that is to say, on an “alto” and a tenor, both in B $\flat$ , rather than on an alto in E $\flat$  and a tenor in B $\flat$ ?

a) *Andante*

Violino I

Violino II

63

b) *Allegro*

Clarini

87

c) *Adagio*

Trombone I

Trombone II

5

d) *Adagio*

Trombone I

Trombone II

5

### Example 5

a) and b) Fux, *Missa Corporis Christi*; c) Ferdinand Schmidt, *Missa Primitiarum*;  
d) Christoph Sonnleithner, *Missa solennis*.

Another place where the tonal balance is undoubtedly better served by equal instruments is to be found in passages in which the parts cross and the second trombone plays above the first trombone, as in a *Stabat mater* by Georg Christoph Wagenseil (Example 6).<sup>44</sup> Example 7 shows the unison trombone parts of the “Cor mundum” section of a *Miserere* by Georg Reutter: the second trombone changes into alto clef here and doubles the first trombone, with both parts marked *soli* and *unisi*.<sup>45</sup>

Largo

### Example 6

Wagenseil, *Stabat mater*, “Fac me vere” (introduction), Trombones 1 and 2 Conc<sup>o</sup>.

### Example 7

Reutter, *Miserere*, “Cor mundum,” Trombones 1 and 2.

There also exists organographical evidence that could be interpreted to support my argument. The two trombones in Figure 20 were made in Vienna in 1732 and 1738, respectively, by Michael Leichamschneider, and are now in the Musical Instrument Collection of the Kunsthistorisches Museum; they are from the Michaelerkirche, one of Vienna's parish churches with close connections to the imperial court.<sup>46</sup> Both these instruments are tenor trombones in B $\flat$ , or, if my theory is correct, one is an "alto" in B $\flat$  and the other a tenor in B $\flat$ .

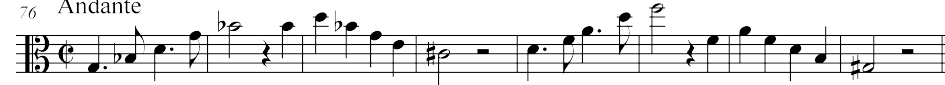


**Figure 20**

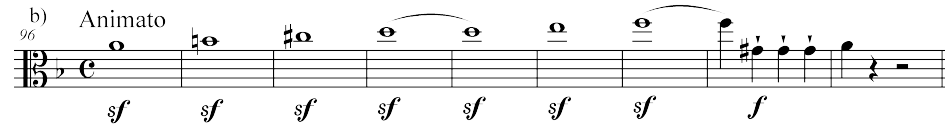
Trombones by Michael Leichamschneider (Sammlung Alter Musikinstrumente, Kunsthistorisches Museum, Vienna) Reproduced by permission from *Die Klangwelt Mozarts* (Vienna: Kunsthistorisches Museum, 1991), 112.

During the second half of the eighteenth century, Christoph Willibald Gluck led the “alto” trombone to new heights: In his operas *Alceste* and *Iphigenia auf Tauris* he demanded  $f^2$  of his first trombone<sup>47</sup> (Example 8)—forty-one and twenty-seven years, respectively, before Beethoven’s Fifth Symphony. But in *Alceste* the first trombone also descends to  $e$ , which again was not normally available on the  $E\flat$  alto of the time (Example 9).<sup>48</sup>

a)   
 76 Andante



b)   
 96 Animato



### Example 8

- a) Gluck, *Alceste* (Vienna, 1767), act 1, scene 4, mm. 76-83;  
 b) Gluck, *Iphigenie auf Tauris* (Vienna, 1781) act 2, scene 4, mm. 96-104.

Allegro



### Example 9

Gluck, *Alceste* (Vienna, 1767), act 2, scene 2, mm. 212-18.

In the early nineteenth century, some rather daunting “alto” trombone parts were written, for example, by Beethoven and Schubert, but here, too, in particular in the works of Schubert, there are indications that it was not the  $E\flat$  alto trombone that was intended to play them: In the Great C-Major Symphony (D 944) from 1828, for instance, the “alto” trombone does not go above  $a^1$  for the first three movements, ascending to  $c^2$  only in the finale, where it also has to play a fortisissimo  $e$  (Example 10), which even at this late date may still have been in the usually unavailable seventh position of the  $E\flat$  alto.<sup>49</sup>

All in all, there seems to be no evidence for the use in Vienna of the  $E\flat$  alto trombone for over a century prior to Seyfried’s 1826 revision of Albrechtsberger’s treatise. Moreover, it is possible that Seyfried simply took his information on this instrument from Braun and/or Fröhlich, both of whom he cites as having written trombone methods. (By the time Seyfried’s second revised edition of Albrechtsberger’s treatise was issued in Vienna in

1837, the slide trombone had probably been, or was on its way to being, supplanted there by the valve trombone.)



### Example 10

Schubert, Symphony in C Major (D 944), 4th mvt., Trombones 1, 2, and 3, mm. 1097-1105.

#### Excursus—The solo alto trombone

For many years I have considered the concertos by Wagenseil<sup>50</sup> and Albrechtsberger to be for tenor trombone. In the course of writing this article, I came to the realization that the rest of the eighteenth-century solo trombone literature—including the divertimento and serenade movements by Leopold Mozart and Michael Haydn and the solo arias with trombone by Anton Cajetan Adlgasser and Johann Ernst Eberlin—was also most likely intended for and originally performed on tenor trombone in B $\flat$  or A. I realize that this is contrary to the popular belief that places this repertoire firmly in the hands of the small alto trombone in E $\flat$ . Yet this popular belief is based on the mere fact that the solo parts of these pieces are notated in alto clef, which, as any trombone scholar should know, is a rather untrustworthy indicator of the instrument to be employed. In spite of the spurious “alto” that has been added to the titles of various modern editions, the surviving manuscripts merely specify “trombone,” “trombone solo,” or “trombone conc[ertato],” without any adjective indicating the size of the instrument.

My reasoning for discounting the use of the alto trombone in D or E $\flat$ : It is my belief that any self-respecting eighteenth-century virtuoso would have chosen an instrument that helped him make the most beautiful sound possible. Given the trombone’s physical development, or lack thereof, during the seventeenth and eighteenth centuries, I know of no reason why Praetorius’ judgement, that “the sound in such a small corpus is not as good as when the tenor trombone, with good embouchure and practice, is played in this high register,”<sup>51</sup> should not also apply to the small alto trombone of the eighteenth century. It therefore follows that a tenor trombone in B $\flat$  or A would have been the virtuoso’s preferred instrument because of its superior tonal qualities. (While there are surely trombonists today who make a nice sound on the E $\flat$  alto, I would contend that they, too, make an even nicer sound on the B $\flat$  tenor.)

Moreover, our trombone virtuoso would probably also have desired an instrument that provided him with the widest range of tones and alternate positions—here again the

trombone in B $\flat$  or A has an advantage. This is especially important for the performance of trills. If we take a look at the works in question,<sup>52</sup> we find not a few trills on *ab*, *a*, *bb*, *b*, and *c'*, i.e., trills that lie rather low on the E $\flat$  alto trombone and are thus awkward to render elegantly. Is it surprising, then, that some modern-day alto trombone soloists (for example, Alain Trudel) employ an instrument with a trill valve, while others (for example, Carsten Svanberg) simply leave out awkward trills?<sup>53</sup> In my opinion the better and more historically appropriate solution would be to use a tenor trombone for these works.

### The Viennese “bass” trombone

But what happened to the third, the bass trombone? By the early eighteenth century, it had obviously been replaced in the context of the *ripieno* group by the bassoon. But why? The answer is to be found in the records of the *Obersthofmeisteramt* (the Office of the Imperial Royal Lord High Steward) among the recommendations submitted by Kapellmeister Johann Joseph Fux to Emperor Karl VI. In August 1726, Fux wrote the following recommendation:

Johann Georg Sturm, master of the waits (*Turnermeister*) at Klosterneuburg, humbly requests to be accepted into imperial services as a quart trombonist. However, because this instrument would contribute nothing to the improvement of the imperial musical establishment, but, on the contrary, would be detrimental on account of its unpleasant sound, I cannot recommend this suppliant's request.<sup>54</sup>

Here we surely have the reason for the absence of the quart trombone in eighteenth-century Vienna. But was this merely due to Fux' aversion to the sound of the quart trombone? Until his death in 1741, Fux' influence as Hofkapellmeister undoubtedly precluded the use of this instrument by the other composers writing for the court chapel. But even in 1783, a number of Viennese churches employed only two trombonists, if they employed any at all,<sup>55</sup> and as late as 1809 court Kapellmeister Antonio Salieri called for only two trombones in Masses he composed for the court chapel.<sup>56</sup> Indeed, there are already indications from the latter part of the seventeenth century— i.e., even before Fux joined the court chapel—that the quart trombone was on its way out.<sup>57</sup> Be that as it may, eighteenth-century Viennese composers usually composed for just two trombones in the alto and tenor ranges, but when they did call for a third trombone in the bass range, this part, too, was playable on a B $\flat$  trombone—for example in Gluck's operas *Orfeo*, *Alceste*, and *Iphigenie auf Tauris*.

Towards the end of the eighteenth century, however, we begin to find third trombone parts that go below the range of the B $\flat$  trombone.<sup>58</sup> In the aria with choir “O Isis und Osiris” from Mozart's *Die Zauberflöte* (1791) the third trombone descends once to a low *D* (Example 11).<sup>59</sup> Probably the most remarkable third trombone part of this period is that in Joseph Haydn's *Creation*; the part as found in the first edition of 1800 demands a low E $\flat$ , three *D*s, two *C*s and a pedal B $\flat$ .<sup>60</sup> Beethoven's third trombone parts contain three low E $\flat$ s and a pedal B $\flat$  in the *Ruins of Athens* and a single low *D* in the *Missa solennis*. Franz

Schubert calls for low  $E\flat$  twice in his Mass in  $A\flat$  Major (D 678) and for an occasional low  $D$  in several early works.<sup>61</sup>



### Example 11

Mozart, *Die Zauberflöte*, no. 10, "O Isis und Osiris," Trombone 3, mm. 25-28.

How are these low  $E\flat$ s,  $D$ s and  $C$ s to be reconciled with the use of a  $B\flat$  "bass" trombone? I contend that the Viennese trombonists were versed in the use of falset tones and were thus able to cope with the occasional appearance of these low notes. This technique was, of course, not unknown. Praetorius, for example, mentioned two trombonists who had mastered it.<sup>62</sup> And in his chart of ranges for the trombones, he indicates low  $D$ ,  $C$ , and pedal  $A$  as falset notes on the tenor trombone (Figure 21).<sup>63</sup>

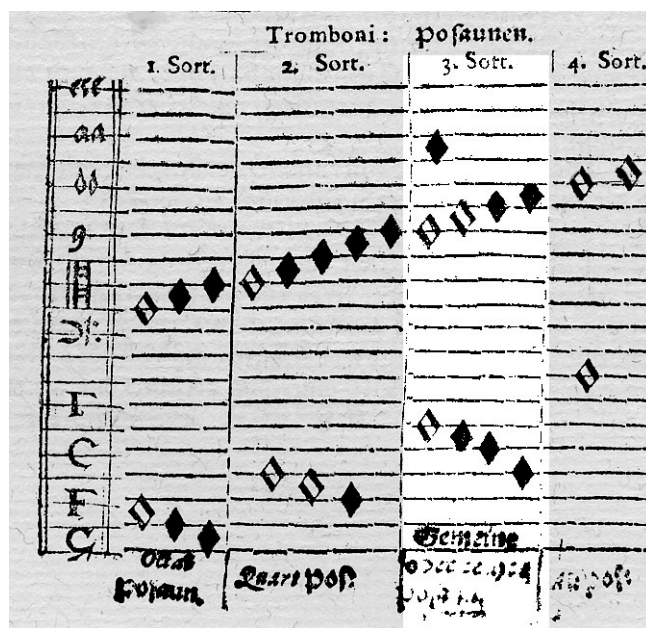


Figure 21

Praetorius, *Syntagma musicum 2* (Wolfenbüttel, 1619)  
(Reprinted by permission, Bärenreiter-Verlag).

The anonymous South-German manuscript I mentioned earlier also provides information on this technique. Under the heading *Bass Posaunen* we find two expanded slide position charts for a bass trombone in A (Figure 22). Especially interesting for us here is the annotation found under the *d* and *c* at the end of the second system. It reads: “Diese zwei octaven sein zu eisserist darauß zusuech[en],” i.e., the octaves of these two notes are to be found with the slide extended all the way. Not exactly the most lucid description of the falset technique, but clear enough from the context.

Figure 22

Anonymous, *Instrumentälischer Bettlermantl* (ca. 1650), p. 135, bass trombone  
(Reproduced by permission, Edinburgh University Library).



That this technique was also known in Vienna can be deduced from two sonatas for trombone, two violins and continuo by Antonio Bertali,<sup>64</sup> who was imperial court Kapellmeister from 1649 to 1669. Highlighted in Figure 23 are two passages requiring low *D* from a manuscript copy of one of these sonatas.<sup>65</sup> It might seem like a long stretch from Bertali to Mozart and Haydn, yet for most of this period a certain continuity in Viennese trombone playing can be observed.



Figure 23

Bertali, *Sonata* (Reproduced by permission, Universitetsbibliotek, Uppsala).

Let us assume for a moment that when Bertali wrote these two sonatas he had Johann Friedrich Helwig in mind for the trombone part. Helwig was not only a member of the court chapel during most of Bertali's tenure as Kapellmeister, but was considered "Europe's most famous trombonist of the time," and is said to have been presented with a silver trombone of Nuremberg manufacture by Emperor Leopold I.<sup>66</sup> If Helwig had this falset technique in his repertoire, he would undoubtedly have passed it on to his pupils, one of whom was Ferdinand Leopold Christian,<sup>67</sup> the first of a dynasty of trombonists who served the imperial court for over a century. Ferdinand Leopold, in turn, would have taught the technique to his brother Johann<sup>68</sup> and his son Leopold, both of whom were his pupils, and Leopold would have passed it on to his son Leopold Ferdinand,<sup>69</sup> who died in 1783.<sup>70</sup>

The chain of known teacher-pupil relationships, which brings us up to the time when Mozart was active in Vienna, breaks off here with Leopold Ferdinand Christian, but it is quite likely that it, and the practice of the falset technique, continued on into the nineteenth century.

### Conclusion

There was not just one, but several different trombone formations found in the orchestras of the eighteenth and early nineteenth centuries. In the most important musical centers of the time—Paris and Vienna—the trombone section was made up of B $\flat$  trombones playing the alto, tenor, and bass parts; in other places—Salzburg and Leipzig, for example—the traditional *Stadt Pfeiffer* trombone formation of alto in D, tenor in A, and bass in D held its own until far into the eighteenth century, and probably paved the way for the survival of the small alto trombone into the nineteenth century. Early nineteenth-century London seems initially to have opted for a trombone section made up of an alto in F, tenor in C, and bass in G, with the latter instrument remaining popular there until the 1950s. It is therefore time for the trombonist performing with orchestras of period instruments to consider the historical evidence before choosing the appropriate instrument, and to address the challenges and enjoy the advantages of a more diversified playing culture.

### Epilogue

Recent years have seen a number of articles and dissertations about the alto trombone in which the instrument's widespread use in and extensive repertoire from the seventeenth through early nineteenth centuries have been presupposed. The evidence presented above, however, makes it clear that the history of the alto trombone needs to be reappraised. Therefore, I would like to propose the following hypothesis as a starting point for future research on the alto trombone:

The small alto trombone (i.e., the alto in D, E $\flat$ , or F) has never in its history been as ubiquitous as generally thought or even as it has become in our own day. The received wisdom—that the instrument, following widespread use in the seventeenth, eighteenth and early nineteenth centuries, gradually fell into complete disuse by the late nineteenth century—has to be stood

on its head: From the seventeenth through early nineteenth centuries the small alto trombone was at best a marginal instrument with geographically limited usage (parts of Germany, Scandinavia.)<sup>71</sup> Never widely employed, yet never having completely died out, the small alto trombone *began* its rise to its current popularity at the end of the nineteenth century. A possible date for this watershed is 1883, when the trombonists of the Vienna Court Opera Orchestra (and thus also of its self-governed concert formation, the Vienna Philharmonic<sup>72</sup>) were required to switch from valve trombones, which had probably been in use there since the mid-1830s, to wide-bore German slide trombones.<sup>73</sup> In 1883 the court opera administration purchased for the orchestra a tenor trombone in B $\flat$ , two B $\flat$  tenor trombones with F attachment, and an alto trombone in E $\flat$ .<sup>74</sup> The newly introduced E $\flat$  alto trombone was most likely not intended to be used for the works of the “modern” composers Brahms, Bruckner, Dvořák, etc., but for the “alto” trombone parts of the classical masters, parts for which the new large-bore tenor trombone was not suitable.

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## APPENDIX

The probable makeup of trombone sections in various musical centers,  
with selected examples from the repertoire.

	Soprano in	Alto in	Tenor in	Bass in
<b>Berlin</b> Weber, <i>Der Freischütz</i> (1821); Mendelssohn, 5th Symphony (1832)	–	E♭	B♭	E♭/F
<b>Italy</b> Rossini, operas (1813-23)	–	(B♭)	(B♭)	B♭
<b>Leipzig</b> Bach, cantatas (1723-4)	A	D	A	D
Mendelssohn, 2nd Symphony (1840)	–	E♭	B♭	B♭
<b>London</b> Handel: <i>Saul; Israel in Egypt</i> (1839)	–	D	A	D
Clementi, 4 Symphonies (1812-24); C. Potter, Symphony (1832)	–	F	C	G
<b>Paris</b> Gluck, <i>Orpheus</i> (1774), <i>Alceste</i> (1776); Berlioz, <i>Symphonie fantastique</i> (1831)	–	B♭	B♭	B♭
<b>Salzburg</b> Mozart, M. Haydn, Eberlin, sacred works (1750s-?)	–	D	A	D
<b>Vienna</b> Fux, Reutter, Wagenseil, Salieri, sacred works (ca. 1708-?)	–	B♭	B♭	–
Gluck, <i>Orfeo</i> (1762), <i>Alceste</i> (1767), <i>Iphigenie auf Tauris</i> (1781); Mozart, Requiem (1791); Haydn, <i>Creation</i> (1798), <i>Seasons</i> (1801)	–	B♭	B♭	B♭

## NOTES

<sup>1</sup> See Howard Weiner, "The trombone: Changing times, changing slide positions," *Brass Bulletin* 36 (1981): 52-63; David M. Guion, *The Trombone: Its History and Music, 1697-1811* (New York: Gordon and Breach, 1988); and Stewart Carter, "Trombone Pitch in the Eighteenth Century: An Overview," in *Posaunen und Trompeten: Geschichte, Akustik, Spieltechnik*, ed. Monika Lustig, *Michaelsteiner Konferenzberichte* 60 (Blankenburg: Stiftung Kloster Michaelstein, 2000), 53-66.

<sup>2</sup> Michael Praetorius, *Theatrum Instrumentorum* (Wolfenbüttel: Holwein, 1620; facs. edn. Kassel: Bärenreiter, 1958), pl. 8.

<sup>3</sup> *Instrumentälischer Bettlermantl*, Edinburgh University, Special Collections, Dc.6.100. Concerning the date and provenance of this manuscript see J. Patricia Campbell, "Musical Instruments in the *Instrumentälischer Bettlermantl*—a Seventeenth-Century Musical Compendium," *Galpin Society Journal* 48 (March 1995): 156-67. I would like to thank Dietrich Hakelberg for providing me with his transcription of this manuscript.

<sup>4</sup> Daniel Speer, *Grundrichtiger, kurtz, leicht und nöthiger Unterricht der musikalischen Kunst* (Ulm: Kühn, 1687), 108-12; idem, *Grundrichtiger, Kurtz- Leicht- und Nöthiger, jetzt Wol-vermehrter Unterricht der musikalischen Kunst* (Ulm: Kühn, 1697; facs. edn. Leipzig: Peters, 1974), 221-24.

<sup>5</sup> Joseph Friedrich Bernhard Caspar Majer, *Museum musicum* (Schwäbisch Hall: Majer, 1732; facs. edn., Kassel: Bärenreiter, 1954), 41-43.

<sup>6</sup> André Braun, *Gamme et Méthode pour les Trombones* (Paris: Sieber, ca. 1795). See Howard Weiner, "André Braun's *Gamme et Méthode pour les Trombones*: The Earliest Modern Trombone Method Rediscovered," *Historic Brass Society Journal* 5 (1993): 288-308.

<sup>7</sup> Howard Weiner, "André Braun's *Gamme et Méthode pour les Trombones* Revisited," *Historic Brass Society Journal* 11 (1999): 93-106.

<sup>8</sup> Joseph Fröhlich, *Vollständige Theoretisch-practische Musikschule*, 4 vols. (Bonn: Simrock, ca. 1811), 3: 27-35.

<sup>9</sup> *Ibid.*, 33. "In neuern Zeiten verfertigt man an manchen Orten die 3 Arten der Posaune in gleicher Größe, und durchaus in einem gleichen Baue. Hier entscheidet nichts als das Mundstück, besonders für die Altposaune, wofür ein engeres notwendig ist, damit der Posaunist die immer vorkommenden höhern Töne sicher haben kann."

<sup>10</sup> Gottfried Weber, "Versuch einer praktischen Akustik," 2nd installment, *Allgemeine musikalische Zeitung* 18, no. 4 (24 January 1816): 49-60, here 49-56. "Diese Bassposaune ist im Grunde nur eine B-Trompete.... Die *Tenorposaune* ist ganz dasselbe Instrument, wie die zuerstbeschriebene Bassposaune.... Auch die *Altposaune* kann ganz dasselbe Instrument seyn, wie die Tenorposaune, (nämlich im Grunde eine B-Trompete) nur dass, mittelst eines noch engern Mundstücks, noch höhere Beytöne benutzt werden.... Eine *Discantposaun* ... ist dasselbe Instrument, wie die zuletzt beschriebene Es-Altposaune."

<sup>11</sup> Andreas Nemetz, *Neueste Posaun-Schule* (Vienna: Diabelli, 1827). "Die vorgezeichnete Bass- Tenor- und Alt-Posaune stimmt B." "Da nach den drey Arten der Posaune das Mundstück verschieden seyn muss..." See Howard Weiner, "Andreas Nemetz's *Neueste Posaun-Schule*: An Early Viennese Trombone Method," *Historic Brass Society Journal* 7 (1995): 12-35.

<sup>12</sup> Augustin Sundelin, *Die Instrumentierung für das Orchester* (Berlin: Wagenführ, 1828), 37-40. Sundelin's *Die Instrumentierung für sämtliche Militär-Musik-Chöre* (Berlin: Wagenführ, 1828) provides basically the same information on pp. 28-30.

<sup>13</sup> Speer, *Grundrichtiger Unterricht*, 221. "Weil nun auf einer Tenor-Posaun Alt, Tenor und Bass kan geblasen werden, soll solche am ersten beschrieben werden."

<sup>14</sup> Weiner, "Braun Revisited," 96.

<sup>15</sup> Stewart Carter, "Georges Kastner on Brass Instruments: The Influence of Technology on the Theory of Orchestration," in *Perspectives in Brass Scholarship: Proceedings of the International Historic Brass Symposium, Amherst, 1995*, ed. Stewart Carter, (Stuyvesant, NY: Pendragon, 1997), 171-92 here 184.

<sup>16</sup> Hector Berlioz, *Grand Traité d'Instrumentation et d'Orchestration modernes* (Paris, 1843/4), 199. "...on doit regretter que le Trombone Alto soit à cette heure banni de presque tous nos orchestres Français."

<sup>17</sup> Guion, *Trombone*, 167-95, 243-63.

<sup>18</sup> See Trevor Herbert, "The sackbut in England in the 17th and 18th centuries," *Early Music* 18, no. 4 (1990): 609-16.

<sup>19</sup> Charles Burney, *An Account of the Musical Performance in Westminster Abbey and the Pantheon ... in Commemoration of Handel* (London, 1785; facs. edn. New York: Da Capo Press, 1964), 7.

<sup>20</sup> Simon McVeigh, "The Professional Concert and Rival Subscription Series in London, 1783-1793," *Research Chronicle* 22 (1989): 1-136, here 12 and 102-03.

<sup>21</sup> Symphonies Ben. 150A, 152, and 155. See Rita Benton, *Ignace Pleyel: A Thematic Catalogue of His Compositions* (New York: Pendragon, 1977), 64-6; and Guion, *Trombone*, 269-75.

<sup>22</sup> John Marsh, *Hints to Young Composers of Instrumental Music* (London: 1807); reprinted with an introduction by Charles Cudworth in *The Galpin Society Journal* 18 (1965): 57-71, here 69.

<sup>23</sup> I.P., "On the Serpent, Bass-Horn, and Trombone," *The Harmonicon* 8/6 (1830): 234-35.

<sup>24</sup> Cited in Arnold Schering, "Die Leipziger Ratsmusik von 1650 bis 1775," *Archiv für Musikwissenschaft* 3 (1921): 17-53, here 45. "Der 1st Kunstgeiger [Johann Michael] Pfaffe... 4) Den simplen Choral auf der Discant-Alt-Tenor und Bass-Posaune, (welche letztere niemand unter seinen Collegen beßer als er und sein Bruder bläßt, und die eine gute Lunge erfordert), hat er gut geblasen."

<sup>25</sup> Ibid., "Der 2te Kunstgeiger [Johann Gottlieb] Herzog... 4) Den simplen Choral hat er aus der Altstimme auf der Altposaune mittelmäßig geblasen. Auf den übrigen Posaunen, zumahl auf der Bassposaune kann er gar nicht fortkommen, und wird doch zur Kirche und Abblasen unumgänglich erfordert."

<sup>26</sup> See Bruce Haynes, *A History of Performing Pitch: The Story of "A"* (Lanham, MA: Scarecrow Press, 2002), 318.

<sup>27</sup> Most of the works written for and played by the great Leipzig trombone soloist Carl Traugott Queisser (1800-1846) are designated for "bass trombone" and obviously for a B $\flat$  instrument.

<sup>28</sup> Ottmar Schreiber, "Orchester und Orchesterpraxis in Deutschland zwischen 1780 und 1850" (diss. Friedrich-Wilhelm Univ., Berlin, 1938), 140.

<sup>29</sup> Leopold Mozart, "Nachricht von dem gegenwärtigen Zustande der Musik Sr. Hochfürstlichen Gnaden des Erzbischoffs zu Salzburg im Jahr 1757," in Friedrich Wilhelm Marburg, *Historisch-Kritische Beyträge zur Aufnahme der Musik* 3/3 (1757): 183-98, here 195. "Endlich gebraucht man auch zum Chor 3 Posaunisten. Nämlich die Alt-Tenor- und Baßtrombone zu blasen, welches der Stadthürmermeister mit zweenen seiner Untergebenen, gegen einem gewissen Gehalt, versehen muß."

<sup>30</sup> *Missa brevis* in d, K. 65 (61<sup>a</sup>); *Missa brevis* in F, K. 192 (185<sup>f</sup>); *Missa brevis* in D, K. 194 (186<sup>b</sup>); *Missa* in C, K. 220 (196<sup>b</sup>); *Missa* in C, K. 257; *Missa* in C, K. 258; *Missa* in C, K. 259; *Missa (longa)* in C, K. 262 (246<sup>a</sup>); *Missa* in B-flat, K. 275 (272<sup>b</sup>); "Coronation" Mass, K. 317; *Missa solemnis*, K. 337; *Missa* in c, K. 427 (217<sup>a</sup>), composed largely in Vienna, but premiered in Salzburg in October 1783. The *Missa* in c, "Waisenhausmesse," K. 139 (47<sup>a</sup>) was written for Vienna while Mozart was still living in Salzburg, and is thus not counted here among the Salzburg Masses.

<sup>31</sup> *Litaniae de B.M.V.*, K. 109 (74<sup>c</sup>); *Litaniae de venerabili altaris sacramento*, K. 125; *Dixit und Magnificat*, K. 193 (186<sup>b</sup>); *Litaniae Lauretanae*, K. 195 (186<sup>b</sup>); *Litaniae de venerabili altaris sacramento*,

K. 243; *Vesperae de Dominica*, K. 321; *Vesperae solennes de confessore*, K. 339.

<sup>32</sup> See the facsimile of the “*Trombone Imo*” part in my article “The Soprano Trombone Hoax,” *Historic Brass Society Journal* 13 (2001): 152.

<sup>33</sup> Weiner, “Nemetz’s *Neueste Posaun-Schule*,” 12-35.

<sup>34</sup> Johann Georg Albrechtsberger, *Sämtliche Schriften*, ed. Ignaz Ritter von Seyfried (Vienna: Anton Strauss, 1826), 3: 200-01; idem, *Sämtliche Schriften*, ed. Ignaz Ritter von Seyfried (Vienna: Tobias Haslinger, 1837), 3: 184-85.

<sup>35</sup> Johann Georg Albrechtsberger, *Anweisung zur Composition* (Leipzig: Breitkopf, 1790), 439-40.

<sup>36</sup> See, for example, Herbert Heyde, *Musikinstrumenten-Museum der Karl-Marx-Universität Leipzig: Katalog*, vol. 3, *Trompete, Posaunen, Tuben* (Leipzig: VEB Deutscher Verlag für Musik, 1980), 162-69. The method by Braun and the treatises by Seyfried (1826 and 1837) and Kastner (1837) also indicate only six positions for the E♭ alto.

<sup>37</sup> Johann Joseph Fux, *Gradus ad Parnasum* (Vienna, 1725; facs. edn., *Sämtliche Werke* 7/1, Kassel: Bärenreiter, 1967), 272. “Haud ignoro, Tubas ductiles cum Alto, & Tenore in Unisono consonare solitas esse.” Idem, *Gradus ad Parnasum*, German translation by Lorenz Mizler (Leipzig, 1742; facs. edn., Hildesheim: Olms, 1974), 191. “Ich weiß wohl, daß die Posaunen mit dem Alt und Tenor im Unisono pflegen einherzugehen.”

<sup>38</sup> For example, at Göttweig (see Friedrich W. Riedel, *Der Göttweiger Thematische Katalog von 1830* [Munich/Salzburg: Katzschler, 1979]) and at Wilhering (see Karl Mitterschiffthaler, *Das Notenarchiv der Musiksammlung im Zisterzienserkloster Wilhering*, *Tabulae Musicae Austriacae* 9 [Vienna: Österreichische Akademie der Wissenschaften, 1979]). Also at Klosterneuburg, Heiligenkreuz, Herzogenburg, Seitenstettin, Kremsmünster, Lambach, and Melk.

<sup>39</sup> See, for example, the articles by J. Richard Raum, “Extending the Solo and Chamber Repertoire for the Alto Trombone,” *International Trombone Association Journal* 16 (1988): 11-23; “The Alto Trombone,” *Brass Bulletin* 72 (1990): 36-42; part 2, 73 (1991): 38-43; part 3, 74 (1991): 58-65; and “From the Diary of a Court Trombonist,” *Brass Bulletin* 82 (1993): 56-69.

<sup>40</sup> Stewart Carter, “Trombone Obligatos in Viennese Oratorios of the Baroque,” *Historic Brass Society Journal* 2 (1990): 52-77, here 70.

<sup>41</sup> Georg Reutter, *Requiem*, A-Wn H.K. 792.

<sup>42</sup> Johann Joseph Fux, *Missa Corporis Christi* (K 10), ed. Hellmut Federhofer, *Johann Joseph Fux Sämtliche Werke*, Serie I, Band 1 (Kassel, Basel: Bärenreiter; Graz: Akademische Druck- und Verlagsanstalt, 1959), 9.

<sup>43</sup> The examples by Ferdinand Schmidt and Christoph Sonnleithner are taken from Bruce C. MacIntyre, *The Viennese Concerted Mass of the Early Classical Period*, *Studies in Musicology* 89 (Ann Arbor: UMI Research Press: 1986), 262-64 and 509-10.

<sup>44</sup> Georg Christoph Wagenseil, *Stabat mater*, A-Wn Mus. Hs. 16993.

<sup>45</sup> Georg Reutter, A-Wn H.K. 939.

<sup>46</sup> Julius Schlosser, *Die Sammlung alter Musikinstrumente* (Vienna, Schroll, 1920), 93; *Die Klangwelt Mozarts*, exhibition catalogue (Vienna: Kunsthistorisches Museum, 1991), 112, 294. According to Schlosser, these trombones were given to the collection in 1918 and had still been in use in St. Michael’s only a few years before.

<sup>47</sup> Christoph Willibald Gluck, *Alceste*, Vienna version from 1767, ed. Gerhard Croll, *Sämtliche Werke* I/3 (Kassel: Bärenreiter, 1988), act 1, scene 4, m. 81. Shifrin’s assertion that the trombone doubles the voice part in this passage is incorrect (see Ken Shifrin, “The Alto Trombone in the Orchestra: 1800-2000,” [diss. Oxford University, 2000], chapter 1, note 14, <http://www.trombone-society.org.uk/shifrin/> (accessed 29 November 2003); Christoph Willibald Gluck, *Iphigenie auf Tauris*, Vienna version from 1781, ed. Gerhard Croll, *Sämtliche Werke* I/11 (Kassel: Bärenreiter, 1965), act 2, scene

4, mm. 102-03; Gluck, *Iphigénie en Tauride*, Paris version from 1779, ed. Croll, *Sämtliche Werke I/9* (Kassel: Bärenreiter, 1973), act 2, scene 4, mm. 106-7.

<sup>48</sup> Gluck, *Alceste* (Vienna 1767), act 2, scene 2, mm. 213, 227.

<sup>49</sup> As late as 1837 Seyfried still shows only six positions for the Eb alto trombone. See Albrechtsberger, *Sämmlliche Schriften* (1837), 3: 184

<sup>50</sup> As pointed out by Ken Shifrin, the folder in which two sets of parts of the concerto are stored in Kromčříž (Archibiskupsky Zámek a Zahrady) is inscribed "Posaunen Concert [v]o[n] Wagenseil und Reiter." Shifrin has surmised that "Reiter" is a variant spelling of "Reutter," and suggested that the concerto was written in part by Georg Christoph Wagenseil and in part by Imperial Court Kapellmeister Georg Reutter (1708-1772). While this is entirely plausible, Shifrin's proposed scenarios as to how Reutter came to complete the concerto after Wagenseil's death are rather improbable, since Reutter died five years *before* Wagenseil! See Ken Shifrin, "The solo trombone of the bohemian baroque," part 2, *Brass Bulletin* 120 (2002): 48-54.

<sup>51</sup> Praetorius, *Syntagma musicum* II (Wolfenbüttel: Holwein, 1619; facs. edn. Kassel: Bärenreiter, 1958), p. 31. "Alt oder Discant Posaun: ... Wiewol die Harmony in solchem kleinen Corpore nicht so gut, als wenn auff der rechten gemeinen Posaun, durch guten Ansatz und Übung, ein solche höhe kan erreicht werden."

<sup>52</sup> Or see the "Table of Performance Requirements" in Robert Wigness, *The Soloistic Use of the Trombone in Eighteenth-Century Vienna* (Nashville: The Brass Press, 1978), 43-46.

<sup>53</sup> Carsten Svanberg, "Friends and Relations: The Alto Trombone" [a transcription of notes used by Svanberg in his Alto Trombone Clinic given at the Colloque International des Cuivres, Chatenay Malabry, France, in 1989], *The Trombonist Online* <http://www.trombone-society.org.uk/alto.htm> (accessed 22 May 2005). "Since some of the music for alto... includes trills, which are always difficult and a matter of taste, some instruments are built with one or two triggers to make half or whole tone steps in order to do the trills more musically 'correctly.' Personally, I would rather leave out the trills since the sound of the alto, using triggers, is not so good and too different from the regular sound."

<sup>54</sup> Haus-, Hof- und Staatsarchiv (HHStA), Vienna, *Obersthofmeisteramt "Alte Akten,"* Karton 22; quoted in Ludwig Ritter von Köchel, *Johann Joseph Fux: Hofcompositor und Hofkapellmeister der Kaiser Leopold I., Josef I. und Karl VI. von 1698 bis 1740* (Vienna: Alfred Hölder, 1872; rpt., Hildesheim: Olms, 1974), 408. "Johann Georg Sturmb Turner Maister zu Closter Neuburg kombt allerunterth. ein umb alss Quart-Posaunist in die kay. Dienste aufgenomben zu werden. Wan nun dieses Instrument der Kay. Musique keine Verbesserung beytragen kan, sondern in gegentheil wegen dessen unanmemlichen Clang deterioriren wurde: Alss kan ich in dises Supplicanten ansuchen nit einrathen."

<sup>55</sup> Otto Biba, "Wiener Kirchenmusik um 1783," *Jahrbuch für Österreichische Kulturgeschichte* 1, part 2, *Beiträge zur Musikgeschichte des 18. Jahrhunderts* (1971): 7-79.

<sup>56</sup> Antonio Salieri, *Messe in B-Dur* (A-Wn HK 487\*), ed. Jane Schatkin Hettrick, *Denkmäler der Tonkunst in Österreich* 146 (Graz: Akademische Druck- u. Verlagsanstalt, 1988); *Mass in D Major* (A-Wn HK 484\*), ed. idem, *Recent Researches in the Music of the Classical Era* 65 (Madison: A-R Editions, 1994); *Mass in D Minor* (A-Wn HK 485\*), ed. idem, *Recent Researches in the Music of the Classical Era* 65 (Middleton, WI: A-R Editions, 2002).

<sup>57</sup> For example in the six sonatas by Antonio Bertali (S-Uu Instr. mus. i. hs. 156) for two cornetti and three trombones, in which the third trombone part is written in tenor clef; the Sinfonia to Antonio Draghi's sepolcro *Il libro con setto sigilli* (A-Wn Mus, Hs. 18943; dated 1694) for three trombones, bassoon, and basso continuo, in which the third trombone part is in tenor clef and does not descend below c-sharp and the bassoon doubles the continuo; the *Hymnus de Nativitate Domini "Jesu Redemptor Omnium"* by Emperor Ferdinand III (r. 1637-57) displays a ripieno group of cornett,



two trombones and bassoon, as do several works by Emperor Leopold I (r. 1658-1705), including a *Hymnus de Dedicacione Ecclesiae*, a *Hymnus de Sancto Josepho*, and *Sub tuum praesidium*. See Guido Adler, *Musikalische Werke der Kaiser Ferdinand III., Leopold I. and Joseph I.*, vol 1. Kirchenwerke (Wien: Artaria, 1892).

<sup>58</sup> It should be noted that third trombone parts are usually labeled “Trombone 3,” and only rarely “Trombone Basso.”

<sup>59</sup> *Don Giovanni* most likely requires a quart trombone, but it was written for Prague; the first Viennese performances were given without trombones, apparently for financial reasons, so that it is not possible to know what changes, if any, Mozart would have made to the trombone parts for a Viennese production. See Dexter Edge, “Mozart’s Viennese Orchestras,” *Early Music* 20/1 (1992): 64-88, here 77-78.

<sup>60</sup> In his edition (Oxford University Press, 1992) based on the original performance material and other early manuscript sources, A. Peter Brown has added to the third trombone part several passages not found in the first edition, which until now has been the basis of most modern editions. These additions increase the number of low notes in the part by two low *Ds*, a *C*, and a pedal *Bb*. See also A. Peter Brown, *Performing Haydn’s The Creation: Reconstructing the Earliest Renditions* (Bloomington: Indiana University Press, 1986).

<sup>61</sup> See Franz Schubert, *Overture* (D 12), third measure from the end; *Stabat mater* (D 175), m. 52; and *Des Teufels Lustschloss* (D 84), mm. 247 and 259 of the Overture.

<sup>62</sup> Praetorius, *Syntagma musicum* II, 31. “Wiewol etliche / (als unter andern der berühmte Meister zu München / Phileno) durch vielfeltige Übung auff diesem Instrument so weit kommen sind / daß sie unten das D, und oben das c’ d’ e” ohne sonderbare beschwerung und Commotion anstimmen. Sonsten hab ich noch einen zu Dresden / den Erhardum Borussum, welcher sonsten in Polen sich noch anjetzo auffhalten sol / gehöret; Derselbe hat diß Instrument also gezwungen / daß er darauff fast die höhe eines Zincken / Als nemblich / das oberste g” sol re ut; Auch die tieffe einer Quart-Posaun / als das AA mit so geschwinden Coloraturen und saltibus, gleich auff der Viol de Bastarda, oder auff eim Cornet / zu wege bringen, erreichen und praellieren können.”

Phileno was Fileno Cornazzani, Lasso’s “bester Zinckplaser” (best cornetto player), trombonist, organist, and composer; Erhardus Borussus has not yet been identified.

<sup>63</sup> Praetorius, *Syntagma musicum* II, 20. In the note on p. 19 accompanying this and the charts for the other instruments, he wrote: “Moreover, in this table... will be shown in greater detail: ... how low and how high each wind instrument can play naturally (which is indicated by the white notes), and which falset tones, high and low, can be produced by a skilled and experienced instrumentalist beyond each instrument’s nature and capacity. I have indicated these falset tones with black notes, since, whether with the human voice or wind instruments, not everybody is able to acquire or reach them.” (“Es wird aber ferner in dieser Tabell... weitleufftiger angezeigt: ... Wie Tieff und wie Hoch ein jedes blasendes Instrument in seinem natürlichen Thon zubringen, (welches die weisse Noten andeuten;) und was vor Falset Stimmen, oben und unten, uber eines jeden Instruments Natur und Eigenschafft von einem geübten und erfahrem Instrumentisten zuwege bracht werden können. Welche Falset Stimmen dann, weil dieselbig so wol humana voce, als auch auff blassenden Instrumenten ein jeder allezeit nicht assequiren oder erreichen kan, ich mit Schwarzen Noten bezeichnen.”)

<sup>64</sup> Antonio Bertali, *Sonata à 3*, S-Uu Imhs 13:7 and D-Kl Ms 60t; modern edition published as *Sonata à 3 no. 1 in D minor*, ed. Robert Wigness and Robert Paul Block (London: Musica rara, 1971); and *Sonata à 3*, S-Uu Imhs 13:5; modern edition published as *Sonata à 3 no. 2 in D minor*, ed. idem (London: Musica rara, 1971).

<sup>65</sup> Antonio Bertali, *Sonata à 3*, Universitetsbibliotek, Uppsala, Imhs 13:5, trombone part.

<sup>66</sup> Christoff Weigel, *Abbildung der gemein-nützlichen Haupt-Stände* (Regensburg, 1698), 233. “[D]ie

jetzt regierende Allerhöchste Käyserliche Majestät [Leopold I] ... in ihrer / bey dem Anfang des annoch fortwährenden Reiches-Tages höchsten Anwesenheit zu Regenspurg ihren Hoff-Musicum und dazumahl berühmtesten Trombonisten in Europa / Nahmens Helw[i]g / mit einer zu Nürnberg verfertigten silbernen Posaunen allergnädigst beschencket.”

<sup>67</sup> “Ist Ferdinand Leopoldt Christian, eines Organisten sohne von Mölk, welcher, nachdem Er die fundamente der Music begriffn, applicirt sich zu der Trombon, da er aber solches instrument aus eign(en) mittelm Zu erlern(en) nicht vermag, undt ihme Friedrich Helwig hierin schon vom monat Majo nechst verwichen(en) iahres, unterweiset, bittet er unthst., Ew. Kay. Mayt. geruheten Ihne von ein(en) scolaren dem helwige zuzuegeben.” (16 March 1677) From the *Obersthofmeisteramtsakten*, Karton 3 (1673-1678), cited in Herwig Knaus, *Die Musiker im Archivbestand des kaiserlichen Obersthofmeisteramtes (1637-1705)*, vol. 2 (Vienna: Österreichische Akademie der Wissenschaften, 1968), 38-9.

<sup>68</sup> “Ingleichen Bittet aller Unterthst. mit dem Titul eines Kay:en musici Begnadet zu werden, der Scholar Johan Christian Welcher Vor .9. iahren seinen Brued(er) Leopold dem Trombonisten in die Lehr auf der Posaun ybergeben worden.” (22 October 1700) From the *Obersthofmeisteramtsakten*, Karton 12 (1700-4), cited in Knaus, *Die Musiker im Archivbestand*, vol. 3 (Vienna: Österreichische Akademie der Wissenschaften, 1969), 92.

<sup>69</sup> “Leopold Christian [jr.] Kay. Trombonist kombt allerunterth. Supplicando ein, das sein Söhnlein [Leopold Ferdinand] von 10 Jahren möchte für einen Kay. Hofscholarn allergnäd. aufgenommen werden. Wan nun dise Familie das durchleichtigste Hauss von Oesterreich schon über 50 iahr hero in diesem der Capellen so anständigen Instrument auf eine ungemeine weiss bedienet, dergestalten, dass offenbar ist, dass dieses Instrument dennen Christian angeboren seye. Alss ist meine ohnmassgebliche mainung, er Supplicand möchte allerst consoliret werden: doch dergestalt, dass die Scolarenbesoldung deren 360 fl. nit dem knaben sondern dem Vatter beygeleget werden, biss der Sohn im Standt sein wird in Kay. Dienste einzutretten. Wodurch der Vatter, welcher der erste Virtuosen in der Welt in disem Instrument ist, angefrischer werden wird, den Sohn dahin anzuhalten, damit dises Instrument auf gleiche weiss in der Kay. Capellen erhalten werde.” (6 July 1724) Johann Joseph Fux in the *Obersthofmeisteramtsakten*, cited in Köchel, *Fux*, 403.

<sup>70</sup> 26 April 1783 at the age of 66. Köchel states that Leopold Ferdinand Christian was pensioned in 1771, yet his name is still found on the roster of the Hofkapelle published in 1781 by Johann Nicolaus Forkel. Forkel’s information, however, may have been outdated, since he also lists Wenzel Thomas, who, according to Köchel, had died in 1775. See Köchel, *Hof-Musikkapelle*, 84, 87, 91; and Johann Nicolaus Forkel, *Musikalischer Almanach für Deutschland auf das Jahr 1782* (Leipzig, 1781; facs. edn., Hildesheim: Olms, 1974), 132.

<sup>71</sup> To be sure, a number of alto and quart trombones (and a few sopranos) survive from the eighteenth and early nineteenth centuries. However, most of these were probably not made for professional orchestral use, but rather intended for amateur church musicians such as those active in the European and North American communities of the Moravian Brethren. (See Stewart Carter, “Trombone Ensembles of the Moravian Brethren in America: New Avenues for Research,” forthcoming.) Ironically, almost all “classical” trombones offered by today’s makers are copies of such amateur trombones.

<sup>72</sup> The Vienna Philharmonic was founded in 1842.

<sup>73</sup> Gerhard Zechmeister, “Die Stellung der (Contra)Bassposaune im Wiener Klangstil,” *Brass Bulletin* 102 (1998): 19-28, here 21-4. At the end of 1835, Carlo Balochino and Bartolomeo Merelli, the directors of Milan’s La Scala, were awarded the concession to operate the Vienna Court Opera. It was probably around this time that the valve trombone was introduced there. For the period that followed (until 1883), Zechmeister has identified the instruments used in the Court Opera as being valve tenor trombones in B♭ with three or four valves, and valve bass trombones in F with three valves.

On 15 January 1883, Wilhelm Jahn, the director of the Vienna Court Opera from 1881, reported to the director of the Court Theaters his decision to replace the valve trombones with slide trombones because “the effect of a slide trombone gives the orchestra’s performances a much more vivid color” (“Der Effekt einer Zugposaune gibt den Vorträgen des Orchesters ein weit lebhafteres Colorit”). To this end, three of the orchestra’s five trombonists agreed to retire (the other two expressed their willingness to learn the slide instrument) and three new trombonists were to be sought and hired by 1 March 1883 (HHStA/Oper/K74/1883/Nr.71). After traveling at their own expense to Leipzig and auditioning there for conductor Arthur Nikisch, three German trombonists signed contracts by 1 March; one of them (Julius Mehlig) took up his position immediately, the other two (Otto Berthold and Fritz Alett) followed on 1 April and 1 October, respectively (HHStA/Oper/K74/1883/Nr. 311).

<sup>74</sup> Zechmeister, “Wiener Klangstil,” 24. Three of the instruments, including the alto, were purchased from Penzel in Leipzig.

