

Bernhard Rainer

Franz Xaver Glögg and Beethoven's *Equali*. New Evidence Indicating the Formation of an all-B $\flat$ Trombone Section in Austria

*Several articles in recent decades have suggested that we need to take a closer look at our previous notions that the historical trombone section used a different instrument for each part. As new evidence presented here and a terminological discussion can confirm, a performance tradition developed in Austria in which tenor trombones in B $\flat$ played all the alto parts (from the sixteenth century onwards) and even the bass parts (as of the late eighteenth century). The context in which Beethoven composed his *Equali* for four trombones confirms this scenario.*

Several articles over the last few decades have suggested that we need to look more closely at our previous notions that the historical trombone section used a different instrument for each part. As Howard Weiner has shown, around 1800 professional trombonists were familiar with the alto trombone in E $\flat$, but trombone parts in alto clef were predominantly played on the tenor trombone in B $\flat$.¹ In eighteenth- and early nineteenth-century Vienna, trombonists did not use the E $\flat$ alto at all – only tenors in B $\flat$. The rest of the eighteenth-century solo repertoire for the instrument (especially works associated with the Salzburg court) was probably played most often on B $\flat$ trombones, as Weiner has also shown.² Also in Austria in the middle of the nineteenth century, trombone parts in alto clef were played on (valve) trombones in B $\flat$, as can be seen from slide position charts and additional markings in the orchestral parts.³ However, there has been very little discussion of this subject in the historical performance practice community. In particular, although there is now clear evidence for the historical use of virtually identical instruments for tenor and alto parts, the practice of using an alto trombone in B $\flat$ continues to be doubted, as has been argued for example by Richard Raum and more recently by Jason L. Oliver.⁴ Because of the ongoing discussion on this topic, I would like to re-exam-

1 See Weiner 1993; Weiner 1995.

2 See Weiner 2005, pp. 59–66; Weiner 2018.

3 See Rainer 2016; Rainer 2017; Rainer 2023.

4 Richard Raum, e.g., stated: “Whether or not the [Albrechtsberger] concerto can be performed on the tenor trombone is not in question. Any serious accomplished 20th century trombonist can perform the concerto on the tenor. In Albrechtsberger’s mind, however, there could be one possibility – the alto trombone.” (Raum 1995, p. 103). And in a dissertation by Jason F. Oliver we read: “[Some authors have] written articles that obfuscate conventional wisdom and put forth the notion that if works like the [Wagenseil] concerto were performed on a B $\flat$ Trombone, then all of the tessitura of the trills would be in places on a high enough partial where a lip trill could be performed as a major second instead of the minor third. Although this new approach to eighteenth-century music offers possible insights and solutions to older performance problems, it does not address the abundance of historical information that the E $\flat$ alto trombone, not the B $\flat$ tenor trombone, was the conventional solo

ine several relevant sources and introduce some newly discovered evidence that supports the dual thesis that in Austria in the eighteenth and nineteenth centuries, the alto trombone in B $\flat$ was the preferred instrument for the highest trombone part, and that in circa 1800, the entire trombone section consisted of B $\flat$ trombones. Furthermore, I shall conclude by proposing why I believe that Ludwig van Beethoven's three *Equali* commissioned by Franz Xaver Glöggel in Linz in 1812, were intended for four tenor trombones in B $\flat$.

The alto trombone in B $\flat$ – a new evaluation of the sources

Musicological investigations suggest that the alto trombone in E $\flat$ was not used in Vienna in the eighteenth and nineteenth centuries, at least not until 1883.⁵ But Ignaz Seyfried's revised version of Johann Georg Albrechtsberger's *Gründliche Anweisung zur Composition* (1790, Seyfried's update published in 1825, with a second edition in 1837) causes some confusion in this context.⁶ Seyfried, who like Albrechtsberger was employed in Vienna, describes an alto trombone in E $\flat$, recognisable from the depiction of its slide positions. Weiner has already noted that Seyfried could have obtained his information about such an instrument from the methods of André Braun and Joseph Fröhlich, to whom Seyfried refers.⁷ A closer examination of the three sources reveals, however, that Seyfried had obviously copied from Fröhlich (1811), who in turn had copied from Braun (1800).⁸ In addition to the same arrangement of the chromatic scale (sharps ascending, flats descending) as in the earlier publications, the arrangement of the slide positions shown (alto trombone: 6th to 1st position, tenor/bass trombone: 7th to 1st position) and the notation of the scales indicating the positions are identical in all three sources.⁹

Seyfried's work is obviously an abridged version of Braun/Fröhlich – in his version the diatonic and "enharmonic" scales and the pictures of the instruments are omitted. The particular ordering of the slide positions from the 6th or 7th upwards to the 1st instead of the natural direction of slide movement (going downwards from 1st position) makes sense in Braun/Fröhlich due to their connection to the illustrations of the instruments. But as these illustrations are not reproduced in Seyfried, this rather unusual ordering seems illogical. In addition, in Seyfried's depiction of the tenor trombone slide positions, the fundamental tone is missing for positions 2 to 7, as we also see in Fröhlich (Figs. 1 and 2). This clearly demonstrates that Seyfried's text is a significantly shortened version of Fröhlich, and only indirectly stems from Braun.

In any case it seems extremely doubtful that Seyfried based his very brief description of the trombone on his own knowledge, or reflected on the performance practices of his Viennese contemporaries. Although the instrument is described in his publication, we may assume that

brass instrument in the Habsburg Court and surrounding abbeys and monasteries." (Oliver 2010, pp. 52f.). As well as the fact that it is doubtful that "conventional wisdom" can be considered a scientifically relevant method, the argument "that the E $\flat$ alto trombone, not the B $\flat$ tenor trombone, was the conventional solo brass instrument at the Habsburg Court and surrounding abbeys and monasteries" is not supported by sources on performance practice from the time. In the source given by Oliver which purportedly supports his claim, no information relating to the E $\flat$ alto trombone at the Habsburg court or surrounding monasteries is to be found. See Saeki 2001.

5 Weiner 2005, p. 71 and footnote 1. An extant alto trombone in E $\flat$ by the Viennese instrument-maker Hanns Geyer is dated 1702 (see Herbert 2016, p. 315). However, this instrument might have been shortened from a tenor trombone in later times.

6 Albrechtsberger 1825; Albrechtsberger 1837. The undated first edition of Albrechtsberger's *Opera Omnia* must have been published in late 1825 because the publication was announced in the *Wiener Zeitung* in September 1825 (WZ 1825, p. 910) and advertised in January 1826 (WZ 1826, p. 109).

7 Weiner 2005, p. 64.

8 Fröhlich was familiar with Braun's method, as he mentions it in his text. See Fröhlich 1811, p. 33.

9 Compare Figs. 9, 12 and 14 in Weiner 2005, pp. 45, 48 and 50.

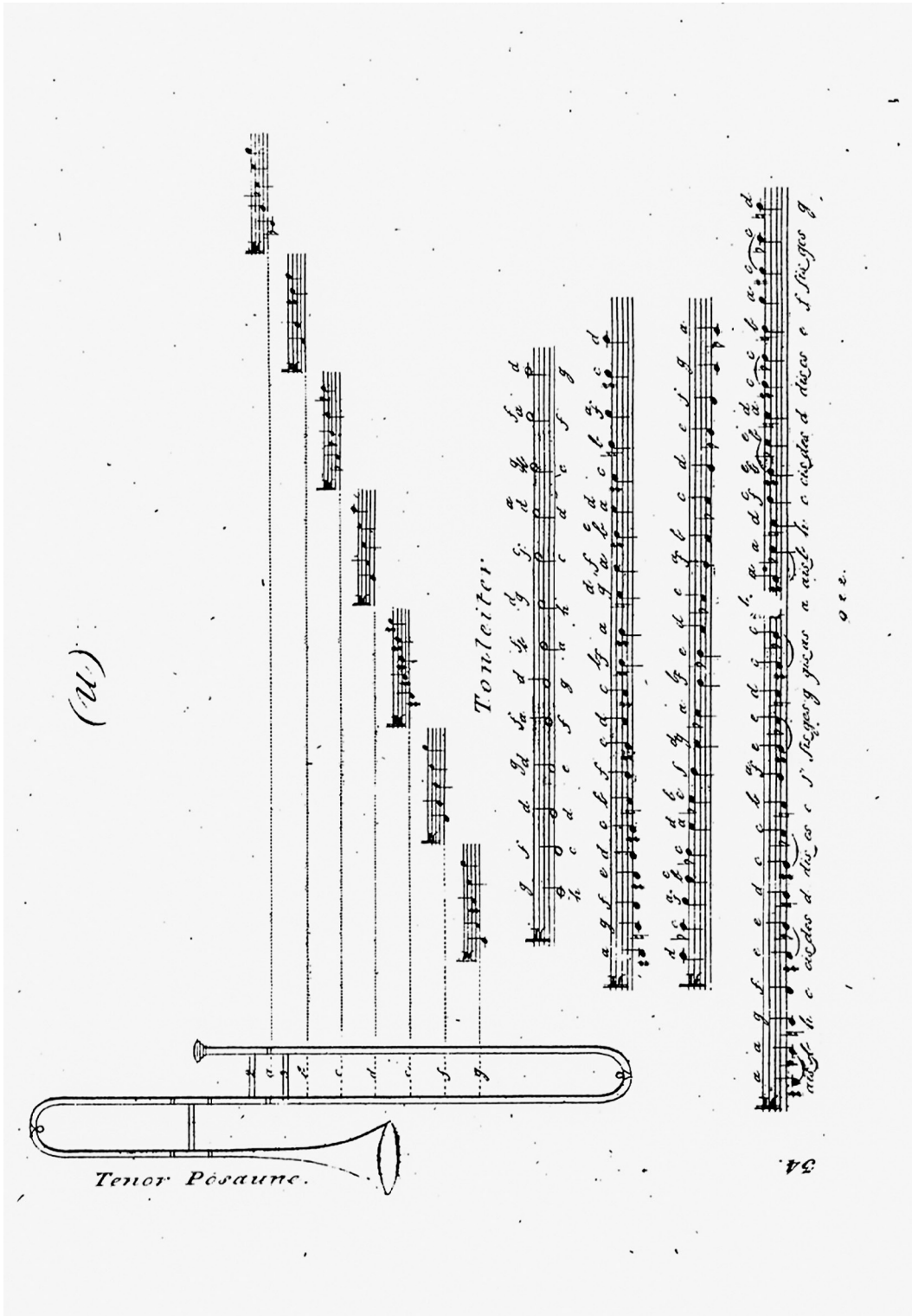
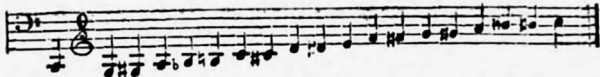


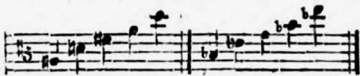
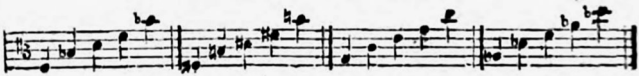
Fig. 1 Tenor trombone chart in Fröhlich: *Vollständige theoretisch-practische Musikschule* (Fröhlich 1811, p. 34).

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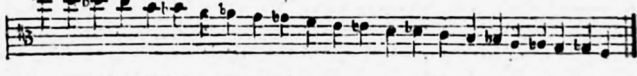
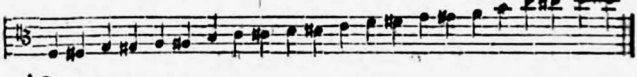


8) Posaunen gibt es dreyerley, als: Bass-, Tenor- und Alt-Posaunen; sie sind mit einem so genannten Stiefel versehen, welcher in sechs, auch sieben verschiedenen R $\ddot{u}$ ckungen gezogen werden kann; durch jeden Zug k $\ddot{o}$ nnen 4, 5 bis 6 T $\ddot{o}$ ne angeblasen werden; diese sind;

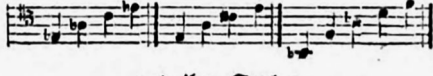
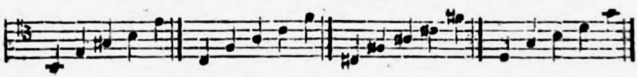
Auf der Alt-Posaune:



deren vollst $\ddot{a}$ ndige Scala ist:



Die Z $\ddot{u}$ ge auf der Tenor-Posaune sind:



und ihre Scala:

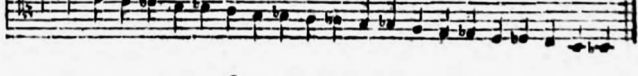
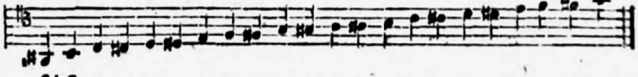


Fig. 2 Tenor trombone chart in *Johann Georg Albrechtsberger's s $\ddot{a}$ mtliche Schriften* (Albrechtsberger 1825, Vol. 3, p. 200).

Seyfried had never seen or heard an alto trombone in E $\flat$ in Vienna.¹⁰ The limits of Seyfried's organological knowledge are obvious in several other places in his text. He clearly fails to understand the difference between valves (which had been in use in Vienna since the mid-1820s) and the key mechanism that was also common at the time. Regarding the invention of the double-piston valve by Joseph Kail and Joseph Riedl (patented in 1823), Seyfried writes: "[Khayll], who applied keys and a slide to the trumpet, the horn and the trombone".¹¹ His description of the keyed trumpet, however, is very similar: "The Inventionsttrompeten, equipped with keys, enable the semitones as well".¹² He displays a complete lack of knowledge in his description of the keyed flugelhorn: "On the newly invented keyed flugelhorn, semitones are more easily reproduced, as it is not only equipped with keys but with finger-holes as well."¹³ Even if we make allowances for the likelihood that in 1825, Seyfried was not yet completely familiar with such new inventions, his incompetence in organological questions is further demonstrated in his second edition (1837) of Albrechtsberger's writings. Here, in his description of the valve trombone, Seyfried refers once more to valves (which had been known as "machines" since their invention in Vienna) as "keys" and "finger-holes": "The industrious instrument-makers of our imperial city have now also equipped the trombones with finger-holes and keys, and thus eliminated the insecurity of the slide, which is in some cases always annoying."¹⁴ It is astonishing that Seyfried, in his hometown of Vienna, had obviously never come across the printed instrumental methods of Andreas Nemetz, in which the early chromatic instruments are accurately described.¹⁵ This can be seen as further indication of Seyfried's lack of interest in organology and his resulting lack of competence in it.

As Seyfried's publications were actually revised, annotated editions of the appendix to Albrechtsberger's *Gründliche Anweisung zur Composition* from 1790, it is also worth taking another look at Albrechtsberger's original.¹⁶ As Howard Weiner has noted, Albrechtsberger's scales for alto, tenor and bass trombone do not allow us to draw any explicit conclusions about the tunings of the instruments. However, according to Weiner, the range for the alto trombone given by Albrechtsberger (a fourth lower than given by Braun, Fröhlich and Seyfried), as well as his inclusion of the note e, point to an instrument in B $\flat$.¹⁷ To add to that, Albrechtsberger describes the notes c#2 and d2 as "schwer", or "difficult to play" (Figure 3). This additional information also clearly suggests that for him, the alto trombone was in B $\flat$, as these notes are relatively easy on an alto in E $\flat$, especially when played with the small mouthpieces which were commonly used at the time.

10 An analysis of a random sample of the trombone parts from Seyfried's largely unpublished compositions produced the result that all parts could be played without any problem by the B $\flat$ trombone trio typical of Vienna at the time – neither an alto trombone in E $\flat$ nor a bass trombone in F is required. It is also worth mentioning in this context that Seyfried conducted the first performance of Beethoven's opera *Fidelio* in 1805 (see Fastl 2005), in which its two trombone parts are both best performed on B $\flat$ trombones.

11 "[...] Khayll, Kohaut, welcher letztere [*recte*: Khayll] die Trompete, das Horn und die Posaune, mit Klappen und Zug bereichert hat" (Albrechtsberger 1825, p. 202; translations by Keal Cooper if not otherwise stated). Seyfried obviously confused the two names here.

12 "Die mit Klappen versehenen Inventionen-Trompeten erlauben auch die Semi-Töne" (*ibid.*).

13 "Auf dem neu erfundenen Klappen-Flügel-Horne werden die Semitöne ungleich leichter hervorgebracht, da es außer den Klappen auch mit Grifflöchern versehen ist." (*Ibid.*, pp. 198f.).

14 "Die industriösen Instrumenten-Macher unserer Kaiserstadt haben nunmehr auch die Posaunen mit Grifflöchern und Klappen versehen, und dadurch die theilweise stets lästige Unsicherheit der Züge beseitigt." (Albrechtsberger 1837, p. 185).

15 Nemetz 1827a; Nemetz 1827b; Nemetz 1835.

16 Albrechtsberger 1790, pp. 439f.

17 Weiner 2005, pp. 58f.

40 Anhang, enthält eine Beschreibung aller jetzt gewöhnlichen

Für die Alt-Posaune.

cis d dis f fis g gis a b h c̣ ciṣ ḍ diṣ

schwer.

f a f̣ fiṣ g̣ giṣ ḅ ḥ c̣ ciṣ ḍ

No. 8. Für die Trompete.

G c̣ e g b c̣ d e f fis g h c̣

leichte Töne.

a b cis d e f g̣

schwere und seltene.

♩ ♮ ♯ ♭

Fig. 3 Alto trombone chart in Albrechtsberger: *Gründliche Anweisung zur Composition* (Albrechtsberger 1790, p. 440).

Howard Weiner has also pointed out in the past that some alto trombone parts from the vicinity of the 18th century Viennese court include notes which would be rather difficult to play on historical alto trombones in E $\flat$. In such trombone parts the note *e* may often occur, which on a modern E $\flat$ alto trombone is in 7th position. Historical E $\flat$ alto trombones, however, do not usually have a 7th position¹⁸ – a reality confirmed by the treatises of Braun, Fröhlich and thus also of Seyfried, as we have seen. Weiner also found Viennese alto trombone parts that descend to B $\flat$, which are theoretically playable on an E $\flat$ alto trombone, although that range is not ideal.¹⁹ The lower range of alto trombone parts is usually limited as it is linked to the range of vocal alto parts. It is therefore logical that extensions to the lower range in alto trombone parts only tend to occur in purely instrumental passages. Newly found examples of such writing, which clearly point to the use of alto trombones in B $\flat$ in the eighteenth century, can now be added to the list: In the 1st trombone parts of the *Litaniae de Beatissima Virgine* of Ferdinand Schmidt (ca 1693–1756),²⁰ the *Gloria* of a mass by Antonio Caldara (1670–1736)²¹ and the *Laudate pueri* (K. 86) of Johann Joseph Fux (1660–1741),²² we find *concertante* sections in bass clef that are not possible to perform on an alto trombone in E $\flat$ with only 6 slide positions (Figs. 4–6).

Terminological issues

The trail of evidence suggesting that B $\flat$ trombones were primarily used to perform trombone parts in the alto range is now quite convincing, at least for the Habsburg realm. Aside from the risk of projecting false attributes onto history, difficulties with terminology relating to the performance practice of trombone parts also arise. One cannot assume that the use of alto clef for a trombone part is an indication that it is intended for an alto trombone. And in fact, rather than being labelled ‘Alto’, ‘Tenor’ or ‘Bass’ trombone, many Viennese trombone parts are marked ‘Trombone primo’, ‘Trombone secondo’ etc., such as the trombone parts of the aforementioned *Laudate pueri* of Fux. Of course, we know that alto trombones in E $\flat$ have existed since the end of the sixteenth century, and such instruments must have surely been known in Habsburg lands. A key to the terminology for describing the alto trombone is offered by Michael Praetorius (1571–1621) in his well-known *Syntagma musicum* – but at the same time his description creates new problems for us. In this work, Praetorius labels a trombone in D the ‘discant’ or alto trombone, while claiming that for sound, including in the high range, a tenor trombone (in A) is preferable.²³ The earliest source that most likely refers to alto trom-

18 See Couper 2006, pp. 57 and 66 – the alto trombones by A. F. Krause (Berlin, 1795) and J. J. Schmied (Pfaffendorf, 1785) have only 6 chromatic positions.

19 Weiner 2005, p. 60.

20 Schmidt n.d..

21 Caldara n.d. I would like to thank Adam Jakab (Basel) for bringing to my attention the trombone parts of the *Gloria* by Caldara and the *Litaniae* by Schmidt.

22 Fux n.d. I would like to thank Ramona Hocker from the “Johann Joseph Fux – Werke” opera omnia project for bringing this trombone part to my attention.

23 It was again Howard Weiner who pointed this out. See Weiner 2005, p. 38. The relevant extract from Praetorius reads: “I. *Alt* oder *Discant* Posaun: *Trombino*, *Trombetta picciola*, mit welcher auch ein *Discant* gar wol und natürlich geblasen werden kan: 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.” (Praetorius 1619, p. 31) English translation: “I. Alto or discant trombone: Trombino, Trombetta piccola, with which also a discant can be played well and naturally: Although, the sound [“Harmony”] in such small bodies is not as good as on the common trombone, on which such high notes can be reached with a good embouchure and with practice.” Regarding the nominal pitch of trombones, it has to be stated that the early tenor and alto trombones were considered to be in A and D. Early in the 18th century, pitch standards started to change and although the instruments basically stayed the same, the nominal pitch of the tenor and alto trombones changed to B $\flat$ and E $\flat$. See Weiner 2005, p. 37.



Fig. 4 Ferdinand Schmidt: *Litaniae de Beatissima Virgine*, 1st trombone part (extract).

bones in D as ‘discant’ or ‘soprano’ trombones actually comes from the Habsburg court musician Alessandro Orologio (1551–1633). In a letter to Duke Moritz of Kassel in 1594, Orologio offers the duke his services as a broker for the purchase of instruments and describes the fol-



Fig. 5 Antonio Caldara: *Gloria a4*, 1st trombone part (extract).

lowing Nuremberg trombones: “For Nuremberg, two small trombones and one large one. [in another hand: “trombones small and large”] and two even smaller trombones that serve as sopranos. [in other hand: “discant trombones”]”²⁴

As Stewart Carter has noted, it is probable that the two “small trombones” were tenor trombones and the “one large one” was a bass.²⁵ The two “even smaller” trombones were most likely alto trombones in D, labelled by the German translator in Orologio’s letter as “discant trom-

²⁴ “Per Norimbergo, doi Tromboni piccoli et un grosso. [in another hand: “posaunen klein und groß”] et doi piu piccoli Tromboni chi servano per soprani. [in another hand: “discant posaunen”]” (Orologio 1594).

²⁵ Carter 2012, p. 317.

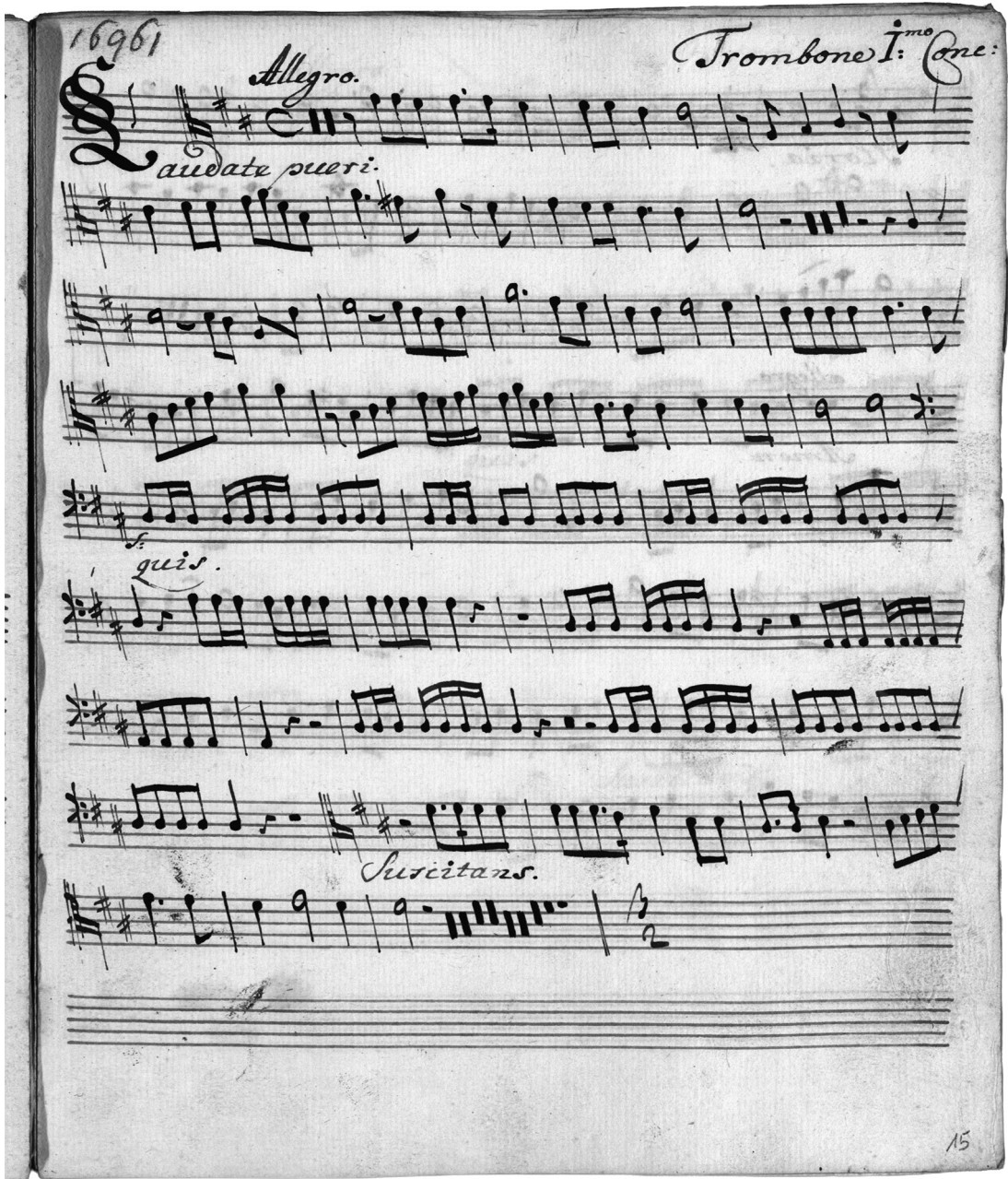


Fig. 6 Johann Joseph Fux: *Laudate Pueri* (K. 86), 1st trombone part (extract).

bones” – the terminological similarity to Praetorius is clear. This scenario can now be confirmed by an inventory from Kassel. Clearly the two alto trombones were ultimately purchased, as in an inventory from 1613 we see the entry “Zwai kleine alt oder Discant posaune” (two small alto or discant trombones) with four “Tenor und Alt posaunen” (tenor and alto trombones) and one “Quart posaune” (bass trombone).²⁶

In an inventory of the Munich court chapel from 1655, we also read: “Ain Discant Pusaunen in irem fuerder” (one soprano trombone in its case) and “Zechen alte Tenor und Altpusaunen” (ten old tenor and alto trombones).²⁷ In analogy to Orologio, the Kassel inventory and Praeto-

²⁶ See Zulauf 1902, p. 118.

²⁷ Wackernagel 2003, p. 45.

rius, the terminology here seems to imply an alto trombone in D and ten trombones in A that were used for both the alto and tenor ranges. Similar terms for trombones in various sizes and tunings that differ from our present-day simplified terminology (alto trombone in E $\flat$, tenor trombone in B $\flat$) are also found in later sources. In his *Das neu-eröffnete Orchestre* (Hamburg 1713), Johann Mattheson (1681–1764) writes of small and large alto trombones, clearly meaning E $\flat$ and B $\flat$ alto trombones for the performance of alto parts.²⁸ In 1816, in an article in the *Leipziger Allgemeine Musikalische Zeitung*, Gottfried Weber (1779–1839) too uses a terminology for various trombones that is very similar to what we have seen in sources from around 1600. As the analogies are clear, the relevant excerpts can be cited here without commentary:

The alto trombone can be exactly the same instrument as the tenor trombone (namely basically a B $\flat$ trumpet) [...]. There are, however, also alto trombones that are not, like the one just described, basically B $\flat$ trumpets, but rather E $\flat$ trumpets [...]. A discant trombone is not very common: the most convenient answer is that it is the same as the latter, the E $\flat$ alto trombone.²⁹

Lastly, there is also evidence for alto trombones in B $\flat$ in Austrian instrument-making in the nineteenth century. Two price lists of the renowned Viennese brass instrument maker Leopold Uhlmann from circa 1840 and circa 1850 advertise a “Tenor or alto trombone in B $\flat$ ” (Fig. 7). Although bass trombones, bass trumpets, bass flugelhorn and hunting horns in a variety of tunings are also advertised, an alto trombone in E $\flat$ is noticeably absent.³⁰ And similarly, in 1882, a trombone with four valves by Leopold Uhlmann is listed in an inventory of the Vienna court chapel as a “Solo B $\flat$ alto trombone” (Fig. 8).³¹

Bass trombone in B $\flat$

I would also like to cite an often-overlooked source relating to the use of the bass trombone in B $\flat$. In an anonymous description of the double-slide bass trombone of Gottfried Weber, which can be dated to around 1817, we find the following passage which makes it clear that at this time, the tenor-bass trombone in B $\flat$ was the standard instrument used for the bass range:

We are speaking first of the tenor-bass trombone (i.e. the tenor trombone played with a bass trombone mouthpiece, bass trombone in tenor size), as the one which is generally the most common and well known: it is namely the one which gives the notes of the B $\flat$ chord in first position (all the way in).³²

28 “Es sind der Posaunen groß und kleine/ nemlich: Kleine Alt / grosse Alt = Tenor- oder grosse Quart- und Baß-Posaunen” (Mattheson 1713, pp. 266f.). English translation: “There are trombones large and small, namely: small alto / large alto = tenor or large quart and bass trombones”.

29 “Auch die *Altposaune* kann ganz dasselbe Instrument seyn, wie die Tenorposaune, (nämlich im Grunde eine B-Trompete,) [...]. Man hat aber auch Altposaunen, welche nicht, wie die eben beschriebnen, im Grunde B-Trompeten sind, sondern Es-Trompeten [...]. Eine *Discantposaune* ist nicht sehr gewöhnlich: am füglichsten ist es dasselbe Instrument, wie die zuletzt beschriebene Es-Altposaune” (Weber 1816, col. 55f.).

30 See the price list of Leopold Uhlmann in Vienna (Uhlmann 1840); and also the price list of the K. K. priv. Metall-Blas-Instrumentenfabrik of Leopold Uhlmann in Vienna (Uhlmann 1850).

31 *Katalog* 1856, p. 177. In this inventory the entry concerned is dated 2 November 1882.

32 “Wir reden zuerst von der *Tenorbass-Posaune*, (d. h. *Tenorposaune mit Bass Mundstück geblasen*, *Bassposaune von Tenormensur*,) als derjenigen, welche die allgemein bekannteste und üblichste ist: es ist nämlich die, welche auf der ersten Stellung (ganz herein) den B-Akkord giebt” (Anonymous 1817, pp. 2f.). Incidentally, this source also contains a confirmation of the use of the trombone in B $\flat$ for alto parts: “Auf ähnliche Art wird jeder, welcher für die Altposaune nicht, wie oben angenommen worden, ein Instrument von derselben Mensur wie die Tenorposaune, sondern ein an sich um eine Quarte höheres Instrument (Es-Trompete, ganz herein den Es-Akkord angehend) haben mag, [...]” (Ibid., p. 6) English translation: “In a similar way, anyone who does not

Josannen 1 D. Wass
 Solo B. Altpassaine & Lilind.
 Eine alte Passaine woggen
 Maffin auf

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Franz Xaver Glöggl and the trombone section in B^b

And so we finally come to Franz Xaver Glöggl, Beethoven's *Equali* and the trombone section in B^b. A detailed account of the history of Glöggl's commission of Beethoven's *Equali* was given by Howard Weiner in his article of 2002 and does not need to be reproduced here.³³ In a footnote, Weiner alluded to a certain scenario but lacked documentary evidence for it at the time.³⁴ We now have access to sources which allow us to confirm Weiner's hypothesis, and in the following it will become clear that Beethoven's *Equali* were composed for a set of B^b trombones.

In 1824, Franz Xaver Glöggl sold his collection of (already historical) musical instruments to the Gesellschaft der Musikfreunde in Vienna. In surviving documents relating to this sale, a list is given of all 42 instruments sold by Glöggl, including two trombones: as number 36, a "Discant Posaun. v. Schmidt in Nürnberg" and number 37 a "Quart-Posaun. v. J. L. Ehe 1732".³⁵ Glöggl also lists the musical instruments which were still in use at the time and were not for sale.³⁶ About further trombones, we read: "By the way, my instrument collection consists for my own use [...] of 5 trombones, including one from 1609 and the so-called masterpiece of old Kerner – a gold-plated trombone with silver fittings from 1760."³⁷

As the two trombones sold are still in the collection of the Musical Instrument Collection of the Gesellschaft der Musikfreunde, they can be precisely identified. The "Quart-Posaune" is a bass trombone in E^b by Johann Leonhard Ehe (1700–1771) from 1732 (Fig. 9) and the instrument cited as a "Discant-Posaun" is an undated alto trombone in E^b by Jacob Schmidt (1642–1720) (Fig. 10).³⁸ Glöggl uses Praetorius's terminology, referring to alto trombones in E^b as 'discant' instruments and bass trombones in E^b as "Quartposaunen".³⁹ With regard to the use of the term 'discant trombone' for the E^b alto trombone, Glöggl follows the examples of *Orologio* in the late sixteenth century, the seventeenth century inventory from Kassel, and his own contemporary, Weber.

In his memoirs, Glöggl's son Franz Xaver Glöggl junior (1796–1872), who was also a trombonist, reports that in 1812 his father originally asked Beethoven to compose an *Equale* for six trombones, "as in his collection of old instruments he had a soprano and a *quart* trombone, whereas only alto, tenor and bass trombones were commonly used".⁴⁰ Here we have a witness attesting that already in this period, the two trombones which Glöggl later sold were already outdated and the remaining ones used by Glöggl, or rather his musicians, were referred to as 'alto', 'tenor'

have an instrument of the same scale length as the tenor trombone for the alto trombone, as assumed above, but an instrument that is a fourth higher (E^b trumpet, playing the E^b chord all the way in), [...]"

33 See Weiner 2002.

34 Ibid., p. 271.

35 Glöggl 1824.

36 Franz Xaver Glöggl became 'Turnermeister' (head of the town waits) of Linz in 1790 after paying out his predecessor and father Johann Josef Glöggl with 1500 fl. for the 'Turnerinventar', and in addition worked as theatre conductor and cathedral chapel master in Linz. 'Turnerinventar' refers to the musical instruments described above – these had obviously been passed on for generations from one Turnermeister to the next. Some instruments had fallen out of use but others were still in use in Glöggl's orchestras.

37 "Uebrigens besteht meine Instrumenten-Sammlung zu meinem Gebrauch [...] in 5 Posaunen, worunter eine v. J. 1609. und das sogenannte Meisterstück vom alten Kerner. eine vergoldete u. mit Silber beschlagene Posaune v. J. 1760. sich befindet." (Glöggl 1824). The "Meisterstück vom alten Kerner" was evidently a trombone by Anton Kerner senior (ca 1726–1806).

38 Collections of the Gesellschaft der Musikfreunde in Vienna, Catalogue No. 202 and 198.

39 Praetorius 1619, p. 31.

40 Cited after Thayer 1921, p. 230. See also Kopitz/Cadenbach 2009, p. 350; Weiner 2002, p. 215 and fn. 2 on p. 271; and Rainer 2016, p. 160. Franz Xaver Glöggl jr was among other things head of the town waits in Enns in 1816/17, and taught trombone and double bass at the Conservatorium of the Gesellschaft der Musikfreunde in Vienna from 1831 to 1833. See Harrandt/Fastl 2020.



Fig. 9 Bass trombone in E $\flat$ by Johann Leonhard Ehe (1700–1771), Nuremberg 1732, Collections of the Gesellschaft der Musikfreunde in Vienna, Catalogue No. 202.



Fig. 10 Alto trombone in E $\flat$ by Jacob Schmidt (1642–1720), Nuremberg (n.d.), Collections of the Gesellschaft der Musikfreunde in Vienna, Catalogue No. 198.

and ‘bass’ trombones. Since Glöggl’s “Sopran- oder Diskant-Posaune” has been shown to be an alto trombone in E $\flat$, the logical conclusion is that his ‘alto’ trombone(s) must have been tenor trombones in B $\flat$. Glöggl’s son thus confirms the theory that professional trombonists around 1800 predominantly played on tenor trombones in B $\flat$, as all five of Glöggl’s trombones still in use at the beginning of the nineteenth century were tenor trombones in B $\flat$.⁴¹ Although Glöggl gave away his E $\flat$ alto (from around 1700) and the E $\flat$ bass (of 1732), his much older tenor

⁴¹ It can be proven that bass trombones in F, G and even A $\flat$ were referred to as *Quartposaunen* in Austria in the first half of the nineteenth century. This therefore excludes the possibility that such an instrument was one of the remaining five in Glöggl’s collection. On this point see Weiner 1995, p. 19.

trombone (dated 1609) was still in use, suggesting that the age of the instruments was not the deciding factor in which trombones to keep.⁴²

Conclusion

While we still do not know whether the 6-voice *Equale* was ever composed by Beethoven, what seems to be certain is that the well-known three *Equali* for four trombones in the ranges alto/tenor/tenor/bass were composed for a set of four tenor trombones in B $\flat$. As new evidence presented in this article confirms, this scenario is a consequence of a tradition of performance practice in Austria in which alto parts (since the sixteenth century) and also bass parts (since the late eighteenth century) were all played on tenor trombones in B $\flat$.

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42 The two instruments handed over had probably originally been acquired by a predecessor of Glöggel's in the office of Turnermeister in Linz. It is possible that already in Glöggel's father's time these had fallen out of use – Glöggel's father was born in Baden (near Vienna), was Turnermeister from 1761 to 1790 and grew up with the Viennese trombone school. The practice of using only B $\flat$ trombones was most likely introduced in Linz in the 1780s at the latest, after Franz Xaver Glöggel returned from his studies in Vienna with the trombonist of the Viennese court chapel Klemens Messerer (1724–1816). Glöggel had been in Vienna from 1784 to 1786 and besides trombone also studied the violin with Anton Hofmann (1723–1809). See Harrandt/Fastl 2020.

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Bernhard Rainer, PhD, studied the trombone at the University of Music in Graz and Vienna, the Royal Academy of Music in London and the Schola Cantorum Basiliensis in Basel. While working as a freelance musician, he completed his studies in musicology at the University of Music and Performing Arts in Vienna. His scholarly work focuses on Renaissance music, performance practice in Vienna from 1740 to 1830, vocal pedagogy in the 18th and 19th centuries and organology. He is currently an assistant professor of historical musicology at the University of Music and Performing Arts Graz (KUG), where he also teaches historical trombone. He most recently published the monograph *Instrumentalists and Instrumental Practice at the Court of Albrecht V, 1550–1579* (Vienna: Hollitzer Verlag, 2021) and co-edited the anthology *On Music in Austria from 1564 to 1740* (Graz: Leykam, 2022).

