Mozart's Use of Horns in Bb and the Question of *Alto-Basso* in the Eighteenth Century

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1. Introduction

Twenty-five years ago I published an article comparing the use of horns by Wolfgang Amadeus Mozart and Joseph Haydn.¹ Among the more specialized aspects addressed was the question of high (*alto*) versus low (*basso*) horns in Bb. It had previously been raised by H.C. Robbins Landon, who had expressed his opinion that in Haydn's early symphonies all Bb horns were high, i.e., *alto*.² He believed that Haydn's pre-London-period horn parts in Bb should, therefore, always be performed in the upper octave, a step below written pitch, rather than, as commonly accepted, a ninth below. Subsequently, Landon added "alto" to all the Bb horn parts that he edited and published in such important series as the complete symphonies of Haydn—as well as those of other composers. My judgment at that time was that in such situations an editor's opinions might be stated, but that only the composer's designation should be published in the score.

Landon's contention, the acceptance of which markedly impacts the sound of Haydn's orchestra, also influenced the judgments and performances of other scholars and performers. Since 1955 his opinion has gradually been accepted even by a number of specialists on Mozart, with the result that editions of several works published in the *Neue Mozart-Ausgabe* (NMA), as well as many performances and recordings³ of Mozart's compositions, have been affected. Authority for the appearance of *Corni* in Bb *alto* in many of the NMA editions is not acknowledged in the text that accompanies them, so that it is now difficult to tell what Mozart himself intended.

Autograph and authentic sources show, however, that Mozart composed for horns in both *alto* and *basso* settings. In 1774 he composed parts for horns in Bb *alto* and thereafter did so more than thirty times. In a work of 1775 he confused the issue somewhat by writing a set of parts for horns in Bb *basso*. In *Così fan tutte* (1790), however, he left no doubt of his meaning by carefully specifying all his Bb horn parts as either *alto* or *basso*, thereby making it possible to distinguish his intentions and procedures. Based on a recent study of the horn parts in Mozart's orchestral music, this article shows that his writing for horns in Bb is in general similar to that for horns in other keys, and more specifically, demonstrates how he distinguished horns in Bb *alto* stylistically from those in Bb *basso*.

2. The sources for information on horns in Bb

The history of the horn and its acceptance into the eighteenth-century orchestra is difficult—even impossible—to trace. The change in musical style from the contrapuntal compositions of the Baroque to the melody-with-accompaniment pieces of the early Classical period is, however, especially evident in the writing for winds. The difference between the inconsistently used variety of wind instruments added to a string choir in contrapuntal style, as in J.S. Bach's Brandenburg Concertos, and the harmonic chordal-functioning wind quartet added to the strings in early classical works such as Haydn's Symphony Hob. I, 1/107 (25 November 1759) is obvious.

Unfortunately, few written reports have been found that document changes for the approximately 100 years from 1680 to the mid-1780s when the presence of horns in Bb *alto* and Bb *basso* became well established, at least in Vienna and Salzburg. The principal primary sources of information are theoretical works by Johann Mattheson, Jos. F.B.C. Majer, E.L. Gerber, and Valentine Roeser.

Mattheson, in *Das Neu-Eröffnete Orchestre* (1713),⁴ is a bit obscure, but he seems to say that the most useful (practical) horns are in F, and that they share the same ambitus/compass as the ("shrieking") clarino in C, although the horn can sound a whole fifth lower than the clarino. He further states that horns have been accepted in music for church and theater, and that he prefers the horn's darker sound and its superior ability to "fill out" the harmony. Mattheson's description makes no mention of crooks or of C *alto* (or Bb *alto*) that would imply a high-low comparison between horns.

Jos. F.B.C. Majer's *Neu eröffneter Theoretisch- und Practisher Musik-Saal* (1732) repeats the first three sentences of Mattheson's commentary and adds, "moreover, such horns can be tuned higher or lower by means of shanks or crooks."

E.L. Gerber's remarks on *das Waldhorn* are buried in the middle (col. 547ff.) of an article entitled "Sporken" [Franz, Anton von Graf] in his *Historische-Biographisches Lexikon der Tonkünstler* (1791-92). The article outlines the early history of the orchestral horn, mentioning that "Herr Reinert of Ludwigslust⁵ brought a pair of these [*Inventionshorns*] with him to this Court [i.e., van Sporck's] as early as 1757; and they had crooks for the keys of Bb, C, D, Eb, E, F, G, A, and Bb *alto*. He had them made by Werner in 1755." A translation of Gerber's lengthy article is included as an appendix to Horace Fitzpatrick's *The Horn and Horn Playing*.⁶ Gerber verifies that both Bb *alto* and Bb *basso* horns existed in 1755 and quite likely earlier.

The fourth primary source, Valentine Roeser's *Essai d'Instruction* $(1764)^7$ is an instruction book in orchestration; it describes for students the use of wind instruments. Roeser discusses hand-stopping and limits his discussion to horn in C *sol, ut;* D *la, re;* E *si, mib;* F *ut, fa;* G *re, sol;* A *mi, la;* B *fa, sib;* and C *sol, ut.* There are two horns in C: *bas* (low) and *haut* (high), whereas the one in Bb is in the upper octave, but it is not called *haut* or *alto.* The failure to mention the Bb *basso* horn could have shown, but not without question, that in 1764 the Bb horn in Paris was equated with Bb *alto,* i.e., in the upper octave and sounding one step below written pitch.

Later eighteenth-century references to Bb horns in the orchestra⁸ date from the 1780s and after, when both Bb *alto* and Bb *basso* horns were in common use. Although theorists such as Domnich mention Bb *alto* and Bb *basso* horns frequently, other nineteenth-century writers seem not to have discussed the question of *alto* versus *basso*. Nor was that subject pursued by twentieth-century writers, even though the horn held great fascination for a number of enthusiasts, especially in England, where men such as Reginald Morley-Pegge and Horace Fitzpatrick passionately studied many aspects of the horn. They published studies on instruments, mouthpieces, and mutes that survive in European collections and on practical problems of performance. They also discussed the specialized techniques developed by virtuoso performers, who were able by means of hand-stopping to free the horn from its limitations to the notes of the harmonic series and to perform remarkable melodic passages infused with chromaticism.

These authors, with the information available to them through reading historical material, examining available instruments, and studying the music itself, were able to elucidate the situation post-1780. They were stymied, however, by the lack of written source material relating to earlier developments, beginning when the horn was essentially a melodic soloist added to the strings (or doubling the voices of the chorales as in J.S. Bach's cantatas), and the Classic-period orchestra, wherein its function was primarily static and harmonic.

Horace Fitzpatrick, in an article published in 1964,⁹ summed up the situation regarding the contemporary study of the horn: "We are concerned not with one style of horn-playing which is applicable equally to both halves of the eighteenth century, but rather two which were separate and distinct both with regard to technique and instrument (I am assigning the most general dates to the Classical [after 1750] and Baroque [before 1750] eras of horn-playing in order to simplify the frame of reference and clarify the problem)." On page 56 Fitzpatrick writes, "I have devoted a large part of this background discussion to the Baroque phase of the horn's history because it is the period about which least is known. The hand-horn phase, covering roughly the period from 1750 to 1830, or the death of Beethoven, is more generally familiar ... I hasten to add ... that there are still a great many problems in eighteenth-century horn-playing history to which no one knows the solutions, and there is still a vast amount of work to be done in this field."¹⁰

Fitzpatrick might have added another caveat: that he and his colleagues had concentrated on the horn, but not on the process whereby it was introduced into the orchestra. They had not, therefore, discussed in print the question of Bb *alto* vs. Bb *basso* horns at any length. Regarding crooks and keys particularly, he wrote that "early in the century ... [there was an] orchestral model [horn] with fixed mouthpiece ... [crooked] in various keys ... examples in Bb *alto*, G *alto*, F, D and C survive, F being the most popular key."¹¹ But the statement is so vague, especially with its mention of horn in G *alto* (an instrument encountered rarely, if ever), as to be hardly acceptable as a useful reference tool for dating or even as evidence that Bb *alto* horns existed.

Reginald Morley-Pegge¹² implies the existence of Bb *basso* by reporting a "single-coil grosses Jagdhorn in Bb" dated 1689, and that the orchestra for Lully's opera *Princess d*?

Elide contained a horn "the length of a horn in Bb *basso.*" Later (p. 22), commenting from an unidentified chronological point of reference, Morley-Pegge remarks on "the general run of orchestral playing, where Bb *alto*, A, C, and low Bb crooks would often be needed." He also reports a single-coil *Waldhorn* in Bb *alto*, dated 1698.

Doubtless these writers could have provided more information about the use of horns in Bb, but they were little concerned about the problem—or of reporting the dates. It appears, therefore, that, while horns in Bb *alto* doubtless were available for orchestras in the first half of the eighteenth century, so too were horns in Bb *basso*.

The preceding discussion is based on a survey of the available primary and secondary sources that relate in some way to the problem. It shows that the meager bits of information are insufficient to support the assertion that the horn in Bb *alto* was the only Bb horn available to composers, even in the early years of the eighteenth century. While the summary of source material is not exhaustive, I do not believe that an encyclopedic study of all primary sources would turn up evidence sufficient to support the declaration that an eighteenth-century composer's indication *Corni in B* would automatically have caused all horn players to reach for their only Bb crook—in Bb *alto*.

In view of its drastic effect on many of the performances and recordings of music by Haydn, Mozart, and other composers made since 1955, the decision that all horn parts in the key of Bb should be performed in the *alto* register must be strongly questioned. Since there have been no other challenges to Mr. Landon's assumption, the conclusion about the use of Bb *alto* or *basso* should be reached by studying the music and by evaluating the results with musicological methods rather than the musical preferences and intuition of conductors, performers, or musicologists.

The fact is that during the little-documented period from ca. 1680-ca. 1750, composers were gradually creating music of a different sort that did not require high horns or the melodic agility of Baroque style—the horn fireworks of Haydn's Symphony no. 51 notwithstanding. The first horn parts in Johann Wanhal's earliest symphonies in A and Bb major demand a high range. In his symphony, Bryan Bb4, for example, the first horn rises to written d^{B} . None of its successors in any key require that note, but some require an occasional c^{3} , and in successive years the basic range (in which the uppermost first horn note is g^{2}) and the tessitura lowers as Wanhal's style changes—just as it did in Mozart's, as I will discuss.

3. Mozart and horns in Bb: alto or basso?

Wolfgang A. Mozart is the earliest composer whose orchestral works are almost all available and who used horns in both Bb *alto* and Bb *basso*. My investigation of his symphonies, divertimenti-serenades, concertos for piano, violin, and bassoon, and operas has uncovered more than thirty movements in which he included parts for horns stipulated as *Corni in* $Si^{b}alto$ (*B hoch*), sounding a step below the written pitch, and three to be performed as

Corni in Si^b basso (Corni in B basso), sounding a ninth below the written pitch. The large majority are identified simply as Horns in Bb or Corni in B fa.

The search for Bb movements in the editions of the *Neue Mozart-Ausgabe* (NMA) issued to date has revealed the effect of Landon's 1955 declaration that all Bb horns were automatically expected to be performed in the *alto* range. The NMA contains editions of at least fifteen works that are marked *Sib-alto*—by their editors, even though it is not in Mozart's hand. In a few editions—e.g., the Cassation K. 99 [63a]—the horn part as



indicated on the first page of Mozart's autograph score is reproduced (see series IV, 12, vol. 1 of the NMA edition). As shown in Figure 1, there is no "alto" marking.

Figure 1

The normal indication for horn parts as on the autograph of Mozart's Cassation in Bb, K. 99, where there is no marking of *alto* (left), compared with the one for Bb *alto* on the Piano Concerto in Bb, K. 450 (right), which includes his typical indication for "2 Corni in B Alti." (from NMA).

Other works can similarly be identified by virtue of the autograph title pages that are reproduced with their editions. The autographs of a number of other movements in Bb whose horn parts are identified by their editors in NMA as horns in *Sib-alto* are not published with the edition; but they are available and show that Mozart actually identified them simply as *Corni in B* or *B fa*. Since the editor's notes for NMA usually do not identify the origins of the labels, one assumes that the editor himself or the *Editionsleiter* decided to abrogate Mozart's intentions.¹³ In other cases where the title page is not reproduced among the autograph pages included in the introductory matter, it is very difficult to discover Mozart's intentions. I observe that, in most and perhaps all cases, Mozart's *alto* or *basso* markings are correctly given in the *Kritische durchgesehene Gesamtausgabe* (*Alte Mozart Ausgabe* [AMA]).

4. Mozart's principles of scoring the wind instruments

This study of Mozart's horn parts is based on hundreds of his orchestral movements in the keys of C, c, D, d, Eb, E, e, F, G, g, A, a, and Bb. It includes most or all of the movements in Bb and G minor for which he composed horns parts designated as either (or both) Bb *alto* or Bb *basso*. All of these movements conform to a principle seen in the fundamental wind group (a quartet of two oboes and two horns) found in many of his earlier orchestral works—a grouping that reflects the influence of the third part of J.J. Fux's *Gradus ad Parnassum*¹⁴: "Four-Part Composition or Writing in Four Voices," i.e., four-part writing adapted to the limitations of the horn.¹⁵ It consists of soprano (ob. 1), alto (ob. 2), tenor (hn. 1), and bass (hn. 2) with no more than an octave between soprano and alto and also (normally) between alto and tenor, but with more than an octave possible between the tenor and bass. Considering the natural limitations of the horns, the system allows an immense variety of possibilities due to the different keys and





the major and minor modes. Most important to this paper is that the horns are employed similarly in all keys, from low Bb (Bb*basso*) to upper C (*C alto*). Bb *alto*, which follows the same principles, will be discussed in the following pages.

Example 1

Passages illustrating Mozart's wind-quartet writing in basic keys.
(a1, 2) Bb: Symphony No. 5, K. 22 (Dec. 1765), mvt. I, mm. 1-4 and 23-31;
(b) C: Symphony no. 16, K. 128 (May 1772), mvt. I, mm. 13-17;
(c) D: Piano Concerto no. 5, K. 175 (Dec. 1773, mvt. III, mm. 81-89;

(d) Eb: Piano Concerto no. 9, K. 271 (Jan. 1777), mvt. III, mm. 35-43;

(e) F: Symphony no. 13, K. 112 (Nov. 1771), mvt. I, mm. 9-19; (f) G: Symphony no. 15, K. 124 (Feb. 1771), minuetto, mm. 5-10 and 15-16; (g1, 2) A: Symphony no. 29, K. 201 (April 1774), mvt. I, mm. 47-52, and mvt. IV, mm. 172-74.

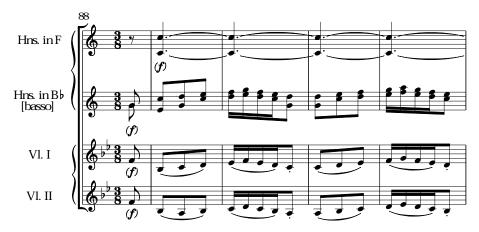
Occasionally, temporary deviations from the basic spacing principle are found. Depending on the scoring of the strings, there may be more than an octave between the second oboe (alto) and first horn (tenor). In the G-major excerpt from the Menuetto of Symphony K. 124 shown in Example 1, both horns are scored above the second oboe, an unusual extension of the principle. Regarding harmonic doubling: the third of the chord is carefully handled or even avoided in the wind group, especially when the ruling chord in the orchestra is in first inversion. In general, the function of Mozart's winds was to complement and support the strings. But he strove for fullness of orchestral texture by making the wind choir harmonically complete and capable of being independent. The horns are scored at the center of the orchestral fabric, where their rich timbre blends with and binds together the strings and winds—especially in works written in the 1780s, which have larger wind sections.

The first oboe's primary function in quartet scoring is to support the melody in the first violin; it is frequently simplified when the violin part becomes technically too difficult for the oboe. The second oboe normally adds to the harmony by playing in thirds and sixths with the first oboe. The horns have a harmonic function and serve to complement the oboes. They also function in pairs and in thirds and sixths, as appropriate to the harmony. Usually there is minimal overlapping among the upper voices. Occasionally, however, the first horn is written above the second oboe, as in mm. 9-10 of the Menuetto from Symphony no. 29, K. 201 (Example 1). Their natural characteristics limit what the horns can do melodically, but occasionally Mozart seems to enjoy designing melodies that can be performed on the natural horn. An obvious example from the final movement of Piano Concerto in Eb K. 271 is shown in Example 1. More often he will seize a moment where the horn can partially reinforce a melodic line as in the Symphony in Bb, K. 22 (myt. I, mm. 2 and 6), also shown in Example 1.

5. Range and tessitura

The highest note of Mozart's first horn parts is significant. It is normally g^2 , but in his earlier works, such as the aforementioned Symphony no. 5, K. 22 in Bb, a^2 often appears. Similarly, a^2 is found in Symphonies no. 7, K. 45 in G (1768); no. 16, K. 128 in C (1772); and the second movement (in Bb) of no.18, K.130 (1772). In the latter case Mozart created one of the richest sounds of any of his works by doubling the Bb *basso* horns (reaching up to the written a^2) with the other winds and violins (see Example 2). The first horn parts for orchestral pieces written after 1773-74 seem to eschew the a^2 . Thereafter, and depending on the key, the compass of the normal orchestral horn parts in Bb (low, or *basso*), C, D, Eb, F, and G range between written g (for the second horn,

later extended down to C in the bass clef) to g^2 (for the first horn). The parts for high horns (in A and Bb *alto*) generally do not exceed d^2 and e^2 . The exposed use of g^2 , from the last movement of Symphony no. 29, K. 201 in A, is exceptional (see Example 1). It is also found, however, in special situations such as the opera *Così fan tutte* (to be discussed) and the Divertimenti, K. 131 in D and K. 252 in Eb—soloistic works in which the upper



range of the solo horn is extended to c^3 and d^3 respectively.

Example 2

Symphony no. 18, K. 130. mvt. II, mm. 88-92.

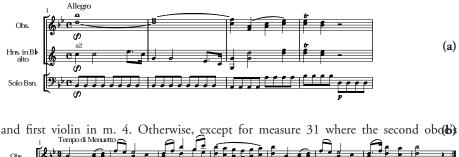
6. Movements marked *alto* and/or *basso* by Mozart

The following movements in B_b exist in autograph or, in the case of the Bassoon Concerto, K. 191, authentic copies (cf. AMA). All of them contain horn parts that Mozart specifically marked *alto* or *basso*. With the exception of wind sextet K. 240, the wind groupings (in parentheses) are added to a basic group of strings: violin 1 and 2, viola, and bass (violoncello).

a) K. 191 [186e]: Bassoon Concerto (1774), mvts. I and III (2 obs., 2 hns. in Bb alto)

The first of Mozart's compositions with horns marked *Corni in B alto* is the Bassoon Concerto, K. 191, composed in Salzburg and dated 4 June 1774. The little wind quartet comprising two oboes and two horns in *B alti* is specified by Mozart for both the first and last movements. The following excerpts from movement I, mm. 1-34 and movement III,

mm. 1-8 exhibit the basic principles of spacing and distribution, described previously. In m. 3 of the first movement there is, however, an unusual case where the oboes are more active than the strings, and the first horn has a note (a chord tone) higher than the first oboe; it culminates in a reinforcement (with trill) of the melody in the oboe





 e^{j} overlaps the first horn in order to add the seventh to the dominant chord, the quartet is written in four-part harmony, close spacing. The highest note of the first horn part is f^2 in both movements.

Example 3

Bassoon Concerto, K. 191 (a) mvt. I, mm. 1-4 and (b) mvt. III, mm. 1-8.

b) La finta giardiniera, K. 196 (1774-75): no. 13, aria "Vorrei punirti in degno" for soprano (2 obs., 2 bsns., 2 hns. in B_b alto, 2 hns. in G).

The use of quartet scoring, e.g., 2 oboes + 2 horns in D, predominates. In *La finta giardiniera* there are, however, major advances that greatly enrich the texture and color. See, for example, No. 3, aria for tenor scored at the outset for strings and flute, 2 oboes, and 2 horns, leading to a section for strings, 2 oboes, 2 bassoons, 2 horns, 2 trumpets, and timpani. This scoring, where Mozart expands his quartet of oboes and horns to a sextet by adding two bassoons, appears to be the next stage in the progress of Mozart's orchestration. The bassoons are versatile and appear in different guises. Frequently they



duplicate in the lower octave the leading melodic material presented by the oboes, thereby adding to the timbre and fullness of the melody. Usually bassoon 2 serves as bass line while the horns fill an internal harmonic role.

Example 4 La nta giardiniera, K. 196, "Vorrei punirti in degno," (a) mm. 1-10 and (b) the last chord of no. 13.

Occasionally the bassoons interlock with the horns, just as the horns sometimes do with the oboes in the wind quartet. No. 13 (Example 4) is especially interesting because of Mozart's use of the 2 horns in Bb *alto*, and 2 horns in G in the key of G minor—in

the tutti scoring of mm. 1-10 and in the last five measures, which are composed as an orchestral unison leading to a final G-minor chord that is scored only in the horns. The highest note in the first horn part, f^2 , is used once.

c) Piano Concerto in Bb, K. 238 (1776): mvt. I (2 obs., 2 hns. in Bb *alto*); mvt. III (2 obs., 2 hns. in Bb).

The closed spacing illustrated by mm. 92-97 in Example 5 is typical of Bb *alto* scoring. In all three movements the wind quartet is independent (obbligato) and scored fully, complementing and often dialoguing with the piano and strings.

In mvt. III the question might arise as to whether Mozart meant for the horns to be *alto* but forgot to mark it accordingly. Both horn parts in this movement seem to be equally performable as *alto* or *basso*, but there are several places where the music itself provides clues that the parts are meant to be performed *basso*. See, for example, mm. 273-75 and mm. 281-82, where the horn doubles the bass and violas in the same octave. Several other places might be cited, for example mm. 56-58, where the horns are in the



same octave as the piano; mm. 108-15, where the wind quartet dialogues (obbliga(b)



with the strings; and m. 207, where the horns play in the octave to which the descending strings have led them. The highest note in the first horn part is f^2 is both movements, but the tessitura in the third movement is higher than in the first.

Example 5 Piano Concerto in Bb, K. 238, (a) mvt. I, mm. 92-97;

(b) mvt. III, mm. 273-75 and mm. 281-82.

d) Divertimento no. 9, K. 240 (wind sextet, no date): mvts. I, III (2 obs., 2 hns. in Bb *alto*, 2 bsns.), IV (2 obs., 2 hns. in Bb, 2 bsns.).

This work illustrates Mozart's wind-sextet scoring—essentially the same as used in his orchestral works. The first oboe has the melody and the second oboe complements it at the interval of a third or sixth as appropriate to the harmony. The second bassoon has the bass line while the horns and first bassoon provide harmonic filler. As in the Piano Concerto K. 238, the horn parts in the final movement are not marked *alto* even though much of the writing might suggest that they could be performed that way. See, however, Example 6, mm. 115-19, where the combined horns and first bassoon dialogue in the



lower octave with the oboes, and mm. 155-58, where the horns are in unison with the first bassoon. The highest note of the first horn part is g^2 .

Example 6

Divertimento no. 9, K. 240, mvt. III, mm. 115-19 and mm. 155-58.

e) Piano Concerto no. 7 in F, "Lodron," K. 242 (Feb. 1776) for three [two] pianos, mvt. II (2 obs. and 2 hns. in Bb *alto*).

The winds are scored in the normal quartet setting with 2 obs. + 2 hns. in Bb *alto*. The highest note in the first horn part is e^2 .

f) Divertimento no. 15, K. 287 [271h] (1777): mvts. I, IV, V, VI (string quartet with 2 hns. in B₂ *alto*).

This is, of course, not an orchestral work and Mozart's writing for horns in Bb *alto* is soloistic (obbligato) with the highest note g^2 appearing several times in the first part. His use of the lightweight Bb *alto* horns balances better with the string quartet than would *basso* horns.

g) Symphony in Bb no. 33, K. 319 (1779): mvt. I (2 obs., 2 bsns., 2 hns. in Bb *alto*), Menuetto, and Finale (2 obs., 2 bsns., 2 hns. *in B*).

The winds in the first movement are sometimes independent of (obbligato) and complementary to the strings. The oboes and bassoons are mostly employed as a quartet moving rhythmically and harmonically. As at the beginning, they are complemented by the Bb *alto* horns that fill out the harmony, provide sustained pedals, and support the bass line. The horn parts in the Menuetto and Trio and in the Finale are marked *Corni in B* and function as Bb *basso* members of a quartet. Evidence that they are to be performed in the lower octave may be seen in mm. 16-24, where they answer the oboe and bassoon figure and support the lower octave in agreement with the strings. In the finale, and



also typical of Bb *basso*, are the passages from mm. 114-22, where the horns fill out the harmony and the second horn carries the bass line. The highest note of the first horn, g^2 , is used once in both the first and last movements.

Example 7

h) Zaide K. 344 [336b], l (1779).

All four sections in Bb are orchestrated with horns in Bb *alto*, with the highest note e^2 : no. 4, aria for tenor (2 obs., 2 hns. in Bb *alto*); no. 13, aria for soprano (2 obs., 2 bsns., 2 hns. in Bb *alto*, 2 hns. in G); no. 14, aria for bass (2 obs., 2 hns. in Bb *alto*); and no. 16, vocal quartet (2 fls., 2 obs., 2 bsns., 2 hns. in Bb *alto*).

In nos. 4 and 14 the wind quartet is scored for two oboes and two horns in Bb *alto*, as previously in the bassoon concerto, *La finta giardiniera*, and Piano Concerto K. 238. Throughout no. 13 Mozart derives the maximum benefit by judiciously using the two differently crooked horns. The final chord is especially interesting because of the scoring of the winds, whereby the two bassoons interlock with the two horns to produce a full

Symphony in Bb, K. 319, (a) Menuetto, mm. 16-24; (b) Finale, mm. 114-22.

sustained G-minor chord in the middle-to-low register while the strings actively arpeggiate it. In the finale, no. 16 (not illustrated), the rich scoring, with the winds playing the thickened melodic lines in three octaves, is typical of Mozart's most advanced orchestration: the two bassoons are scored as a lower octave of melody instruments along with the flutes and oboes; the horns sometimes play a sustained pedal and occasionally play



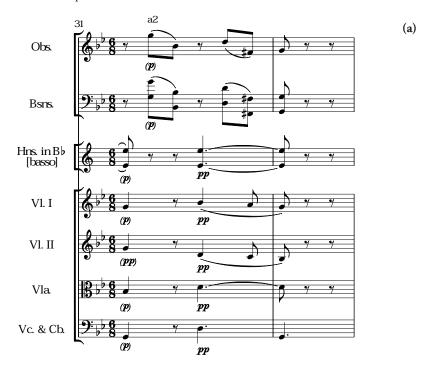
the bass line when both bassoons are fully occupied with the thickened melodic line. The final chord, lasting four measures, is fully scored in the winds pp, with the BbD *alto* horns interlocking between the bassoons and the oboes. This torso of an opera is masterfully orchestrated.

Example 8

Zaide, K. 344 [336b], no. 13., last four measures; and no. 15, last chord.

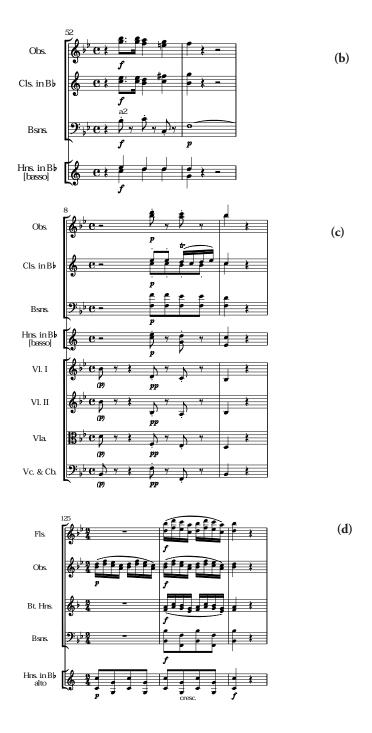
i) Die Entführung aus dem Serail, K. 384 (1781): no. 10, aria for soprano (2 fls., 2 obs., 2 bassett horns, 2 bsns., 2 hns. in Bb alto); no. 2, Lied and Duet for tenor and bass (fl., 2 obs., 2 bsns., 2 hns. in B); no. 6, aria for soprano (2 obs., 2 clars., 2 bsns., 2 hns. in B); no. 15, aria for tenor (2 obs., 2 clars., 2 bsns., 2 hns. in B).

In no. 10 the full scoring of the winds is remarkable. It is the only movement in the opera suited for horns in BbD*alto*. The highest note of the first horn part is c^2 . The horn parts in mm. 49-51 would be too high (c^3) if scored in Bb *basso*. Nos. 2, 6, and 15 in Bb, are, however, all appropriate for horns in Bb *basso*. The highest note in the first horn parts is g^2 and the tessitura is high. Passages that illustrate that the proper interpretation is *basso* are illustrated in no. 2, mm. 31-32, where the horns double the viola and bass as they sustain the dominant pedal (in m. 31), in no. 6, mm. 52-53, where the horns interlock



between the bassoons; and in no. 15, mm. 8-9, where they fill out the harmony between the bassoons and in the midst of the strings.

Example 9



Die Entführung aus dem Serail, K. 384 (1782), (a) no. 2, mm. 31-32; (b) no. 6, mm. 52-53; (c) no. 10, mm. 125-27; and (d) no. 15, mm. 8-9.

j) Piano Concerto no. 15 in Bb, K. 450 (1784): mvt. I (2 obs., 2 bsns., 2 hns. in Bb *alto*), mvt. III (fl, 2 obs., 2 bsns., 2 hns. in Bb *alto*).

The first movement displays the usual wind-sextet scoring, with the second bassoon playing the bass line and the Bb *alto* horns providing harmonic filler, sometimes interlocked with oboe 2 as in I, m. 15. In the final movement Mozart expands the wind group to a septet by adding a flute. He thereby adds to the brilliance created by the higher octave and to the fullness of the harmony—the result of the complete triadic harmony now available; (see mm. 14-15). This surprising basic change of orchestration in the last movement of the work gives it a remarkable lift. The highest note of the first horn part is



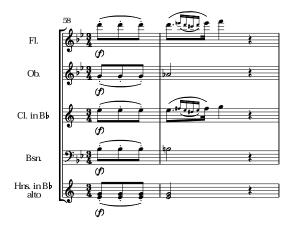
 e^2 in both the first and last movements.

Example 10

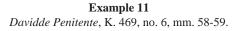
Piano Concerto no. 15 in Bb, K. 450, (a) mvt. I, mm. 11-12; and (b) mvt. III, mm. 9-18.

k) Davidde Penitente, K. 469 (1785): no. 6, aria for tenor (fl., ob., clar. in Bb, bsn., 2 hns. in Bb alto).

This aria is very carefully scored with solo winds and 2 horns in Bb *alto*. The horns are obbligato, but are mostly confined to playing sustained pedals and the bass line;

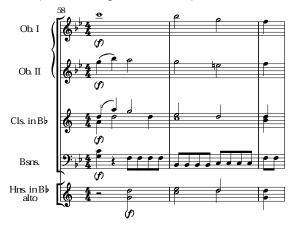


they are occasionally pitched above the bassoon (mm. 58-59). The highest note of the first horn, g^2 , is used twice.



l) Der Schauspieldirektor, K. 486 (1786): no. 3 trio (2 obs., 2 clars., 2 bsns., 2 hns. in Bb alto).

As in works discussed previously, Mozart uses the lightness of the Bb *alto* horns as another woodwind by interlocking them variously between the 2^{nd} oboe and the 2^{nd}



bassoon. See, for example, mm. 58-60. The Bb alto parts are limited to chord tones

and are rhythmically simple, but they add to the harmonic fullness and texture. The highest note in the first horn part is e^2 .

Example 12

Der Schauspieldirektor, K. 486, mm. 58-60.

m) Marriage of Figaro, K. 492 (1787): no. 2, duet (2 fls., 2obs., 2 bsns., 2 hns. in Bb alto); no. 7, trio (2 obs., 2 clars., 2 bsns., 2 hns. in Bb alto); finale, act 2, scene 9 (2 obs., 2 clars., 2 bsns., 2 hns. in Bb alto); no. 25 aria for tenor (fl., 2 clars., 2 bsns., 2 hns. in Bb alto).

Four sections are in Bb. All are scored with varying complements of winds and in all the horns are specified as Bb *alto* and are treated similarly as in *Der Schauspieldirektor*. The highest note of the first horn part in nos. 2 and 7 is e^2 ; in scene 9 it is c^2 ; in no. 25 it is g^2 and appears twice.

n) K. 363, 461, 462, 463, 536, 567, 585, 568, 571, 585, 586, 599, 600, 602, 603: Dances using horns in Bb *alto* (between 1788 and 1791).

Each K. number identifies a group of dances (mostly Menuetto-Trio pairs = sections). Not all of the sources can be found, but I have ascertained that Mozart used horns in B (Bb) *alto* in nine sections in Bb. The highest notes in these Bb sections are d^2 , e^2 , f^2 , and g^2 . Of these, d^2 , f^2 , and g^2 are used once each; e^2 appears in six sections. Sometimes they are employed more than once within the section. Most of the dances are scored for from six to twelve wind instruments.

o) Symphony in G minor, K. 550 (1788): mvts. I and IV (fl., 2 obs., 2 clars., 2 bsns., hn. in Bb *alto*, hn. in G; trio, 2 hns. in G).

p) Così fan Tutte, K. 588 (1789-90): no. 7, duet (2 clars., 2 bsns., 2 hns. in Bb basso); no. 20, duet (2 obs., 2 bsns., 2 hns. in Bb alto); no. 28, aria for soprano (fl., 2 obs., 2 clars., 2 bsns., 2 hns. in Bb alto); finale, scene 17 (2 fls., 2 clars., 2 bsns., 2 hns. in Bb basso).

Mozart is specific in his treatment of the Bb horns in *Così fan tutte*: they are always specified *alto* or *basso*—and thus are significant witnesses concerning the *alto-basso* question because there is no ambiguity. The upper range of the horns in Bb *alto* is limited to g^{l} in no. 20





and c^2 in no. 28, as illustrated in Example 13. Passages with horns in Bb *basso* are found in no. 7, mm. 13-18, and the finale. Mm. 387-92 in the last scene of the finale (scene 17) are particularly significant because the first horn in Bb *basso* extends up to a^2 as it carries the melody (in unison with the bassoons and in octaves with the clarinets). It is reminiscent of the passage from the second movement of Symphony no. 18, K. 130 (Example 3); the horn is not marked Bb *basso* but is clearly to be performed in the lower octave, where it reinforces and colors the melodic line.

Example 13

Così fan Tutte, K. 588: (a) Act I, no. 7, mm. 13-18; (b) Act II, no. 20, mm. 72-77; (c) no. 28, mm. 16-18; and (d) mm. 387-392 (scene 17, the last scene of the mle).



q) Piano Concerto in Bb, K. 595 (1791): mvt. I (fl., 2 obs., 2 bsns., 2 hns. in Bb *alto*); mvt. III (fl., 2 obs., 2 bsns., 2 *Corni in B*).

The change from horn in Bb *alto* in the first movement (highest note is e^2) to Bb *basso* in the finale movement (highest note is g^2) is equivalent to similar situations in earlier works. Much of the finale is possible for the Bb *alto* horn but the passages in mm. 9-16, 128-46 (hn. 2 plays the bass line), and from 338-42 (hn. 2 doubles the bassoons) are clearly for horn in Bb *basso*.

Example 14 Piano Concerto in Bb, K. 595, mvt. III, (a) mm. 9-16 and (b) mm. 338.

r) *Die Zauberflöte* K. 620 (1791): no. 4, aria for soprano [Queen of the Night]; and no. 5, for quintet (2 obs., 2 bsns., 2 hns. in Bb *alto*).

The scoring for horn in B_b alto is normal. The highest note of the first horn part is e^2 .

s) La Clemenza di Tito, K. 621 (1791): no. 9 aria for soprano (2 obs., solo clar., 2 bsns., 2 hns. in $B \models \Box alto$); no. 14, trio (2 obs., 2 bsns., 2 hns. in $B \models alto$); no. 20, aria for tenor (2 fls., 2 obs., 2 bsns., 2 hns. in $B \models alto$).

The Bb horns are always specified "alto" and all three sections in Bb are scored for horn in *Bb*[*alto*. All are treated similarly as in the previous works. The highest note of the first horn in nos. 9 and 14 is e^2 ; in no. 20 it is g^2 and is part of a short soloistic obbligato figure that complements the passage.

7. Further observations regarding Mozart's use of Bb basso:

Il re pastore, K. 208 (dated 23 April 1775), contains an aria (no. 3 in Bb for soprano) scored for 2 oboes and 2 horns *in B* and a later aria (no. 8, also in Bb and also for soprano) scored for 2 oboes and 2 horns in *B basso*. The horns marked *B basso* in no. 8 are scored essentially the same as the horns *in B* in aria no. 3, which are not specifically marked. There seems to be no evidence to clarify his intentions, but Mozart, who had probably first used the *alto* designation in the Bassoon Concerto of 4 June 1774, possibly wanted to be sure that the part would actually be performed in the lower octave.¹⁶ In any case, his use of the term *basso* indicates that he was making a distinction between horns in Bb *alto* and Bb *basso*.

In the Serenade (*Gran Partita*), K. 361 [370a], for thirteen winds, horns 3 and 4 in Bb are designated *Corni in Sb basso/B tief* in the NMA and *Corni in B basso* in AMA. Since I believe, for reasons mentioned earlier, that the AMA edition is accurate regarding the use of horns in Bb *alto*, it seems curious that, in his autograph, Mozart designated these horn parts with his usual *Corni in B fá* (horns in Bb), whereas both editors carefully specified *Corni in B basso*.

The upper range of the first horn parts is g^2 and the tessitura extends upward from c^l .

8. Conclusions

This study of Mozart's orchestral horns is a contribution to a detailed examination of his orchestration. With its focus especially on his scoring for horns in Bb it also discredits the notion that all Bb horns in the eighteenth century were pitched in the high or *alto* range, while at the same time it reinforces the traditionally accepted principle that parts for horn in Bb (*B fa*) should be interpreted as Bb *basso*. Furthermore, we have seen that all of Mozart's wind parts, including those in the key of Bb, are governed by J.J. Fux' rules for four-part writing, as found in the basic wind-grouping or quartet of two oboes and two horns included in his earliest symphonies (illustrated in Example 1).

Regarding the *alto*-versus-*basso* question, Mozart's use of horns in both *alto* and *basso* is documented in autographs of numerous works. Two of his earlier concertos, K. 99 for

bassoon and K. 450 for piano, include two movements in the key of Bb with horn parts marked Bb *alto*. In other early compositions he indicated *B fa alti* (alto) in one movement and simply *B fa* in a succeeding movement or movements. In *Così fan tutte*, however, he specified every instance of horns in Bb as either *alto* or *basso*, thereby leaving no question as to his intentions or his procedures.

This study provides evidence for the scholar or editor who must interpret Mozart's intentions for the unspecified marking Corni in B. Two indications support the correct decision. The first is that he treats all horn parts similarly, including those in Bb alto. If any of the compositions excerpted in Example 1, for instance, had been written in a different key, the horn parts would have been notated identically and would have been performed similarly on a horn with the appropriate crook. The second is that, in the absence of a key specification, the upper range of a first horn part may provide clues that, if it belonged to a movement in Bb, it was intended to be performed *alto*—especially if its upper range were limited to g^1 and d^2 as seen in the second and third excerpts from Così fan tutte in Example 13. The upper range of the basso parts in the first and fourth excerpts from Example 13 clearly indicates that Mozart was specifying how and where he wanted them to sound-as basso. Similarly, any first horn part whose highest note is g^2 and whose tessitura is comparably high was meant to be performed *basso*. Another example has been cited previously-the second movement of Symphony no. 18, K. 130 (Example 2). Sometimes substantial portions appear to be suitable for either alto or basso because of the range and tessitura of the passage, but there is always a passage that shows where the horn part fits into the musical equation (see above, concerning Piano Concertos K. 238 and 595, Examples 6 and 14a-b).

Another conclusion is that Mozart was keenly aware of the differing effect of two horns in Bb-the larger one with full, dark timbre, in the low-octave (= Bb basso) as compared to the smaller (in length and bore) with lighter timbre, in the high octave (= B_{\flat} alto). Each adds a distinct tone quality to his musical palette, not only individually but also in combination with other wind instruments. The timbre produced by having two low horns (in C and Bb) in "Padre germani addio" (G minor) from Idomeneo differs from that produced by horns in C and Bb alto. The tone quality of the low horns is also appropriate for "Colpaè vostra, o Dei tiranni!" from the same opera. In fact the serious nature of Idomeneo seems to demand the mood of basso. Similarly, Mozart indicated that the Bb horns in nos. 9 and 21 of Don Giovanni were to be played as Corni in B, i.e., basso. On the other hand, the mood swings of Così fan tutte suggest a variety of sounds. Its four sections in Bb (Ex. 13), two with horns in Bb alto (for Fiordiligi and Dorabella), two with Bb basso (for Ferrando and Guglielmo, and for Don Alfonso in the finale beginning with the text "Miserecordia") illustrate that Mozart scored the horn parts, especially in his later orchestral music, with extraordinary sensitivity. Similarly, the manner in which he employs the trumpets as a horn-voice with a different timbre (a third timbre, lighter than that of the Bb alto horn) should be considered. It is seen, for example, in Ferrando's aria (in Bb) "Ja, ich sehe," in which the trumpets, serving a horn-like function, are scored with a little wind choir of two clarinets, bassoon, and two trumpets (see mm. 100-33). In effect Mozart achieves a third horn function, more delicate than that of the horn

in B β *alto*. In "O verzeih," with its wind-choir of two flutes, two clarinets in A, two bassoons, and two *concertante* horns (in E), he adds yet another orchestral color and texture. Considering its full and ever-changing woodwind scoring, *Così fan tutti* probably contains the richest and most varied orchestration of any of his works. And all the wind parts conform to the principle of four-part writing, including the B β horn parts, all of which are marked either *alto* or *basso*. Together with his other mature operas, *Le nozze di Figaro, Die Zauberflöte,* and *La clemenza di Tito*, all of whose B β horn parts are marked *alto*, a compendium of his varied arrangements of winds could be compiled—and they would leave no doubts about Mozart's intentions concerning horns in B β *alto* or *basso*.

A corollary conclusion supported by this study is that, throughout his career as composer of music for orchestra, Mozart consistently sought to increase the warmth, expressivity, and delicacy of his "instrument"—and that the horns were among his most important tools.

In addition to the works in the above list of Mozart's compositions/movements whose Bb horn parts are incorrectly specified as horn in Bb alto in the NMA, certain works have been questioned by scholars and performers regarding the logical/correct use of horns in Bb alto. A prime example is the Symphony no. 25, K. 183 [173db], in G minor, composed in Salzburg and dated 5 October 1773. Its four horn parts include two in G and two in Bb. The latter pair could possibly be performed either *alto* or *basso*, and if they are played in Bb *alto*, the horn parts in the Menuetto and last movement dovetail with the leading melodic lines. At the same time the combination of four high horns, in G and Bb alto, as frequently heard in today's performances of works by Mozart, Joseph Haydn, Johann Wanhal, and other composers often produces a quality of sound not too different from that produced by the *clarini*—to which Mattheson objected in 1713. If the performer believes that the mood of G minor is high-strung and tense, he/she might logically choose alto. Nonetheless, Mozart's markings are the only ones that should be included in the "authentic" edition-the Neue Mozart-Ausgabe. More simply stated, the conductor who wishes to give an "authentic performance" should follow the rule that, if Mozart has not specifically marked his Bb horns as Bb alto, they should be performed as Bb basso.

The temptation to extend this study is encouraged by the knowledge that other contemporary composers, especially Johann Michael Haydn (also a Salzburg composer) frequently used horns in Bb *alto* and Bb *basso*.¹⁷ Such a study could and should be made. For now, I have shown that horns in Bb *alto* and Bb *basso* existed at the time, and that the

latter was Mozart's basic instrument of choice. I see no reason to believe that the same would not be true for Joseph Haydn and his contemporaries.¹⁸

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APPENDIX 1

Compositions in which Mozart specified horns in Bb alto.

- K. 191: Bassoon Concerto (1774); mvts. I and III (2 obs., 2 hns. in Bb alto)
- K. 196: La finta giardiniera (1774-75); no. 13, aria for soprano (2 obs., 2 bsns., 2 hns. in Bb alto, 2 hns. in G)
- K. 238: Piano Concerto in Bb (1776); mvt. I (2 obs., 2 hns. in Bb alto)
- K. 240: Divertimento no. 9 (wind sextet, no date); mvts. I, III, IV (2 obs., 2 hns. in *Bb alto*, 2 bsns.)
- K. 242: Piano Concerto no. 7 for three [two] pianos in F "Lodron" (Feb. 1776); mvt. II (2 obs., 2 hns. in Bb alto)
- K. 287: Divertimento no. 15 (1777); mvts. I, IV, V, VI (string quartet with 2 hns. in *Bb alto*)
- K. 344 [336b]: Zaide (1779); no. 4, aria for tenor (2 obs., 2 hns. in Bb□ alto); no. 13, aria for soprano (2 obs., 2 bsns., 2 hns. in Bb alto, 2 hns. in G); no. 14, aria for bass (2 obs., 2 hns. in Bb alto); no. 16, vocal quartet (2 fls., 2 obs., 2 bsns., 2 hns. in Bb alto)
- K. 384: *Die Entführung* (1781); no. 10, aria for soprano (2 fls., 2 obs., 2 bassett hn., 2 bsns., 2 hns. in *Bb alto*)
- K. 450: Piano Concerto no. 15 in Bb (1784); mvt. I (2 obs., 2 bsns., 2 hns. in *Bb alto*), mvt. III (fl., 2 obs., 2 bsns., 2 hns. in *Bb alto*)
- K. 469: *Davidde Penitente* (1785); no. 6, aria for tenor (fl., ob., clarinet in Bb, bsn., hns. in *Bb alto*)
- K. 486: Der Schauspieldirektor (1786); no. 3, trio (2 obs., 2 clars,, 2 bsns., 2 hns. in Bb alto)
- K. 492: *Marriage of Figaro* (1787); no. 2, duet for sop. and baritone (2 fls., 2 obs., 2 bsns., 2 hns. in *Bb alto*); no. 7, trio (2 obs., 2 clars., 2 bsns., 2 hns. in *Bb alto*); Finale Act

1, scene 9 (2 obs., 2 clars., 2 bsns., 2 hns. in *B*b *alto*); no. 25, aria for tenor (fl., 2 clars., 2 bsns., 2 hns. in *B*b *alto*)

- K. 363, 461, 462, 463, 536, 567, 585, 568, 571, 585, 586, 599, 600, 602, 603: Between 1788 and 1791 Mozart used B_b alto horns at least nine times in his dances. (See previous discussion)
- K. 550: Symphony in g (1788); mvts. I and IV (fl., 2 obs., 2 clars., 2 bsns., hn. in *B*b *alto*, hn. in G; trio, 2 hns. in G)
- K. 588: Così fan Tutte (1789-90); no. 7, duet (2 clars., 2 bsns., 2 hns. in Bb basso); no. 20, duet (2. obs., 2 bsns., 2 hns. in Bb alto); no. 28, aria for soprano (fl., 2 obs., 2 clars., 2 bsns., 2 hns. in Bb alto); Finale, last scene (2 fls., 2 clars., 2 bsns., 2 hns. in Bb basso). The Bb horns in Così are always specified alto or basso.
- K. 595: Piano Concerto in Bb (1791); mvt. I (fl., 2 obs., 2 bsns., 2 hns. in *Bb*[*alto*), mvt. III (fl., 2 obs., 2 bsns., 2 hns. in *B basso*)
- K. 620: *The Magic Flute* (1791); no. 4, aria for soprano (2 obs., 2 bsns., 2 hns. in *B*_b *alto*)
- K. 621: La Clemenza di Tito; no. 9, aria for soprano (2 obs., solo clar., 2 bsns., 2 hns. in Bb alto); no. 14, trio (2 obs., 2 bsns., 2 hns. in Bb alto); no. 20, aria for tenor (2 fls., 2 obs., 2 bsns., 2 hns. in Bb alto). The Bb horns in Tito are always specified alto.

APPENDIX 2

Mozart's compositions/mvts. in the NMA with Bb horn parts that are stipulated as horn in Bb *alto* by the editors or someone other than Mozart.

- K. 51 / 46a: La finte semplice, no. 20
- K. 87 / 74a: Mitridate, nos. 2 and 11
- K. 99: Cassation in Bb (1769), mvts. I, III, V, and VI
- K. 126: Il sogno di Scipione (1772), no. 5
- K. 127: Regina coeli (1772)
- K. 207: Violin Concerto no. 1 in Bb (1773), mvts. I and III
- K. 238: Piano Concerto no. 6 in Bb (1776), mvt. III
- K. 319: Symphony in Bb (1779), Menuetto and mvt. IV
- K. 366: Idomeneo (1780-81), nos. 1 and 2
- K. 384: Die Entführung aus dem Serail (1781-82), nos. 2, 6, 15 and 20
- K. 413 / 387a: Piano Concerto no. 11 in F (1782-83), mvt. II in Bb
- K. 456: Piano Concerto no. 18 in F (1784), mvt. II in Bb
- K. 466: Piano Concerto no. 20 in d (1785), mvt. II in Bb
- K. 527: Don Giovanni (1787), nos. 9 and 21

NOTES

¹ Paul R. Bryan, "The Horn in the Works of Mozart and Haydn: Some Observations and Comparisons," *Haydn Jahrbuch* IX (1975): 189-255.

² H.C. Robbins Landon, *The Symphonies of Joseph Haydn* (London: Rockliff and Universal Edition, 1955), pp. 124ff. "Only one type of instrument was in common use . . . up to and including the 'Paris' symphonies [1786]."

³ Such as the *Complete Mozart Edition* issued by Philips as Classical Productions, U.S., 1990.

⁴ Pp. 267-68: "The soft and stately horns . . . have come very much into style at the present time: partly because their nature is not so rude as that of the trumpets, and partially because they can be played with more agility. The most practical pitches are F, and C in the same range as the trumpets. The horns also sound fuller and fill in better than the deafening and screaming Clarini (in the hands of a good player, that is) since they stand a whole fifth lower." ("Die lieblich=pompeusen Waldhörner *Ital.* Cornette di Caccia, *Gall.* Cors de Chasse', sind bey itziger Zeit sehr en vogue kommen / so wol was Kirchen=als Theatral- und Cammermusik anlanget / weil sie theils nicht so rude von Natur sind / als die Trompeten / theils auch / weil sie mit mehr Facilité können tractirt werden. Die brauchbarsten haben F. und mit den Trompeten aus dem C. gleichen Ambitum. Sie klingen auch dicker / und füllen besser aus / als die übertaübende und schreyende Clarinen, (wenn ihnen eine gute Handhabe abgehet), weil sie um eine gantze Quinte tieffer stehen.")

⁵ Karl Reinert (1730-ca. 1800) was principal hornist in the orchestra of the Duke of Mecklenburg. See Horace Fitzpatrick, *The Horn and Horn Playing* (Oxford: Oxford University Press, 1970), p. 223, n. 4.

⁶ Ibid., pp. 219-26.

⁷ Paris, 1764.

⁸ E.g., H. Domnich's *Méthode De Premier et de Second Cor* (Paris, 1807).

⁹ Horace Fitzpatrick, "The Valveless Horn in Modern Performances of 18th Century Music," *Proceedings of the Royal Musical Association* 91 (1964-65): 47.

¹⁰ Ibid., p. 56.

¹¹ Ibid., pp. 52-53.

¹² The French Horn: Some Notes on the Evolution of the Instrument and of its Technique (New York: