THE HEYDAY OF THE HAND HORN AND THE BIRTH OF THE VALVED HORN:
A STUDY OF NINETEENTH-CENTURY HORN TECHNIQUE AS REVEALED IN THE SOLO WORKS FOR HORN BY CARL CZERNY

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Rarely has one composer given us so much potential insight into a crucial historical development of an instrument as that revealed by the works for horn and piano by Carl Czerny. The *Introduction and Concertante Variations*, Op. 248, written for valved horn ca. 1830 demonstrates Czerny’s knowledge of valve technology, but subsequently he composed for the natural (valveless) horn in the *Brilliant Fantasies*, Op. 339 (ca. 1836), and the *Andante e Polacca* (no opus number, 1848). We do not know exactly why he seemed to turn his back on the new development of valves, but we can learn some of his thoughts and feelings about the use of the horn from his *School of Practical Composition*, Op. 600 (first published 1839). In the English version of 1846 there are several points in the main section on the use of the natural horn, but he refers to brass instruments with valves only in the appendix, where he gives an outline of the “Sax Horn” family. This is how he perceived the duet combining piano and horn, a popular form of nineteenth century salon music:

> The wind instruments most generally combined with the Pianoforte … are the Flute and the Horn…. The Horn … is especially adapted for calm sustained notes, for tender or melancholy ideas, or for an expression of energy and grandeur…. Beethoven, Ries, Hummel and many modern writers have produced distinguished examples.¹

Regarding the use of the hand-stopped notes on the natural horn, he informs the reader:

> In modern times, the Horn has been so greatly improved that the artificial notes sound as well and as firm as the natural ones.²

He adds that the bass notes “are only used slowly and piano,” but fails to follow this advice several times in these works!

The *Introduction and Concertante Variations* is one of the first works ever written for the solo valved horn and piano. Authorship is credited to Czerny and Joseph Lewy, the latter an important nineteenth-century horn virtuoso and pioneer of the newly invented valved instrument. The horn part contains several notes and key changes that would be unplayable on the natural horn, even with the advanced technique of hand-stopping the bell of the instrument with the right hand, prevalent at this time in Europe.
The Tyrolean theme of the variations has the air of an Alpine folksong about it, but could easily have been invented by Lewy or Czerny. While the variations have all the hallmarks of Czerny’s virtuosic style, he would not have been so bold with the choice of notes, keys, and modulations for the horn had he not had guidance from a keen advocate of the fully chromatic horn.

In light of the evidence as to how nineteenth-century horn players approached the new development of a fully chromatic compass on their instrument, interpretation of this horn part gives rise to a unique set of technical challenges. Lewy’s legacy includes a set of twelve challenging études (*Douze Etudes pour le Cor chromatique et le Cor simple*) from 1850 with the following instructions:

These studies are to be played chromatically on the F horn. The valves should only be used when the natural horn is inadequate for the bright and distinct emission of the sound.… Only in this way will the beautiful tone of the natural horn be preserved while, at the same time, retaining the advantage of the valve horn.³

Berlioz wrote in 1843 in the *Neue Zeitschrift für Musik* that

It is foolishness to think that the effect of stopped notes, which are sometimes quite characteristic and required by the composer’s idea, should be lost on the valved horn, as one can produce these notes by inserting the hand into the bell just as well on the valved horn as on the ordinary natural horn.⁴

In the same year Berlioz commented on Lewy’s playing on the valved horn in Dresden:

Lewy is a virtuoso player with a great reputation in Saxony. Like his colleagues he plays on a cylinder or rotary valve horn.⁵

So the question is: How much should the player use hand-stopping technique in view of the fact that the valves offer a complete chromatic range? The answer comes partly from Lewy’s instructions for his études and partly from the *Méthode pour le Cor Chromatique ou à Pistons* by Joseph Meifred, published in Paris in 1840. We know from Berlioz’ *Memoirs*⁶ that he was acquainted with Meifred as well as with Lewy. Lewy had studied horn with his elder brother Eduard Constantin, who in turn had studied with Domnich in Paris between 1810 and 1813, so both Lewys were certainly familiar with the French school of hand-horn technique.⁷ Meifred was playing the valved horn from 1828 and was appointed to the Paris Conservatoire staff in 1833. There is a connection via Berlioz between Meifred and Lewy, as both horn virtuosos began giving valved horn concerts in the same year and both expected hand-stopping to be used in conjunction with the valves. Therefore I recommend consultation of Meifred’s *Méthode* for guidance in interpreting the *Introduction and Concertante Variations*.
In 1829, with the assistance of Louis-François Dauprat (1781-1868), horn professor at the Conservatoire, Meifred published a precursor to his 1840 Méthode. Thus many of his ideas on valved horn technique had been formulated and disseminated well in advance of the publication of the latter work. The five goals of the author, as expressed in the Méthode of 1840, are:

1. To restore to the horn the notes it lacks.
2. To restore accuracy (of intonation) to some notes. (i.e., those notes not well in tune on the natural horn, such as \( f\# \), \( a\).)
3. To render muted notes sonorous, while preserving the desirable timbre of lightly stopped ones.
4. To give the leading tone in every key or mode the “countenance” it has in the natural range.
5. Not to deprive composers of changes of crook, each of which has a special color (i.e., to retain the character of the different crooks, each of which has a special color—using valves to obtain the equivalent length of the crook).

These guidelines entail treating the horn part as if it were marked with crook changes, so as to imbue the different leading tones with the desired “countenance.” Since this requires an unusual degree of sensitivity to the modulations and changes of harmony, one can see why this technique lacked a universal appeal, especially for more complex works written after this tutor had been published. Nevertheless, Berlioz’ words, regarding the composer’s requirement that certain notes should be characteristically stopped, seem quite justified for the time, and they seem to be the rationale behind the approach suggested by the publications of Lewy and Meifred. Interestingly, the horn part in Schubert’s Auf dem Strom (1828), written for Lewy, seems to require a similar approach.

To return to the Introduction and Concertante Variations, the Introduction begins in F minor, so initially there are no difficulties in deciding which notes to stop on a horn in F, but at the end of the second statement (m. 13) there is a written \( a\) (i.e. \( d\), concert pitch), which should be treated not as if it were the raised submediant of the minor scale (as one might think, looking only at the horn part), but rather as the new supertonic in the dominant key of C (see Example 1). This approach, supported by the harmonic progression, infers a valved note without hand-stopping instead of the more regular stopped \( a\) of the French hand-horn tutors.

Example 1

The theme of the variations is stated in C major. A possible approach would be to use the first and third valves to take the horn into C-basso, but this gives rise to rather a lot of high harmonics: all the g’s become c”s on the longer horn (see Example 2). In his *Méthode* of 1807 Domnich says,

> Of all the different keys, it is the horn in C which demands the most effort to play because of the multiplicity of its contours. Because of this, playing with the C crook is both trying and fatiguing and should only be employed for simple orchestral efforts. A light or graceful melody will never be suitable rendered in this key. There is however a means to render playable solos which are in the key of C, and that is by simply rewriting the notes so that they may be played on the F crook.10

![Example 2](Czerny/Lewy, *Introduction and Concertante Variations*, excerpt from theme of the variations."

One imagines that Czerny and Lewy were aware of this sentiment when they wrote a melody in C for the F horn. The first note, a written d’, has a dominant function and is another example of a note which on the hand horn would be a stopped note, but in the context of this work should be played as an open sound, using a valve to give it the right “countenance” and a “bright and distinct emission of the sound.”11 (It would certainly not be a “bright and distinct emission of sound” as a stopped note on the natural F horn; it is one of the most notoriously difficult notes to play centered and in tune.)

Variation 4 deserves comment because it begins with exactly the same series of five notes as the opening horn call of Richard Strauss’ *Till Eulenspiegel’s Lustige Streiche*, Op. 28 (transposed and in a different rhythm), with the same emphasis on the chromatically raised supertonic (see Example 3). As a horn player one wonders if it is possible that through Franz Strauss’ influence, Richard Strauss might have been aware of this composition, and if any of Lewy’s combined hand-horn and valved-horn technique could have survived the forty-five-year time lapse between the publication of Lewy’s études and Strauss’ tone poem (1894-95). If so, then the horn call from *Till* would require a hand-stopped written d##, which would greatly add to its quirky character. One might add that if Strauss had really wanted this he could have asked for it, although it would not be impossible to hypothesize reasons for not doing so.12 More importantly, perhaps, this approach could perhaps explain Strauss’ use of the term *Waldhorn* in his Horn Concerto no. 1 (1882-83).13
It is in the “Adagio espressivo” after the fourth variation that the horn part really demonstrates the musical use to which valves can be put. Predominantly in C minor and E♭ major, it is really playable only on an F horn, using at least one valve and preferably more. For the first time ever in a solo horn part, bass notes are written in a key that would have been unthinkable in a natural horn part. These are the two b♭s; the f and the e♭ (all below middle C). While these notes are conceivable on an E♭ horn, one would not expect a phase to continue immediately from the last of these bass notes, then leap up two octaves without a rest to notes that are clearly designed for the F horn (see Example 4). There are, of course, examples of natural horn parts that switch from a bass line to a melody line (e.g., in Haydn’s horn concerti and Beethoven’s Ninth Symphony), but never do they change key (or to be more accurate, the crook required) in the process.

This “Adagio espressivo” section provides a link to the “Finale alla Polacca”— surely one of the most popular styles for a closing movement with horn solo. Toward the end of this movement are two measures that take on a particular significance, in part because the second is a repeat of the first (mm. 157-58.) They show a remarkable similarity to the first bar of the Finale of Weber’s Concertino—also a “polacca.” Could it be that here Czerny and Lewy were paying tribute to a fellow composer of great horn parts while demonstrating a style of horn writing for the future (see Example 5)?
In any case what we do know is that Czerny summarized his thoughts on composing with the following words (from his School of Practical Composition):

An harmonious, pleasing and melodious composition has nearly always the good fortune of being immediately liked, but an artful, profound, or unusually original one, naturally requires a longer time for this purpose. Where, however, all these properties are combined, we may expect both a ready and long continued acknowledgment....The innate and natural endeavour of every composer is, unquestionably, to please the world, to be acknowledged by it, and to enjoy all the advantages arising therefrom.\textsuperscript{14}

His own compositional style, especially in these works, makes use of catchy melodies with virtuosic developments incorporating what his contemporary John Field (1782-1837) described—somewhat enviously, perhaps—as models of passages, turns and cadenzas which were carefully filled in the pigeon-holes of a cupboard for further use whenever the need arose for a suitable chunk of music.\textsuperscript{15}

The result here is a well-constructed popular type of salon music that exudes wit and charm and exploits the natural virtuosic potential of the instruments.

By using popular and well-loved melodies by Schubert in the Three Brilliant Fantasies, Czerny immediately satisfies several of his criteria for having his music “liked,” while at the same time paying tribute to one of Vienna’s most talented composers. All the melodies quoted would have been recognized in the 1830s, as they had been published in the previous decade (unlike many of Schubert’s songs and other works that had to wait until several years after his death to be put into print). While today we might consider such extensive “borrowing” of another composer’s material to be unimaginative or plagiaristic, at that time it was held as a compliment and could serve to publicize a fellow composer’s work. Since a good horn player’s tone was often compared to the human voice, perhaps it is appropriate that the combination of horn and piano is used here, especially if we draw a parallel with the different vowel sounds of the lyrics and the tonal variations achieved by the gradations of hand-stopping the bell of the natural horn.
The themes borrowed from Schubert are labelled in the score. The very first theme in the first fantasy is particularly worthy of mention for the way the horn writing reflects the meaning of the song’s words. These describe the travels of Der Wanderer (D 489, 1816) who has come from the mountains (“Ich komme vom Gebirge her”). The first six notes, being hand-stopped on a natural horn, sound somewhat muted, as if from afar. Then, as the phrase develops, open sounds indicate that he has arrived. This is an example of a composer deliberately exploiting the use of stopped and open notes to produce a musical image of the words of a song. An atmosphere is created by Czerny’s intelligent orchestration, which he could easily have lost had he scored it for horn in D instead of horn in F. This would have made the whole phrase sound quite open (see Example 6). On the modern horn all the notes sound open, as there are no instructions for hand-stopping: they are taken for granted on the natural horn as that is the only way to produce those notes.

Example 6

In the same fantasy we hear Schubert’s Trauerwalzer theme, cleverly scored (see Example 7) so that twenty of twenty-two notes are stopped (only the $b_b$ ’ is open) to produce a dark tone color, which matches the meaning ($Trauer$ = mourning or bereavement). Therefore an important aspect of the music is rediscovered when we hear it performed on appropriate historical instruments. I would suggest that for performances on the modern valved horn, this passage and the following one could be played with a mute in order to reproduce as closely as possible what must surely have been the composer’s intentions.

Example 7
Czerny, Brilliant Fantasies, Fantasy no. 1, Trauerwalzer theme.
All three of these fantasies are remarkable for the demands made on the technique of the horn player and pianist. All of the difficulties of the horn part are contained within the parameters set by various études and tutors of the nineteenth century, though there are three particular technical challenges that are posed here. The first of these is the right-hand facility required to play the indicated tempo markings. The second is the difficulty of playing those notes that lie awkwardly on the natural horn, such as $d'$, which occurs as a strong sustained note several times. There is also one instance of $a$ in a cadenza in the first fantasy. As a passing note in a scale this may not be very significant, but it is an unusual note in the hand-horn repertoire. It may be no accident that the piano is resting at this point, making intonation perhaps less of an issue. This leads to the third challenge, which concerns the intonation in keys distant from the tonic of the crook. Notably there are $g_b$'s in the third fantasy that in the context of other stopped notes make more sense if played hand-stopped (sharp on every natural horn I have tried), rather than the flat alternative of raising the eleventh harmonic by taking the hand completely out of the bell (not practical at speed in a stopped passage). There is also a section in the second fantasy (Der Fischer), which might work better on a D crook instead of the E crook indicated. Historically we are led to believe by some writers that certain nineteenth century horn soloists, such as Vivier, played their solos on their favorite crook regardless of the key of the piece. In Vivier’s case it was said to be the E crook. (I have my doubts about this—imagine attempting Beethoven’s Horn Sonata or any of Mozart’s horn concerti on a horn in E!) Having practiced this passage both on the E crook and the D crook, I decided that musically I was not satisfied with the result of performing this passage on the E crook because the result was that all the written $b_f$’s sounded flat and the trills were too wide. My solution was to use the D crook so that these $b_f$’s become in-tune $c''$s and the trills encompass the correct intervals, the crook changes taking place in the few bars preceding and following this section. The passage is not impossible on the E crook, but it simply does not lie as well as it does on the D crook. In Dauprat’s Méthode of 1824 he actually advocates substituting a different crook to make a passage of a *Sinfonia Concertante* by Rosetti easier to play, so while this solution may or may not be strictly “authentic,” it satisfies Meifred’s musical desire for the right notes of the key to be stopped, makes the music easier to play, and facilitates proper intonation.

The *Andante and Polacca* is the only piece for horn and piano by Czerny not published in his lifetime. This suggests that it may have been written for a special occasion. Like Mendelssohn, Brahms, and other composers, Czerny continued to compose for the natural horn after the valved horn was prevalent throughout much of Europe. As John Humphreys suggests, Czerny may have been inspired by a visit to Vienna from French virtuoso natural horn player Eugene Vivier, for whom Rossini wrote his *Prelude, Theme and Variations*. Perhaps, as in the Finale of the *Introduction, Theme and Concertante Variations*, Czerny was influenced by one of the several other polaccas composed earlier in the century for horn in E. The finale of Weber’s *Concertino* is similar in its humor and its exploitation of the highest and lowest notes of the horn. The solo horn in both of these works revels in the innate joie de vivre of fanfares, flourishes, and arpeggios derived from the harmonic series,
while Czerny’s piano part glitters in cascades of notes that rival Chopin’s compositions and leave no avenue of his instrument unexplored.

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NOTES

1 Carl Czerny, School of Practical Composition, Op. 600 (London: Cocks, 1865), 1:146. Originally published by Cocks in 1846, it was also published by S. Richaud in Paris and by Simrock in Bonn.
2 Ibid., 3:163.
3 Leipzig: Breitkopf & Hartel, 1850; published on recommendation of Robert Schumann. See also Barry Tuckwell, Horn, Yehudi Menuhin Music Guides, p. 89.
6 Ibid., p. 542.
9 I.e. those notes which would have a slight degree of muting from the right hand would retain this.
11 See Lewy’s remark above.
12 There was clearly a reluctance to return to hand-horn technique in the late nineteenth century, as is witnessed by Brahms’ difficulties in persuading horn players to use natural horns in his compositions rather than the valved horn, which by that time had become popular.
13 “Waldhorn” was the German term for natural horn or hand horn. In this context it could infer a reminiscence of an older type of instrument as well as technique.
14 3:163.
16 Louis François Dauprat, Méthode de cor-alto et cor-base (Paris; Zetter, ca. 1824; Engl. transl. by