

## VIRTUOSITY, EXPERIMENTATION, AND INNOVATION IN HORN WRITING FROM EARLY 18th-CENTURY DRESDEN<sup>1</sup>

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**T**hough the opulence of the Dresden court orchestra in the early 18th century is well documented, much of the music composed for that illustrious group remains unpublished and hence relatively unknown.<sup>2</sup> One subset of this music in manuscript form is a substantial repertory which includes virtuosic parts for horn. The unusual treatment of the horn in these works is seen only sporadically in written music before the middle of the 18th century. Accordingly, the horn parts written for the Dresden horn players are unprecedented among other collections from the time.

Much attention has been given to the early 18th-century Austro-Bohemian horn tradition. Austro-Bohemia produced many noteworthy players and Vienna was an important site in the development of horn construction, but surprisingly little horn music from this region survives from, or perhaps even existed in, the first half of the 18th century.<sup>3</sup> Manuscript and employment records indicate that there were other centers where the horn was played at this time, for example: Darmstadt, Schwerin, Leipzig, London, Berlin, and various locations in Italy.<sup>4</sup> Nowhere, however, was the volume of soloistic horn literature so large and the development of horn playing techniques and writing styles so significant for the future of the instrument as in Dresden. This is chronicled in the extant compositions.<sup>5</sup>

Works likely written for the Dresden hornists span a wide range of genres and styles. They include solo obbligatos, concertos, and chamber music by Johann Sebastian Bach, Antonio Vivaldi, Georg Philipp Telemann, and Jan Dismas Zelenka.<sup>6</sup> There also are many works with virtuoso horn parts by lesser-known composers, such as Johann David Heinichen, Johann Joachim Quantz, Johann Adolf Hasse, Johann Georg Pisendel, Johann Friedrich Fasch, Gottfried Heinrich Stölzel, Johann Gottlieb Graun, and Carl Heinrich Graun, as well as horn-player-composers Johann Georg Knechtel and probably Anton Joseph Hampel.

An investigation of these works reveals an active horn-playing and horn-composing school unrivalled in continental Europe or Great Britain in the first half of the 18th century. A steady stream of dated compositions written for the Dresden horn players between 1717 and ca. 1760 includes virtuosic horn parts.<sup>7</sup> Furthermore, the manuscripts show that the composers and players were interested in novel uses of the horn, at times employing extended ranges (which required specialization in either the high or the low register) and tones outside the harmonic series, from which hand-stopping technique evolved. Two distinct styles of writing for horn emerged in Dresden: a clarino-register style for first or high horn, and a middle- to low-register style for second horn. These

developments rendered the horn more versatile as a musical instrument and eventually revolutionized the art of horn playing.

Conditions were favorable for the horn in early 18th-century Dresden. Electors, composers and players all appear to have been interested in the development of the horn as an art instrument. The Elector of Saxony, Friedrich August I, ruled from 1694 to 1733. He was largely responsible for the success of musical endeavors during his reign, at least from a financial standpoint, for he often emptied his treasuries in the pursuit of artistic entertainment.<sup>8</sup> As an avid hunter, he most likely looked favorably upon works which included horn. (His son, Friedrich August II, who reigned from 1733 until 1763, had similar interests in the arts and the hunt.) Therefore, August I's hiring of hornists Johann Adalbert Fischer and Franz Adam Samm in 1710 is not surprising. With this action, the Dresden Hofkapelle became one of the first orchestras in Europe to include on its payroll musicians whose sole responsibility was horn playing.<sup>9</sup>

Composers' interest in the horn is evident as well. When given the opportunity to write for the Hofkapelle in Dresden, many composers—both resident and non-resident—employed the horn in their compositions.<sup>10</sup> Of particular interest is the *Katalog Wenster Litteratur*, a manuscript collection which includes works for solo horn by Dresden composers, Dresden hornists, and non-Dresden composers. This collection seems to have originated in Dresden and will be discussed in more detail later.

Other evidence of the Dresdeners' singular interest in the horn and the horn players' special abilities within this environment is seen in the compositions which were later "enriched" by the addition of horn parts for the Dresden orchestra. The work of Johann Georg Pisendel (1687-1755), court violinist at Dresden from 1712 and concertmaster from 1728 to 1755, offers a splendid example of this interest. Records suggest that he collaborated with the hornists in re-writing and adding horn parts to many works of Vivaldi, J.F. Fasch, Franz Benda and other composers.

If electors and composers in Dresden played an important role in nurturing horn music, hornists themselves also served as catalysts, and played an influential role in determining compositional style. These hornists, like virtually all musicians at Dresden in the early 18th century, performed on one instrument.<sup>11</sup> By contrast, musicians in many cities at this time were required to perform on several instruments. For example, in Leipzig during J.S. Bach's tenure, the town musicians (*Stadtppfeifer*) were required to play both trumpet and horn as well as other instruments.<sup>12</sup> As is apparent in comparing the writing for each instrument, the playing techniques for horn and trumpet had many similarities. Doubling on the horn and trumpet, however, was not allowed in Dresden, where professional hornists specialized on the horn and were forbidden to play trumpets, since that was a privilege reserved for members of the trumpet guild.<sup>13</sup> As a result, virtuoso players emerged, and Dresden composers furthered their virtuosity by writing works that exploited the idiosyncratic talents of the specific players at hand. This is particularly evident in the writing for horn. In the examples which follow, a clear change appears in the style of horn writing when the first hornists, Johann Adalbert Fischer and Franz Adam Samm, were replaced by a second set of hornists, the brothers Johann Adam

Schindler and Andreas Schindler, and again when the Schindlers were replaced by the third group of hornists, Johann Georg Knechtel, Anton Joseph Hampel, and eventually Carl Joseph Haudeck.<sup>14</sup>

### Heinichen and his Horn-Writing for Fischer and Samm

In 1710, the first pair of musicians mentioned above were engaged by the Dresden Hofkapelle as horn specialists: Fischer from Breznice, in Bohemia; and Samm from Arnstein in Franconia, in central Germany.<sup>15</sup> The earliest dated examples of horn writing from Dresden, during the period 1717-19, demonstrate that Fischer and Samm were extraordinarily able performers and that composers were eager to employ the horn soloistically. These parts, horn obbligatos for a single horn or for a pair of *concertante* horns, are found in compositions of J.D. Heinichen and A. Lotti written specifically for the elaborate festivities surrounding the wedding in 1719 of Maria Josepha of Austria to the Electoral Prince of Saxony (later Friedrich August II).<sup>16</sup> The celebratory music included three serenatas by Heinichen and three operas by Lotti, and all were furnished with virtuosic horn parts.<sup>17</sup> Notably, in writing for musicians elsewhere, neither composer included horns in his compositions, a situation which might have arisen due to a lack of hornists.<sup>18</sup> As is clear from the manuscripts for Dresden, however, it was not only the availability but also the ability of the horn players which convinced Heinichen and Lotti to include the horn in their works there.

This ability is evident in a striking example for solo horn, written for the wedding festivities, from Heinichen's *Serenata nel Giardino Chinese* (1719). Here a *corno di caccia solo* plays florid figures in alternation with a *tiorba* (theorbo) in the introduction to an aria sung by Saturn (hereafter "Saturn's Aria;" see Example 1).<sup>19</sup> Heinichen probably composed the horn obbligato for Fischer, since the latter was first hornist at the time.<sup>20</sup>



**Figure 1**  
Gamut of notated pitches in "Saturn's Aria," horn in F

The horn part for "Saturn's Aria" calls for a virtuoso with a well-developed clarino register. That is, he must have command of the tones high in the harmonic series where a scale over a range of a ninth is possible. This register provides the horn with enough

stepwise pitches to engage in imitation with the theorbo (e.g. mm. 1-3). Employing the high clarino register was one way composers were able to sidestep the gaps inherent in the natural note vocabulary of the lower part of the harmonic series, and thus include the horn effectively as a melody instrument, provided such accomplished hornists were to be found. The principle is simple in concept, but demanding in practice: the higher a player is able to play in the harmonic series, the greater the number of pitches available to the composer. And the greater the number of pitches, the easier it is for the composer to include the horn thematically, imitatively, and in a wider variety of keys. In "Saturn's Aria," the horn is able to participate actively in the tonic and dominant key areas with the gamut illustrated in Figure 1.

How was such virtuosic horn playing possible at such an early date? Clearly, the practice of specializing on the horn at Dresden would have helped Fischer and Samm to master the difficulties of the horn in the clarino register. It is also likely that Fischer and Samm were trained as trumpet players and subsequently applied their technique to the horn.<sup>21</sup> Stylistically, the writing in "Saturn's Aria" shows similarities to much late 17th- and early 18th-century clarino-register trumpet writing. Transferring aspects of trumpet technique and style to a larger and longer instrument, which was similarly constrained by the harmonic series, was natural for both players and composers. This could explain the sudden development of a virtuosic horn-playing style—one that appeared so early in a mature form in Dresden in parts for professional hornists. Melodic writing in the clarino register is by no means an invention of Dresden composers and hornists; it is frequently found in early 18th-century writing for horn, and much earlier for the trumpet. "Saturn's Aria," however, is an extraordinary example of horn writing at this early date because of the extent to which the extreme upper register is exploited. It is in this sense that the horn writing in "Saturn's Aria" can be called innovative.<sup>22</sup>

Writing for horn, however, consisted of more than mere imitations of late 17th- or early 18th-century trumpet style. At this early stage, two main horn styles can be identified: the clarino-register style as we have discussed, and the hunting style. Characteristics of the hunting style—such as mid-register repeated-note figures, "horn fifths," and triadic figures—all usually in larger rhythmic values than the clarino style and most often in triple meter—are found in Dresden works. Employed in this fashion, the horn frequently appears in a programmatic context, particularly in hunt-related themes in operas and concertos.<sup>23</sup> With the development of the high clarino register, however, the horn is rendered a more versatile melody instrument, and is liberated from the hunting style. Heinichen's horn obbligato in "Saturn's Aria" is a case in point.

Another way composers were able to expand the use of the horn was to increase the number of keys the horns were capable of playing. In Dresden during the first half of the 18th century, music for trumpets was written almost exclusively in the key of D, while horns were employed in numerous keys, including C, D, E<sup>b</sup>, F, G, A, and B<sup>b</sup>. This allowed composers to include the horn in movements in a variety of keys and also to exploit the differences in timbre which resulted from horns of varying lengths.

Judging from dated compositions, 1719 is the earliest year in which horn parts in

keys other than F are found.<sup>24</sup> Significantly, in 1718 two Viennese *Waldhörner* with six pairs of crooks and two silver mouthpieces were purchased by the Dresden court.<sup>25</sup> Six separate crooks would have allowed the hornists to play in at least six different keys. Beginning in 1719, however, we find many pieces with horns in keys other than F, including Heinichen's *Serenata nel Giardino Chinese*, mentioned above. In addition to "Saturn's Aria" in F, this work includes parts for horn in D and G in other movements;<sup>26</sup> therefore, the use of horns in keys other than F must simply have depended on the acquisition of new instruments. The serenata by Heinichen is also possibly the earliest work for horn that includes a change of key between movements.<sup>27</sup> Changing crooks (or horns) between movements and successfully re-orienting oneself on a longer or shorter instrument during a single piece became an essential skill for hornists at Dresden, for the trend toward the use of many keys continued in works of later composers.

Whereas Dresden composers and players discovered that they could increase the potential of the horn by writing in the clarino register and by changing keys within a work, they employed other techniques as well. Certain notes not in the harmonic series (hereafter, "non-series tones") appear fairly frequently in Dresden horn works dating as early as 1717-1719, though undated compositions employing non-series tones may pre-date these works. In some cases, specific harmonics appear to have served dual roles. The most common of these was the eleventh harmonic, which served both as f#' or f-natural'. Other notes very close to natural harmonics, such as b' (probably lipped down from an eighth harmonic c''), and less often, a' (probably lipped down from a seventh harmonic b-flat'), also appear fairly often. These notes occur in the works of several different composers at this time and earlier.<sup>28</sup>

Non-series tones other than those mentioned above are not particularly numerous at this time, though there are occasional passages in which some very unlikely ones occur. These non-series tones often are doubled by other instruments and seem to have been notated *colla parte* simply for convenience. Performers may or may not have been able to play such tones; when doubling, horns were not essential to the musical line and perhaps were allowed to "lay out" on difficult notes. Of particular interest, therefore, are works that use non-series tones in a solo context; that is, not doubled.

A composition which reveals extensive experimentation with non-series tones in solo fashion is Heinichen's *Sonata à 2 violini, violetta, 2 corni da caccia e corno da posta*, (*e corno da posta* is crossed out on the manuscript), an undated concerto-type piece for two concertante horns and strings in three movements.<sup>29</sup> Since the style in the outer movements is similar to other works composed by Heinichen in 1719, it is likely that the horn parts were written for Fischer and Samm at about that time.<sup>30</sup> In the outer movements of this work, Heinichen employs a pair of horns requiring a clarino-register technique similar to that in "Saturn's Aria." With this technique, the horn is essentially limited to tonic and dominant key areas. If a horn plays in an introduction to an aria, as in this case, these limitations are not overly restrictive, since an introduction usually establishes only these key areas. In the aria proper the solo voice or accompanying instruments move into other key areas, at which time the horn often participates

minimally, if at all. In a concerto for horn(s), however, restriction to tones of the harmonic series has more significant implications: featured instruments in a Vivaldi-type concerto typically play solo passages in non-tonic key areas such as the subdominant or relative minor, a feat which is difficult for the horn.<sup>31</sup> Such is the case in the outer movements of Heinichen's *Sonata*, where the horns play solo passages almost exclusively in the tonic key, F, with some movement toward the dominant key area. The tables are thus turned somewhat in relation to a Vivaldi-type concerto in that a return to the tonic accompanies every entrance of the solo instruments, while the ritornellos or ripieno sections move farther afield harmonically.

While one occasionally finds the horn included in a slow movement of a concerto-type composition during the early part of the 18th century, the second movement of Heinichen's *Sonata* exhibits a style of horn-writing unlike anything seen until mid-century (see Example 2). It is an anomaly in Heinichen's writing as well. First, the range is smaller than in the outer movements of the *Sonata*, especially at the bottom of the register. Second, though the movement is in C minor, the horns are still in F as in the outer movements, and there are two flats in the key signature. More significantly, the movement contains many tones foreign to the harmonic series.

The non-series pitches here exceed the usual b-natural's and a's found in compositions of Heinichen and his contemporaries. The gamut of pitches for first and second horn is as follows:



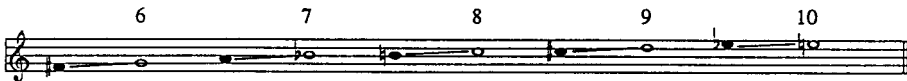
**Figure 2**

Combined gamut of notated pitches in mvt. 2 of Heinichen's *Sonata*,  
horns 1 & 2 in F

With the larger vocabulary of chromatic tones, the horns are able to play continuously during the entire movement, starting in C minor then moving to F minor, to G minor/major and back to C minor. In early 18th-century horn parts, non-series tones are usually in unaccented positions as neighbor and passing tones; the presence of e<sup>b''</sup> as well as c<sup>#''</sup> in accented positions or for long durations is unusual (e.g., mm. 5, 19, 25, and 26). The use of the seventh harmonic, b<sup>b'</sup>, and the fourteenth harmonic, b<sup>b''</sup>, in accented positions is also noteworthy, as this allows the horn to play the minor mediant scale degree. While neither tone is technically outside the harmonic series, both are infrequent in horn music at this time.<sup>32</sup>

Heinichen's choice of horns pitched in F for a piece in C minor was not haphazard:

many of the tones in the F harmonic series fit into C minor (e.g., the sixth, seventh, and ninth harmonics comprise the tonic triad in the latter key). Heinichen also must have realized that many tones near the natural harmonics for horn in F could be effectively employed in C minor as well.<sup>33</sup> These non-series tones may have been executed in two ways. As shown in Figure 3 below, all non-series pitches in the sonata are one half-step away from an harmonic, hence they may have been lipped into pitch (down or up from a nearby natural harmonic), or even played with a rudimentary form of hand-stopping.<sup>34</sup> In the latter technique the hand is inserted partway into the bell, allowing the player to lower the pitch significantly without full closure of the bell.<sup>35</sup> Since in the present instance no pitches require full closure of the bell (with the resultant dramatic change in timbre), one may speculate that an early form of hand-stopping could have been employed.



**Figure 3**

Relationship of tones in and outside the harmonic series in the second movement of Heinichen's *Sonata*, horns 1 & 2 in F (numbers refer to harmonics)

Significantly, all these unusual non-series pitches are found in the slow middle movement, not in the fast outer movements. As there is evidence that hand-stopping was initially found easier to perform at a slow tempo, this movement may represent an experiment.<sup>36</sup> It is also possible that the two techniques, hand-stopping and lipping, were combined. In any event, the movement remains a very early attempt to use the horn as a more fully chromatic instrument in the middle register.

Unfortunately there is little surviving music from which we can judge the success of these efforts to render the horn a more chromatic instrument through the use of non-series tones. Other examples may be lost and these innovative techniques most likely were used in a limited number of works specifically composed for or by horn soloists. Even during the later 18th century, extensive use of non-series tones is found in a limited number of soloistic compositions where it remained a specialty of horn virtuosos.<sup>37</sup> As seen here and in subsequent examples, composers most frequently stretched the limits of technique in concertos. Possibly composers felt freer to experiment in this forum, since the concerto as a genre was often more inclined toward technical display than artistic expression.

### Hasse and his Horn-Writing for The Schindler Brothers

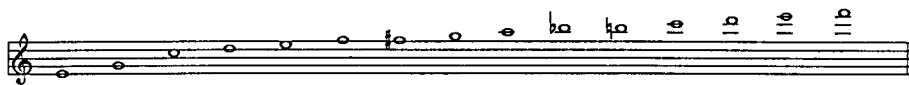
The virtuosic horn-playing tradition in Dresden, which started with Fischer and Samm, continued in the second and third decades of the 18th century with the hiring of a second set of horn players, the Schindler brothers, in 1723. The Schindlers were from Breznice in Bohemia, as Fischer had been. The elder brother, Johann Adam Schindler, played in the Dresden Hofkapelle as first horn until 1733, when he was replaced by Johann Georg Knechtel. Though information about the younger brother, Andreas Schindler, is sparse, it is likely that he continued as second horn until Anton Joseph Hampel took his place in 1737.<sup>38</sup>

Characteristics of horn-writing during the Schindlers' tenure include continuation of the clarino-register style, exposed obbligato solos with larger, more dramatic melodic leaps, and more solo writing in D. These characteristics can be seen in a spectacular solo for horn, written by Johann Adolf Hasse (1699-1783) in his first opera for Dresden, *Cleofide* (1731).<sup>39</sup> The aria, "Cervo al bosco" (hereafter "Alessandro's Aria"), begins with a horn obbligato unlike anything else in Hasses's output: the horn part is higher, more exposed, and more integrated with the other parts thematically than in his earlier horn writing (Example 3).<sup>40</sup>

Because of his extensive travels, Hasse was aware of the abilities of many of the best instrumentalists on the European continent. The fact that he featured the horn in his first Dresden opera implies that he was significantly impressed with the level of the Schindlers' horn playing.<sup>41</sup> Of course, this aria was not intended only as a virtuoso vehicle for the hornist (most likely J.A. Schindler, first horn); it was conceived as a showpiece for alto Domenico Annibali, and in all likelihood, the famous lutenist Sylvius Weiss.<sup>42</sup> The unusual instrumentation of the aria is similar to that in Heinichen's "Saturn's Aria." As Hasse pairs the horn with lute and strings, often marked *sempre piano*, the hornist must have been able to strike a delicate balance with his colleagues.

Hasse is conservative in his use of non-series tones in comparison to Heinichen and others in Dresden. In "Alessandro's Aria," however, he used a tactic that served to enlarge the repertoire of tones for solo horn, which soon gained favor among composers at Dresden.<sup>43</sup> At the beginning of the 18th century, F was the most common key for horn in Dresden. Why then did Hasse, like most composers in this and later periods, adopt the key of D for so much of his writing for solo horn?<sup>44</sup> One possibility is that since D was the established trumpet key, horns crooked in that key could play together or in alternation with the trumpets.<sup>45</sup> Yet another more plausible explanation exists. Composers knew of course that open tones are closer together in the higher reaches of the harmonic series. A longer or lower horn in D-basso, as opposed to F, allows the hornist to play in the same concert-pitch range while effectively playing higher in the harmonic series. This advantage is clearly demonstrated by comparing the horn part in "Alessandro's Aria," with a range up to f''' (the twenty-first harmonic; see Figure 4), to that of "Saturn's Aria," in which the highest harmonic is a d''' (the eighteenth harmonic; see Figure 1).



**Figure 4**

Gamut of notated pitches in "Alessandro's Aria," horn in D

While both parts have the same top concert pitch, the number of stepwise pitches in "Alessandro's Aria" exceeds that in "Saturn's Aria" by two at the bottom of the scale, as seen below:



Concert Pitch Gamut of F Horn in "Saturn's Aria"



Concert Pitch Gamut of D Horn in "Alessandro's Aria"

**Figure 5**

Comparison of concert-pitch gamut of F horn in "Saturn's Aria" and concert-pitch gamut of D horn in "Alessandro's Aria"

Like Heinichen, Hasse increased the potential of the horn by employing it in more than one key within a composition. A comparison of the keys chosen by Hasse in his many Dresden operas from the period 1731 to 1760 illustrates this. While he restricts himself to two or three keys in his early operas for Dresden, by mid-century he at times employs five or six keys in a single opera. Figure 6 illustrates, in chronological order, the keys and concert ranges for horn in a sampling of Hasse's operas performed in Dresden. Clearly, though the number of keys increased over this time period, the concert-pitch upper limit remained essentially the same.

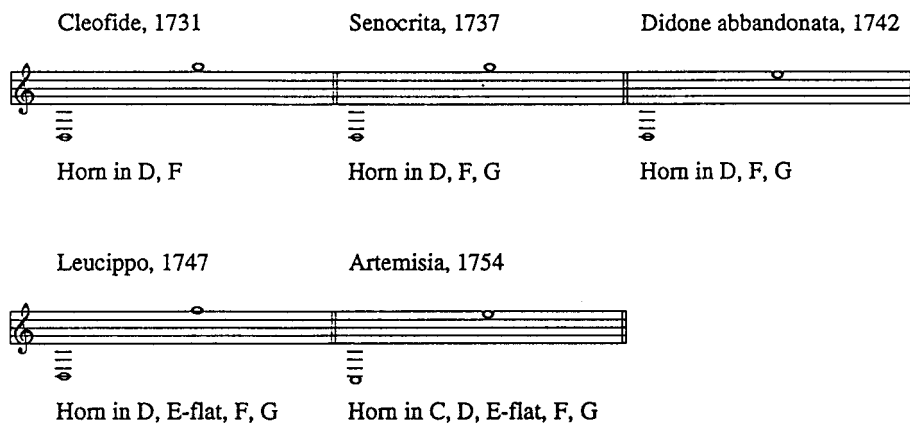


FIGURE 6

Comparison of concert ranges and keys in selected Hasse operas for Dresden

An increase in the number of keys in which hornists were required to play, as mid-century approached, indicates the increasing importance of the horn as a regular member of the orchestra. In order to include the horn regularly, it was necessary to write for the instrument in a wider variety of keys. The role of the horn also changed as it was included in more movements. Early writing in Dresden made use of the horn in a solo capacity in a few movements within a work, mainly in the keys of F, G and D major. Keys such as C, B<sup>b</sup>, and A major do not occur frequently in early works with horn, possibly because of the awkwardness of playing soloistic parts on an instrument significantly longer (C-basso or B<sup>b</sup>-basso) or shorter (B<sup>b</sup>-alto or C-alto) than the norm. As the century proceeded, composers in Dresden (and elsewhere) began to view the horn as an indispensable, though primarily supporting, timbre in the orchestral texture. In Dresden, therefore, composers began to require the horn to play in keys which were not traditionally associated with solo playing there, such as A, B<sup>b</sup>, and C.<sup>46</sup> While conservative in terms of playing technique, this usage of the horn was nonetheless an innovation, though not necessarily one originating in Dresden.

### Specialization in Registers: Knechtel and Hampel

During the tenure of the horn players who followed the Schindlers, a new phase of horn writing and playing in Dresden emerged. Johann Georg Knechtel began as first horn in 1734, taking J.A. Schindler's position, and remained in the same capacity until 1756.<sup>47</sup> The Bohemian Anton Joseph Hampel (1710-1771) was active in Dresden as second hornist from 1737 to ca. 1764.<sup>48</sup> Carl Joseph Haude(c)k (1721-1812/13), yet another Bohemian hornist who played in the Dresden Hofkapelle, began as third horn in 1747, becoming first horn in 1764. He continued playing in Dresden until ca. 1796.<sup>49</sup>

Anton Joseph Hampel is the most famous of the hornists who played with the Dresden Hofkapelle during the 18th century, at least when considered in hindsight. Hampel's reputation is based in part on reports that he was the inventor of the non-transposing mute and that he collaborated with the Dresden instrument builder Johann Werner to develop the *Inventionshorn* in 1753.<sup>50</sup> In pre-*Inventionshorn* models which were equipped with terminal crooks (at the mouthpipe end), the distance between player and instrument was often awkwardly large when lower keys such as D-basso or C-basso were employed. This was due to the longer tubing and various combinations of crooks necessary for these low keys. The *Inventionshorn* was so constructed as to permit crooks of varying lengths to be inserted into the middle of the body of a horn rather than at the mouthpipe end. This configuration allowed the distance between player and horn to remain constant, yet also allowed for a change of key on a single horn, as in pre-*Inventionshorn* models with terminal crooks. The development of the *Inventionshorn* was therefore of singular importance for the future of the horn in the orchestra. In his *Historisches-Biographisches Lexicon der Tonkünstler* (1790-1792), Gerber mentions that two *Inventionshörner* for use in nine different keys, made by Werner and dated 1755, were found in the Dresden Hofkapelle.<sup>51</sup>

Hampel frequently has been cited as the "inventor" of the hand-stopping technique. His role as a pedagogue is certainly important in this regard. Hampel's most famous pupil, Johann Stich (better known as Giovanni Punto, 1746-1803), who probably studied with him around 1763,<sup>52</sup> subsequently became the foremost horn virtuoso of the 18th century. Mozart and Beethoven wrote compositions for him, and he himself composed numerous solo compositions, all of which required the hand-stopping technique he would have learned from Hampel.<sup>53</sup> The earliest reference to Hampel as the "inventor" of the technique, based on information supposedly passed on by Punto, comes from the German horn player Heinrich Domnich (1767-1844). Thirty-six years after Hampel died, Domnich outlined Hampel's discovery of hand-stopping technique, the non-transposing mute, and the *Inventionshorn* in his *Méthode de premier et de second cor* of 1808.<sup>54</sup> Domnich also mentions that Hampel performed passages with hand-stopped notes in slow movements.<sup>55</sup> To be sure, in Heinichen's *Sonata*, and in a concerto attributed to Hampel still to be discussed, the greatest number of non-series

tones do occur in slow movements. Hampel's experiments with mutes have also been cited as an important step in the development of hand-stopping.<sup>56</sup>

Since Domnich apparently received his information on Hampel and hand-stopping second-hand from Punto, and because Domnich's account is so late, are there reasons to doubt his claims about Hampel? When in fact did hand-stopping take hold, and how was it used? According to Fitzpatrick, Hampel and Haudeck employed hand-stopped notes "as early as 1760," based on evidence found in Hampel's letters.<sup>57</sup> This seems to place the "invention" of hand-stopping rather too late in light of non-series tones required in Heinichen's *Sonata* from ca. 1719 and in several pieces yet to be discussed. In Dresden, hand-stopping was likely known in a rudimentary form by at least the second decade of the 18th century. Hampel therefore probably did not invent the hand-stopping technique, but developed or "codified" a practice which was already in use.<sup>58</sup> In searching for evidence of this, it is reasonable to consult Hampel's teaching ideas as documented in his two methods. The *Lection pro Cornui*, written ca. 1762, lacks specific information on hand-stopping, though it includes some exercises which appear to require the technique.<sup>59</sup> The *Seule et vraie méthode*, supposedly written ca. 1750 (but not published until ca. 1794 in Paris by Naderman, who attributed it to both Hampel and Punto), also contains no commentary on hand-stopping, though many exercises demand it.<sup>60</sup> Both methods require a well-developed low register for some of the exercises.

Hampel was also a composer. He wrote a set of trios for horns, two concertos (each for two *corno concertati*, listed in the Breitkopf *Katalog* of 1769), and one undated concerto for second horn (attributed to Hampel in the *Katalog Wenster Litteratur*).<sup>61</sup> In an effort to locate clues to Hampel's playing style and the development of hand-stopping technique, we will first examine the compositions written for Hampel, and then the concerto ascribed to him.

With Hampel's arrival as second hornist in the Dresden Hofkapelle in 1737, a new style of florid, low-register writing for second horn surfaced. This important development is seen in Hasse's opera *Atalanta*, premiered in Dresden in the year of Hampel's arrival.<sup>62</sup> Because this development coincides directly with Hampel's appearance, he must have been responsible for it. Most unusual is the writing in the third act of *Atalanta*, in an introduction to the aria for soprano, "Dubbon stor [*sic*] d'entrar nel nido" (Example 4).<sup>63</sup> Here we see the earliest dated example of second horn writing which demands a player with such fluid technique in a solo context.

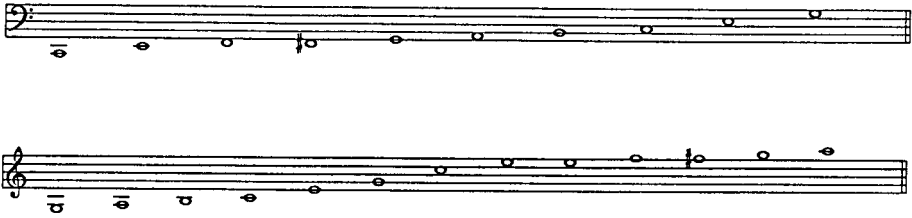
This innovative low-register style opened the door for composers to employ the horn in novel ways. With it, the second horn functioned not merely as the shadow of the first horn, as in so many earlier works, but as a contrasting instrument with more independent lines, and leaps in the middle and low registers. In its most virtuosic form, the style for second horn emulates aspects typical of Vivaldi's idiomatic violin writing, where recurrent large leaps create the effect of two to three voice-leading strands (sometimes known as "compound melody," or "bass and melody") played by one instrument. This can be seen in the second horn part in measures 11-13 of Example 4. While the capability for playing in the middle and low registers on the horn had always

existed, composers who wrote for Hampel seem to have been the first to truly exploit it.<sup>64</sup> (With this in mind, it seems all the more likely that the earlier hornists were first trained as trumpet players, and developed specialization in the lower register only after the horn had established itself in art music.) This trend towards the use of the middle and low registers in the second horn was imitated by other composers later in the 18th and 19th centuries.

Because Hampel is often viewed as the “inventor” of the hand-stopping technique, one might expect to find non-series tones in pieces written for him; but since Hasse’s writing is conservative in this respect, they are not found here. Example 5 shows, however, that some Dresden composers demanded flexibility, not only in the middle register but also in the very low register. The history of low-register (bass clef) writing for horn can be traced as far back as 1726, when Leonardo Vinci (ca. 1690-1730) wrote low-register tones as pedal points in his opera *Didone abbandonata*.<sup>65</sup> Early use of lower-register horn-writing was confined to harmonic-rhythmic effects such as these pedal points. While low register playing *per se* is not an invention of Dresden players or composers, virtuosic low-register writing apparently was a Dresden innovation.

The earliest evidence in Dresden of virtuosic, flexible, low-register horn writing, using non-series tones, comes from 1740, in a concerto for violin in D major by Franz Benda (1709-1786). The original accompaniment for the concerto seems to have included only strings and basso continuo.<sup>66</sup> As is clear from the Dresden manuscript of the concerto, the string parts were written out in score form by a copyist, leaving the top two staves of every system free so that two horn parts could be added to the texture in the first and last movements.<sup>67</sup> The horn parts (appearing as *corno 1mo* and *corno 2da*) were added in the scrawled handwriting of the concertmaster, Johann Georg Pisendel, the likely violin soloist for this concerto (see Example 5). The composition is dated April, 1740, in Pisendel’s handwriting, and it seems that the horn parts were added by him at that time. The inclusion of a specific date on a manuscript is unusual for instrumental music of this period. Though Pisendel’s name does not appear on the manuscript, it seems that by dating a composition not his own, he may have wanted to verify his additions.

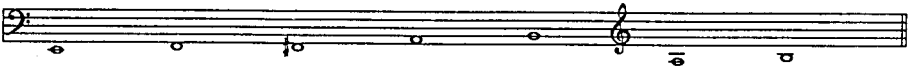
The first horn part of the concerto probably was played by J.G. Knechtel, the second by A.J. Hampel. Each part represents an individual playing style. The writing for the first horn, often doubling the violin at the unison and an octave below, is common in Dresden works; it exemplifies the clarino-register style. The writing for the second horn exhibits a new style; it plays in close tandem with the first horn at times, but also has many octave leaps and bass-clef notes, requiring a very agile technique: the flexible low-register style discussed above. As with parts in D discussed earlier, these are in D-basso, but when written in the bass clef and in “old notation,” the part sounded a major second above notated pitch.<sup>68</sup> The second hornist therefore had to transpose his bass-clef parts up an octave from written pitch. This unusual writing in both treble and bass clefs includes the following notes:



**Figure 7**

Gamut of notated pitches in Benda/Pisendel: Concerto for Violin, part for second horn in D

Interestingly, this concerto includes many notes foreign to the harmonic series in the low register (Figure 8). The fact that these same notes are found for horn in a solo context in other works (undated) from Dresden confirms that they were playable by the Dresden hornists.<sup>69</sup>



**Figure 8**

Non-series tones in Benda/Pisendel: Concerto for Violin, part for second horn in D

How were these non-series tones played? It is likely that many notes were obtained by lipping from a nearby harmonic, as probably was done in works with horn parts in the middle and upper registers. The possibility of hand-stopping has already been mentioned in the discussion of writing for Fischer and Samm in the *Sonata* by Heinichen. But in the present instance the range is extended in the opposite direction, and notes outside the harmonic series on the lower end of the horn's compass are required. In comparison to the many non-series tones in the low register, the sparseness with which Pisendel writes non-series tones in the middle-to-upper range suggests that the technique of employing fully stopped (or almost fully stopped) notes was not yet known or desired. Since lipping notes is easier in the lower register than in the upper register, and since the harmonics are more widely spaced in this range (thus making it possible to "lip" a harmonic farther

than in the upper range), the use of the lipping technique seems likely. Because some of the tones are quite far from harmonics, some form of hand-stopping may have been employed as well.<sup>70</sup> Support for this theory comes from the fact that Hampel, the reputed “inventor” of hand-stopping technique, would have been the second horn player.

An analysis of Pisendel’s use of lower-register non-series tones is important, since it might provide clues to Hampel’s playing technique. This is especially true in the case of Pisendel’s added parts for the Benda concerto, since Pisendel often requires the horns to double the bass line and other string parts. When notated in the bass clef, the second horn essentially mirrors the basso part, especially in passages with large rhythmic values; in fast scalar passages the bass part is simplified. Thus the hornist probably was not comfortable playing certain runs in the low register, for example, those in Example 5, mm. 20-21. This stands in contrast to the first horn’s doublings in the high register in the same measure. The second horn part, moreover, avoids certain non-series pitches which are difficult to produce, even when they have longer note values. For example, the pitches D (concert E) and A (concert B) for the horn are particularly troublesome because they fall immediately above the regular harmonics C and G, respectively. Lipping up is not practical, and lipping down from the harmonic above is difficult because of the large interval that must be lipped. Hand-stopping these notes is similarly problematic, hence these pitches are rarely found. In the Benda/Pisendel concerto, these pitches are avoided when the second horn doubles the bass part. No notated D’s can be found in the second horn part even though they would be necessary if the bass part were strictly doubled by the horn. For example, in m. 3, the second horn does not follow the 16th-note run in the bass part probably because the note E (horn D) is difficult to produce. Also, in the third measure on the second half of beat two, the second horn does not follow the bass part, but returns to the tonic (while the bass part rearticulates the mediant), possibly because the mediant (horn E) is an unstable note and is difficult to rearticulate, or because Pisendel thought that returning to the tonic made a better bass line. Examples of notated A’s in the second horn part (concert B) are scarce, though an A is found in measure eight, doubling the bass part on a strong beat. Clearly, though some non-series notes were playable, others were considered too problematic.

One might reason that the low-horn style, with its flexibility and larger note vocabulary, made it easier to add horns to a composition because it would thus be feasible for the second horn to maneuver through the various keys while doubling the bass part. Pisendel does not write for the second horn in this manner, however; he assigns the horns primarily to the ritornello sections, at the beginning and ending of the outer movements in the tonic. Accordingly, it appears that Pisendel augmented the texture with horns in order to create a more dramatic violin concerto through timbral variety, which generated more contrast between the solo violin and the orchestral tutti with horns. He must have realized that, with the addition of horns, the form would be more defined through dynamic punctuation, a reinforced bass line, and reinforced melodic lines in the ripieno at certain points. An instance of this is found in Example 5, mm. 2-3, where the octave shift in the violin, viola, and bass parts is emphasized by the shift of the second horn to

the low register.

Several conclusions regarding the Benda/Pisendel concerto may be offered. The first hornist, Knechtel, played in the middle and upper registers, using the clarino register with little or no hand-stopping. The range of the first horn part is almost identical to that of the obbligato part in "Alessandro's Aria" in Hasse's *Cleofide*: no notes below the staff appear. The Benda/Pisendel concerto shares these characteristics with a typical clarino-register concerto by Knechtel, in the next section of this article.

Considering the tones written for second horn, it is likely that Hampel was already proficient with virtuosic playing in the lower register and with some form of hand-stopping by this date (i.e., 1740). Pisendel probably wrote the second part in collaboration with Hampel, and since the concerto is the earliest dated example of virtuosic low-register writing, it confirms Hampel as one of the earliest masters of low-horn playing. The second horn part in the Pisendel/Benda concerto is exceptional. Such unusual parts in non-concerto works are rare, but are more common in the concertos horn players composed themselves. Like Heinichen's *Sonata*, Pisendel's horn additions seem to be experimental.

Pisendel's avid interest in adding horn parts to pre-existing pieces is also evident elsewhere.<sup>71</sup> He must have believed that the added horn parts enhanced the texture, and he may have wanted to take advantage of, or experiment with, the newly available low-register playing style that allowed him to double the bass line. The horn had rarely, if ever, served as a continuo instrument playing a moving bass line.

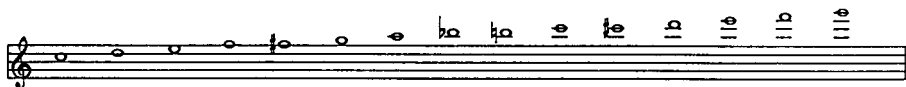
The same low-register notes used by Pisendel are found in horn parts of other composers from Dresden, notably in a trio by Graun in the *Katalog Wenster Litteratur*, I/8, and in *concerti grossi* of J.F. Fasch. Furthermore, a copy of the Pisendel/Benda concerto in the Uppsala Universitetsbiblioteket is very similar to the Dresden manuscript,<sup>72</sup> suggesting that the virtuosic low-register technique was "exported" or at least known elsewhere through copies of works which required it. Eventually, the low-register notes were found in works of composers elsewhere in Europe. For example, F.J. Haydn used them in his *Concerto per il Corno di Caccia* in D, Hob. VIId.3 (1762), and in the *Divertimento a tre*, Hob. IV:5 (1767).<sup>73</sup>

### **Further Specialization: Concertos from the *Katalog Wenster Litteratur***

Undated works found in the *Katalog Wenster Litteratur* reveal, better than any other compositions, the capabilities of Dresden hornists, as well as the specialization in registers which had taken place over the third and fourth decades of the 18th century. The *Katalog Wenster Litteratur* (hereafter KWL) is a manuscript collection of eighteen compositions for solo horn traceable to the Dresden court, copied probably by a traveling musician in the 1740's.<sup>74</sup> KWL contains solo works by many composers who worked in Dresden, but the two concertos by horn players are of particular interest: one is by Knechtel (KWL I/10; another, KWL I/11, is attributed to Knechtel), and one is attributed to Hampel (KWL I/13).<sup>75</sup> Since we have observed that some of the most



interesting horn-writing techniques appear in concertos, it stands to reason that such works by horn players would illustrate the technical possibilities of the horn in greatest relief. Knechtel's concerto in D (KWL I/10) demonstrates that he must have been a master of the high register (see Example 6). We must assume that this concerto gives us an example of Knechtel's ability and is a fairly accurate gauge of virtuoso first-horn technique in Dresden during his tenure. The technique required in Knechtel's concerto is similar to that in "Alessandro's Aria" (or "Saturn's Aria"), yet it is more virtuosic. The sixteenth-note passages, with leaps in the extreme upper register, demonstrate a further stage of virtuoso clarino-register technique. Knechtel's writing, like that in "Alessandro's Aria," is exclusively in the upper range: the lowest written note is c'. As seen in Figure 9, no non-series tones appear in Knechtel's work, demonstrating again that first hornists probably were not nearly so involved in experiments with non-series and eventually hand-stopped tones as were second hornists.



**Figure 9**

Gamut of notated pitches in Knechtel's Concerto in D, horn in D

We have seen that a new low-register style started to appear in works from Dresden in the late 1730's, and continued sporadically thereafter. A number of concertos from KWL which seem to have been composed by second hornists are the most dramatic in terms of low-register technique, as well as the non-series tones they require. One of the most provocative is the Concerto in D Major (KWL I/13), which may well have been composed by Anton Joseph Hampel (see Example 7). Though the composer is not identified on the manuscript, Mary Rasmussen has pointed out that the concerto resembles the style of writing in Hampel's *Lecton*.<sup>76</sup> (For the purposes of this article Hampel will be considered the composer of this piece.)

Just as Knechtel's concerto illustrates the clarino-register style of the first horn player, Hampel's concerto gives us a good idea of the capabilities of a second horn player. In the first movement, the range is much lower than in the Knechtel concerto, and the horn part demands a flexibility similar to that in Hasse's *Atalanta*. In addition, a number of non-series tones are required at a quick tempo, and some are approached by leap (see m. 73). Other characteristic features of Hampel's concerto include almost non-stop arpeggiation over the middle and low range of the horn (even in the slow movement), and virtually no real similarity between the horn and the other parts. Even though many non-series tones appear, the composition is not harmonically adventurous,

remaining primarily in the tonic and dominant key areas.<sup>77</sup>

Most conspicuous among the passages which use non-series tones in the concerto is one in the second movement. Here, a scalar passage descending two full octaves would certainly have required an advanced form of hand-stopping (Example 8). Other similar passages occur in the second movement, though only between  $g'$  and  $g''$ . No such passages are found in the outer movements, leading one to conclude that Hampel was comfortable using a truly developed form of the hand-stopping technique primarily in slow movements, as Domnich mentioned.<sup>78</sup> As seen in Figure 10, the total pitch gamut required in Hampel's concerto is extraordinary. Compositions written for handhorn from later in the eighteenth century usually call for fewer non-series pitches. Other works by Hampel—his trios, his *Lection pro Cornui* and his *Seule et vraie méthode*—show that he did indeed use notes outside the harmonic series, in a manner that at times resembles the examples from concertos illustrated above. Certainly the attribution of this concerto to Hampel is credible.<sup>79</sup>



**Figure 10**

Gamut of notated pitches in Hampel's Concerto in D, horn in D

It would appear from the foregoing discussion that the concerto KWL I/13 is by Hampel, as Rasmussen contends. But even if it is not, KWL's connection to Dresden has been established, and this piece, along with other concertos in the collection, demonstrates that hand-stopping and low-register playing techniques were pursued there. In all these compositions, therefore, Hampel would at the very least have had a strong influence on the composer.<sup>80</sup>

I have clearly demonstrated that Hampel was a pioneer in the development of the low register for the horn. It also seems that he was quite influential in the development of hand-stopping technique. He apparently used hand-stopping, though little extant music shows that composers who wrote frequently for the Hofkapelle adopted this innovation as part of their normal compositional style. In the second as well as the first half of the 18th century, hand-stopping was a special technique, developed and cultivated by second-horn virtuosos: Hampel was among the first of them. Examination of the Dresden manuscripts, in conjunction with what we already know from his trios, methods, students' comments and compositions, strengthens Hampel's reputation, not necessarily as the inventor of hand-stopping, but certainly as the crucial figure in the development of the technique at this time.

## Conclusion

Works including horn parts written for the Dresden Hofkapelle during the period 1717-ca. 1760, still extant at the Sächsische Landesbibliothek and elsewhere, show that Dresden was at the frontier of horn playing and writing in the early 18th century. The number of compositions with soloistic parts for horn is remarkable for this time, as are the unusual techniques employed. With each set of horn players at Dresden, virtuosity and experimentation permitted composers to employ the horn in innovative ways. Starting with Fischer and Samm in 1717, the virtuosic clarino-register style was important in allowing hornists to play stepwise melodies in the upper register. Even at this early date it appears that experiments with non-series tones in pieces were underway, as illustrated dramatically in Heinichen's *Sonata*. In horn parts for the Schindler brothers, the clarino-register style continued, though with some modifications: the key of D for solo writing gave composers more notes from which to choose when writing melodically, and larger, more striking leaps became common. The trend of requiring crook/key changes within a large work, which started with Fischer and Samm, continued in the Schindler period, and allowed composers to include horns more often. During Knechtel's tenure, clarino technique for first horn continued, reaching new heights of pyrotechnical display in solo concertos. In 1737, a novel virtuosic low-register writing style sprang up with the arrival of Hampel as second hornist. The development of the low-register style, involving the bottom of the horn's compass and an enlarged gamut of pitches through employment of non-series tones, allowed composers to use the horn more often in the bass and middle registers. Hampel seems to have been the catalyst for further development of hand-stopping technique. Clearly, when Dresden players were given the opportunity to specialize on the horn, they eventually took this opportunity a step further and specialized in a given register of their instrument. The hornists' own compositions show this specialization in registers most clearly. As a result, two divergent styles emerged by the fourth decade of the 18th century in Dresden. Both had important ramifications for the horn later in the 18th and 19th centuries. The florid clarino-register style for first hornists continued in the middle and late 18th century, in works by the Grauns, C.P.E. Bach, F.J. Haydn, W.A. Mozart, F.X. Pokorny, F.A. Rosetti, J. Sperger, many Mannheim composers (including J. Stamitz), and in works by horn players themselves that are extant in KWL. The middle- and low-register style developed by second hornists, which required an agile technique as well as low-register lipping and hand-stopping, became important for solo and chamber works. Punto, as a student of Hampel, is of paramount importance in this regard. A number of Mozart's and Beethoven's works written for Punto, Punto's own compositions, and second-horn concertos by many other composers of the Classical period, exploit low-register and hand-stopping techniques which can be traced to Dresden. The distinction between the styles for first and second horn, that developed in Dresden, is seen in most works in the late 18th century, and is epitomized by the roles of the first and second horns in the many double horn concertos from this period.<sup>81</sup> Eventually, with the development and acceptance of a mature form of hand-stopping, which opened up new possibilities in the

middle register, the use of the extreme high and low registers gave way to more moderate versions of the same, yet with high and low specialties maintained. This distinction between high, or first horn, and low, or second horn, continued in the works of most later composers.

In this article we have examined various historic attempts to increase the potential of the natural horn by analyzing compositions with unusual and striking horn parts. These works provide clues to the development of important trends in horn history, among them the specialization in high and low registers and hand-stopping technique. Above all, they offer fascinating glimpses of the spirit of experimentation and innovation which surrounded the horn at this time in its history.

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#### NOTES

1. This article is based in large part on my dissertation, "The Horn in Early Eighteenth-Century Dresden: The Players and Their Repertory" (DMA diss., University of Wisconsin, 1989), from which sections have been extracted and modified. Research for the dissertation was made possible by a grant from the International Research and Exchanges Board (IREX), which allowed me to examine manuscripts in the Musikabteilung of the Sächsische Landesbibliothek in Dresden during the fall and winter of 1985-86. Earlier versions of this article were presented at the national meetings of the American Musicological Society and College Music Society in the fall of 1990.
2. Important sources on Dresden's musical life in the 18th century include: Moritz Fürstenau, *Zur Geschichte der Musik und des Theaters am Hofe zu Dresden* (1861; facs. rpt. Leipzig: Edition Peters, 1979); idem, *Beiträge zur Geschichte der Königlich Sächsischen musicalischen Kapelle, Grosseentheils aus archivalischen Quellen* (Dresden: C.F. Meser, 1849); Imgard Becker-Glauch, *Die Bedeutung der Musik für die Dresdener Hoffeste bis in die Zeit Augusts des Starken*, (Kassel: Bärenreiter Verlag, 1951); Ortrun Landmann, "The Dresden Hofkapelle during the lifetime of Johann Sebastian Bach," *Early Music* 17, no. 1 (1989): 17-30.
3. See Horace Fitzpatrick, *The Horn and Horn-Playing in the Austro-Bohemian Tradition from 1680 to 1830* (London: Oxford University Press, 1970), pp. 59-63; Hiebert, "Horn," pp. 7-8.
4. For an overview see Peter Damm, "300 Jahre Waldhorn: Versuch einer Betrachtung," *Brass Bulletin*, 31 (1980): 19-33. Recent research I have conducted in libraries in Darmstadt and Schwerin indicates strong horn-playing traditions in those locations.
5. Peter Damm's article "300 Jahre Waldhorn: Nun zur Geschichte des Hornes in der Dresdener Hofkapelle, der heutigen Staatskapelle Dresden," *Brass Bulletin* 32 (1980): 19-41, contains

important information on the history of the horn in Dresden and initially alerted me to this topic.

6. See Hiebert, "Horn," pp. 88-102, 141-50, 162-63.

7. The author examined more than 300 works in manuscript form, written for the Dresden court horn players, at the Sächsische Landesbibliothek in Dresden (hereafter Dlb).

8. For example, there is evidence that suggests that the financial state of the Dresden court was "strained" by the end of the wedding festivities for the crown prince in 1719. See John Walker Hill, *The Life and Works of Francesco Maria Veracini* (Ann Arbor: UMI Research Press, 1979), pp. 23-24.

9. In only one instance is a horn player known to have been hired by a court earlier than Fischer and Samm in Dresden: J.T. Zeddelmayer was employed at Weissenfels in 1706. Other early professional hornists include G.L. Reichel, who was working in Wolfenbüttel by 1710, Pangratz and Hoffmann in Düsseldorf by 1711, and W. Rossi and F. Otto in Vienna by 1712. See Fitzpatrick, *Horn*, pp. 92-97.

10. Among resident composers who wrote frequently for the horn are J.D. Heinichen, A. Lotti, J.D. Zelenka, and J.A. Hasse. Non-resident composers such as J.F. Fasch, J.S. Bach, and C. Förster also wrote important parts for the Dresden hornists. Excluding Bach, it appears that these composers did not write horn parts with the same degree of virtuosity (if they wrote for horns at all) when not intended for Dresden; see Hiebert, "Horn," pp. 164-83.

11. Ortrun Landmann, "Dresden Hofkapelle," pp. 19-20; Hans T. David, *The Bach Reader*, rev. ed. (New York: W.W. Norton, 1966), pp. 120-24.

12. Hans-Joachim Schulze, ed., *Johann Sebastian Bach, Leben und Werk in Dokumentation: Eine Anthologie in 25 Themenkreisen*, 3rd ed. (Leipzig: VEB Deutscher Verlag für Musik, 1975), p. 111.

13. Peter Damm, "Hat J.S. Bach die Partie des 'Corne da Caccia' der Messe h-moll BWV 232 für Gottfried Reiche komponiert?" pt. 1, *Brass Bulletin*, 56 (1986): 73; Detlef Altenburg, *Untersuchungen zur Geschichte der Trompete im Zeitalter der Clarinblaskunst (1500-1800)*, vol. 1, *Kölner Beiträge zur Musikforschung*, no.75 (Regensburg: Gustav Bosse Verlag, 1973), pp. 206-18; Damm, "300 Jahre," 32: 25-26.

14. In the discussion here I have singled out a limited spectrum of compositions which display some of the most spectacular and innovative examples of horn writing in order to give an idea of the degree of horn experimentation at Dresden. A more complete survey of the works for horn from Dresden can be found in Hiebert, "Horn."

15. Little is known about the first horn players, other than that Samm died in 1723 and Fischer "left the service" in the same year; see Damm "300 Jahre" 32: 19-41, which served as the source for much of the information on the Dresden horn players; see also Fürstenau, *Geschichte* 2: 58; Ortrun Landmann, "Zur Standortbestimmung Dresdens unter den Musikzentren in der ersten Hälfte des

18. Jahrhunderts," in *Studien zur Aufführungspraxis und Interpretation von Instrumentalmusik des 18. Jahrhunderts*, vol. 8 (Blankenburg/Harz, 1978), p. 54. The dearth of reliable information about other horn players, such as the Czermak brothers or Tobias Butz, who have been mentioned in various sources in connection with Dresden during the first half of the eighteenth century, does not allow any conclusions to be made about their activities in Dresden. See Damm, "300 Jahre" 32: 19.

16. Damm, "300 Jahre," 32: 20-25, 41.

17. The most frequently cited source on the wedding celebration is Moritz Fürstenau, *Geschichte* 2: 97-154; see also Irmgard Becker-Glauch, *Die Bedeutung der Musik*: 98-115. In addition to these wedding serenatas Heinichen wrote other serenatas, as well as concerti, sonatas, masses and an unfinished opera that include the horn. Florid concertante style writing for two horns is the norm in these works. See Hiebert, "Horn," pp. 34-77.

18. Fürstenau, *Geschichte* 2: 108-109. There are no horn parts in those Lotti manuscripts intended for Venice that I examined in the Dlb: *Irene augusta* (1713, Venice); *Foca superbo* (1716, Venice); and *Alessandro Severo* (1716, Venice). A search of the work lists of both composers reveals no works that appear to have been intended for ensembles outside of Dresden that are likely to have been set with horns.

19. The autograph score bears the title *Serenata nel Giardino Chinese Mese Settemb: 1719 di Heinichen* and has Dlb call number 2398-L-1. The horn part in the manuscript of "Saturn's Aria" is written at concert pitch (a fifth below that seen in Example 1, with one flat in the key signature) even though the part is intended for horn in F. In Example 1, the horn part has been transposed for horn in F (that is, up a fifth and written in C for the horn in the customary way) so that it may be easily compared to other examples here. The other movements in this serenata which use the horn in G and D follow the customary notation, in C. All examples here have been edited so beaming, articulation, and ornamentation are consistent within a passage. Instrumental nomenclature in examples follows the source. In Dresden manuscripts from the early 18th century, *corno da caccia* is the most common name for the horn, but one frequently finds *corne de chasse*, *corno*, *corne*, *cornu*, and other variants.

20. The lute was also featured in works from Dresden because one of the greatest lute players of the time, Sylvius Weiss (1686-1750), was resident at the Dresden court from 1717 until his death. Douglas A. Smith, "Sylvius Leopold Weiss," *Early Music*, 8, no. 1 (1980): 47-58.

21. The types of mouthpieces and horns which these players used most definitely had a bearing on what they were capable of playing. Some hornists may have used trumpet-type mouthpieces and narrow-bore horns; but specific information on these matters regarding Dresden during the first half of the 18th century is scarce, and in any case, lies outside the scope of this article. For further information on organology and iconography see Herbert Heyde, "Blasinstrumente und Bläser der Dresdner Hofkapelle in der Zeit der Fux-Schülers Johann Dismas Zelenka (1710-1745)," in *Johann Joseph Fux und die barocke Bläsertradition*, ed. Bernhard Habla (Tutzing: H. Schneider, 1987), pp. 39-62; and Damm, "300 Jahre" 32: 19-33.

22. Certainly other early examples of solo writing exist, though from a later date than "Saturn's

Aria:" for example, the horn obbligato in the aria "Va, tacito" in Handel's *Giulio Cesare* (1724). To my knowledge, "Saturn's Aria" is the earliest solo obbligato which displays such virtuosity. It must be noted that while the level of virtuosity in evidence here is not found in all works for horn from Dresden, works approaching this level of difficulty are numerous.

23. For example, see A. Lotti's, Sinfonia to Act III of *Giove* (1717), Dlb MS 2159-F-3; and Heinichen's *Serenata di Moritzburg* (1719), Dlb Autograph MS 2398-L-3. These examples and others are discussed in Hiebert, "Horn," pp. 42-50, 68-77.

24. Hiebert, "Horn," pp. 52-54.

25. Fürstenau, *Geschichte 2*: 58.

26. A designation calling for a change of crook within a movement is not to be found in any horn part from Dresden during the first half of the 18th century.

27. Handel's *Giulio Cesare* (1724) is another noteworthy example of a work requiring a change of crook/key; it also requires horns in different keys simultaneously. The latter technique is not found in any Dresden work save for one instance in an undated manuscript by J.F. Fasch, an overture in D (Dlb MS 2423-N-16) in which two horns in G are paired with two in D.

28. See Don Smithers, *The Music and History of the Baroque Trumpet Before 1721*, 2nd ed. (Carbondale: Southern Illinois University Press, 1988). Smithers addresses the issue of non-harmonic tones in several places, notably pp. 32 and 331.

29. Heinichen, *Sonata*, Dlb Autograph MS 2398-N-5. Ortrun Landmann, musicologist at the Dlb, kindly informed me that the paper type indicates that the autograph must have been prepared in Dresden, and that the crossed-out notation *e corno da posta* was probably made at the time the sonata was written, since it is in the same pen as the rest of the manuscript. Therefore the entire work appears to have been written for *corno da caccia*, as is clear in the discussion of the sonata here.

30. The style in Heinichen's *Sonata*, for example, is similar to writing in his *Serenata di Moritzburg*, performed in 1719. A discussion of the outer movements of Heinichen's *Sonata* is found in Hiebert, "Horn," pp. 102-14.

31. Exceptions to this occur when the horn plays high enough in the overtone series to be able to play in minor with some facility. G.P. Telemann uses this technique in the middle movement of his solo horn concerto in D, as does J.F. Fasch in various horn works in Dresden manuscripts.

32. Examples of seventh-harmonic  $b^b$  can be found in the "Quoniam" obbligato in J.S. Bach's B-minor Mass, and in numerous works of Heinichen.

33. Smithers (*Baroque Trumpet*, pp. 187-88) discusses a similar use of the trumpet in works by Pavel Vejvanovsky and Heinrich Biber, which antedate Heinichen's sonata.

34. That is, f<sup>#</sup>, lipped down from a sixth harmonic g'; a', lipped down from a seventh harmonic b<sup>b</sup>; b', lipped down from an eighth harmonic c'; c<sup>#</sup>, lipped down from a ninth harmonic d'; and e<sup>b</sup>, lipped down from a tenth harmonic e'. For a discussion of the lipping technique see Don Smithers, Klaus Wogram, and John Bowsher, "Playing the Baroque Trumpet," *Scientific American*, April 1986: 108-15.

35. Indeed, with a developed form of hand-stopping, there are many gradations of closure, from fully stopped to quarter-stopped and in-between. I would like to thank Peter Damm for a typescript of his unpublished article "Das Horn in der Mitte des 18. Jahrhunderts zwischen Clarinblas- und Stopftechnik" (1985), which outlines the possibility of an early form of hand-stopping technique.

36. The earliest extended discussion of hand-stopping technique suggests that the Dresden hornist A.J. Hampel was comfortable using the technique primarily in slow movements. See Heinrich Domnich, *Méthode de premier et de second cor* (Paris, 1808), trans. Birchard Coar in *A Critical Study of the Nineteenth Century Horn Virtuosi in France* (DeKalb, Illinois: Coar, 1952), pp. 6, 8. Even though Hampel did not arrive in Dresden until 1737, long after Heinichen's sonata was composed, Domnich's information lends credence to the theory that hand-stopping was used in the middle movement.

37. For a discussion of the relative dearth of hand-stopped notes for horn in Classic period works, see Thomas Brown, "Clarino Horn, Hunting Horn, and Hand Horn: Their Comparative Roles in the Classic Music of the Eighteenth Century" (D.M.A. diss., Ball State University, 1978), pp. 98-107. In orchestral writing throughout the 18th century, non-series tones in horn parts are relatively rare. This also is true in the horn concertos of Mozart that also use *ripieno* horns—the solo horn has many non-series tones while the *ripieno* horns have virtually none.

38. Damm, "300 Jahre," 32: 20.

39. Dlb MS 2477-F-9.

40. Fürstenau, *Geschichte*, 2: 176-78, 218.

41. J.S. Bach appears to have also been impressed with J.A. Schindler, for he wrote the "Quoniam" obbligato in the B-minor Mass after having heard Hasse's *Cleofide*, which included "Alessandro's Aria." The "Quoniam" obbligato contains many of the characteristics of horn writing during the Schindlers' tenure discussed here. See Peter Damm, "Zur Aufführung des 'Corne da Caccia' im Quoniam der Missa h-Moll von J.S. Bach," *Bach-Jahrbuch* (1984), pp. 91-105.

42. Fürstenau, *Geschichte*, 2: 173-78.

43. It is assumed here that all works for horn in D are in D-basso.

44. Soloistic writing for horns in D is found in many works of J.F. Fasch, and in the *Katalog Wenster Litteratur*. See Hiebert, "Horn," pp.150-83.

45. Horns and trumpets play together in numerous sacred works of J.D. Heinichen, J.D. Zelenka,



and J.A. Hasse, extant in manuscript form in the Dlb. In these works, horns and trumpets in D commonly echo, and sometimes double, each other.

46. J.D. Zelenka does use the horn crooked in A soloistically in his Capriccio, written in Vienna in 1718 (Dlb Autograph MS 2358-N-4).

47. Damm, "300 Jahre," 32: 20-21, 31. Like most of the Hofkapelle horn players, Knechtel probably was from Bohemia. Fitzpatrick (*Horn*, p. 197) mentions two brothers from Prague who played the horn, and it is likely that J.G. Knechtel was one of them. Unfortunately neither Knechtel's dates of birth and death, nor other details about his life are known.

48. Damm, "300 Jahre," 32: 20-21; Fitzpatrick, *Horn*, p. 110.

49. Damm, "300 Jahre," 32: 21. Haudeck is sometimes mentioned together with A.J. Hampel as an early exponent of hand-stopping. See Fitzpatrick, *Horn*, pp. 90, 115-16.

50. For a more detailed discussion of the various sources for Werner and Hampel see Fitzpatrick, *Horn*, pp. 84-89, 126-31.

51. Ernst Ludwig Gerber, *Historisches-Biographisches Lexicon der Tonkünstler*, ed. Othmar Wessley (Leipzig, 1790-1792; facs. rpt. Graz: Akademische Druck- u. Verlagsanstalt, 1977): col. 798.

52. Fitzpatrick, *Horn*, p. 86.

53. Extensive discussion of Punto's contributions is found in *ibid.*, pp. 168-173.

54. *Ibid.*, pp. 84-86. Fitzpatrick also believes that Domnich may have had lessons with Hampel. See *New Grove Dictionary of Music and Musicians* (1980), s.v. "Domnich, Heinrich," by Horace Fitzpatrick. Here the date of Domnich's *Méthode* is given as 1807. Though a German, Domnich spent most of his career in Paris.

55. See note 36.

56. See Reginald Morley-Pegge, *The French Horn*, 2nd ed. (London: Ernest Benn Ltd.: 1973), pp. 87-89.

57. *New Grove Dictionary of Music and Musicians* (1980), s.v. "Hampel, Anton Joseph," by Horace Fitzpatrick.

58. This idea has been proffered often by many brass authorities, among them Morley-Pegge (*French Horn*, pp. 86-88).

59. For a thorough discussion of Hampel's *Lectio*, see *Encyclopaedia Britannica* (1911 ed.), s.v. "Horn," by Kathleen Schlesinger. Excerpts from the *Lectio* can be found in Schlesinger's article; Morley-Pegge, *French Horn*, p. 202; and Fitzpatrick, *Horn*, p. 87.

60. There were a number of editions of the Hampel/Punto *Méthode*. See Morley-Pegge, *French Horn*, pp. 90-94, 202-03.
61. For an example of one of Hampel's trios see Morley-Pegge, *French Horn*, p. 204. See also Barry S. Brook, ed., *The Breitkopf Thematic Catalogue: The Six Parts and Sixteen Supplements, 1762-1787* (New York: Dover, 1966), p. 361. See also note 74.
62. Fürstenau, *Geschichte*, 2: 226.
63. Dlb MS 2477-F-20.
64. One cannot rule out the possibility that new models of horns and/or mouthpieces might have promoted greater flexibility in the low register.
65. There are also horn pedals (i.e., lower-register writing) in Vivaldi's *Farnace* (1730), and *L'Olimpiade* (1734). See Eric Cross, *The Late Operas of Antonio Vivaldi 1727-1738*, vol. 1 (Ann Arbor: UMI Research Press, 1977), pp. 101-02, 214; Michael Talbot, *Vivaldi* (London: J.M. Dent, 1978), pp. 190-92.
66. Dlb MS 2981-0-2 (with added horn parts by Pisendel).
67. Ortrun Landmann has identified the copyist as "copyist m," and the composer of the added horn parts as Pisendel. See Ortrun Landmann, *Die Telemann-Quellen der Sächsischen Landesbibliothek*, Studien und Materialien zur Musikgeschichte Dresdens, vol. 4 (Dresden: Sächsische Landesbibliothek, 1983), pp. 146-47.
68. It is not inconceivable that the part was written in the bass clef as a code to indicate that the horn player was to transpose his part up two octaves, thus sounding a minor ninth above the written pitch. With this approach, all pitches would be in the middle register, though the second horn would cross the first at times.
69. J.F. Fasch, in a minuet from a concerto, uses this low-register technique in solo context. See Hiebert, "Horn," pp. 246-48. In his *Historisches-Biographisches Lexicon der Tonkünstler* (Leipzig, 1792), Ernst Ludwig Gerber mentions that second horn players "already knew how to form the entire great bass octave with the hand about the year 1750 . . ." (translated in Fitzpatrick, *Horn*, p. 226). The Benda/Pisendel concerto discussed here predates this estimate of the emergence of low-register playing by ten years.
70. For information on the physics of producing non-series tones see Robert Pyle, "Factitious Tones and Hand-Stopping," *The Horn Call* 21, no. 1 (Oct., 1990): 36-43. Pyle explains that the "privileged tone" phenomenon plays a role in stabilizing certain factitious tones, notably the "one-and-a-halfth" harmonic, low G, and the "two-and-a-halfth" harmonic, low E. He also mentions that the low E is easier to play on longer horns (such as E<sup>b</sup>, D, C-basso, and B<sup>b</sup>-basso); this might explain why these particular parts are in D.
71. Pisendel's characteristic handwriting betrays him as the composer of many horn parts for

existing compositions by composers in contact with Dresden, such as Vivaldi and J.F. Fasch. See Hiebert, "Horn," pp. 100-01, 232-33, 246-48.

72. The Uppsala Universitetsbiblioteket manuscript copy of the Benda/Pisendel concerto (Mus. i hs. 62:16) was viewed by the writer on microfilm. For references to other copies of the work, see Douglas A. Lee, *Franz Benda (1709-1786): A Thematic Catalogue of his Works*, Thematic Catalogues no. 10 (New York: Pendragon Press, 1984), p. 12.

73. In his *Essai d'Instruction* (Paris, 1764, 1798; rpt, Geneva: Minkoff, 1972), Valentin Roeser employs the same lower register notes used in the Benda/Pisendel concerto. In addition he talks of hand-stopping the notes b, f#, a', b', and c#''.

74. This manuscript was brought to light by Mary Rasmussen in her article "The Manuscript Katalog Wenster Litteratur I/1-17b (Universitetsbiblioteket, Lund), A Contribution to the History of the Baroque Horn Concerto," *Brass Quarterly* 5, no. 4 (1962): 135-152. That Dresden was the source of KWL is suggested by the number of composers and horn-player/composers represented who had connections there. This view is strengthened by two extant manuscripts that have been in Dresden since the 18th century and which are essentially the same compositions as two in KWL: concertos by C. Förster (Dlb MS 2723-0-4; KWL I/5 ) and Hoffmann (Dlb MS 2207-0-1; KWL I/2). In KWL, Hoffmann's concerto is entered as an anonymous composition; however, a similar manuscript in the Dlb, entitled *Concerto a 7* (upon which "J.J. Quantus" identifies himself as the copyist and "Hoffman" [probably Melchior Hoffmann] as the composer) allowed the present writer to identify Hoffmann as the composer. Other compositions in KWL are by composers who lived in Dresden: Schulz (not Scheibe as found in many sources), Quantz, Graun, Röllig; Dresden horn-player composers: Knechtel, Hampel; composers or horn players who visited Dresden or had close ties to Dresden: Förster, Reinhardt, Gehra. Discussion of the concertos of Hoffmann, Knechtel, and Hampel is found in Hiebert, "Horn," pp. 81-87, 238-45, 249-52. Another study which deals with these concertos is Damm, "Horn." A microfilm copy of KWL from the music library at the University of Iowa was used for this study. The manuscript is in the Universitetsbiblioteket, Lund, Sweden.

75. The name "Knechtel" appears clearly at the top of KWL I/10 in D Major, listed there as "Concerto ex D dur del Sigr: Knechtel." The composer of the next concerto in KWL, I/11 in E<sup>b</sup> Major, is not identified. Rasmussen has observed that this second entry is so similar in structure and style to the concerto I/10 that it must also be by Knechtel. See Rasmussen, "Manuscript Katalog," pp. 144-46. No first name or initial is given, but it is assumed that the composer of I/10 is the Dresden hornist J.G. Knechtel.

76. Rasmussen, "Manuscript Katalog," pp. 146-148; see also Fitzpatrick, *Horn*, pp. 86-88.

77. KWL contains many scribal errors, and KWL I/13 is no exception. In Example 7 I have taken the liberty of altering the following bass notes to correct the harmony: m. 72, beat 3: A instead of B; m. 73, first eighth of beat 2: g instead of f#.

78. See note 36.

79. See examples in Morley-Pegge, *French Horn*, pp. 202-04.

80. The concertos by Gehra (KWL I/17a) and Reinhardt (KWL I/17b) contain low-register writing, with non-series tones which would require lipped and hand-stopped notes.

81. For further information on the double horn concerto in the eighteenth century, see Sterling E. Murray, "The Double Horn Concerto: A Specialty of the Oettingen-Wallerstein Court," *The Journal of Musicology* 4 (1985-86): 507-534.

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## MUSICAL EXAMPLES

Corno di caccia solo [in F]

Tiorba

[Basso]

sempre piano

5

10

## Example 1

J.D. Heinichen: *Serenata nel Giardino Chinese* (1719),  
 "Saturn's Aria," mm. 1-22

15

Musical score for measures 15-18. The system consists of four staves. The top staff is in treble clef, the second and third staves are in alto and bass clefs respectively, and the bottom staff is in bass clef. The music features a complex rhythmic pattern with many sixteenth notes and rests.

Musical score for measures 19-22. The system consists of four staves. The top staff is in treble clef, the second and third staves are in alto and bass clefs respectively, and the bottom staff is in bass clef. The music continues with complex rhythmic patterns, including some sixteenth-note runs.

20

Musical score for measures 23-26. The system consists of four staves. The top staff is in treble clef, the second and third staves are in alto and bass clefs respectively, and the bottom staff is in bass clef. The music continues with complex rhythmic patterns, including some sixteenth-note runs.

Example 1 (Cont.)

Corno da caccia I  
[in F]

Corno da caccia II  
[in F]

Violino I

Violino II

Violetta

Basso

5

cantabile

sempre piano

10

**Example 2**

J.D. Heinichen: *Sonata*, mvt. 2, Larghetto, mm. 1-27

15

Musical score for measures 15-19. The score consists of five staves: two treble clefs, two alto clefs, and one bass clef. The key signature has two flats (B-flat and E-flat). The time signature is 3/4. The music features a complex rhythmic pattern with many eighth and sixteenth notes, and some rests.

20

Musical score for measures 20-24. The score consists of five staves: two treble clefs, two alto clefs, and one bass clef. The key signature has two flats (B-flat and E-flat). The time signature is 3/4. The music continues with a complex rhythmic pattern, including some rests and a long note in measure 21.

Example 2 (Cont.)





Musical score for Example 2 (Cont.), showing measures 25 through 30. The score is written for five staves, likely representing different brass instruments. The notation includes notes, rests, and dynamic markings. A measure number '25' is indicated above the first staff. The key signature is one flat (B-flat), and the time signature is 2/4. The score consists of five staves. The first staff has a treble clef and a key signature of one flat. The second staff has a treble clef and a key signature of one flat. The third staff has a treble clef and a key signature of one flat. The fourth staff has a bass clef and a key signature of one flat. The fifth staff has a bass clef and a key signature of one flat. The music is written in a style typical of 18th or 19th-century brass music, with a focus on rhythmic patterns and melodic lines.

Example 2 (Cont.)

Corno da caccia [in D]

Archliuto

Violino I

Violino II

Viola

Basso

5 6 4

un poco pia:

5

5 7 7 7

The image shows a page of a musical score for a string quartet and horn. The staves are labeled: Corno da caccia [in D], Archliuto, Violino I, Violino II, Viola, and Basso. The music is in 2/2 time and D major. The first system shows the beginning of a phrase, with the horn and strings playing. The second system continues the phrase, with the horn playing a melodic line and the strings providing accompaniment. The third system shows a more complex passage with rapid sixteenth-note runs in the horn and strings. The fourth system continues the rapid runs. The fifth system shows a change in dynamics and tempo, marked 'un poco pia:'. The sixth system continues the melodic line in the horn and strings. The seventh system shows a final cadence. The eighth system shows a final cadence. The ninth system shows a final cadence. The tenth system shows a final cadence. The eleventh system shows a final cadence. The twelfth system shows a final cadence. The thirteenth system shows a final cadence. The fourteenth system shows a final cadence. The fifteenth system shows a final cadence. The sixteenth system shows a final cadence. The seventeenth system shows a final cadence. The eighteenth system shows a final cadence. The nineteenth system shows a final cadence. The twentieth system shows a final cadence.

### Example 3

J.A. Hasse: *Cleofide* (1731), act 3, scen iv, "Alessandro's Aria,"  
Allegro, mm. 1-28

10

Musical score for measures 10-13. The score consists of five staves: Treble clef, Bass clef, Treble clef, Alto clef, and Bass clef. The key signature is one sharp (F#). Measure 10 features a complex rhythmic pattern with sixteenth notes and a triplet. Fingerings are indicated as #4 6, #4 6, 6 5, and 4 #3. Measure 11 continues the pattern. Measure 12 shows a change in the bass line. Measure 13 concludes the phrase with a final note and a fermata.

15

Musical score for measures 15-18. The score consists of five staves: Treble clef, Bass clef, Treble clef, Alto clef, and Bass clef. The key signature is one sharp (F#). Measure 15 has a fermata. Measure 16 features a melodic line with a triplet and a fermata. Fingerings are indicated as 6 b6 and 6 5. Measure 17 includes the instruction "for:" and "poco pia:". Measure 18 concludes the phrase with a final note and a fermata.

Example 3 (Cont.)

The musical score is presented in two systems. The first system consists of five staves: a grand staff (treble and bass clefs) at the top, followed by two staves for a vocal line (treble clef), and two staves for a piano accompaniment (treble and bass clefs). The grand staff begins with a melodic line in the bass clef, followed by a more complex melodic line in the treble clef starting at measure 20. The piano accompaniment features a steady eighth-note bass line in the bass clef and chords in the treble clef. The vocal line includes the lyrics "for:" and "poco pia:". The second system continues the grand staff and piano accompaniment, with the vocal line remaining silent. The grand staff continues the melodic lines from the first system. The piano accompaniment continues with the eighth-note bass line and chords. Fingering numbers (5, 3, 4, 7) are indicated below the bass clef of the grand staff in the second system.

Example 3 (Cont.)

25

for:

Example 3 (Cont.)

Corno I  
[in G]

Corno II  
[in G]

Violino I

Violino II

Violetta

Basso

5

**Example 4**

J.A. Hasse: *Atalanta* (1737), Act III, "Dubbon stor d'entrar nel nido,"  
Allegro, meas. 1-17

Musical score for Example 4 (Cont.) measures 1-9. The score is written for a brass ensemble with five staves: two treble clefs (top two staves) and three bass clefs (bottom three staves). The key signature is one sharp (F#). The first two staves contain complex melodic lines with many sixteenth and thirty-second notes. The bottom three staves contain simpler accompaniment, including a steady bass line in the lowest staff.

10

Musical score for Example 4 (Cont.) measures 10-12. The score continues with five staves. Measure 10 begins with a ten-measure rest in the top two staves. The bottom three staves continue with their accompaniment. Measures 11 and 12 show the top two staves re-entering with more complex melodic lines. The bottom three staves continue with their accompaniment.

Example 4 (Cont.)

15

The musical score is arranged in five staves. The top two staves are in treble clef, and the bottom three are in bass clef. The key signature has one sharp (F#). The music features complex rhythmic patterns, including sixteenth-note runs and slurs. Dynamics markings include 'p' (piano) and 'f' (forte). A measure rest is present in the first measure of the third staff.

Example 4 (Cont.)



Corno 1mo  
[in D]

Corno 2da  
[in D]

Viol: Conc:  
Viol: Primo

Viol: Secondo

Alto Viola

Basso

5

**Example 5**

F. Benda/J.G. Pisendel: Concerto for Violin (1740), mvt. 1, Allegro, mm. 1-22

Musical score for Example 5 (Cont.) measures 1-9. The score is written for four staves: two grand staves (treble and bass clef) and two piano staves (treble and bass clef). The key signature is one sharp (F#) and the time signature is 4/4. The first grand staff contains a melodic line with some rests. The piano staves feature a complex rhythmic accompaniment with many sixteenth notes. Dynamic markings include *p* (piano) and *f* (forte).

10

Musical score for Example 5 (Cont.) measures 10-18. The score continues from the previous system. The piano accompaniment becomes more active, featuring many sixteenth-note patterns. The melodic line in the first grand staff has a more rhythmic character. Dynamic markings include *f* (forte).

Example 5 (Cont.)

The first system of the musical score consists of five staves. The top two staves are in treble clef, and the bottom three are in bass clef. The key signature has two sharps (F# and C#). The music features a complex rhythmic pattern with many sixteenth and thirty-second notes, including slurs and ties. The notation is dense and characteristic of a technical exercise.

The second system of the musical score continues the piece with five staves. It maintains the same clefs and key signature as the first system. The notation is highly technical, with frequent sixteenth-note passages and slurs. There are some dynamic markings, such as a 'p' (piano) in the first staff of the second system. The overall texture is very busy and intricate.

Example 5 (Cont.)

15

The image displays two systems of musical notation for a piece by Hiebert. The first system begins at measure 15. It consists of five staves: a grand staff (treble and bass clefs) and three individual staves (two treble clefs and one bass clef). The music is in a key with two sharps (F# and C#) and a 3/4 time signature. The first system features a melodic line in the upper treble staff, a bass line in the lower bass staff, and a complex accompaniment in the middle staves. Dynamics include *p* (piano) and *mf* (mezzo-forte). The second system continues the piece, showing more intricate rhythmic patterns and triplets in the lower staves, with dynamics ranging from *f* (forte) to *mf*. The notation includes various articulations such as slurs, accents, and fermatas.

Example 5 (Cont.)

20

Musical score for Example 5 (Cont.) starting at measure 20. The score consists of five staves. The top staff is a single melodic line. The second staff is a bass line. The third and fourth staves are a pair of treble clefs, each containing a melodic line with triplets. The fifth staff is a bass line. The music is in a key with one sharp (F#) and a common time signature. The score shows measures 20 through 24.

Example 5 (Cont.)

22

Cornu concerto [in D]

Violino Primo

Violino Secundo

Viola

Basso

*p*

*p*

*p*

*p*

**Example 6**

J.G. Knechtel: Concerto in D, KWL I/10, mvt. 3, Allegro, mm. 23-35

Musical score for Example 6 (Cont.), starting at measure 30. The score is written for a brass ensemble in D major, 4/4 time. The top staff features a melodic line with eighth-note patterns and accents. The lower staves provide harmonic support with various rhythmic patterns.

Example 6 (Cont.)

Musical score for Example 7, starting at measure 72. The score is for three instruments: Cornu concertato (in D), Viola, and Basso. The Cornu part features a complex melodic line with triplets and slurs. The Viola and Basso parts provide a steady harmonic accompaniment.

Example 7

A.J. Hampel (attrib.): Concerto in D, KWL I/13, mvt. 1, Allegro, mm. 75-76

33

Cornu concertato  
[in D]

Viola

Basso

**Example 8**

A.J. Hampel: Concerto in D, KWL I/13, mvt. 2, Adagio, mm. 33-35