HORN AND TRUMPET AS TOPICAL SIGNIFIERS

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It is one of music's most celebrated witticisms. Just before the recapitulation of the first movement of Beethoven's *Sinfonia eroica*, at a point where the modulation has reached the dominant chord that precedes the entry of the first theme, that theme is heard, prematurely, on the horn, though it does not fit the harmony at that point and in any case was played originally by the cellos (Example 1). In early performances, audiences thought the player was in error. It is certainly a singular effect. But as Sherlock Holmes once said, the singular is always important.





Example 1
Beethoven, Symphony no. 3 ("Eroica"), mvt. 1.

This tune is purely triadic in contour; in terms of Leonard Ratner's theory of musical topics, it is symbolic either of the military or of the hunt. Ratner says little about the semantics of these two topics. In this particular case, the timbre of the horn leads us to assume that the hunt topic is meant. Beethoven's horn was closely related to the brass *trompe de chasse*, an instrument that had been in existence only since about 1680. This is supported by the key of the symphony; in the German lands, hunting horns were not uncommonly in Eb. It is true that old hunting calls, especially those composed by the Marquis de Dampierre, freely used the fourth octave of the horn, where the instrument is diatonic. A selection of Dampierre's calls is shown in Example 2² (notated at pitch, French hunting horns being in D). They are little binary tunes, largely using the eighth to the twelfth natural notes of the instrument. However, pre-Dampierre calls made scantier use of the diatonic part of





Example 2
Dampierre, Recueil de fanfares pour la chasse (1772).

the range and sounded mainly the third through eighth natural notes—the territory of the cavalry trumpet, though an octave lower. Beethoven's horn (a natural horn crooked in Eb) was acoustically very close to the German hunting horn, in fact. These early calls have been notated by Flemming.³ (Two of them are shown in Example 3, notated as written, not at pitch.). They are much more like real signals, with their additive structure and their copious repeated notes. So perhaps the sly intrusion of the horn at this point in the symphony is meant to reveal the original nature of this figure as a horn call, which was obscured by the timbre of the strings.

However, if the symphony was meant as a tribute to Napoleon, then the choice of a hunting theme is puzzling, for he was admired as a soldier, not as a huntsman. We need to ask: What were the contemporary associations of the hunt? Let us first observe that Beethoven's witticism is forestalled in an earlier symphony, where the signification is undoubtedly that of hunting. In Haydn's Symphony No. 6, entitled "Le matin," after a short introduction portraying a sunrise, a hunting theme is presented, in this case played by the flute. Like Beethoven, Haydn later plays a snatch of this theme on the horn, just before its return on the flute at the beginning of the recapitulation (Example 4). In this case, it is a horn in D, the most common key for the French hunting instrument.



Example 3 von Flemming, Der vollkommene teutsche Jäger.

The meaning of this theme is easier to discern. Hunts, in the courts of the eighteenth century, took place in the morning, commencing "avant que le soleil des monts dore la cime" (before the sun gilds the top of the hills). So a symphony called "Le matin" naturally refers to the hunt. But if the hunt was matutinal, it was also heroic and related to warfare.

It has at all times occupied the leisure of heroes... The knowledge of managing horses and arms is the talent common to huntsmen and soldiers: familiarity with movement and with fatigue, so necessary to the maintenance and support of courage, is learnt in hunting and transferred to fighting: it is the pleasing school of a necessary art.⁵



Example 4
Haydn, Symphony no. 6 ("Le matin"), mvt. 1.

The signification of the musical hunting topic, then, included the theme of martial heroism. Probably Beethoven intended no paradox in presenting something that could be a cavalry trumpet signal, appropriate as a tribute to a great general, in the range and timbre of a hunting horn. The associative level of this topical reference, permitting the symphony to evoke manly heroism by presenting the call of a hunting horn, had passed down into the subconscious, and the composer was able to suggest the idea of heroism directly, as it were, without listeners having to think about the intermediate level of the hunt or the battle.

Exponents of topic theory, so far, have done very little work on significations, though there has been some study of the musical signifiers. Elaine Sisman shows some concern for the literary aspects of the signification when she discusses the *pastoral* topic. Hunting calls and trumpet calls were examples of cross-fertilization between two kinds of music; in this case the music of social life was transferred into the concert room. There is a similar pattern at work in the topic of the "strict style," in which the contrapuntal texture of church music turns up in symphony and string quartet. Other topics were based on the associations of dance measures; the sarabande signified stately decorum and is to be heard, for example, in the slow movement of Mozart's "Jupiter" Symphony. In addition, some topics were imitations of natural sounds; the topic of the "noble horse" and that of the *pianto* are respectively imitations of the hooves of an animal at the gallop and the voice of someone who weeps.

I have proposed a categorization of musical topics according to the semiotic relations of signifiers and signifieds. ¹⁰ Yet composers sometimes refer to extramusical sounds without implying a topic. Neither the axe that decapitates Till Eulenspiegel nor the cuckoo that heralds spring in the introduction of Mahler's First Symphony is necessarily a topic. A musical figure becomes a topic when it acquires the capacity to evoke its associative meaning without the listener having necessarily to think of the extraneous style or event that acts as an intermediary; to think of heroism, but not necessarily soldiers or huntsmen, or to think of innocence, or of heaven, without necessarily having to think of shepherds' pipes. In other words, a figure becomes a topic when its evocation becomes *conventional*. Thus we may understand Beethoven's apparent characterization of Napoleon as a huntsman.

Hunting, it seems, was a metaphor for warfare, and the similarity of the hunting call and the military trumpet signal was a token of this. But the horse, too, was metonymically connected with both hunting and fighting; the rhythm of its hooves found its way into the hunting *sonnerie* and into marches intended for cavalry units, both of which are predominantly in 6/8 time. The cultural horse was a hunter or a warhorse, and the trumpet call had originally been confined to the cavalry. This family of topics demonstrates the fluidity of musical meaning. Not confined to concept and proposition, music becomes a most suggestive chronicle of the metonymic streams that unite the consciousness of an era. A great general may be represented by a hunting horn, or (in the scherzo of the *Eroica*) by the sound of galloping hooves.

As well as recognizing the conventional nature of topics, topic theory in music has to place each topic within a historical and cultural framework. Here, another singular feature is encountered. Most commonly, musical topics used contemporary signifiers to indicate

cultural items from another age, or from an imaginary period. In the case of the hunt topic, the signifier made use of the timbre of the great brass *trompe de chasse*, together with the different repertoires of hunting *sonneries*, especially those composed by Dampierre. The *Eroica* theme, actually, sounds less like one of Dampierre's melodies, which are mainly diatonic, and more like an older, triadic kind of call, as we have seen. But whatever kind of hunting call it echoed, the instrument that played it was a relatively new invention.

Brass and copper hunting horns were known as early as the fifteenth century, but initially they took two forms: the first, called *cor à plusieurs tours*, pictured by Mersenne, was a conical tube, tightly wound into a snail-like shape; the other, the *cornet de chasse*, was a short tube bent into a semicircle, with a small coil in the centre, which is well known from the illustrations in Du Fouilloux's *Vénerie* of 1606.¹¹ The hoop-like *trompe* is first seen in tapestries at Fontainebleau that date from about 1655.¹² It may have begun life as a concert instrument; it is employed, for example, in Cavalli's *Le nozze di Teti e di Peleo* (1639). It established itself as the main French hunting instrument during the reign of Louis XIV (d. 1715).

The new type of horn was in C with a tube length of 2.27m, sounding an octave below the trumpet, and was originally wound in a single coil.¹³ A new version, tuned in D and wound into one and a half coils, appeared in 1705; with a longer tube, the diameter of the coiled instrument was an enormous 73cm, very unwieldy for a mounted huntsman. The horn maker Lebrun later wound this instrument into two and a half coils, reducing its diameter to 54.5cm¹⁴ (see Figure 1). This instrument became the standard French *trompe de chasse* in the eighteenth century; Lebrun called it the *Cor Dauphine*, in honour of the birth of Louis XV's first son, though it is also known by other names.

The mouthpiece and bell of this horn are almost parallel, and it was played bell-down, gripped by the player's right hand, leaving the other hand free to control the horse. It was capable of all harmonics up to the sixteenth, and could thus play diatonic melodies in its highest register. It remained the French hunting horn of the eighteenth century.

The horn developed two important characteristics in the German lands. First, the angle between mouthpiece and bell became wider, so that the instrument could be played bell-up, with the bell over the shoulder; second, German horns came to be pitched in Eb. Since so many of the manifestations of the hunt topic in concert music come from the German-speaking lands of central Europe, this change of key is very important.

So much for the hunting signifier; but what about the signified? Ratner makes the assumption that the hunting topic reflected contemporary hunting practice. This is almost certainly not the case. In the seventeenth and eighteenth centuries there were two kinds of staghunt in Europe: the first, and the more sporting, was the hunt *parforce de chiens*, in which mounted huntsmen were preceded by a pack of specialized hounds and the game was killed by the pack, or by the huntsman's knife. This was adventurous and exhilarating, but it was also dangerous. The other kind of hunt was devised to eliminate danger and avoid failure; this was the *chasse aux toiles*, in which professional staff drove the game from the wide expanse of the deerpark into a huge canvas enclosure, where it was destroyed by the nobility with firearms. The "huntsmen" stood within a kind of pavilion that protected



Trompe de chasse in D, Le Brun, 1721 (Edinburgh University Collection of Historic Musical Instruments).

them from accidents, and the game were driven past them, jumping over hurdles, which took their minds off the obvious slaughter that was taking place. A contemporary illustration (from Flemming) is shown in Figure 2.

The trompe de chasse was used in both kinds of hunt, but it was really applicable only to the parforce hunt, and the various established calls—such as the vue and the hallali—signalled stages of the parforce hunt, not of the chasse aux toiles. Though both kinds of hunt were known all over Europe, the parforce variety was particularly associated with France (it was much patronized by Louis XV), the chasse aux toiles with Germany; indeed, it was sometimes called deutsches Jagen. It was also called eingerichtete Jagd (equipped hunt) or Zeug-Jagd. Sporting huntsmen condemned it as "murderous," but Flemming justified it in typically eighteenth-century terms; highborn persons had suffered accidents and even death in the parforce hunt, so ways were found "whereby the game may be hunted with better safety." He favored Bequemlichkeit and Commodität, making hunting "more delightful" and a "more charming entertainment." 16

Since much of the repertoire of Classical and Romantic music comes from Germany and central Europe, the hunt topic, which is heroic and manly, clearly does not evoke the kind of decadent hunt that was popular in the lands and time of its origin. It seems fair to assume that it echoes a kind of hunting mythology, based on the hunting ethos of the fourteenth to sixteenth centuries, which is chronicled in many hunting manuals.¹⁷ The writers connected hunting with war, valor, idealism, the exotopic and the erotic.¹⁸

"Medieval literature on [hunting] is permeated by a sense of dedicated enjoyment, the fulfillment of an enduring compulsion to retain a link with nature," writes one modern commentator. First of all, the idleness that so easily leads to sin is occupied by the delightful diversion of hunting. But there is another, more magical benefit. Wild animals have certain qualities that men need to acquire; this he may achieve by "studying, hunting, and defeating them." Thus the hearing of the boar, the sight of the lynx, the taste of the stag, the touch of the spider, may be sought by man. All writers describe the hunt as a preparation for war—in a sense, substitute warfare, the "preparation and mirror of warfare" and praeludium belli. 20

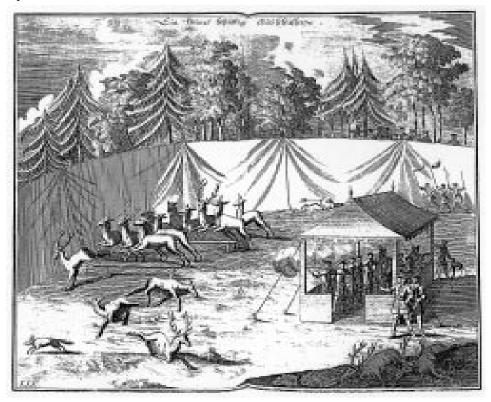


Figure 2 from von Flemming, Der vollkommene teutsche Jäger (21747).

There was, moreover, an erotic side to hunting; the quarry, after capture, might be presented to a lady, the hunting field might become a setting for love-making, and the courtly-love tradition often portrayed love figuratively as a hunt. Andreas Capellanus described love as a "kind of hunting." Hunting was *exotopic*; it took a man into distant and unfamiliar environments, detached him from his friends and home, and subjected him to danger and the unpredictable.

The pursued hart frequently assumed magical qualities in these narratives; it was often white, as in Malory's *Morte d'Arthur*, and might have sacred associations. In the story of the conversion of St. Eustace, a hart appears with an image of the crucified Christ between his antlers, a scene often portrayed by medieval artists.

Hunting in Europe had once been the sole right of kings, though they could pass it on to favored subjects. But it always remained a mark of aristocracy. Even as late as the eighteenth century, deer hunting was restricted to the hereditary nobility in German lands; severe penalties were invoked against mere landholders and tenants who dared to intrude.

Symbolically, the persistence of the aristocracy's pre-eminence in the countryside was best expressed in their exclusive right to hunt.... Hunting recalled the nobleman's function as his dependants' armed protector and thereby affirmed his continued position in the social order.²²

The medieval hunt, then, was aristocratic, warlike, manly, adventurous. It was dangerous and unpredictable. It was at once erotic and idealistic. The hart, a noble animal, conferred nobility on its pursuers. An aspect of high culture, the hunt was intimately linked to the poetry of courtly love and to the life of refinement and breeding.

In addition, hunting was associated with the morning, as already explained, and with the season of the fall, in particular St. Hubert's Day (3 November). It made people think of woodland; the word "forest" (forêt), itself recalls the exotopic nature of hunting, since it comes from late Latin forestis, derived from foris, outside, referring to the area outside the city and castle walls. Perhaps for this reason the timbre of the horn later came to signify open country, the unknown, and finally nocturnal mystery.

The anachronistic character of hunting semantics is, in fact, a common aspect of topical signifieds. Topics evoke cultural units that are parts of the *mythology* of the age, rather than parts of its social history. These units often come from earlier historical realities, or even from no reality at all. The situation is parallel in literature; for example, writers of the Renaissance and seventeenth century filled their forests with palms, olives and lions, even when they were writing about northern Europe, as was Shakespeare when he described the Forest of Arden in *As you like it* (the Forest of Arden is near Birmingham in England; there are no lions). These exotic references came, in fact, from Latin literature and rhetoric,²³ not from the contemporary world or from earlier worlds, but from other texts. The significations of literary topics are not real things and events but genres, stylistic and intertextual units. Evidently the same is true for musical significations.

The picture is subtly different for each topic. The military trumpet signal, like the hunting call, owed its nature to quite recent developments. Until the beginning of the eighteenth century, trumpet signals were restricted to the cavalry. From about 1710 onwards, melodic infantry signals began to appear, though they were played, not on the trumpet, but on the *Flügelhorn*, a semicircular conical instrument that came from the German hunt. It acquired its name from the "wings" (*Flügel*) of the long chains of hunting assistants that spread out across the park, driving the game toward the canvas enclosure. On each end of the chain, a hunting master controlled operations with horn-calls. The first infantry to have melodic calls were, in fact, the *corps de chasseurs* or *Jügertruppen*, who were recruited from huntsmen and foresters and used for action behind enemy lines or in difficult terrain.

The military flügelhorn (in Britain known as a "bugle horn") sounded written middle c' as its second natural note, and thus could not sound the e' above or the g below (see Figure 3). Throughout the Middle Ages and Renaissance, infantry maneuvers were controlled by drumbeats, and the practice persisted even into modern times. But during the eighteenth century, the flügelhorn was gradually adopted by the infantry, and was officially installed as



Figure 3
Flügelhorn in D, English or German, c. 1790 (Edinburgh University Collection of Historic Musical Instruments).

a signaling instrument, first in Hanover (1751), then in Prussia (1762), and later in Bavaria (1804).²⁴ At first called *Halbmond* on account of its shape, it was later bent into a trumpet shape (by about 1810). The modern flügelhorn is trumpet-like in shape, though it retains the conical cross-section; it is, of course, a three-valved instrument in Bb, sounding at the same pitch as the modern trumpet and cornet. The modern British infantry bugle is also a Bb instrument, though without valves. In the United States the British type of bugle is, somewhat confusingly, called a "cavalry bugle."²⁵

In an early English document, calls are notated both for trumpet and bugle horn, and it is clear that the buglers often stole calls from the trumpeters, playing them identically as far as possible; but transposing them up an octave, or playing them on a different harmonic, where the instrument lacked notes. Sometimes, however, the calls were entirely different for trumpet and bugle horn²⁶ (see Example 5). It is significant for the military topic to realize that bugle calls lay largely in a higher register than trumpet calls, but paradoxically had the broader timbre of a horn since the instrument was conical. Incidentally, both trumpet and bugle horn sounded within the octave of the written note (they did not transpose into a lower register), although the trumpet sounded c' (written) as its fourth natural note, the bugle horn as its second. The natural horn, on the other hand, was a lower instrument, sounding c' as its fourth natural note, but an octave below. Thus the horn in C-basso sounded an octave lower than written; the trumpet in C sounded at written pitch; a flügelhorn in C would also have sounded as written, but in a lower part of the harmonic series. (Flügelhorns, however, were normally in D.)

Early cavalry trumpeters, like huntsmen, were musically illiterate, and there is very little record of their calls; there is also some suggestion that calls were trade secrets of the Zünfte, the trumpeters' guilds. Furthermore, every regiment had its own system of calls; civilians, hearing a huge repertoire of trumpet calls, most of which were not available in



Figure 4
Trumpet in D, by Huschauer, Vienna, 1794
(Edinburgh University Collection of Historic Musical Instruments).



J. Hyde, A New and Compleat Preceptor for the Trumpet and Bugle Horn (1800).

notation, would have recognized military calls by their style alone. But armies were being standardized and centralized; Prussia was the first nation to produce sets of standard trumpet calls (in 1751)²⁷ and to take measures to see that trumpeters knew them and used them.²⁸

Increasingly, then, during the Classical period, military calls were codified, and the cavalry instrument was standardized: it was a long single wound trumpet in D, also in C, E_b , and F; written middle c' was blown as the fourth natural note, with the e' and g' above this available as fifth and sixth natural notes (Figure 4).

There are several examples of literal quotations of these calls, which remained, at least in the Austro-Hungarian repertoire, much the same until the First World War. Haydn quotes the Generalmarsch in Symphony no. 100, the "Military"; Mahler gives us the Abblasen in his Third Symphony. Much more common, however, is the signal-like melody in military or heroic contexts, which is not an authentic call but merely copies the style or presents vague echoes of existing signals. The trumpet call in Fidelio contains echoes of four contemporary signals,²⁹ and the signal in Act 1 of *Carmen* also reflects French infantry calls.³⁰ As well as referring to established calls, pastiche military signals usually reproduced certain characteristic rhythms: the double- or triple-tongued attack, called ti-ri-ton, ri-tiri-ton, and ti-ri-ti-ri-ton by Altenburg (179531; see Example 6a), is familiar from Rossini's Overture to William Tell and the introduction to the Wedding March from Mendelssohn's Midsummer Night's Dream music; the march rhythm with a dotted group on the second beat is apparent in Act 2 of Bizet's Carmen (Example 6b) and in the woodwind answering figure near the beginning of Mozart's Piano Concerto in Bb, K. 595 (Example 6c). It is noteworthy that Altenburg regards the simple three-note double-tongued figure, called abgekürzte Bezeichnung in the example, as shorthand for the four-note and five-note figures; presumably, when the three-note figure appeared in orchestral parts, as it does in William Tell, experienced trumpeters would add a note or two.



Example 6
a. J.F. Altenburg, *Versuch* (1795).
b. Bizet, *Carmen*, Act 2.
c. W.A. Mozart, Piano Concerto in Bb, K. 595, mvt. 1.

It is clear that a recognizable "military style" was establishing itself throughout the modern period, reaching its standard form at the start of the nineteenth century. But what did it signify? Like the hunting call, the military trumpet signal was unequivocally euphoric. It represented the glory, heroism, and adventure of war, without suggesting the squalor, brutality, or small-minded bureaucracy of contemporary armies. In the words of a military historian, it evoked a "warrior" mentality rather than an "army" mentality ³² in an age when the individual fighter was increasingly lost in the large centralized standing force and the general action. The warrior spirit was connected with the knightly horseman, whose domination of the battlefield had ended in the fifteenth century with the influx of firearms, but whose glorious exploits were recounted in the *chansons de geste* and the romances of the Middle Ages and sixteenth century.

Although the centralized management of armies was established in the seventeenth century, the myth of the heroic warrior survived. It can be found in *opera seria*, in Goethe's *Egmont*, and in Beethoven's music to the play. At the same time, a new treatment of the trumpet call was surfacing in music, not dysphoric but slightly tongue-in-cheek. In comic opera the military theme was often satirical and small-time. Figaro's "Non più andrai," for example, is based on the military style, both in its melos and in its trumpet figures. But the sentiment is a little absurd, inconsequential, and overdone. It evokes, not an elemental warrior but a toy soldier. Such a piece shows, perhaps, a perception of the contemporary soldiery that looked obliquely at the tradition of heroism. This perception is found also in the drama of the period; J.M.R. Lenz's play *Die Soldaten* (1775) and L.-S. Mercier's *Le déserteur* (1770) portray the aristocratic officer as a cruel or light-minded character, and soldiering as a degrading activity.

It is true that soldiers of the eighteenth century were an unheroic bunch. Commanders had learned that wars were seldom won by pitched battles; evasive tactics were much more effective. There was a love of "ceremonial" rather than vigorous action.³³ Armies in the field were quite small (Frederick the Great's largest force was 65,000, at Prague in 1757³⁴). The first military academies date from this period; within them, young men were taught French, geography, law, mathematics, drawing, architecture, fencing, and dancing.³⁵

It can be said, therefore, that the signification of the military topic in the music of this period was touched with a realism that is not found in the case of the hunt topic. In an odd way, when Napoleon introduced Europe to "absolute war," this spirit of realism again influenced the musical topic. The French Revolution, coupled with mass conscription, had put in the field immense forces; by 1794 France had more than a million men under arms, and Lazare Carnot, a revolutionary general, proclaimed that "war is a violent condition; one should make it à *l'outrance* or go home."

Indeed, the revolutionary and Napoleonic wars were waged with terrible ferocity, and as the century progressed, a new earnestness came to inhabit the military topic, as though the changed nature of war demanded a more serious evocation. It is to be heard in Wagner's *Ring*, in which the "sword" motive is the classic example of a military trumpet call signifying an elemental warrior. But oddly, the soldier of this period fought in mass armies that were increasingly dominated by technology, by improved gunnery and transport. In

spite of this, the story of Roland became a frequent point of reference for warlike courage in the nineteenth century.³⁶ The Romantic soldier dreamed of classic heroes, but died as cannon fodder. Meanwhile, the military topic in music continued to evoke heroism, not brutality, even in the grave Third and Sixth Symphonies of Bruckner. The relation of text and reality remained complex.

Here, then, was a topic that signified an old mythology, but that was nevertheless accessible, in a somewhat perverse way, to contemporary realism. Each topic relates differently to cultural myth and to modern life. The topic of the noble horse, described in my book,³⁷ presents a semiotic pattern somewhat similar to the military topic, to which it is related. It makes use of a rhythm associated both in verse prosody and in music with the sound of hooves. But it signifies a view of the horse inherited from the thirteenth century and later from the romances of the fifteenth. Yet there is also a contemporary reference; the horse of war, long sidelined by the introduction of firearms, was again acquiring importance in battle in the eighteenth century because of a new kind of tactic, in which troops charged at the full gallop instead of merely at the trot. The battle of Rossbach (1757) was won by Frederick the Great with such a charge.³⁸

Other topics, not associated with brass instruments, evince an even more obvious divorce between expression and content. The pastoral topic found its main expressions in the drone of the bagpipe, the rhythm of the siciliana, the timbre of flute and oboe, and especially the duet of flutes. But it evoked a kind of peasant life which, though it had been pictured by ancient writers like Theocritus and Virgil, and revived by moderns like Tasso, Guarini, and Honoré d'Urfé, had probably never existed. People in the eighteenth-century countryside lived in great squalor and were lamentably subject to famines and epidemics.³⁹ Even the Turkish topic, based on an echo of the Turkish military ensemble or *mehter*, which is heard in Mozart's *Entführung* and Beethoven's *Ruins of Athens*, probably evokes an era of Turkish military glory that ended in the seventeenth century.⁴⁰

The dashing huntsman pictured by the classical horn, the heroic soldier evoked by the sound of the trumpet, were not present in contemporary life. They were dreams, imaginative ideals to which huntsmen and soldiers, perhaps, aspired. In most cases, the dreams were older than the instruments that called them into being; the hunting horn was no older than the mid-seventeenth century, the cavalry trumpet a little older, yet the heyday of the parforce hunt was in the fifteenth century, and that of military heroism even earlier, before the introduction of firearms. There was not too much heroism to be found in the period of classical music; but this was an age when, as Ratner says, "horn signals echoed and re-echoed throughout the countryside," and when the sound of military trumpets and bugles could be heard in every town and village.

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NOTES

- ¹Leonard G. Ratner, *Classic Music: Expression, Form, and Style* (New York: Schirmer Books, 1980), pp. 18-19.
- ² Marc Antoine, Marquis de Dampierre, *Recueil de fanfares pour la chasse, à une et à deux trompes* (Paris: Le Clerc, ca. 1772).
- ³ H.F. von Flemming, *Der vollkommene teutsche Jäger*, 2 vols. (Leipzig: Martini, 1747; originally published 1719), 1: 311-12.
- ⁴Jean Serré de Rieux, *Les dons des enfans de Latone: la musique et la chasse du cerf* (Paris: Prault,1734), p. 207.
- ⁵Le Verrier de la Conterie, *Venerie normande, ou l'école de la chasse aux chiens courants* (Rouen: Dumesnil, 1778), p. 3.
- ⁶In addition to Ratner, *Classic Music*, see also V. Kofi Agawu, *Playing with Signs: A Semiotic Interpretation of Classic Music* (Princeton: Princeton University Press, 1991); and Elaine R. Sisman, *Mozart: The "Jupiter" Symphony, No. 41 in C major, K. 551* (Cambridge: Cambridge University Press, 1993).
- ⁷ Elaine R. Sisman, "Genre, gesture and meaning in Mozart's 'Prague' Symphony, in *Mozart Studies 2*, ed. Cliff Eisen (Oxford: Clarendon, 1997), pp. 27-84, here 76-78.
- ⁸Described in Raymond Monelle, *The Sense of Music: Semiotic Essays* (Princeton: Princeton University Press, 2000), pp. 45-65.
- ⁹ Ibid., pp. 66-73.
- ¹⁰ Ibid., pp. 14-19.
- ¹¹ Both instruments are seen in an illustration in Mersenne's *Harmonie universelle* of 1636 (facs. ed., Paris: Centre national de la recherche scientifique, 1965), 3: 245.
- ¹² Horace Fitzpatrick, *The Horn and Horn-Playing, and the Austro-Bohemian Tradition from 1680 to 1830* (London: Oxford University Press, 1970), p. 4.
- ¹³ See Daniel Bourgue, "The French Hunting Horn, Its History, Its Technique and Its Music," *Brass Bulletin* 39 (1982): 26-38.
- ¹⁴ "After 1729," according to ibid., p. 29; but this is too late, as there is a fine example of the new, smaller horn, with a diameter of 54.5 cm., in the Collection of Historic Musical Instruments of the University of Edinburgh, dated 1721, shown in Figure 1.
- ¹⁵ Flemming, Der vollkommene teutsche Jäger, 1:212.
- 16 Ibid.
- ¹⁷ For example, William Twiti, *The Art of Hunting,* about 1328; Alfonso XI, King of Castile, *Libro de la Monteria*; Anon., *Les Livres du Roy Modus et de la Royne Ratio,* fourteenth century; Hardouin de Fontaines-Guerin, *Trésor de vénérie,* 1394; Jacques du Fouilloux, *La vénérie,* 1561; Charles IX, King of France, *La Chasse Royale*, about 1570; George Turbervile, *The Noble Art of Venerie or Hunting,* 1575 or 1576. These manuals speak exclusively of the parforce hunt, of course.
- ¹⁸ See especially John Cummins, *The Hound and the Hawk: The Art of Medieval Hunting* (London: Weidenfeld, 1988), pp. 1-8, 74-77.
- ¹⁹ Ibid., p. 2.
- ²⁰ From the *Georgica Curiosa* of W.H. von Hohberg, 1682, quoted by Hans Wilhelm Eckardt, *Herrschaftliche Jagd, bäuerliche Not und bürgerliche Kritik* (Göttingen: Vandenhoek,1976), p. 50.
- ²¹ Anne Rooney, *Hunting in Middle English Literature* (Woodbridge, Suffolk: Boydell, 1993), p. 46.
- ²² James J. Sheehan, *German History, 1770-1866* (Oxford: Clarendon Press, 1989), pp. 481-82.

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