IRASM 40 (2009) 2: 299-347

A Catalogue of Music Onomatopoeia[1]

Luiz E. Castelões
R. Fonte da Saudade, 126 / 801
Rio de Janeiro, RJ,
22471-210, Brazil
E-mail: lecasteloes@gmail.com

UDC: 78.024
Original Scientific Paper
Izvorni znanstveni članak
Received: December 12, 2008
Primljeno: 12. prosinca 2008.
Accepted: August 25, 2009
Prihvaćeno: 25. kolovoza 2009.

Abstract – Résumé
The subject of musical onomatopoeia, or imitation of environmental sounds by musical instruments, has long been dismissed as marginal and unimportant in the context of Western art music. The purpose of this article is both to counter this dismissal and to propose the development of a field of study focused on musical onomatopoeia. After explaining the choice of the term *musical onomatopoeia* to refer to this compositional practice, based on the criteria of historical pertinence, frequency of use in the literature, and terminological coherence, I examine a number of factors that have determined the views of nineteenth- and twentieth-century commentators on the subject. The article closes with a brief catalogue of examples from the Western art music repertoire.
Keywords: aesthetics • musical onomatopoeia • musical composition • Western art music

Introduction

This article offers a model for the specialized study of the imitation of environmental sounds by musical instruments, here called *musical onomatopoeia*. Given that little scholarly attention has been paid to this topic, particularly in the context of Western art music, the present investigation is meant to serve as a point of departure for a more comprehensive discussion of this compositional practice.

My discussion is based in part on an extensive review of writings in which musical onomatopoeia has been assessed from both ethical and aesthetic perspectives—from Berlioz's 1837 »On Imitation in Music« to Levin's 2006 *Sound, Music, and Nomadism in Tuva and Beyond*—and culminates in a brief catalogue containing thirty-eight examples of musical onomatopoeia.

[1] This article is derived from research supported by a grant from CAPES/Brazil. Acknowledgements are due to Dr. Thomas Peattie, of Boston University, for his continued support and advice.

The text is divided into four main sections:

In the first, I define the term *musical onomatopoeia* based on the concept of iconicity, and I analyze the limitations of this terminology.

In the second, I look at several passages in the literature in which the practice of musical onomatopoeia has been subject to critique in light of: 1) Plato's own critique of onomatopoeia, 2) the nineteenth-century assumption of a diametric opposition between absolute and program music, and 3) the devaluation of humor in the context of Western art music.

In the third, I outline the historical and methodological considerations that have guided the organization of the catalogue.

In the fourth section, I offer a catalogue of examples of musical onomatopoeia drawn mainly from the repertoire of nineteenth- and twentieth-century Western art music. This section represents a preliminary effort towards the creation of an onomatopoeic lexicon, which may serve as a basis for subsequent studies. It is followed by a general conclusion in which I suggest a number of contributions that can be made by the fields of acoustics, psychoacoustics, musical analysis, and historical musicology to future phases of the investigation of musical onomatopoeia.

1. Terminology

The musical practice associated with the term *musical onomatopoeia* has been given various names in the literature, including »direct [or 'physical'] imitation« (Carpani, in 1812),[2] »imitation of natural sounds« (Berlioz, in 1830),[3] »musical imitation« (Basevi, in 1859),[4] »musical naturalism, or the depiction of the actual sounds of nature« (Finkelstein 1952: 124), »graphic representations or imitations« (Gotwals 1968: 186),[5] »overt musical imitation« and »musical mimicry« (Coker 1972: 159), »use of sounds of the non-musical environment« (Nyman 1981: 34), »imitation of non-musical sounds« (Dahlhaus 1985: 18; Lister 1994), »simple imitation of acoustic phenomena of the external world« (Dahlhaus 1985: 21), »use of everyday sounds« (Berger 1985: 109), and »definite representative allusions« (Harley 1994: 8).

[2] In the book *Le Haydine ovvero Lettere sulla vita e le opere del celebre maestro Giuseppe Haydn* (originally published in 1812). Modern Italian edition from 1969 (reproduction of the Padua 1823 edition). English translation by Barzun (1951), and Cone (1971: 37).

[3] In the footnote appended to the introductory paragraph of Berlioz's program for the *Symphonie Fantastique* (premiered in 1830; published in 1845). Modern English translation by Cone (1971: 28).

[4] In the analysis entitled »Simon Boccanegra« from the book *Studio sulle opere di Giuseppe Verdi* (originally published in 1859). Modern English translation by Walter Grauberg (Bent 1994: 211).

[5] In the translation of A. C. Dies's (1755-1822)1810 Haydn biography.

In this study, the choice of the term *musical onomatopoeia* results from the combined application of three criteria: historical pertinence, terminological coherence, and frequency of use in the literature — the first is illustrated in section two, whereas the latter two are described in the paragraphs that follow.

The terminological coherence of the expression musical onomatopoeia is demonstrated by way of two basic notions borrowed from linguistics, namely:

1) *arbitrary* (Crystal 1997: 24-25)[6] – when a word is related to the thing it denotes by means of convention or habit; e.g., the relation between a bird and the word that refers to it (in English the word »bird«) is arbitrary (conventional, unmotivated). That is, there is nothing in the word »bird« that reflects the sound (or the shape or the color) of a bird.
2) *iconic* (Crystal 1997: 25, 188)[7] – when a word is related to the thing it denotes by means of common physical properties; e.g., the relation between a cuckoo and the word that refers to it (in English the word »cuckoo«) is largely based on common physical properties (i.e., their sound). That is, the sound made by the thing referred to is to a large extent present in the sound of the word that refers to it (onomatopoeia).

Especially relevant for the present study is the definition of *iconic,* which characterizes the specific property that distinguishes verbal onomatopoeia from conventional words. A similar distinction can be made between musical onomatopoeia and »conventional« musical sounds; the former are iconic in nature.[8] Support for this analogy can be found in the work of scholars who apply the concept of icon(ic) to the imitation of environmental sounds by musical instruments such as Pratt (1954), Osmond-Smith (1971), Boiles (1982), Monelle (1991; 2002), Tarasti (1994), and Broeckx (1996).

As for the criterion of frequency of use in the literature, there is an extensive list of writings from 1903 to 2006 whose authors employ the term *musical onomatopoeia*, or simply *onomatopoeia*, with the meaning of imitation of environmental sounds by musical instruments, including: Blackburn (1903), Newmarch (1904-1905), Gatti (1921), Wood (1933 and 1942), Pratt (1954), Demuth (1955), Parrott (1956), Butor & Schier (1981-1982), Burton (1982), Wakabayashi (1983), Anhalt (1984), Wishart (1986), Stefani (1987), Kroeger (1988), Yuasa (1989), Fowler (1989), Samuels (1991), Driver (1991), Aluas (1992), Hallmark (1996), D'Angour (1997), Gilliam (1997), Carmant (2001), Monelle (2002), and Levin (2006).

With regard to the scope and limitations of the term *musical onomatopoeia*, I shall make two remarks:

---

[6] See also SAUSSURE (1986, originally published in 1916).

[7] The term *iconic* is more often used in semiology, but the present study employs it only in the context of linguistics, i.e., exclusively as regards onomatopoeia.

[8] Even though a thorough definition of »conventional« musical sound is inevitably problematic, there is no doubt that musical onomatopoeia is iconic in nature.

First, none of the terminology thus far employed for the discussion of musical onomatopoeia (inclusive) adequately solves the problem of clearly defining where the boundaries are between conventional musical sounds and environmental, or onomatopoeic, sounds. Indeed, in certain cultural contexts, a distinction between »conventional musical sound« and musical onomatopoeia might prove useless. In some non-Western musical systems (e.g., among the hunter-pastoralists of Inner Asia), musical onomatopoeia represents a much larger fraction of the musical lexicon (see Levin 2006). Moreover, it seems indisputable that there exist arbitrary elements to every example of musical onomatopoeia, just as there are arbitrary elements to every example of verbal onomatopoeia.[9] Questions could be raised such as: »Can music itself be an environmental sound?« or »Is music defined by its objects (sound, score, etc.) or by its subjects (listener, composer, performer, etc.)?« While a thorough discussion of these issues would represent an unnecessary digression, it is necessary to list the criteria that satisfy the present definition of musical onomatopoeia.

For the purpose of this study, a musical gesture will be considered to be an example of musical onomatopoeia if: 1) it is aurally *iconic*, i.e., it resembles the imitated sound; 2) the composer makes it clear what sound he is attempting to imitate (whether this is indicated in the score, or implied by means of titles or programs); and 3) contemporaneous commentators recognize it as an imitation of environmental sound. The latter two criteria make this a definition that reflects to a large extent the musical values of the historical protagonists involved.

Second, it is important to acknowledge that some related musical practices are not included in the narrow category here defined as musical onomatopoeia. These include:

(a) the use of pre-recorded environmental sounds for acousmatic music.[10] Despite the ample utilization of pre-recorded environmental sounds in this genre, its lack of live musical instruments calls for a different methodological approach, therefore I purposely avoid including it in this study; [11]

(b) the use of the live (unrecorded) sound itself rather than its imitation, with the sound source physically present in the performance—e.g., cow bells in Mahler's *Symphony no. 6*, 1903-04, car horns in Gershwin's *An American in Paris*, 1928, and sirens in Varèse's *Ionisation*, 1929-1931. Although this practice is widespread in twentieth-century music, perhaps even more so than the use of musical

[9] See SAUSSURE (1986 [1916]: 69) and WAUGH (1993) for analyses of arbitrary and iconic components of verbal onomatopoeia.

[10] This study includes, however, one example of the superimposition of musical onomatopoeia and pre-recorded environmental sounds, i.e., »mixed music« (see section four).

[11] To be sure, there are significant parallels to be drawn between the practice of musical onomatopoeia in the context of instrumental music and those electro-acoustic trends in which the recognition of the sound source is not proscribed, such as Luc Ferrari's *musique anécdotique* and R. Murray Schafer's »environmental music« (see, for instance, WINDSOR 1996 and LANDY 2007).

onomatopoeia, it also requires a distinct methodological approach, since it does not fit into the category of imitation of environmental sounds by musical instruments. It could be more accurately described as the utilization of sound sources *other* than musical instruments.[12]

2. Critique

One of the earliest discussions of musical onomatopoeia can be found in the third book of Plato's *Republic* (396B and 397B). Plato's view of onomatopoeia and the imitative arts forms part of his broader discussion of *mimesis*, which roughly translates as either »impersonation« or »imitation of nature« in both the third and tenth books. *Mimesis* as impersonation (i.e., indirect speech) is not directly relevant to the subject matter of this study. Plato's notion of *mimesis* as imitation of nature is relevant to this study, however, given that his assumptions are similar to some of those found in the discourse about musical onomatopoeia over the past two centuries.

I proceed cautiously here in attempting to analyze Plato's thoughts on musical *mimesis*. As Stanford (1973) points out, the chronic ambiguity of some Greek words makes the attempt to distinguish between literary and musical *mimesis* rather problematic. As Cornford (1971) remarks, Greek poetry was very often *sung* poetry, and Plato approved of the old practice of writing lyric poetry »only to be sung to music, and music only as an accompaniment to song« (p. 85). Given that Plato speaks of words, musical mode, and rhythm as inseparable parts of

[12] One could argue that any sounding object brought on stage automatically acquires the status of a musical instrument, in which case Gershwin's car horns and Mahler's cow bells would be considered musical instruments. Gershwin (1930a), for example, distinguishes between old and new instruments: »In my 'American in Paris' I used four taxi horns for musical effect. George Antheil has used everything, including aeroplane propellers, door bells, typewriter keys, and so forth« (p. 264). Yet, even if one regards these sound-makers as musical instruments, the classification of their sounds as examples of musical onomatopoeia is not accurate. After all, these objects are not exactly *imitating* environmental sounds, since they are themselves the original *source* of the environmental sounds. This might be a seemingly subtle distinction from the listener's perspective, and from the viewpoint of the resulting sound, but it represents a considerable difference as regards the compositional procedures involved in these two practices. While one involves simply bringing an object that did not have the status of a musical instrument on stage (hence transforming it into a musical instrument, appropriating it from its previous *unmusical* existence), the other involves comparing the sound spectra of musical instruments and environmental sounds—either intuitively, as was the case before the second half of the twentieth century, or by way of sonogram analyses, as among such contemporary composers as Mâche (1992[1983])—and finding or creating specific instrumental gestures that are capable of imitating the environmental sounds in question. In the twentieth century, this often involves the use of extended instrumental techniques, as well as choosing or devising the musical writing that best suits the intent. Given this fundamental distinction, the catalogue of musical onomatopoeia presented in this study (section four) includes examples of »sound source physically present« as a separate category.

»song,« it can be inadequate to analyze the poetical and musical components of his views on »song« separately.

On the other hand, the inextricable association between music and poetry in Plato's *Republic* has allowed commentators to extend some of Plato's critique of (sung) poetic onomatopoeia to musical onomatopoeia. Consider, for example, Cornford's and Shorey's footnotes to 397b, as well as French contemporary composer François-Bernard Mâche's (b.1935) comments:

> Plato's point being now sufficiently clear, the translation omits a passage in which he says that a man of well-regulated character will confine himself to impersonating men of a similar type and will consequently use pure narrative for the most part. A vulgar person, on the other hand, will impersonate any type and even give musical imitations of the cries of animals and inanimate noises. Plato began by speaking of recitation as a part of early education, but he now proposes to exclude poetry and music of the second kind from the state altogether. (Cornford 1971, p. 84)

> For this rejection of violent realism *cf. Laws* 669c-d. Plato describes precisely what Verhaeren's admirers approve: »often in his rhythm can be heard the beat of hammers, the hard, edged, regular whizzing of wheels, the whirring looms, the hissing of locomotives; often the wild restless tumult of streets, the humming and rumbling of dense masses of people« (Stefan Zweig). So another modern critic celebrates »the cry of the baby in a Strauss symphony, the sneers and snarls of the critics in his *Helden Leben*, the contortions of the dragon in Wagner's *Siegfried*.« (Shorey 1963, p. 237)

> The scorn which weighs very heavily on this kind of music, *and which goes back to Plato*, rests on the idea that such an enterprise must for effect divert the listener from the signifier towards the externally signified which is perfectly useless, while the only authentic thing musically signified can only be either human values, or simply music itself. [italics mine] (Mâche 1992, p. 41)

> Each time in history that the infatuation of composers with the rediscovery of sound has been largely shared, a censure has soon arisen against this realism, for moral, religious, philosophical or, much more rarely, aesthetic reasons. Plato's protestations against musicians who imitated the rhythmic sounds of work or of machines, the sounds of the horse, bull, dog, cattle or birds, the sounds of the river or the waves, the wind, hail or thunder, instead of imitating virtue, prove that this practice was becoming very important in the country of humanism itself in the 4th century BC. (Mâche 1992, p. 47)

Stanford (1973) further reinforces the validity of extending Plato's critique of onomatopoeia in *sung* poetry to musical onomatopoeia as he remarks that since several of the sounds mentioned in Plato's *Republic* would be difficult to imitate effectively by the human voice they were probably produced by musical instruments.

The second of Plato's arguments that can be read as an indirect critique of musical onomatopoeia appears in the tenth book of the *Republic* (595a-608b), as White (1979) summarizes:

> 595c-597e: We need to see quite generally what imitation is. We have a form when there is a plurality of things with the same name, e.g., the form of bed; in addition there are the beds in which we sleep, which are made by artisans; and there are appearances of beds, which can be produced by mirrors or by painting. The artisan does not make the form of bed, but only a particular bed; the god made the form, which is necessarily unique. The product of an imitator, such as a painter, is at the third remove from the form. (p. 247) [13]

Throughout this passage there are no direct allusions to musical onomatopoeia but only to imitative painting and poetry. Nonetheless, two factors suggest that we can make an acceptable analogy with music: 1) White (1979) claims that »Plato presumably thinks that the analogy holds for the other senses too« (p. 255); and 2) Plato's argument against the imitative painter, which is based on the assumption that »the product of an imitator« is »at the third remove from the form,« could apply equally well to the composer who makes use of musical onomatopoeia.

The ties between Platonic aesthetic values and nineteenth-century musical criticism—and, hence, criticism of musical onomatopoeia—are not yet well documented in the literature. But at least four authors expressly link Plato's *mimesis*, or simply the Greek word *mimesis* and its derivatives (such as *mimetic*), to the practice of musical onomatopoeia in Western art music: Stanford (1973), Mâche (1992), Bent (1994), and Levin (2006).[14] The latter even coins the term »sound mimesis,« which includes musical onomatopoeia. Essential to Plato's critique of onomatopoeia is the assumption that *mimesis* possesses an ethical dimension in which imitation can cause the development of either honorable or dishonorable behavior, depending on the qualities of the beings that are imitated. The imitation of the cries of animals or of inanimate sounds of nature—both of which make up a large fraction of the onomatopoeic lexicon—was considered dishonorable, hence musical onomatopoeia being proscribed in that particular context.[15]

Several authors claim that Plato's aesthetic values were reinforced in nineteenth-century musical aesthetics by way of the philosophical movement known

---

[13] All capitals in the original.

[14] *Mimesis* and *mimetic* are commonly found in the literature of electro-acoustic music (see EMMERSON 1986 and WINDSOR 1996).

[15] »The Guardians should use mimesis as little as possible, and be restricted to enacting the parts of noble, self-controlled and virtuous individuals, thus assimilating themselves to the kind of human being the state requires them to become« (JANAWAY 2005, p. 5).

as German idealism.[16] This movement played a determining role in shaping aesthetic values among music critics, theorists, and practitioners in nineteenth-century Germany. Steinberg (1993), for instance, expressly links German idealism, Platonic vocabulary, and the defense of absolute music as he remarks that »the

[16] Roughly from Kant (1724-1804) to Hegel (1770-1831), and including particularly Fichte (1762-1814) and Schelling (1775-1854). According to McCUMBER (2007), Fichte's idealism is characterized by the domination of reason over the senses: »[the sense] cannot be accommodated to or 'reasoned with,' (…) but must be dominated: it is mere material for realizing moral ideals« (p. 90). As STREET (1989) remarks, Hegel »was insistent on a conception of the artwork as a perceivable manifestation of the absolute Idea« (p. 86) and Schelling believed in music as »pure form, liberated from any object or from matter« (p. 86). SHOREY (1963: 257), MONELLE (2002: 5-6), and JACQUETTE (2005: 87) add that Schopenhauer (1788-1860) helped reinforce Platonic aesthetic values in the nineteenth century by establishing a hierarchy of types of artworks corresponding to the hierarchy of Platonic Ideas, and DAHLHAUS (1989) claims that Schopenhauer's aesthetic »was none other than an esthetic of absolute music« (p. 130). BENT (1994) relates the »distinctive genre of elucidatory writing about music« from the second half of the nineteenth century to »German idealist philosophy« (p. 35), and »Neo-Platonism« (p. 216), listing among the exponents of this genre such German music critics as Adolf Bernhard Marx (1795?-1866). KARNES (2008) observes that musical analyses »informed by idealist conceptions of musical meaning« appear throughout the nineteenth-century literature on music, and they underlie much of the critical work of some of the century's most representative writers on music, including E. T. A. Hoffmann, Hector Berlioz, Robert Schumann, and Hermann Kretzschmar (p. 83). HUGHES (1996) reveals the ties between Idealist thought and Music Theory in nineteenth-century Germany through the work of philosophers who had deep technical understanding of music such as Krause (1781-1832). Friedrich von Hausegger (1837-1899) and Eduard Hanslick (1825-1904), who had enjoyed both philosophical and musical education, could also be added to this latter group, though the latter's philosophical affiliations underwent considerable change between the 1850s and 1870 (see particularly KARNES 2008). Geoffrey Payzant, who translated the 1891 edition of Hanslick's *Vom Musikalisch-Schönen* (*On the Musically Beautiful,* among the most widely read aesthetic treatises ever published in German-speaking Europe), reminds us that »materialist« was a label erroneously attached to Hanslick after the publication of its first edition in 1854 (HANSLICK 1986: xiv). KARNES (2008) claims that in spite of Hanslick's assertions to the contrary, *On the Musically Beautiful* was essentially a »deeply idealist work,« and highlights the fact acknowledged by DAHLHAUS (1989) that the bulk of Hanslick's revisions of his treatise consisted of altering or removing those statements that had, in the first edition from 1854, »most clearly revealed the idealist underpinnings of many of its central arguments« (p. 33). Yet Payzant (HANSLICK 1986 [1891]) observes that one must proceed with caution when tracing the philosophical influences upon Hanslick: »Of course there are interesting comparisons to be made between specific passages in Hanslick and specific passages in the writings of Kant, but we have neither internal nor collateral evidence upon which to make a positive claim for an influence from the one to the other, except perhaps indirectly by way of C. F. Michaelis. (…) Hegel is named, quoted, and alluded to, not on trivial matters, but there is no argument in Hanslick, no point of doctrine, to which we can confidently point and declare that it is of Hegelian origin (…) much work remains to be done in this area. I believe that insufficient attention has been given to Hanslick's earlier writings. In these we can see him working out the basic ideas of *Vom Musikalisch-Schönen*, stimulated not so much by philosophers as by two composers who were also prolific writers on music: Hector Berlioz and Alfred Julius Becher« (pp. xv-xvi). As regards the musical onomatopoeia, Hanslick's views remained the same throughout his writings and have not been affected by the shifts of philosophical allegiance in his career (see KARNES 2008), as will be shown by way of several excerpts quoted in this section. Even when he adopts a view favorable to Berlioz in his early writings, i.e., before 1847, this does not correspond to a defense of musical onomatopoeia (see particularly PAYZANT 1991). HUGHES (1996) further remarks that the profound effect of idealist thought even upon more recent musicologists such as Dahlhaus has begun to be acknowledged.

tradition of nineteenth-century musical aesthetics had taken on a decidedly Hegelian attitude, whereby music, especially 'absolute,' or nonrepresentational, music, was valued as the carrier of the Idea« (p. 398). Musical onomatopoeia conflicts with the aesthetic values of Plato and of most German idealists precisely because it is seen to emphasize imitation, the senses, the external world, and matter.[17]

Not surprisingly, most of the nineteenth- and twentieth-century commentators mentioned in this study who dismissed musical onomatopoeia also expressed a devaluation of imitation, the senses, the external world, and matter. In this sense, the dismissal of musical onomatopoeia often occurred alongside an expression of Platonic aesthetic values—probably via German idealism. A good example is composer Ferruccio Busoni's (1866-1924) *Sketch of a New Esthetic of Music* (1962, originally published in 1907), in which the composer states that what is »Absolute in music« is the fact that it is free from the »limitations of matter« (p. 78). In criticizing the »descriptive effects of tone-painting« Busoni asks, »what can the presentation of a little happening upon this earth (…) have in common with that music which pervades the universe?« (p. 82).

One of the major manifestations of Idealist thought in music is the defense of the idea of »absolute« or »pure« music, popular among such nineteenth-century critics as Eduard Hanslick (1825-1904) and recently re-interpreted by Carl Dahlhaus (1928-1989) as a »vacuous label« employed in »colloquial music aesthetics« (1989: 35).[18] Despite Dahlhaus's reassessment of the relevance of the opposition between absolute and program music, it should be remarked that such distinction is often alluded to in the discussion of musical onomatopoeia—which makes it particularly relevant for the present study. Holoman (1997) observes that Berlioz was not particularly pleased by the »rapid and almost universal« adoption during his lifetime—1803-1869—of the term »program music« as the opposite of »absolute« and (by implication) »proper« music (p. 109). And this distinction was still strong in the early 1900s according to Busoni (1962 [1907]), who claimed that the »one-sided and limited« concepts of absolute and program music had become so petrified that even »persons of intelligence« held one or the other »dogma,« without recognition of a third possibility (p. 81). More recently, Harley (1994) describes how the dispute between absolute and program music has kept music scholars

[17] One must not overlook the fact that there are nuances within the aesthetic values of German idealists. Just as an example, in Schiller (1759-1805), who is at times placed either on the sidelines or outside the standard story of German idealism, the »central problem of the age is identified as the problem of finding a way to articulate and justify the *harmonious union of sense and intellect*.« Schiller understands this problem »through an account of aesthetic experience that shows it to be at once sensory and intellectual, *with neither side dominating*.« [italics mine] (McCUMBER 2007: 90). For more on the relation between German idealism and Idealist thought in music, see also BIDDLE (1996), LEYSHON et al (1995: 425), BLAUKOPF (1989: 189), and COOK (1989: 435-36).

[18] For the history of the term *absolute music* see chapter two of the same book (DAHLHAUS 1989). For more on absolute music in the nineteenth century see HEPOKOSKI (2001).

from tracing the birdsong models for Béla Bartók's (1881-1945) representations in his *Piano Concerto No. 3*:

> The composer's interest in birdsong and its transcription during the final years of his life spent in North America was not inconsequential for his music: a 'concert' of birdsong can be found in the middle section of the *Adagio religioso*, the slow movement of Piano Concerto No. 3. Even though this fact is well known and often commented upon, there has as yet been no effort to trace the exact birdsong models for Bartók's representations. This neglect seems to result from the traditional dismissal of definite representative allusions in instrumental music as being mere wordpainting, trifling surface details. Such contempt for 'content' is an exaggerated reaction to its opposite, the abuse of content – present, for instance, in the arbitrary superimposition of fanciful programs onto a musical work. (p. 8)

American critic Sidney Finkelstein (1909-1974) offers a singular example of what Harley identifies as the »traditional dismissal« of musical onomatopoeia in that his repudiation of musical onomatopoeia is paired with a defense of program music—not of absolute music. In *How Music Expresses Ideas* (1952), he remarks that while program music has existed as long as music itself, its aesthetic qualities were widely questioned during the nineteenth century, on the ground that it was not »pure« music and depended on non-musical supports. But, Finkelstein argues:

> The truth is that no music is really »pure,« and all musical form must depend for its meaning on its relation to real life and human actions. Program music has been as artistically successful as any other form (…). The weakness that appears in bad program music is often the vagueness of the program (…) and the tendency to disguise this emptiness with musical naturalism, or the depiction of the actual sounds of nature such as wind, waves, battle noises, bleating sheep, etc. Such naturalism (…) is a low level of depiction of life in music. (p. 124)

Carl Dahlhaus is another critic who dismisses the importance of musical onomatopoeia. Although he considers it to be the first form of imitation of nature in music, he prematurely underlines its peripheral character. In *Realism in Nineteenth-Century Music* (1985), he observes:

> 1. The simple imitation of (non-musical) sounds, sometimes, especially in its less subtle manifestations, described as 'naturalistic' or 'realistic' in the late nineteenth century, for example by Hugo Riemann and Hermann Kretzschmar. Its intrinsic significance was never very great, but it has received disproportionate attention, especially at the popular level of aesthetic discussion, partly because of its conspicuousness in any musical context, and partly because it offers a little help in easing the difficulties or embarrassments of discussing autonomous instrumental music in appropriate yet comprehensible terms. But its peripheral character renders it almost entirely irrelevant to a discussion of musical realism. (p. 18)

In a similar vein, Busoni (1962 [1907]) claims that the imitation of the sounds of nature is peripheral, covering but a very small section of musical art:[19]

> And how primitive must this art remain! True, there are unequivocal descriptive effects of tone-painting (from this the entire principle took its rise), but these means of expression are few and trivial (...) Begin with the most self-evident of all, the debasement of Tone to Noise in imitating the sounds of nature—the rolling of thunder, the roar of forests, the cries of animals (…) –These are auxiliaries, of which good use can be made upon a broad canvas, but which, taken by themselves, are no more to be called music than wax figures may pass for monuments. (p. 81-82)

Yet Busoni's and Dahlhaus's argument is not supported by the views of French composer Hector Berlioz (1803-1869). The opening paragraph of Berlioz's 1837 »On Imitation in Music« (reprinted in Pyee 1999, modern English translation by Cone 1971) opposes the view that musical onomatopoeia is peripheral and has little intrinsic significance. Berlioz begins by discussing imitation in music, albeit not in the technical sense which refers to fugue and the fugal style, but in the sense of producing »certain noises which describe or depict by musical means objects whose existence we are aware of only through our eyes«:

> This notable element of art, which not a single great composer of any school has neglected to use (…) has seldom been treated with any fullness or examined with judgment. [The subject is one of great importance nevertheless; from time to time sentinels at the outposts of musical journalism put the question as a challenge, but there is never any response.] (Cone: 1971, p. 36)[20]

In a footnote to the program of his 1830 *Symphonie Fantastique* (Cone 1971), Berlioz adds that »as for the imitation of natural sounds, Beethoven, Gluck, Meyerbeer, Rossini, and Weber have proved, by noteworthy examples, that it has its place in the musical realm« (p. 28).[21] The influence of Berlioz's views on musical onomatopoeia can be measured by Hanslick's music review entitled »Richard Strauss's 'Don Juan'« (1950 [1892]), in which he blames Berlioz for the »emancipated naturalism« and the excess of »tone painting« among the younger generation of composers. Hanslick had previously denied musical onomatopoeia »a

[19] For additional examples of the »traditional dismissal« of musical onomatopoeia, see MORGENSTERN (1956: 332), COKER (1972: 159), WALTON (1997: 65), and MONELLE (2002: 2-3).

[20] Cone (1971) uses brackets to indicate passages that he restored, which had been omitted in the earlier translation by BARZUN (1951).

[21] Later in this same footnote, though, Berlioz contradicts his above words by claiming that musical onomatopoeia are »of very limited usefulness« (p. 29). Furthermore, Berlioz's comments seem to assume a moralistic, normative tone in passages such as this: »I shall therefore try to throw some light on the darker side of its [imitation's] theory, while seeking the criterion by which to determine when its application ceases to be art and falls into absurdity after exhibiting the silly and the grotesque« (p. 36).

place in the musical realm« in *On the Musically Beautiful* (1986 [1891]), whose chapter six »The Relation of Music to Nature« dedicates its closing paragraph, and a footnote, to the discussion of musical onomatopoeia. Hanslick begins by conceding that there are cases in which composers have not just derived poetic incentive from nature but have directly reproduced »actual audible manifestations from it«—and gives as examples the cockrow in Haydn's *The Seasons*, the cuckoo, nightingale, and quail songs in Spohr's *Consecration of Sound*, and Beethoven's *Pastoral Symphony*:

> When we hear this imitation, however, and in a musical work at that, the imitation would have in that work not musical but poetical significance. We would hear the cockrow displayed not as beautiful music, nor as music at all, but only as the mental impression associated with this natural phenomenon. (...) Apart from this merely descriptive intention, no composer has ever been able to use natural sounds directly for genuine musical purposes. Not all the natural sounds on earth put together can produce a musical theme, precisely because they are not music (...) (pp. 75-76)

Because it is imperative for Hanslick's overall argument to uphold music's autonomy and, consequently, music's independence from nature,[22] he argues that the imitation of natural sounds constitutes an element of »poetical significance«—outside the realm of music. The same line of argument is reiterated whenever he disapproves of program music (see particularly Hanslick 1950 [1857, 1892, 1893]).[23]

---

[22] »For music, there is no such thing as the beautiful in nature. (…) [T]here is nothing in nature for music to copy.« (HANSLICK 1986 [1891], p. 73)

[23] »Too intelligent not to recognize his most obvious shortcomings, he [Liszt] has chosen to approach music from an angle where, inspired by external ideas, it occupies the comparative intellect and stimulates poetic or picturesque fantasy.« (HANSLICK 1950 [1857], p. 54); »That Strauss consciously cultivates the imitation of painting and poetry is demonstrated in his other symphonic poems (…). (…) the tendency is the same: to use purely instrumental music merely as a means of describing certain things; in short, not to make music, but to write poetry and to paint.« ([1892], p. 291); »We could almost wish that many more such tone paintings might be composed, simply to provide the *ne plus ultra* of false licentiousness and precipitate a reaction, a return to healthy, musical music. The tragedy is that most of our young composers think in a foreign language (philosophy, poetry, painting) and then translate the thought into the mother tongue (music). People like Richard Strauss, moreover, translate badly, unintelligibly, tastelessly, with exaggeration. We are not so sanguine as to expect the reaction against this emancipated naturalism in instrumental music to come immediately – but come it must.« (p. 292); »That which I said in general about *Don Juan* goes for *Tod und Verklärung*. The basic characteristic of Strauss as a symphonist is that he composes with poetic rather than with musical elements and, through his emancipation from musical logic, takes a position rather adjacent to music than squarely in it. *Tod und Verklärung* also strengthens our previously expressed opinion that, in view of the quick and rapturous acceptance of this composer, the unhealthy tendency will not soon be overcome, although it will eventually provoke a healthy reaction« ([1893], p. 294). According to PAYZANT (1991), Hanslick had borrowed this line of argument from German journalist Bernhard Gutt (1812-1849) in 1847, and adhered to this position, and its theoretical implications, for the rest of his life (see particularly pp. 107-115).

In the footnote of the above excerpt, though, Hanslick eventually concedes that »natural sounds can be directly and realistically carried over into the artwork,« but only »in exceptional cases as humour« (p.76). Indeed, musical onomatopoeia has been associated with humor by nineteenth- and twentieth-century critics alike (see particularly Cazden 1951), who tend to regard humor as either an exception or a negative influence on Western art music.[24] In characterizing the musical values of German »aesthetic cultivated people« around 1800, Dahlhaus (1985) remarks on the repudiation of musical onomatopoeia alongside a devaluation of humor in art music. Note that he employs the word »Tonmalerei« instead of musical onomatopoeia, a historically pertinent term he defines as the simple imitation of acoustic phenomena of the external world:

> From around 1770 onwards, however, at any rate in Germany, it [»Tonmalerei«] was considered aesthetically suspect. Beethoven's defence of programme music in the Pastoral Symphony as 'more the expression of feeling than painting' – which was actually interpreted as a repudiation of programme music by those who despised it but admired Beethoven – echoed the general view of aesthetic cultivated people around 1800, to whom crude naturalistic Tonmalerei was repugnant – or at best tolerable as a medium of naive musical humour. (pp. 21-22)

In the following excerpts from »On Imitation in Music« (1837), Berlioz, who in other passages is an avid defender of musical onomatopoeia, assumes a normative tone and attempts to define the acceptable use of musical onomatopoeia in the context of »serious music« by listing »regrettable« examples of imitation from the eighteenth- and nineteenth-century repertoire:

> The second condition to making imitation acceptable is that it shall concern something worthy of holding the listener's attention, and that it shall not (at least in serious works) be used to render sounds, motions, or objects that belong outside the sphere which art cannot desert without self-degradation. (Cone 1971: 36)

> …in his [Handel's] oratorio *Israel in Egypt* he tried to reproduce the flight of locusts, and this to the point of shaping accordingly the rhythmic figure of the vocal parts. Surely that is a regrettable imitation of a subject even more regrettable—unworthy of music in general and of the noble and elevated style of the oratorio. (p. 39)

In a footnote to the program of *Symphonie Fantastique*, Berlioz further remarks that »the abuse of such imitation is quite dangerous« and that »its happiest effects

[24] Here, too, the influence of German idealism can be felt. As LONGYEAR (1966) observes: »His [Schiller's] lofty idealism had no small influence on the thinking of Beethoven, Schumann, and Wagner, (…) and the use of art as a substitute for religion with a corresponding over-idealization and humorlessness in art« (p. 129).

always verge on caricature« (Cone 1971: 29). Later in the nineteenth century, Paul Dukas, writing in the *Revue Hebdomadaire* of September 1894, approaches the relation between imitation and humor in music from an interested rather than cautious perspective, as he observes that the »question of the pictorial in music has been much discussed, but the study of its potential for the comic has, on the contrary, been left almost completely in the shade« (Morgenstern 1956: 344).[25]

In spite of Dukas's remarks, the devaluation of musical onomatopoeia based on its humorous connotations extends well into the twentieth century. Pratt (1954), for instance, claims that, »at best it [onomatopoeia] may help to reinforce a mood which could be expressed just as well without imitative props. At worst the device is merely the occasion for a smile« (p. 289). In a passage of Berger's »Music as Imitation« (1985), he attempts to delineate the acceptable instances of musical onomatopoeia in the context of twentieth-century art music. He begins his discussion by alluding to those instances in which the »intrinsic relationship between the musical symbol and the thing symbolized is such that they are entirely or scarcely indistinguishable,« such as literal bird calls, automobile horns, and factory noises:

> If there is to be no difference between the original and the artificial stimulation it may be pertinent to ask why the original sources were not used in the first place—as Respighi did via the phonograph in the *Pines of Rome*, Alexander Mossolov with a steel sheet in [an at one time often played Soviet work] *The Iron Foundry* (for factory noises), or Gershwin with actual automobile noises in *An American in Paris*. The logical extremity is a symphony of birds and beasts, a kind of miracle play with Noah, baton in hand, competing with the act of the trained seal. [Had this been written after the time when *musique concrète* and the song of the whale entered into the picture I think I would have made it clearer that I was berating not the use of everyday sounds in the service of artistic ends but their use for mimicry in the spirit of a comedian's impersonation, though even then I could have cited composers like Antheil and Varèse as representatives of the more dignified approach. Also, had it been known what Messiaen could do with bird calls I would certainly have granted that beyond mimicry there was a role for them as inspiration for a composer in shaping his own imaginative tonal configurations.] (p. 109)

Note that Berger's assessment concludes with a sort of *mea culpa* in brackets—resulting from his lack of familiarity with certain twentieth-century trends and composers at the time he had written the article. His contempt for humor in

[25] Dukas uses the word »pitturesque« in the original French (see DUKAS 1948a [1894]: 198), which MORGENSTERN (1956) translates as »pictorial« (p. 344). Although Dukas's article does not focus on the subject of musical onomatopoeia, it mentions several imitative, humorous examples (by Grétry, Berlioz, and others) and is a clear defense of humor in music.

Western art music places him in opposition to several more recent writers who acknowledge the role of humor even among such »serious« composers as Haydn (Wheelock 1979), Mozart (Lister 1994; Choi 2000), Beethoven (Spitzer 2003), and Brahms (Papadopoulos 2003).

As regards the views of composers, excerpts from the literature reveal contrasting assessments of the same works and the same examples of musical onomatopoeia. A. C. Dies's (1755-1822) 1810 Haydn biography (English translation by Gotwals, 1968) shows Haydn's (1732-1809) discontent with some musical onomatopoeia he had employed in *The Seasons* (1801):

> Haydn was often annoyed over the many graphic representations or imitations in *The Seasons*. Above all the croaking of the frogs displeased him. He sensed something base about it and tried to keep it from being heard. [The librettist Baron van] Swieten took him to task on this account, produced an old piece by [Grétry] in which the croaks were set with prominent display, and tried to talk Haydn into imitating it. He, at last provoked by this, resolved to be pestered no longer and gave vent to his indignation in a letter in which he wrote, »It would be better if all this trash were left out.« (pp. 186-187)

Yet, Berlioz, writing only three decades later, in 1837, lists Haydn's *The Seasons* among the most successful works to have employed imitation in music:

> Haydn (…) in his essentially descriptive works *The Creation* and *The Seasons*, does not seem to have lowered his style appreciably when, in order to follow the poem, he applied imitation to such agreeable noises as the warbling of turtledoves—an imitation that is, moreover, quite exact. (Cone 1971: 39)

And even if, in the same essay, Berlioz claims that »not a single great composer of any school has neglected to use this notable element of art« (p. 36), several commentators since the early twentieth century, including Blackburn (1903), Sloboda (1985), and Levin (2006), have actually remarked on, and regretted, the scarcity of examples of musical onomatopoeia in the repertoire of Western art music. In his article »Onomatopoeia in Music,« Blackburn (1903) suggests that music, far more than literature, lends itself to the reproduction, by way of artistic means, of the natural noises of the world, and then goes on to describe the avoidance of musical onomatopoeia on the part of composers in these terms:

> …the fact is so obvious that it would appear that for this very reason musicians have, to a large extent, refused to avail themselves of their opportunities, and have secluded themselves from any suspicion of natural imitation. So to do became a point of honour. Grave treatises were written to prove that mimicry of sound was not good musical art. […] For reasons such as these there are whole chapters of musicians who have, despite their own rare art, avoided onomatopoeia with shuddering horror. (p. 165)

Such sentiments were further echoed by Sloboda's *The Musical Mind* (1985), in which he acknowledges and regrets the scarcity of explicit examples of musical onomatopoeia: [26]

> Unfortunately, very little music has such explicit extra-musical reference, and even in that which does, its reference does not exhaust its significance. (...) Musical reference is special because the music 'makes sense' even if the reference is *not* appreciated by a listener. (p. 60)

Levin (2006) was particularly surprised to find a scarcity of musical onomatopoeia examples among Euro-American traditions as opposed to the abundance he found among nomad traditions from Inner Asia. He identifies a contradiction between the notion that the mimetic faculty constitutes a central aspect of human nature and the fact that *sound mimesis*—a term which encompasses musical onomatopoeia—is not a more prominent part of present-day musical languages:

> …to anyone whose ear has been shaped primarily by Euro-American musical traditions, whether classical, folk, jazz, pop, or some mixture of these, music based primarily on the mimetic representation of environmental sounds (…) would stand out as an oddity. (p. 75)

The discrepancy between the views of Berlioz and of twentieth-century commentators is partially due to the lack of rigor in his use of the terms *physical imitation* and *imitation of natural sounds*, both of which correspond in other contexts—including Giuseppe Carpani's (1752-1825) 1812 book (reprinted in 1969) that

[26] The innovative aspect of SLOBODA's argument, i.e., the supposed link between musical onomatopoeia and »meaning« in music, is, however, developed in another excerpt: »Clearly, there is much in musical behaviour which can be accounted for by considering musical representation to be a closed sub-system with no essential links to other cognitive domains. This system merits study, is the principal topic of discussion in this book, and is the subject of the most prominent research initiatives in the area. However, I believe that the available evidence forces us to accept that there is some 'leakage'. Musical experience is translated into other representational modes. (...) What is it that makes music have meaning for us? One possibility is that it mimics the sounds which occur in extra-musical contexts. There is a great deal of music which employs mimicry to considerable effect (woodwind 'birdsong' to suggest a pastoral scene, glissandi violins to suggest the howling wind of a storm, and so on). Our recognition of these meanings requires only the knowledge of the appropriate extra-musical sounds« (1985: 59). COKER (1972) had included musical onomatopoeia in his broader discussion of »extra-generic musical meaning« (p. 61) and referred in passing to the »semantic potential of music to denote extrageneric objects,« such as bird calls and train engines (p. 159). MONELLE (2002) claims that music »*appears to have* denotative meaning when some natural sound is imitated« [italics mine] (p. 16). By contrast, Meyer (1956) and Nattiez (1990) have not considered musical onomatopoeia's potential to be a carrier of meaning in their writings on music and meaning. MEYER (1956) claims that »unlike verbal symbols or the iconic signs used in the plastic arts, musical sounds are not, *save in a few isolated instances*, explicit in their denotation.« [italics mine] (p. 264); and NATTIEZ (1990) does not mention musical onomatopoeia in his discussion of music's ability to »refer extrinsically« (pp. 118-129).

served as inspiration for Berlioz's »On Imitation in Music«—to musical onomatopoeia. Berlioz's argument in this essay reveals that he is including more than just musical onomatopoeia under the label of physical imitation. By contrast, Blackburn's 1903 essay shows considerable analytical precision, and the methodological tools available to more recent writers, such as Sloboda and Levin, have allowed them to develop more refined terminology and analyses than those offered by Berlioz and Blackburn.

The last group of commentators to be presented in this section differs from the traditional critics of musical onomatopoeia in that they do, in fact, support imitative approaches in music and art. Early examples include Carpani and some passages by Berlioz. According to Carpani (1969 [1812]; modern English translation by Cone 1971), »such imitations are difficult and deserve credit« (p. 37), and Berlioz, in »On Imitation in Music,« calls them a »notable element of art« (Cone 1971: 36).

Claude Debussy (1862-1918) was one of the first twentieth-century composers to advocate for an aesthetic favoring the use of environmental sounds. In an interview from 1909 (reprinted in 1971) he criticizes the fact that too much importance is attached to the writing of music—the formula, the craft—and that composers usually seek ideas inside themselves as opposed to hearing the sounds of nature:

> We combine, we construct… we do not hear around us the countless sounds of nature, we do not sufficiently appreciate this immensely varied music which nature offers us in such abundance… And there, according to me, is the new way forward. But… I have scarcely glimpsed it, since what remains to be done is immense! (translation by Susan Delaney, extracted from Mâche 1992: 58)[27]

Four years later, though, in an article published in the monthly bulletin of the *Société Internationale de Musique* (SIM), Debussy showed some skepticism about the then recent onomatopoeic innovations of futurist music. In the closing paragraphs of the article, he remarks that he will only mention the »so-called futurist music« for the sake of »recording history«:

> It claims to reassemble all the noises of a modern capital city and bring them together in a symphony—from the sound of railway-engine pistons to the tinkling of a porcelain

[27] »On attache trop d'importance à l'écriture musicale, à la formule et au métier! On cherche ses idées en soi, alors qu'on devrait les chercher autour de soi. On combine, on construit, on imagine des thèmes qui veulent exprimer des idées (…) on fait de la métaphysique, mais on ne fait pas de la musique. (…) On n'écoute pas autour de soi les milles bruits de la nature, on ne guette pas assez cette musique si variée qu'elle nous offre avec tant d'abondance. (…) Voilà selon moi la voie nouvelle. Mais croyez-le bien, je l'ai à peine entrevue car ce qui reste à faire est immense! Et celui qui le fera… sera un grand homme!« (DEBUSSY 1971 [1909]: 281)

> mender's bells. It's a very practical way of recruiting an orchestra, but can it ever really compete with that wonderful sound of a steel mill in full swing? Let us wait before we dismiss it (…) Not very optimistic reflections, these; it is strange how the fantasies of progress lead one to become conservative. We must be careful not to end up in a state of decline and to be wary of machinery, something that has already devoured many fine things. If we really have to satisfy this monster, let us feed it some of the old repertoire! (translation by Richard L. Smith, extracted from Debussy 1977 [1913]: 288-89)[28]

Futurist Luigi Russolo (1885-1947) and his noise machines constitute a major example of the imitative approach to musical composition in the early twentieth century (Russolo 1986 [1916]). According to Russolo, if music is sound, then musical sounds should not be limited in their variety of timbre, and the compositional palette should expand to include sounds like those made by people, animals, and nature, as well as the sounds of a modern industrial society. Based on these premises, Russolo created mechanical (musical) instruments that could realize this music of »noises.« He was largely indebted to the doctrines of Italian poet Filippo T. E. Marinetti (1876-1944), whose poetic technique was characterized by an attempt to free the sounds of poetry from the restrictions of grammar and syntax—and his primary tool for achieving this end was the verbal onomatopoeia (see particularly Brown 1981-1982). The oeuvres of Russolo and Marinetti reveal the historical parallel between the use of verbal onomatopoeia in futurist poems and the use of »noise,« i.e., musical onomatopoeia, in Russolo's music—and this fact reinforces the historical pertinence of the use of the term *musical onomatopoeia*.

More recently, Howard (in his 1972 »On Representational Music«) argues that an imitative approach does not necessarily preclude an expressive outcome—hence, there would be no reason to condemn an imitative aesthetic *a priori*. In a similar vein, Mâche (1992 [1983]) refutes the association between an imitative approach and superficiality. Mâche says that the imitation of sound models is usually condemned as »futile or contemptibly burlesque« because one imagines it to be an »excursion outside what is properly musical (i.e. the area of abstract models).« However:

> If the superficiality actually dominates the mediocre »genre« musics, it is actually due less to the presence of a noticeable reference than to the quality of the imagination and the code in which such musics present themselves. (p. 42)

---

[28] »Nous ne parlerons de la musique dite »futuriste« que pour fixer une date… Elle prétend rassembler les bruits divers des modernes capitales dans une totale symphonie, depuis les pistons des locomotives jusqu'à la clarine des raccommodeurs de porcelaine. C'est très pratique quant au recrutement de l'orchestre; seulement ça atteindra-t-il jamais à la sonorité, déjà satisfaisante, d'une usine métallurgique en plein travail? (…) Ces réflexions manquent de gaieté et il est étrange que les fantaisies du Progrès vous amènent à devenir conservateur. Qu'on se garde bien d'en conclure à une déchéance quelconque. Mais prenons garde à la mécanique qui a déjà dévoré tant de belles choses. Et si l'on veut absolument satisfaire ce monstre, abandonnons-lui le vieux répertoire!« (DEBUSSY 1971 [1913]: 234)

Mâche has played a prominent role in the defense of imitative approaches in musical composition by creating in 1983 the field of zoomusicology, whose main concerns include the use of animal sounds in human music—a practice that, as this study's fourth section shows, represents a considerable fraction of the onomatopoeic repertoire.[29] Furthermore, Mâche (1992 [1983]) has associated the opposition between the inner world and the external world, the contempt for the latter, and the subsequent devaluation of musical onomatopoeia, with a long line of musicians, theorists, and philosophers since Damon and Plato (fifth c. BC), as well as with the more recent work and ideas of Richard Wagner (1813-1883), Arnold Schoenberg (1874-1951), and Pierre Boulez (b. 1925), among other composers:

> The aesthetic most opposed to the imitation of sound models is perhaps (…) that which emphasizes the existence of an »inner« world by opposition to, and even hostility towards, a sensory relationship with the universe. Since Damon of Athens (…) this theoretical temptation has persisted with as much constancy in the aim as diversity in definitions (…) The same Puritanism and the same tendencies have held sway in the 20th century from Schoenberg to Boulez. (p. 50)
>
> When the Theory of Passions took over from this rhetoric [Mâche refers here to the »normative rhetoric« of Lully's *Isis*, 1677], it inclined to a still more determined elimination of sensory elements in favour of the inner world, whose most complete realization was to be provided by Romanticism. With it, nature is almost no more than a sentiment, and the landscape a condition of the soul; overflowing subjectivity almost entirely precludes all real listening. We only lend an ear to the world to the extent that it speaks of us. (p. 51-52)
>
> This practice [the imitation of sound models] is also condemned in the name of a post-romantic view of the opposition between the inner world, which would alone be worthy of the musician's attention, and the external world, hardly good for the painter and the romancier (we do not know exactly why). This opposition is illusory. (p. 42)
>
> Wagner defined clearly what is meant by the movement of the internalization of the landscape, and implicitly identified it with being German, in opposition to the Latin sensualism that he caricatures. (p. 52)[30]

[29] For more on zoomusicology and related subjects, see DOOLITTLE (2008), LEVIN (2006), TABORDA (2004), and MÂCHE (originally published in 1983, English translation from 1992). MÂCHE (1992) claims that in Western art music there is a practically uninterrupted line of imitations of animal sounds running from the thirteenth century to the present day.

[30] As regards the use of »sound models,« a compositional practice that includes musical onomatopoeia, MÂCHE (1992 [1983]) clearly establishes an opposition between German and non-German composers, both in the above excerpt and by excluding any mention of German composers as he claims that »the movement to embrace the reality of sound more and more radically (…) starts from Debussy and runs through Russolo, Varèse and musique concrete, taking very particular colorations and mixtures from Bart[ó]k and Messiaen« (p. 55). Yet the role of Richard Strauss, for instance, is usually acknowledged in discussions of musical onomatopoeia (see particularly DUKAS 1948b [1900]: 487-494).

Finally, a parallel to the questioning of Idealist thought in music can be found in the 1960s art criticism of Umberto Eco, who offers strong counterarguments to the idealistic aesthetic in his essay »La scoperta della materia« (1984 [1968]). In the closing paragraphs of this quasi-manifesto, Eco claims that contemporary art has rediscovered the value of matter (»L'arte contemporanea ha scoperto il valore e la fecondità della materia«) in response to the idealistic aesthetic:

> The idealistic aesthetic has shown that true invention in art rises from that instant of intuition-expression which takes place entirely in the inner creative spirit; the objectification, the transfer of the poetic ghost onto sounds, colors, words or stone constituted only an auxiliary aspect, which did not add to the richness and the clarity of the work. By reacting to this conception contemporary aesthetics has vigorously reevaluated the matter. (pp. 211-212)[31]

Eco counters the assumption that »beauty, truth, invention, and creation« can only stem from the artist's inner world:

> An invention that is generated in the presumed depth of the spirit that has nothing to do with the provocation of concrete physical reality, is a quite pale ghost; and this conception conceals a sort of manichaeistic neurosis as if beauty, truth, invention, creation reside only in an angelic spirituality and have nothing to do with the compromised, dirty universe of things you can touch, smell, that make noise as they fall, that tend downwards due to the inescapable law of gravity (not upwards as steam or the souls of the dead) that are subject to wear, transformation, decay and development. (pp. 212-213)[32]

He concludes that we do not think *in spite of* our body, but *with* our body (»Noi non pensiamo *nonostante* il corpo ma *col* corpo«),[33] and reaffirms the aes-

---

[31] »L'estetica idealistica ci ha cosí insegnato che la vera invenzione artistica si sviluppa in quell'attimo dell'intuizione-espressione che si consuma tutto nell'interiorità dello spirito creatore; l'estrinsecazione tecnica, la traduzione del fantasma poetico in suoni, colori, parole o pietra, costituiva solo un fatto accessorio, che non aggiungeva nulla alla pienezza e definitezza dell'opera. È proprio reagendo a questa persuasione che da varie parti l'estetica contemporanea ha vigorosamente rivalutato la materia.« (pp. 211-212) [Translation by Davide Ianni, email message to author, October 2, 2008]

[32] »Una invenzione che ha luogo nelle presunte profondità dello spirito, una invenzione che non ha nulla a che vedere con le provocazioni della realtà fisica concreta, è un ben pallido fantasma; e questa persuasione ricopre inoltre una sorta di nevrosi manichea, come se bellezza, verità, invenzione, creazione, stessero solo dalla parte di una spiritualità angelicata e non avessero nulla a che fare con l'universo compromesso e lordo delle cose che si toccano, che si odorano, che quando cadono fanno rumore, che tendono verso il basso, per imprescindibile legge di gravità (non verso l'alto, come il vapore o le anime dei poveri defunti), e che sono soggette ad usura, transformazione, decadenza e sviluppo.« (pp. 212-213)

[33] Eco's allusion to the »manichaeistic« opposition between body and mind (sense and reason, matter and spirit) is also relevant in the context of Western art music, heavily influenced by the

thetic ties between contemporary art and the rights of matter (»diritti della materia«):

> Contemporary art could not avoid to return to a positive awareness of the rights of the matter; in order to comprehend that there is no cultural value that is not born from a historic, terrestrial event, that there is no spirituality that does not manifest itself through concrete bodily situations. (...) Beauty is not a pale reflection of a heavenly universe, which we glimpse at with great difficulty and realize imperfectly in our works: Beauty is the amount of formal organization that we are able to draw from our everyday experience. (p. 213)[34]

Although Eco's materialist criticism was not directly referring to music, his views, along with those of Levin, Harley, Mâche, Howard, Debussy, Russolo, Berlioz, and Carpani, help to build an argument against the excesses of Idealist thought in music and to provide support for further scholarly research on musical onomatopoeia.

3. Methodological and Historical Considerations in the Organization of the Catalogue

A number of methodological decisions have been fundamental in the organization of the following catalogue of musical onomatopoeia. In this first phase of research, I regard musical onomatopoeia only as a compositional practice; I do not address the historical reasons leading to the practice. This decision is motivated by the fact that the historical reasons that lead to the practice of musical onomatopoeia are specific to each individual work, composer, style, and period. Even though, when taken as a compositional practice, examples of musical onomatopoeia can be found in such diverse contexts as the fourteenth-century *caccia*,

---

Church's deprecation of the body. As CHANAN (1994) points out: »The spirit of Carnival is (…) opposed to severance from the world, to the pretence of the renunciation of earthly life, in short, to Lent. The aesthetic attitude of grotesque realism promotes the degradation of the spiritual, and brings about instead a return to earth, a restoration of contact with the regenerative power of the earth and of the body. Music, of course, is one of its most powerful agents. (…) [T]hese traits intensified as official Christianity became more repressive, foisting on the collective psyche the split between the spirit and the body which it projected upon the figure of its founder. (…) the *deprecation of the body* was to become a crucial factor in the rationalization of European music and its increasing emphasis on instrumental forms and cerebral processes« [italics mine] (pp. 33-34).

[34] »La cultura contemporanea non poteva non tornare a una positiva presa di coscienza dei diritti della materia; per comprendere che non c'è valore culturale che non nasca da una vicenda storica, terrestre, che non c'è spiritualità che non si attui attraverso situazioni corporali concrete. Noi non pensiamo *nonostante* il corpo ma *col* corpo. La Bellezza non è un pallido riflesso di un universo celeste che noi intravvediamo a fatica e realizziamo imperfettamente nelle nostre opere: la Bellezza è quel tanto di organizzazione formale che noi sappiamo trarre dalle realtà che esperiamo giorno per giorno.« (p. 213)

nineteenth-century symphonic poems, and experimental twentieth-century works, this does not imply that the historical reasons motivating these examples are the same.[35] Hence, the task of analyzing the historical significance of instances of musical onomatopoeia requires a series of subsidiary investigations in the field of historical musicology—each focusing on a particular occurrence of musical onomatopoeia—and reaches beyond the introductory character of the present study.

Because I am regarding musical onomatopoeia as a compositional practice rather than a historical topic, the examples of musical onomatopoeia in the catalogue are not arranged in chronological order. By eschewing chronology, I have avoided perpetuating the erroneous perception of a smooth, continuous historical evolution of musical onomatopoeia and have instead mirrored the fragmentary and marginal trajectory of musical onomatopoeia in the history of Western art music demonstrated by the literature discussed in section two.

In lieu of historical criteria, the examples of musical onomatopoeia in this catalogue are grouped according to the compositional procedures involved in each specific case or according to the source of the environmental sound in question. The catalogue is divided into five broad categories of musical onomatopoeia and one additional category that illustrates the boundaries of this term. They are: 1) »beyond musical onomatopoeia: sound source physically present«; 2) »superimposition of musical onomatopoeia and pre-recorded environmental sounds«; 3) »superimposition of verbal and musical onomatopoeia«; 4) »man-made sounds«; 5) »inanimate sounds of nature«; and 6) »animal kingdom.« Category 2 is determined by the simultaneous presentation of pre-recorded environmental sounds and their respective imitations by musical instruments, and category 3 by the intersection between verbal and musical onomatopoeia, whereas categories 4, 5, and 6 are determined by the source of the imitated sound. When an example falls into *both* category 2 or 3 *and* one of the latter categories—for instance, when an example of superimposition of verbal and musical onomatopoeia is also an imitation of animal sound—I have grouped it in category 2 or 3, due to the peculiar compositional procedures that set it apart from other examples of musical onomatopoeia.

[35] To be sure, the musical examples compiled here show that the historical research on musical onomatopoeia will need to take into account two significant factors: 1) the seemingly limited role played by onomatopoeia in earlier works, such as Berlioz's *Symphonie Fantastique* (1830) and Strauss's *Symphonia domestica* (1902-03), as opposed to the prominent role in musical structuring and style they acquire in such twentieth-century works as Olivier Messiaen's *Catalogue des Oiseaux* (1956-58) and *Chronochromie* (1960), or George Crumb's *Black Angels* (1970); and 2) the influence of the musical language of each historical period on the design of each example of musical onomatopoeia, which could be defined as its »arbitrary element«—e.g., Bach's birdsong consists of tonal, triadic materials and is subject to fugal treatment, whereas Messiaen's approach to birdsong often involves modes of limited transposition, and Crumb uses quarter-tones to imitate an owl's hoot.

IRASM 40 (2009) 2: 299-347

The methodology adopted in the compiling of the catalogue seeks to: a) concentrate on the musical score and the sounds it prescribes/describes, rather than analyze its specific historical surroundings; and b) encourage the development of a specialized study of this compositional practice focusing on the relation between environmental sound and musical onomatopoeia.

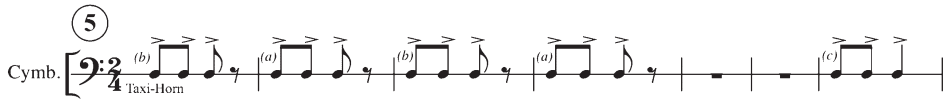
The purpose of this study's fourth section is therefore to draw attention to this specific musical lexicon by devising a preliminary catalogue of musical onomatopoeia—an initial list to be subject to ongoing expansion and revision—since there seems to be a theoretical lacuna with respect to the investigation of this practice. I have reproduced all of the musical examples as closely as possible to the consulted scores, which are referred to in parentheses—followed by the date of composition in brackets for earlier pieces—in the entry that precedes each example.[36]

4. Catalogue of Musical Onomatopoeia

Category 1: Beyond Musical Onomatopoeia: Sound Source Physically Present

Car horn: George Gershwin in *An American in Paris* (1928), for orchestra, rehearsal number 5, »taxi-horn.« The program note prepared by Deems Taylor for the occasion of the premiere on December 13, 1928 by the Philharmonic-Symphony Society of New York reads: »French taxicabs seem to amuse him [the American tourist] particularly, a fact that the orchestra points out in a brief episode introducing four Parisian taxi horns.« (Gershwin 1930b [1928])

Ex. 1.



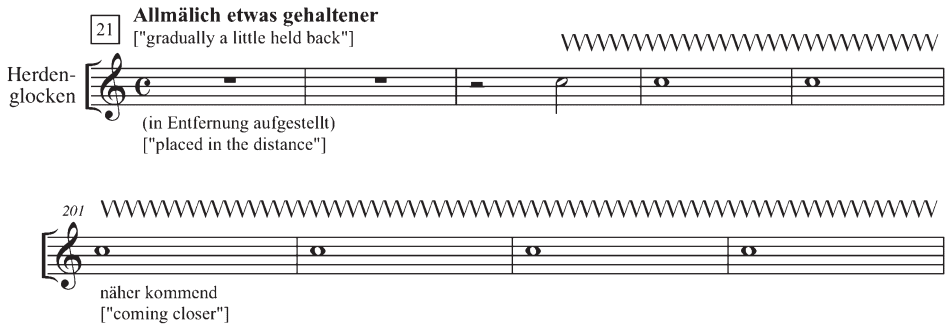
AN AMERICAN IN PARIS
By GEORGE GERSHWIN
© 1929 (Renewed) WB MUSIC CORP
All Rights Reserved

Cow bells: Gustav Mahler in his *Symphony no. 6* (2000 [1903-04]), first movement *Allegro energico, ma non troppo*, two measures after rehearsal number 21 (mm. 198-204), *Herdenglocken* (»cow bells« offstage). A footnote inserted in the score at

[36] Musical examples by Prokofiev, Varèse, and Mâche have been removed from this version of the article due to copyright restrictions.

this point reads: »The cowbells must be treated with great discretion – in *realistic imitation of the distant sound of bells (both high and low) from a grazing herd of cattle*, sometimes alone and sometimes in groups. It must, however, be made explicit that this technical remark does not permit a programmatic interpretation.« [italics mine] [37]

Ex. 2.



Sirens: Edgar Varèse in *Ionisation* (1969 [1934]) for percussion ensemble of 13 players, mm. 1-7, *Sirène claire* and *Sirène grave* (»high and low sirens«). On the page of explanations, Varèse remarks: »Sirens: Sterling Type H (Part No.73 PU. PB.), operated by hand, with a button for instantaneous stop, (thumb brake). If unobtainable, substitute Theremin's electric instruments, or any similar instruments (see special score). Mouth sirens not to be used.«

Category 2: Superimposition of Musical Onomatopoeia and Pre-Recorded Environmental Sounds

Frogs: François-Bernard Mâche in *Rambaramb* (1974), for orchestra and tape, rehearsal letter E, Tape, Clarinets, Bass clarinet, Bassoons, Contrabassoon, Trombones, Temple-block, Xylorimba, Tom-toms, Glockenspiel, Harps, and Piano.

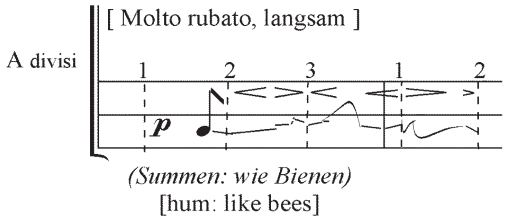
[37] »Die Herdenglocken müssen sehr diskret behandelt werden – in realistischer Nachahmung von bald vereinigt, bald vereinzelnt aus der Ferne herüberklingenden (höheren und tieferen) Glöckchen einer weidenden Herde. Es wird jedoch ausdrücklich bemerkt, dass diese technische Bemerkung keine programmatische Ausdeutung zulässt.« (MAHLER 2000 [1903-04]: p. 35) [Translation by Thomas Peattie, email message to author, November 17, 2008]

IRASM 40 (2009) 2: 299-347

Category 3: Superimposition of Verbal and Musical Onomatopoeia

Bees: Mauricio Kagel in *Hallelujah* (1967), for SATB choir, »III. Protestchor,« mm. 7-8, Alto.

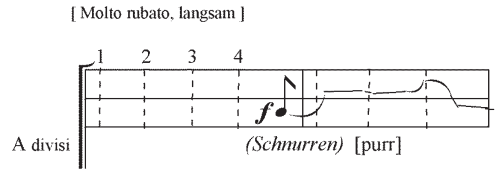
Ex. 3.



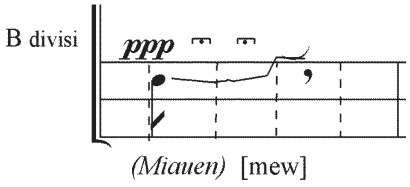
Mauricio Kagel, Hallelujah

Cat: Mauricio Kagel in *Hallelujah* (1967), for SATB choir, »III. Protestchor,« mm. 10-11 (Alto), m. 20 (Bass).

Ex. 4.



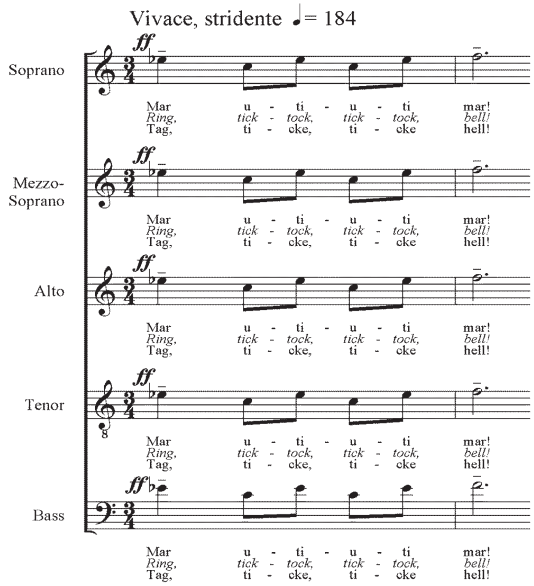
Ex. 5.



Mauricio Kagel, Hallelujah

Clock: 1. György Ligeti in *Reggel* (1955), for SATB choir, mm. 1-2, Soprano, Mezzo-Soprano, Alto, Tenor, and Bass.

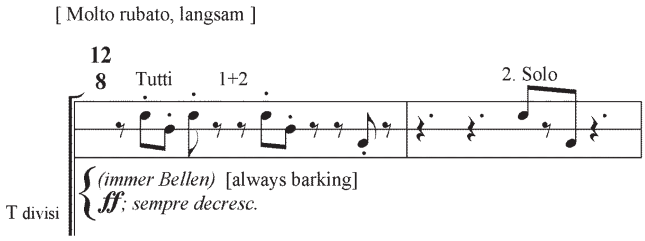
Ex. 6.



Ligeti ÉJSZAKA – REGGEL
© 1955 by Schott Music
© Renewed
All Rights Reserved
Used by permission of European American Music Distributors LLC,
sole U.S. and Canadian agent for Schott Music

Dog: Mauricio Kagel in *Hallelujah* (1967), for SATB choir, »III. Protestchor,« mm. 27-28, Tenor.

Ex. 7.

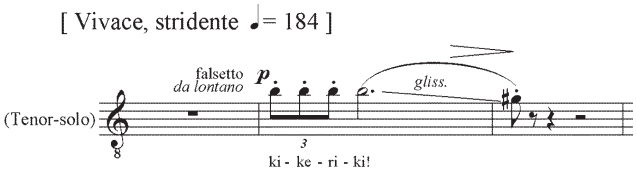


Mauricio Kagel, Hallelujah
© Copyright 1970 by Universal Edition (London) Ltd., London/UE 14913

IRASM 40 (2009) 2: 299-347

Rooster: György Ligeti in *Reggel* (1955), mm. 32-33, Tenor-solo.

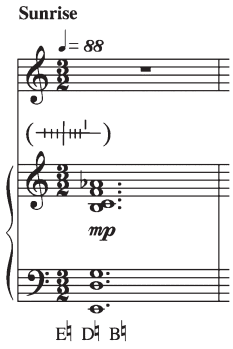
Ex. 8.



Category 4: Man-Made Sounds

Church Bell: Ned Rorem in *Book of hours: eight pieces for flute and harp* (1978), »2. Lauds,« m. 1, Harp.

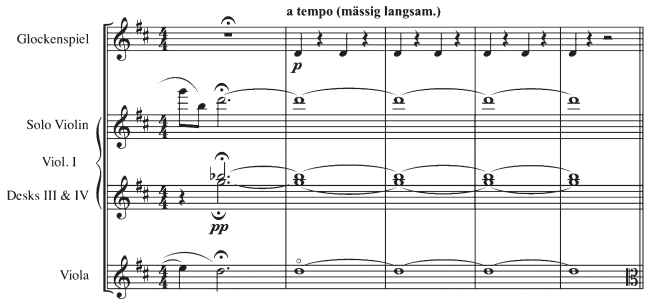
Ex. 9.



Clock: Richard Strauss in his *Symphonia domestica* (1993 [1902-03], Op. 53); seven measures after rehearsal number 85, Glockenspiel. The program booklet for the Berlin Philharmonic concert of December 12, 1904 (nine months after the premiere) included the following comments: »II. SCHERZO. Parents' happiness. Childish play. Cradle song (*the clock strikes seven in the evening*). III. ADAGIO. Do-

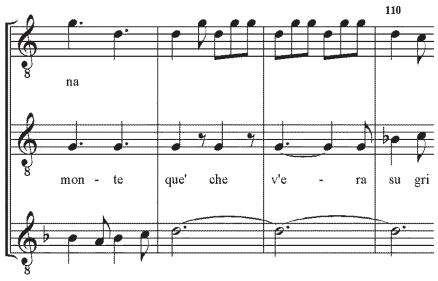
ing and thinking. Love scene. Dreams and cares (*the clock strikes seven in the morning*).« [italics are mine] (FREED 2004)

Ex. 10.



Hunting horns: The *caccia* was a fourteenth-century canonic Italian style in which imitations of hunting horns by voices were a frequent feature. The following example is the reproduction of mm. 107-110 of the modern transcription of the caccia *Tosto Che L'Alba* by Gherardello da Firenze (c.1320-1362), according to the fifteenth-century manuscript known as *Squarcialupi Codex*. Note the imitation of hunting horn motives in the upper voice (Marrocco, 1971, p. 112):

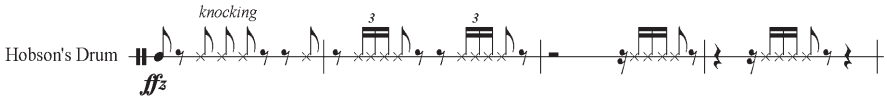
Ex. 11.



Knocking on door: Benjamin Britten in his opera *Peter Grimes* (1945), Act II, Scene II, rehearsal 69, mm. 1-4, Hobson's drum (snare drum) (BRITTEN 1963 [1945]: 390-391).

Ex. 12.

There is a knocking at the path door

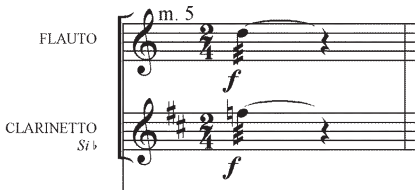


PETER GRIMES, OP. 63
© Copyright 1945 by Boosey & Hawkes Music Publishers Ltd.
Reprinted by permission

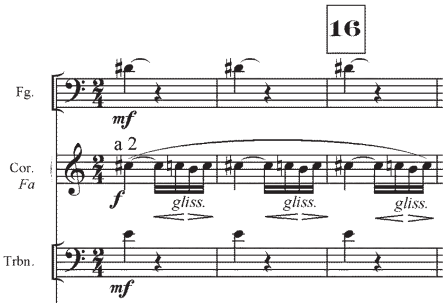
Train (whistle and engine): Heitor Villa-Lobos in *Bachianas Brasileiras No. 2 (Trenzinho Caipira)*, for chamber orchestra (1949 [1930]).

Ex. 13.

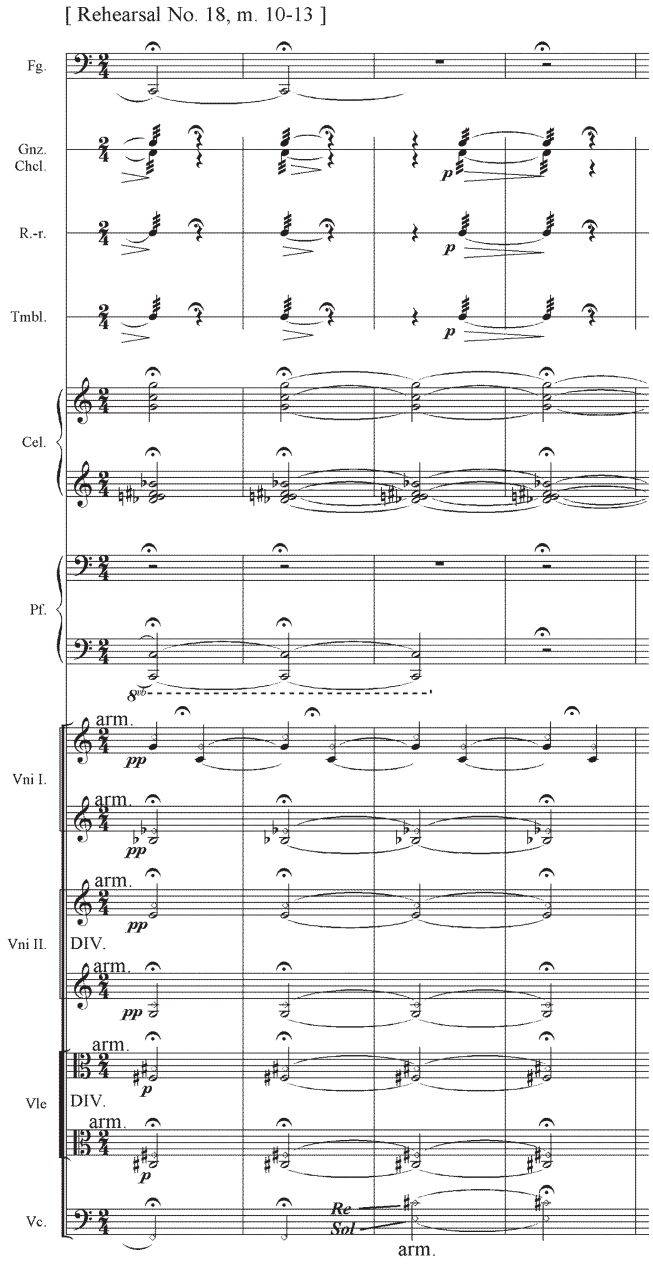
[Un poco moderato]



Ex. 14.



Ex. 15.

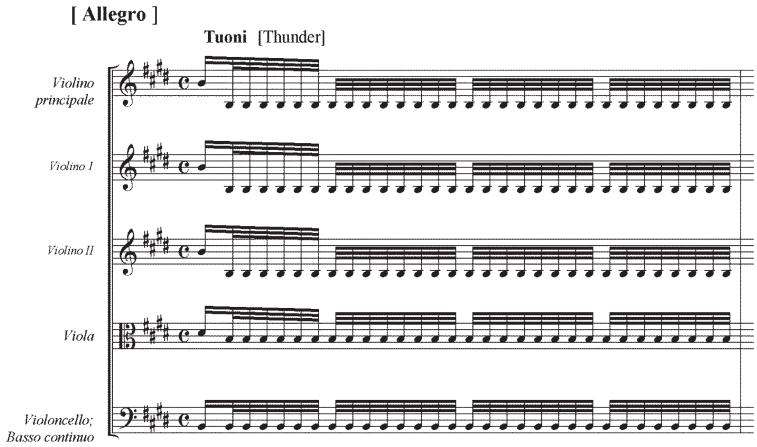

[Rehearsal No. 18, m. 10-13]
Fg.
Gnz.
Chcl.
R.-r.
Tmbl.
Cel.
Pf.
Vni I.
Vni II.
Vle
Vc.
arm.
DIV.
pp
p
Re
Sol

IRASM 40 (2009) 2: 299-347

Category 5: Inanimate Sounds of Nature

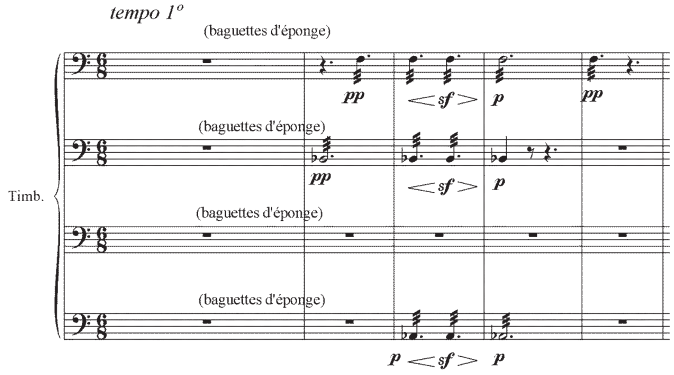
Thunder: 1. Antonio Vivaldi in *Concerto No. 1 in E Major: La Primavera* Opus 8 / RV 269 (1995 [1723]), m. 44, *Tutti*.

Ex. 16.

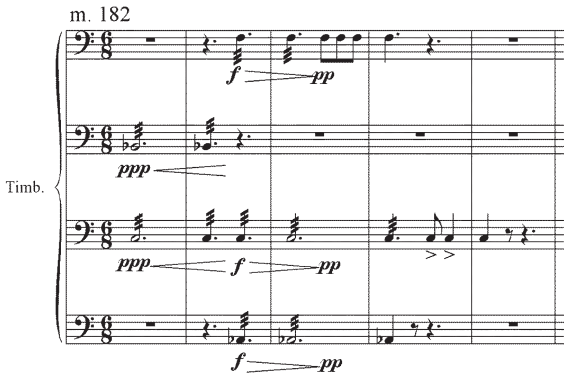


2. Hector Berlioz in *Symphonie Fantastique* (CONE 1971 [1830]), part three, rehearsal number 49, mm. 177-180, 182-186, 188-191, and 192-196, Timpani. Berlioz states in the program note: »Distant sound of thunder—loneliness—silence« (CONE 1971: p. 25).

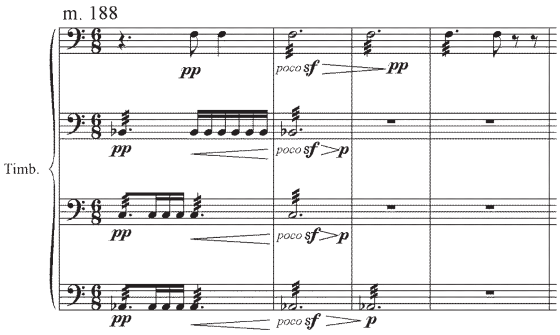
Ex. 17.



Ex. 18.

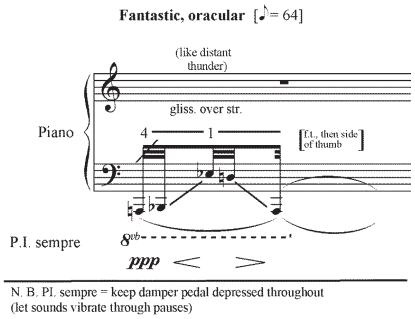


Ex. 19.



3. George Crumb in *Music For a Summer Evening* (1974), for two amplified pianos and percussion (two players), »V. Music of the Starry Night,« Piano.

Ex. 20.

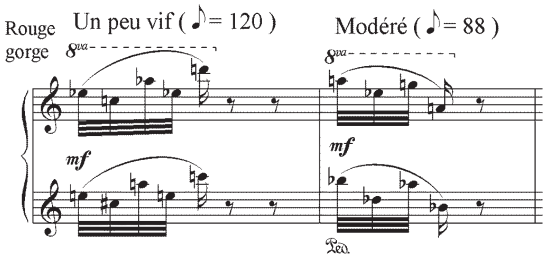


Category 6: Animal Kingdom

Birdsong: 1. Olivier Messiaen seems to have been the composer who most often employed birdsong in the twentieth century. From 1952-53 onwards, a period during which he composed *Le Merle Noir* for Flute and Piano and the orchestral work *Réveil des Oiseaux*, Messiaen incorporated birdsong into virtually all of his compositions. The following example is extracted from one of his last works for solo piano *Petites Esquisses D'Oiseaux* (1988 [1985]), mm. 2-3.

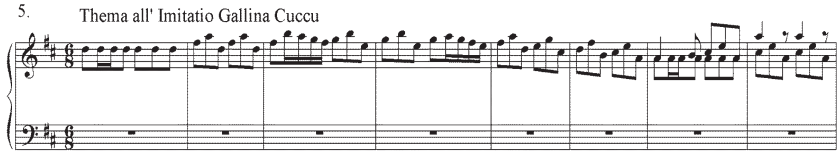
Ex. 21.

["Red breast"]



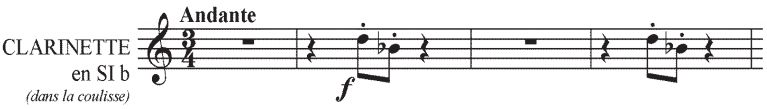
2. A rare example of birdsong occurring in thematic material before Messiaen, according to Harley (2008): J. S. Bach's *Sonata in D* for keyboard, BWV 963, 5th mov. (Bach 1976 [1704]).[38]

Ex. 22.

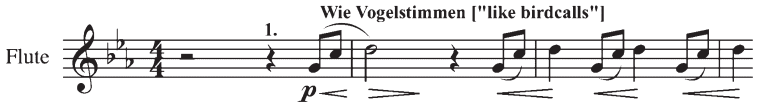


3. Samples of birdsong imitation through woodwind instruments: Camille Saint-Saëns's *Le Carnaval des Animaux* (1922 [1886]) for flute, clarinet, two pianos, glass harmonica, xylophone, two violins, viola, cello, and double bass, »No. 9: Le coucou au fond des bois,« mm. 1-4, Bb Clarinet; Gustav Mahler's *Symphonie N. 7* (1960 [1904-06]), third movement »Scherzo,« rehearsal number 108, mm. 319-322, Flute; and Sergei Prokofiev's *Peter and the Wolf* (1979 [1936]), for narrator and orchestra, rehearsal number 5, Flute.

Ex. 23.



Ex. 24.

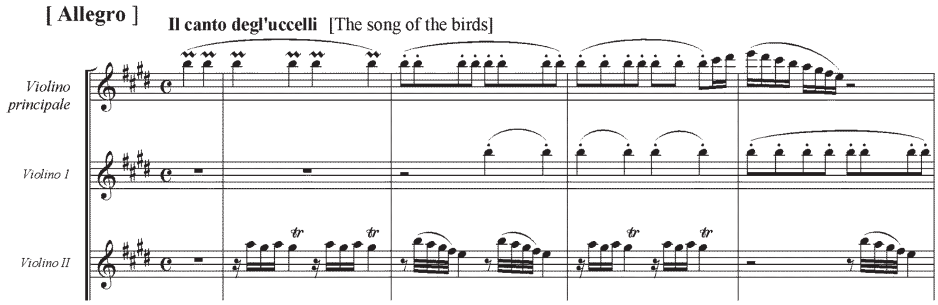


[38] The autographs of this work are not extant (see Bach 1975: p. vi). The word »Cuccu« is spelled as »Cucca« in Bach 1975 (p. 52); the marking »Thema all' Imitatio Gallina Cucca« is not included in the score of Bach 1947 (xxxvi, 23), but is acknowledged in its introductory remarks (p. xx).

IRASM 40 (2009) 2: 299-347

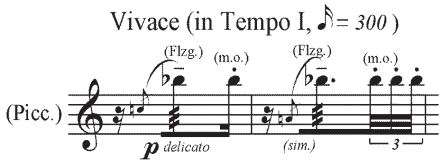
4. Example of birdsong imitation through violins: Antonio Vivaldi's *Concerto No. 1 in E Major: La Primavera*, Opus 8 / RV 269 (1995 [1723]), first movement, mm. 13-17.

Ex. 25.



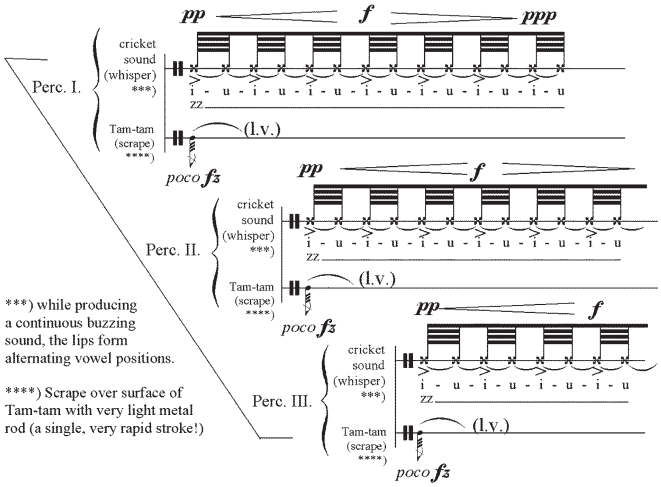
Crickets: 1. George Crumb, in *Federico's Little Songs for Children* (1986) for Soprano, Flute (Piccolo, Alto Flute, Bass Flute), and Harp; first song »La Señorita del Abanico,« rehearsal 4, mm. 1-2, piccolo. Crumb states in the program note »The reference to 'crickets' is illustrated by a chirping piccolo motif.«

Ex. 26.



2. Imitations of crickets may also be found in Crumb's *Ancient Voices of Children* (1970a), for soprano, boy Soprano, oboe, mandolin, harp, electric piano, and percussion (three players), »I. El Niño busca su voz,« Whispers and Tam-tams.

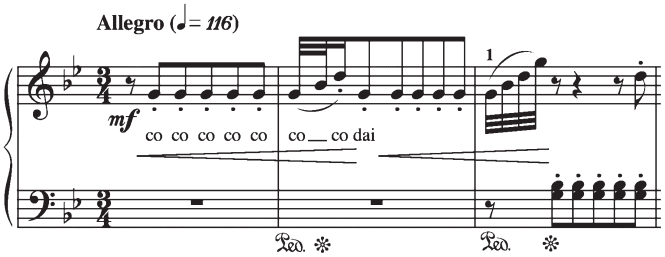
Ex. 27.



Duck: Sergei Prokofiev in *Peter and the Wolf* (1979 [1936]), for narrator and orchestra, rehearsal 21, Oboe.

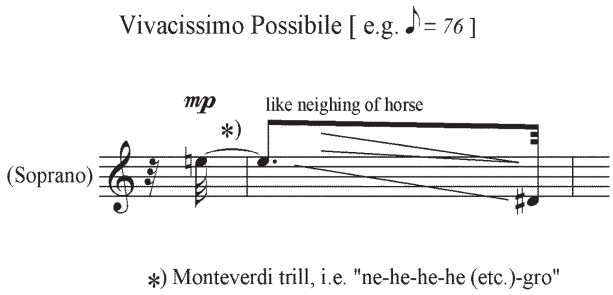
Hen: Jean-Philippe Rameau, in *La Poule* (1724), for harpsichord, mm. 1-3 (Philipp 1977: 46).

Ex. 28.



Horse: 1. George Crumb in *Madrigals (book II)* (1965) for soprano, alto flute (doubling flute in C and piccolo), and percussion (one player); third song »Cabalito negro ¿Donde llevas tu jinete muerto?«, mm. 35-36, Soprano.

Ex. 29.

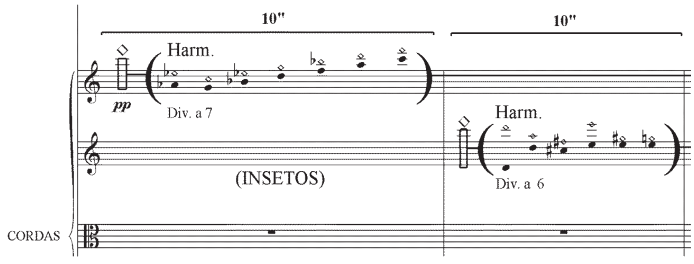


2. The same onomatopoeia is encountered in Crumb's *Songs, Drones, and Refrains of Death* (1970b) for baritone, electric guitar, electric contrabass, electric piano (electric harpsichord), and percussion (2 players), »III. Canción de Jinete, 1860,« Baritone part.

Insects: 1. George Crumb in *Black Angels* (1971c) for electric string quartet, »1. Threnody I: Night of the Electric Insects,« *Tutti*.

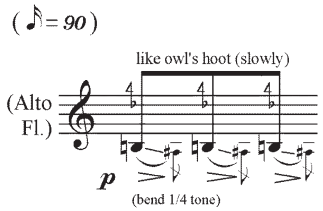
2. Edino Krieger in *Canticum Naturale* (1972) for orchestra and soprano, first movement »Diálogo dos pássaros,« m. 1, Violin I and II.

Ex. 30.



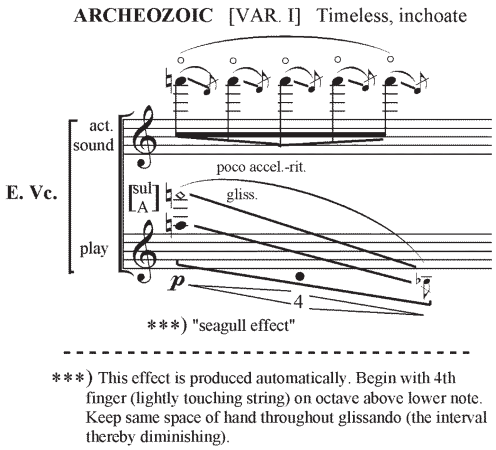
Owl: George Crumb in *Night of the Four Moons* (1971b) for alto, alto flute (doubling piccolo), banjo, electric cello, and percussion (one player); fourth song »¡Huje luna, luna, luna!…,« Alto Flute.

Ex. 31.



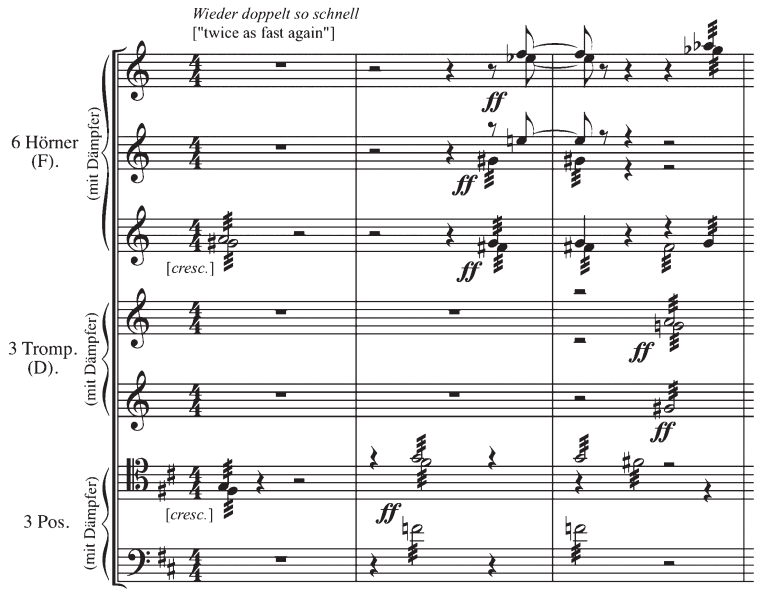
Seagull: George Crumb in *Vox Balanae* (1972) for electric flute, electric cello, and electric piano; section »Variations on Sea-Time,« Electric Cello.

Ex. 32.



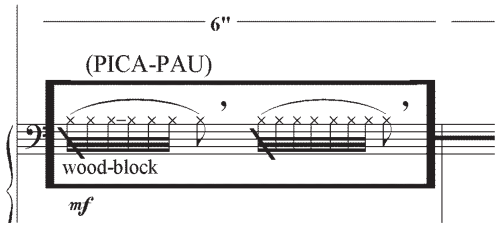
Sheep (bleating): Richard Strauss in *Don Quixote* (1979 [1897], Op. 35), for large orchestra, »Variation II,« seven measures after rehearsal number 23, muted Trumpets, French Horns, and Trombones.

Ex. 33.



Woodpecker: Edino Krieger in *Canticum Naturale* (1972), for orchestra and soprano, first movement »Diálogo dos pássaros,« m. 10, Wood-block.

Ex. 34.



5. Conclusion

In this study I have made a case for the use of the term *musical onomatopoeia* to refer to the imitation of environmental sounds by musical instruments based on three criteria: the frequency of the use of this term in the literature from 1903 to 2006, the historical pertinence of the term, due to the ties between verbal onomatopoeia and musical onomatopoeia in such diverse sources as Plato's *Republic* and the Futurist movement, and the terminological coherence of the term, demonstrated by way of the concept of iconicity. I have shown that the arguments employed by the critics of musical onomatopoeia listed in this study are characterized by either (a) Platonic aesthetic values, reinforced in nineteenth-century musical aesthetics by way of German idealism, (b) the devaluation of humor in the context of Western art music as in Berlioz, Dahlhaus, and Berger, or (c) the defense of the idea of absolute music as shown by Harley. I have suggested that, in the first stage of a specialized study, musical onomatopoeia should be regarded and analyzed as a compositional practice, rather than a historical topic. Finally, I have compiled a short catalogue of examples of musical onomatopoeia drawn from the repertoire of Western art music which might serve as a basis for subsequent studies.

A preliminary analysis of this catalogue suggests a number of methodological approaches to be developed in future phases of this investigation, including: 1) a comparative study of the sound spectra of various environmental sounds and their respective imitations by musical instruments; 2) an analysis of the materials and techniques employed in examples of musical onomatopoeia so as to determine to what degree the examples are affected by stylistic factors; 3) a comparative study of various imitations of the same environmental sound; 4) a study of the status of musical onomatopoeia in different moments of Western music history; and 5) an investigation of musical onomatopoeia as a carrier of meaning in music, as suggested by Sloboda (1985).

REFERENCES

ALUAS, Luminita. 1992. Visible and Audible Structures: Spatio-Temporal Compromise in Ligeti's 'Magyar Etüdök.' *Tempo*, New Series, No. 183: 7-17.

ANHALT, Istvan. 1984. *Alternative voices: essays on contemporary vocal and choral composition.* Toronto; Buffalo: University of Toronto Press.

BACH, Johann Sebastian. 1947. *Werke. Leipzig, Bach-Gesellschaft [1851-1899].* Ann Arbor, Mich.: J.W. Edwards.

BACH, Johann Sebastian. 1975. *Suiten, Sonaten, Capriccios und Variationen / Joh. Seb. Bach; nach den Quellen hrsg. von Georg von Dadelsen; Fingersatz von Hans-Martin Theopold.* München: G. Henle Verlag.

BACH, Johann Sebastian. 1976. *Einzeln überlieferte Klavierwerke II, und Kompositionen für Lauteninstrumente.* Kassel; Basel: Bärenreiter.

BARZUN, Jacques. 1951. *Pleasures of music; a reader's choice of great writing about music and musicians from Cellini to Bernard Shaw.* New York: Viking Press.

BENT, Ian, ed. 1994. *Music analysis in the nineteenth century.* Cambridge [England]; New York: Cambridge University Press.

BERGER, Arthur. 1985. Music as Imitation. *Perspectives of New Music*, Vol. 24, No. 1: 108-118.

BIDDLE, Ian. 1996. F. W. J. Schelling's *Philosophie der Kunst*: an emergent semiology of music. In *Music Theory in the Age of Romanticism*, ed. Ian Bent, 25-36. Cambridge; New York: Cambridge University Press.

BLACKBURN, Vernon. 1903. Onomatopoeia in Music. *The Musical Times*, Vol. 44, No. 721: 164-166.

BLAUKOPF, Kurt. 1989. Westernisation, Modernisation, and the Mediamorphosis of Music. *International Review of the Aesthetics and Sociology of Music*, Vol. 20, No. 2: 183-192.

BOILÈS, Charles L. 1982. Processes of Musical Semiosis. *Yearbook for Traditional Music*, Vol. 14: 24-44.

BRITTEN, Benjamin. 1963. *Peter Grimes, an opera in three acts and a prologue, op. 33.* London; New York: Boosey & Hawkes.

BROECKX, Jan L. 1996. Music and Language. On the Pretended Inadequacy of Music as a Language of Feelings. *International Review of the Aesthetics and Sociology of Music*, Vol. 27, No. 1: 87-93.

BROWN, Barclay. 1981-1982. The Noise Instruments of Luigi Russolo. *Perspectives of New Music*, Vol. 20, No. 1/2: 31-48.

BURTON, Anthony. 1982. Places, People, Pictures: The Recent Music of Edward Cowie. *The Musical Times*, Vol. 123, No. 1668: 99+101-103.

BUSONI, Ferruccio et al. 1962. *Three classics in the aesthetic of music: Monsieur Croche the dilettante hater, by Claude Debussy. Sketch of a new esthetic of music, by Ferruccio Busoni. Essays before a sonata, by Charles E. Ives.* New York: Dover Publications.

BUTOR, M. and SCHIER, D. 1981-1982. Music as a Realistic Art. *Perspectives of New Music*, Vol. 20, No. 1/2: 448-463.

CARMANT, Danielle. 2001. Le *Cantus Firmus* et sa Parodie dans une pièce onomatopéique extraite du *Festino* (1608) d'Adriano Banchieri. In *Reminiscences, Reference et Perennite,* ed. Edith Weber, 113-121. Paris: Presses de l'Université de Paris-Sorbonne.

CARPANI, Giuseppe. 1969. *Le Haydine ovvero Lettere sulla vita e le opere del celebre maestro Giuseppe Haydn.* Bologna: Forni.

CAZDEN, Norman. 1951. Towards a Theory of Realism in Music. *The Journal of Aesthetics and Art Criticism*, Vol. 10, No. 2: 135-151.

CHANAN, Michael. 1994. *Musica Practica: The Social Practice of Western Music from Gregorian Chant to Postmodernism.* London; New York: Verso.

CHOI, Yoon-Sook. 2000. *Humor in the piano sonatas of Wolfgang Amadeus Mozart*. DMA diss., University of Washington.

COKER, Wilson. 1972. *Music & meaning; a theoretical introduction to musical aesthetics.* New York: Free Press.

CONE, Edward T., ed. 1971. *Fantastic symphony by Hector Berlioz. An authoritative score; historical background; analysis; views and comments.* 1st ed. New York: W. W. Norton.

CONFORD, Francis Macdonald, trans. 1971. *The Republic of Plato.* London; New York: Oxford University Press.

COOK, Nicholas. 1989. Schenker's Theory of Music as Ethics. *The Journal of Musicology*, Vol. 7, No. 4: 415-439.

CRUMB, George. 1970a. *Ancient Voices of Children.* New York: C. F. Peters Corporation.

CRUMB, George. 1970b. *Songs, Drones, and Refrains of Death.* New York: C. F. Peters Corporation.

CRUMB, George. 1971a. *Madrigals (book II).* New York: C. F. Peters Corporation.

CRUMB, George. 1971b. *Night of the Four Moons.* New York: C. F. Peters Corporation.

CRUMB, George. 1971c. *Black angels: thirteen images from the dark land, for electric string quartet (Images I).* New York: C. F. Peters Corporation.

CRUMB, George. 1972. *Vox Balanae.* New York: C. F. Peters Corporation.

CRUMB, George. 1974. *Music for a Summer Evening (Makrokosmos III).* New York: C. F. Peters Corporation.

CRUMB, George. 1987. *Federico's Little Songs for Children.* New York: C. F. Peters Corporation.

CRYSTAL, David. 1997. *A dictionary of linguistics and phonetics.* 4th ed. Oxford, UK; Cambridge, Mass.: Blackwell.

DAHLHAUS, Carl. 1985. *Realism in Nineteeth-Century Music.* Trans. Mary Whittall. Cambridge: Cambridge University Press.

DAHLHAUS, Carl. 1989. *The idea of absolute music.* Trans. Roger Lustig. Chicago : University of Chicago Press.

D'ANGOUR, Armand. 1997. How the Dithyramb Got Its Shape. *The Classical Quarterly*, New Series, Vol. 47, No. 2: 331-351.

DEBUSSY, Claude. 1971. *Monsieur Croche et autres écrits. Éd. complète de son Œuvre critique. Avec une introd. et des notes par François Lesure.* [Paris]: Gallimard.

DEBUSSY, Claude. 1977. *Debussy on music: the critical writings of the great French composer Claude Debussy*. Ed. François Lesure, trans. Richard Langham Smith. 1st ed. New York: A. A. Knopf.

DEMUTH, Morgan. 1955. Messiaen and His Organ Music. *The Musical Times*, Vol. 96, No. 1346: 203-206.

DOOLITTLE, Emily. 2008. Crickets in the Concert Hall – A History of Animals in Western Music. *Revista Transcultural de Música*, no. 12 (July), http://www.sibetrans.com/trans/trans12/indice12.htm/ (accessed September 19, 2008).

DRIVER, Paul. 1991. 'Byzantium' in Chicago. *Tempo*, New Series, No. 177: 46-48.

DUKAS, Paul. 1948a. Musique et Comédie. In *Les Écrits de Paul Dukas sur la Musique*, ed. Gustave Samazeuilh, 196-202. Paris: Société d'éditions françaises et internationales.

DUKAS, Paul. 1948b. Richard Strauss – Siegfried Wagner. In *Les Écrits de Paul Dukas sur la Musique*, ed. Gustave Samazeuilh, 487-494. Paris: Société d'éditions françaises et internationales.

ECO, Umberto. 1984. *La definizione dell'arte.* Milan: Garzanti Editore s.p.a.

EMMERSON, Simon. 1986. The Relation of Language to Materials. In *The Language of electroacoustic music*, ed. Simon Emmerson, 17-39. New York: Harwood Academic Publishers.

FINKELSTEIN, Sydney Walter. 1952. *How Music Expresses Ideas.* New York, International Publishers.

FOWLER, W. L. 1989. Applied Theory: Musical Onomatopoeia. *Keyboard*, Vol. 15: 96-102.

FREED, Richard. 2004. Symphonia domestica, Op. 53. Program note originally written for the following performance: National Symphony Orchestra; Leonard Slatkin, conductor/Han.Na Chang, cello. Oct 21-23. http://www.kennedy-center.org/calendar/?fuseaction=composition&composition_id=2833 (accessed October 4, 2008).

GATTI, Guido M. et al. 1921. The Piano Works of Claude Debussy. *The Musical Quarterly*, Vol. 7, No. 3: 418-460.

GERSHWIN, George. 1930a. The Composer in the Machine Age. In *Revolt in the Arts*, ed. Oliver M. Sayler, 264-269. New York: Brentano's.

GERSHWIN, George. 1930b. *An American in Paris.* New York: New World Music; Harms, Inc.

GILLIAM, Bryan. 1997. Richard Strauss. In *The Nineteenth-Century Symphony,* ed. D. Kern Holoman, 345-368. New York: Schirmer Books; London: Prentice Hall International.

GOTWALS, Vernon. 1968. *Haydn: Two Contemporary Portraits, a translation with introduction and notes of the »Biographische Notizen über Joseph Haydn«, and the »Biographische Nachrichten von Joseph Haydn« by A. C. Dies.* Madison: The University of Wisconsin Press.

HALLMARK, Rufus. 1996. *German Lieder in the nineteenth century.* New York: Schirmer Books; London: Prentice Hall International.

HANSLICK, Eduard. 1950. *Music criticisms, 1846-99.* Ed. Trans. Henry Pleasants. Baltimore, Penguin books.

HANSLICK, Eduard. 1986. *On the musically beautiful: a contribution towards the revision of the aesthetics of music.* Ed. Trans. Geoffrey Payzant. Indianapolis, Ind.: Hackett Pub. Co.

HARLEY, Maria Anna. 1994. Birds in Concert: North American Birdsong in Bartók's Piano Concerto No. 3. *Tempo*, New Ser., No. 189: 8-16.

HARLEY, Maria Anna. Birdsong. In *Grove Music Online. Oxford Music Online,* http://www.oxfordmusiconline.com.ezproxy.bu.edu/subscriber/article/grove/music/03123 (Accessed November 22, 2008).

HEPOKOSKI, James. 2001. Beethoven reception: the symphonic tradition. In *The Cambridge History of Nineteenth-Century Music*, ed. Jim Samson, 447-50. Cambridge: Cambridge University Press.

HOLOMAN, D. Kern. 1997. Berlioz. In *The Nineteenth-Century Symphony,* ed. D. Kern Holoman, 108-141. New York: Schirmer Books; London: Prentice Hall International.

HOWARD, V. A. 1972. On Representational Music. *Noûs*, Vol. 6, No. 1: 41-53.

HUGHES, Jenny. 1996. Idealist Thought and Music Theory in Nineteenth-Century Germany: K. C. F. Krause, Dissonance, and »Coming-To-Be.« *International Review of the Aesthetics and Sociology of Music*, Vol. 27, No. 1: 3-12.

JACQUETTE, Dale. 2005. Idealism: Schopenhauer, Schiller, and Schelling. In *The Routledge companion to aesthetics*. 2nd ed. Ed. Berys Gaut and Dominic McIver Lopes, 83-96. London; New York: Routledge.

JANAWAY, Christopher. 2005. Plato. In *The Routledge companion to aesthetics*. 2nd ed. Ed. Berys Gaut and Dominic McIver Lopes, 3-14. London; New York: Routledge.

KAGEL, Mauricio. 1967. *Hallelujah.* Vienna: Universal Edition.

KARNES, Kevin. 2008. *Music, criticism, and the challenge of history: shaping modern musical thought in late nineteenth-century Vienna.* Oxford; New York: Oxford University Press.

KROEGER, Karl. 1988. Word Painting in the Music of William Billings. *American Music,* Vol. 6, No. 1: 41-64.

LANDY, Leigh. 2007. *Understanding the art of sound organization.* Cambridge, Mass.: MIT Press.

LEVIN, Theodore C. 2006. *Where rivers and mountains sing: sound, music, and nomadism in Tuva and beyond / Theodore Levin with Valentina Süzükei.* Bloomington: Indiana University Press.

LEYSHON, Andrew et al. 1995. The Place of Music: [Introduction]. *Transactions of the Institute of British Geographers*, New Series, Vol. 20, No. 4: 423-433.

LIGETI, György. 1973. *Éjszaka [és] Reggel. Night [and] Morning. Nacht [und] Morgen; zwei A-cappella-Chöre (1955) nach Texten von Sándor Weöres, für gemischten Chor*. Mainz: B. Schott's Söhne; New York: Schott Music Corp.

LISTER, Laurie-Jeanne. 1994. *Humor as a Concept in Music.* Frankfurt: Peter Lang.

LONGYEAR, R. M. 1966. *Schiller and music.* Chapel Hill, University of North Carolina Press.

MÂCHE, François-Bernard. 1974. *Rambaramb.* Paris: Editions Françaises de Musique.

MÂCHE, François-Bernard. 1992. *Music, myth, and nature, or, The Dolphins of Arion.* Trans. Susan Delaney. Chur, Switzerland; Philadelphia: Harwood Academic Publishers.

MAHLER, Gustav. 1960. *Symphonie Nr. 7 in fünf Sätzen für grosses Orchester.* Berlin: Bote & Bock.

MAHLER, Gustav. 2000. *Symphonie Nr. 6 in vier Sätzen für grosses Orchester / Gustav Mahler; vorgelegt von Erwin Ratz 1963; revidiert von Karl Heinz Füssl und Reinhold Kubik 1998; mit einem Vorwort von Gunnar Sundberg.* Frankfurt; New York: C. F. Kahnt.

MARROCCO, Thomas, ed. 1971. *Polyphonic Music of the Fourteenth Century, Vol. 7.* Monaco: L'Oiseau-lyre.

McCUMBER, John. 2007. Schiller, Hegel, and the Aesthetics of German Idealism. In *German Idealism*, ed. Klaus Brinkmann, 87-100. London; New York: Routledge.

MESSIAEN, Olivier. 1988. *Petites Esquisses D'Oiseaux.* Paris: Editions Musicales Alphonse Leduc.

MEYER, Leonard B. 1956. *Emotion and Meaning in Music.* Chicago: University of Chicago Press.

MONELLE, Raymond. 1991. Music and the Peircean Trichotomies. *International Review of the Aesthetics and Sociology of Music*, Vol. 22, No. 1: 99-108.

MONELLE, Raymond. 2002. *Linguistics and semiotics in music.* London: Routledge.

MORGENSTERN, Sam, comp. 1956. *Composers on music; an anthology of composers' writings from Palestrina to Copland.* New York: Greenwood Press.

NATTIEZ, Jean-Jacques. 1990. *Music and discourse: toward a semiology of music.* Trans. Carolyn Abbate. Princeton, N.J.: Princeton University Press.

NEWMARCH, [Mrs.]. 1904 – 1905. The Development of National Opera in Russia: Rimsky Korsakov. *Proceedings of the Musical Association*, 31st Sess.: 111-129.

NYMAN, Michael. 1981. *Experimental music.* New York: Schirmer Books.

OSMOND-SMITH, David. 1971. Music as Communication: Semiology or Morphology? *International Review of the Aesthetics and Sociology of Music*, Vol. 2, No. 1: 108-111.

PAPADOPOULOS, George-Julius. 2003. *Johannes Brahms and nineteenth-century comic ideology*. PhD diss., University of Washington.

PARROTT, Ian. 1956. Escape to Outer Darkness. *The Musical Times*, Vol. 97, No. 1360: 294-295.

PAYZANT, Geoffrey. 1991. *Eduard Hanslick and Ritter Berlioz in Prague: a documentary narrative.* Calgary, Alta., Canada: University of Calgary Press.

PHILIPP, Isidor, ed. 1977. *French Piano Music: an anthology.* New York: Dover Publications.

PRATT, Carroll C. 1954. The Design of Music. *The Journal of Aesthetics and Art Criticism*, Vol. 12, No. 3: 289-300.

PROKOFIEV, Sergey. 1979. *Peter and the wolf, symphonic tale for narrator and orchestra, op. 67.* Melville, N.Y.: Belwin Mills Pub.

PYEE, Doris. 1999. *La Gazette musicale de Paris, 1834-1835; La Revue et gazette musicale de Paris, 1835-1880 / prepared by Doris Pyee-Cohen and Diane Cloutier; data processed and edited at the Center for Studies in Nineteenth-Century Music, University of Maryland, College Park.* Baltimore, Md.: NISC.

ROREM, Ned. 1978. *Book of Hours: eight pieces for flute and harp.* New York: Boosey and Hawkes.

RUSSOLO, Luigi. 1986. *The art of noises.* Trans. Barclay Brown. New York: Pendragon Press.

SAINT-SAËNS, Camille. 1922. *Le Carnaval des Animaux, Grande fantaisie zoologique.* Paris: Editions Durand.

SAMUELS, Robert. 1991. Birtwistle's 'Gawain.' *Tempo*, New Series, No. 178: 32-33.

SAUSSURE, Ferdinand de. 1986. *Course in general linguistics.* Ed. Charles Bally, Albert Sechehaye and Albert Riedlinger; trans. Roy Harris. LaSalle, Ill.: Open Court.

SHOREY, Paul, trans. 1963. *Plato: The Republic.* Cambridge, MA: Harvard University Press.

SLOBODA, John A. 1985. *The musical mind: the cognitive psychology of music.* Oxford [Oxfordshire]: Clarendon Press; New York: Oxford University Press.

SPITZER, Michael. 1993. *Ambiguity and paradox in Beethoven's late style*. PhD diss., University of Southampton.

STANFORD, W. B. 1973. Onomatopoeic Mimesis in Plato, Republic 396b-397c. *The Journal of Hellenic Studies*, Vol. 93: 185-191.

STEFANI, Gino. 1987. Melody: A Popular Perspective. *Popular Music*, Vol. 6, No. 1: 21-35.

STEINBERG, Michael P. 1993. Introduction: Music, Language, and Culture. *The Musical Quarterly*, Vol. 77, No. 3: 397-400.

STRAUSS, Richard. 1979. *Tone Poems: in Full Orchestral Score.* New York: Dover Publications.

STRAUSS, Richard. 1993. *Eine Alpensinfonie and Symphonia Domestica.* New York: Dover.

STREET, Alan. 1989. Superior Myths, Dogmatic Allegories: the Resistance to Musical Unity. *Music Analysis*, Vol. 8, No. 1/2: 77-123.

TABORDA, Tato. 2004. *Bio-contraponto: Um enfoque bioacústico para a gênese do contraponto e das técnicas de estruturação polifônica.* PhD diss., Universidade do Rio de Janeiro.

TARASTI, Eero. 1994. *A Theory of Musical Semiotics.* Bloomington and Indianapolis: Indiana University Press.

VARÈSE, Edgard. 1969. *Ionisation, for percussion ensemble of 13 players.* [n.p.] Colfranc Music Pub. Corp.; sole selling agent: F. Colombo, N.Y.

VILLA-LOBOS, Heitor. 1949. *Bachianas brasileiras n. 2 per orchestra.* Milan: Ricordi.

VIVALDI, Antonio. 1995. *»The four seasons« and other violin concertos: in full score, opus 8, complete.* Ed. Eleanor Selfridge-Field. New York: Dover Publications.

WAKABAYASHI, Lynn. 1983. *Yamada ryu sokyoku ni mirareru senritsukei* [A study of melodic formulas in Yamada ryu sokyoku]. MA diss., Musicology, Tokyo Geijutsu Daigaku.

WALTON, Kendall. 1997. Listening with Imagination: Is Music Representational? In *Music and Meaning*, ed. Jenefer Robinson, 57-82. Ithaca; London: Cornell University Press.

WAUGH, Linda R. 1993. Against Arbitrariness: Imitation and Motivation Revived, with Consequences for Textual Meaning. *Diacritics*, Vol. 23, No. 2: 71-87.

WHITE, Nicholas P. 1979. *A companion to Plato's Republic.* Indianapolis: Hackett Pub. Co.

WINDSOR, W. Luke. 1996. Autonomy, Mimesis and Mechanical Reproduction in Contemporary Music. *Contemporary Music Review*, Vol. 15, Part 1: 139-150.

WHEELOCK, Gretchen A. 1979. *Wit, Humor, and the Instrumental Music of Joseph Haydn.* PhD diss., Yale University.

WISHART, James. 1986. Review: Hallelujah; Streichquartett I/II (Mauricio Kagel). *Music & Letters*, Vol. 67, No. 2: 231-232.

WOOD, Ralph W. 1933. A Pair of Neglected Masterpieces. *Music & Letters*, Vol. 14, No. 2: 117-127.

WOOD, Ralph W. 1942. Sibelius's Use of Percussion. *Music & Letters*, Vol. 23, No. 1: 10-23.

YUASA, Joji. 1989. Music as a Reflection of a Composer's Cosmology. *Perspectives of New Music*, Vol. 27, No. 2: 176-197.

Sažetak

Katalog glazbene onomatopeje

Tema o glazbenoj onomatopeji ili oponašanju zvukova iz okoliša glazbenim instrumentima dugo je bila zanemarena kao marginalna i nevažna u kontekstu umjetničke glazbe Zapada. Namjera je ovog članka da se suprotstavi tom zanemarivanju i da predloži razvitak istraživačkog područja kojem bi u žarištu bila glazbena onomatopeja.

Nakon što se obrazložio izbor termina *glazbena onomatopeja* (*musical onomatopoeia*) u odnosu na ovu kompozicijsku praksu, a temelji se na kriteriju povijesne valjanosti, učestalosti uporabe u literaturi i terminološke koherentnosti, istražuju se brojni čimbenici koji su odredili poglede na tu temu tumača 19. i 20. stoljeća. Među tim su čimbenicima Platonova rasprava o onomatopeji u trećoj knjizi *Države*, odnos između klasičnog njemačkog idealizma i idealističke misli u estetici glazbe 19. stoljeća, prepirka između zagovornika apsolutne i programne glazbe, obezvrjeđenje humora u umjetničkoj glazbi Zapada, te imitativni kompozicijski pristupi u 20. stoljeću.

Članak završava kratkim katalogom primjera iz repertoara umjetničke glazbe Zapada (djela skladatelja kao što su G. Gershwin, G. Mahler, E. Varèse, F.-B. Mâche, M. Kagel, G. Ligeti, N. Rorem, R. Strauss, Gherardello da Firenze, B. Britten, H. Villa-Lobos, A. Vivaldi, H. Berlioz, G. Crumb, O. Messiaen, J.S. Bach, C. Saint-Saëns, S. Prokofjev, J.-Ph. Rameau, E. Krieger).