

Introduction

The purpose of this article is to propose a preliminary discussion of the imitation of environmental sounds by musical instruments, here called “musical onomatopoeia” according, among others, to Monelle’s terminology (2002). Given that little scholarly attention has been paid to musical onomatopoeia, this article is meant to provide an introductory view on its subject (at times resembling a compilation, instead of in-depth analyses). Especially so in the first subsection, since the bibliographical review demonstrates that most authors cite musical onomatopoeia only superficially.

The article is divided into two parts:

1. The first part is further subdivided into three subsections. In the first subsection, I provide theoretical support for the term “musical onomatopoeia” by borrowing and recontextualizing basic concepts from twentieth-century Linguistics and Music Semiology. In the second, I analyze examples of criticism of musical onomatopoeia in the last two hundred years in light of Plato’s criticism of onomatopoeia, the opposition between absolute and program music, and the devaluation of humor in music. Finally, in the third subsection, I argue that, for the purpose of this article, musical onomatopoeia is addressed more as a compositional practice than as a historical object.
2. The second part is an appendix of sorts that provides examples of musical onomatopoeia mainly drawn from the twentieth-century repertoire. This part is a preliminary effort towards the constitution of an onomatopoeic lexicon, which will serve as a basis for subsequent studies.

1.

1.1. Terminology

The musical practice associated with the term “musical onomatopoeia” has been given various names in the past four decades, e.g., “graphic representations or imitations” (Gotwals 1968: 186), “reproduction of environmental sounds” (Nyman 1981: 34, 40; Windsor 1996), “imitation of non-musical sounds” (Dahlhaus 1985: 18), “simple imitation of acoustic phenomena of the external world” (Dahlhaus 1985: 21), “use of everyday sounds” (Berger 1985: 109), or “definite representative allusions” (Harley 2004: 8).

In order to better understand the logic behind the expression “musical onomatopoeia,” and the reason why we have chosen it over the others, our research commences with two contrasting terms borrowed from twentieth-century Linguistics and Semiology, namely:

* This work was made possible by CAPES/Brazil.

1. *arbitrary*. related to the object it denotes by means of convention; e.g., “chair”, “chaise”, and “cadeira” are distinct words that denote the same object in different languages (Saussure 2002 (c1916); Crystal 2000). In this case, the relation established between a given object and the word that names it is merely arbitrary, conventional.
2. *iconic*. containing physical properties of the object it denotes; e.g., words generated by means of onomatopoeia (Pierce 1972: 27, 101; Crystal 2000: 30). In this second case, therefore, the relation established between a given object and the word that names it is largely based on common physical properties (i.e., their sound). In other words, the sound of the object referred to is to a large extent present in the sound of the word that names it.

What interests us the most in the above is the definition of “iconic” insofar as it characterizes the specific property that differentiates onomatopoeia from conventional words (words whose relation to the object they name is arbitrary).

Analogically, a similar distinction can be made between musical onomatopoeia and other musical sounds. Support for this analogy can be found in two different groups of scholars:

1. scholars who apply the concept of “icon[ic]” to the imitation of environmental sounds by musical instruments: Osmond-Smith (1971), Boiles (1982), Monelle (1991; 2002), Tarasti (1994), and Broeckx (1996);
2. scholars who employ the term “(musical) onomatopoeia” with the meaning of “imitation of environmental sounds”: Blackburn (1903), Gatti (1921), Wood (1933), Butor & Schier (1981), Burton (1982), Wakabayashi (1983), Wishart (1986), Yuasa (1989), Fowler (1989), Carmant (2001), and Monelle (2002).

The present article is therefore developed in accordance with this terminology.

Before proceeding to the next section it is necessary to make two remarks:

First, none of the terminology thus far employed for the discussion of musical onomatopoeia adequately solves the problem of defining where the limits are between music and non-music (or between musical sound and non-musical sound). Problematic 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.)?” Certainly, the discussion and implications of these issues are beyond the scope of this article.

Second, it is important to acknowledge that some related musical practices were not included in the narrow category here defined as “musical onomatopoeia”:

- (a) utilization of environmental sounds for electro-acoustic music. Despite the ample utilization of environmental sounds for electro-acoustic music, this practice requires a different methodological approach, therefore we purposely avoid including it in this article;

(b) the use of the sound itself rather than the imitation of it (this will necessarily require that the sound source be onstage). Although this practice is very common in twentieth-century music (maybe even as common as the musical onomatopoeia), it also requires a distinct methodological approach, since it does not fit into the category of “reproduction of environmental sounds by musical instruments” — it could be more accurately described as the “utilization of sound sources other than musical instruments.”

1.2. Critical sources for the analysis of musical onomatopoeia: Idealism vs. Umberto Eco’s “La scoperta della materia”

In this subsection, I analyze examples of criticism of musical onomatopoeia in the last two hundred years in light of Plato’s criticism of onomatopoeia, the opposition between absolute and program music, and the devaluation of humor in music.

One of the first known critics of “musical onomatopoeia” in Western History was Plato (*Republic*, Book III, 396B and 397B). Support for this can be found in the discussion of onomatopoeia and of imitative arts, both of which are included into the broader discussion of *mimesis*, which roughly translates as either “impersonation” or “imitation of nature” in the third and tenth books of Plato’s *Republic*. *Mimesis* as “impersonation” (i.e., indirect speech) is not directly related to the subject matter of this article, whereas Plato’s passages that refer to *Mimesis* as “imitation of nature” are occasionally relevant to the present study, given that their assumptions share similarities with the discourse adopted by musical onomatopoeia critics in the past two centuries.

Musical studies must nevertheless proceed cautiously when including such philosophical sources as Plato. First, due to the chronic ambiguity of some Greek words which makes discussion of literary and musical *mimesis* quite problematic (Stanford 1973). Second, because, as Cornford (1971) remarks, Greek poetry was very often *sung* poetry:

Plato approves of the old practice of writing lyric poetry only to be sung to music, and music only as an accompaniment to song. Hence he speaks of words, musical mode, and rhythm as inseparable parts of ‘song.’ (p. 85)

However, this latter difficulty allows us to extend some of Plato’s criticism of onomatopoeia to musical onomatopoeia (provided that the context permits it). Consider, for example, Cornford’s and Shorey’s interpretation of 397b:

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 second of Plato's arguments that can be used against musical onomatopoeia appears in the tenth book of the *Republic* (595a-608b):

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. (White 1979: 247)

Throughout this passage there are no direct allusions to musical onomatopoeia but 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 could apply equally well to the composer who makes use of musical onomatopoeia.

As will become evident throughout the present section, the arguments of musical onomatopoeia critics are often simplified versions of Plato's argument, in rough terms, the assumption that the "noumenal world" is opposed to and hierarchically superior to the "phenomenal world." The Platonic bias of their discourse becomes apparent with their emphasis on the primacy of the "Idea", and their subsequent devaluation of imitative practices (when the imitation involves objects of the phenomenal world).

Plato's idealism seems to have been reinforced in nineteenth-century musical aesthetics through German idealism. According to Street (1989), Hegel (1770-1831) "was insistent on a conception of the artwork as a perceivable manifestation of the absolute Idea" (p. 86) and Schelling (1775-1854) believed in music as "pure form, liberated from any object or from matter" (p. 86). Shorey (1963: 257) adds that Schopenhauer (1788-1860) helped reinforce Platonic aesthetic

values in the nineteenth century, and 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).

On the other hand, such “idealism” in philosophical thought has been vehemently countered by Nietzsche’s 1886 “Beyond Good and Evil, Part One: On the Prejudices of Philosophers” (Kaufmann 1968: 199-200, 212), even though it still found safe shelter among supporters of absolute music. The gravest paradox that results from the application of this type of “idealism” to music lies in the fact that, in many cultures (including in the Western tradition), music largely requires the sense of hearing. Consequently, to devalue the role of the senses (in favor of the “Idea”) would inevitably result in the negation of one of music’s pillars.

That said, in devising an introductory account of musical onomatopoeia’s criticism, one must account for its dismissal by followers of currents of thought that one might generally associate with “musical idealism” (for lack of better expression). At times these critics assume the discourse of pure/absolute music, employed for instance as a “vacuous label” by “colloquial music aesthetics” as Dahlhaus claims in “The Idea of Absolute Music” (1989: 35).

Harley (1994), for instance, describes how the dispute between absolute and program music has inhibited efforts to trace the birdsong models for Bartók’s 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)

Dahlhaus (1985) is an example of a critic who, in spite of including the phenomena of musical onomatopoeia as the first form of imitation of nature, prematurely underlines its peripheral character and dismisses its importance, even when addressing “Realism in Nineteenth-Century Music”:

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 “On the Musically Beautiful” (translated by Payzant 1986 from its eighth edition, 1891) Hanslick dedicates one paragraph and a footnote to the discussion of musical onomatopoeia at the end of chapter VI “The Relation of Music to Nature”:

There are cases where composers have not just derived poetic incentive from nature (...) but have directly reproduced actual audible manifestations from it: the cockrow in Haydn’s *The Seasons*; cuckoo nightingale and quail songs in Spohr’s *Consecration of Sound* and in 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 prove music’s autonomy, and, consequently music’s independence from nature, he argues that the reproduction of natural sounds constitutes an element of “poetical significance” (outside the realm of music). In the footnote, though, he concedes that “natural sounds can be directly and realistically carried over into the artwork,” but only “in exceptional cases as humour” (p.76). Humor is, indeed, another significant factor in musical onomatopoeia assessment, though it is unusual to find an example like Hanslick’s, in which it is not necessarily regarded as a negative influence on music. Berger (1985) and Dahlhaus (1985), for instance, provide examples repudiating both humor and musical onomatopoeia in the nineteenth and twentieth centuries. In a passage of Berger’s “Music as Imitation”, he attempts to define acceptable musical onomatopoeia (based on the music’s character):

(...) those instances when the intrinsic relationship between the musical symbol and the thing symbolized is such that they are entirely or scarcely indistinguishable — e.g., literal bird calls, automobile horns, 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)

Especially telling is the fact that Berger's opinion is followed by a sort of *mea culpa* in brackets (based on his unawareness of some twentieth-century trends and composers at the time he had written the article). Still, a moralistic condemnation of humor in music would certainly not be in the interest of this article, and seems to go against recent musicological studies that acknowledge the role of humor among "serious" composers such as Haydn (Wheelock 1979), Mozart (Choi 2000), Beethoven (Spitzer 2003), and Brahms (Papadopoulos 2003).

Dahlhaus (1985) provides another example that illustrates the contempt for musical onomatopoeia alongside a devaluation of humor in music among German 'aesthetic cultivated people' around 1800. Notice 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)

The following account from A. C. Dies's (1755-1822) 1810 Haydn biography (translated to English by Gotwals, 1968) suggests that this resistance against musical onomatopoeia has also been supported by some composers:

To this were added several minor annoyances that arose between him [Haydn] and Baron van Swieten on account of the text. 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. 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)

Almost one century later, Blackburn (1903) dwelled on the prejudice of composers against musical onomatopoeia, thus accounting for Haydn's attitude:

When we come to consider the subject of onomatopoeia, as applied to music, it may be said at the outset that - to one who should consider the matter superficially - music, far more than literature, lends itself to the reproduction, through artistic means, of the natural noises of the world. And yet 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)

In 1985, such sentiments were further echoed by Sloboda's "The Musical Mind" (1985), in which he acknowledges and regrets the scarcity of 'explicit' musical onomatopoeia examples:

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)

The last type of scholar to be presented in this subsection differs from musical onomatopoeia critics in that they do, in fact, support imitative approaches in music and art. Howard (in his 1972 "On Representational Music"), for instance, argues that an imitative approach does not necessarily preclude an expressive outcome. Hence, there is no reason to condemn such an aesthetic approach *a priori*.

A parallel to this viewpoint can also be found in Umberto Eco's art criticism. Eco offers strong counterarguments to the aforementioned "idealistic aesthetic" in the 1960s through his essay "La scoperta della materia" (1968; 1984). 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":

L'estetica idealistica ci ha così 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)

He also denounces the assumption that beauty, truth, invention, and creation can only stem from a sort of angelical spirituality (i.e. the ideal world) which has nothing to do with the compromised universe of things that possess weight, scent, dimension, and appearance (i.e., the phenomenal world):

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, trasformazione, decadenza e sviluppo. (pp. 212-213)

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"), and reaffirms the aesthetic ties between contemporary art and the rights of matter ("diritti della materia"):

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 intravediamo 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)

Although Eco's materialistic criticism was not directed towards music, his statements can help build arguments not only against the excesses of musical idealism, but they can also provide support for the scholarly research on musical onomatopoeia.

1.3. Musical onomatopoeia regarded as historical object or mere compositional practice

One might argue that there is no difference between twentieth-century “musical onomatopoeia” and similar practices abundantly found in other times, for instance, in nineteenth-century program music and opera. This criticism is fair to a certain extent. We are, no doubt, referring to the same compositional practice, be it utilized in the context of fourteenth-century *Caccia* (Yudkin 1989), nineteenth-century program music, or experimental twentieth-century works.

The historical reasons that motivate the practice of musical onomatopoeia and the aesthetic conceptions that guide it are nevertheless specific to each individual style and historical period, and should not simply be grouped in an orderly way so as to generate a fictitious progressive history of onomatopoeia (in the manner of positivistic treatises that seek to attribute words like “progress” and “evolution” to Music History). They must first be analyzed in their own terms, according to their particular historical, aesthetic contexts.

For instance, the imitation of hunting horns by melismatic vocal lines in the example of the Italian *Caccia* follows the subject matter of the text set to music, whereas in programmatic cycles the text is not sung. The term “program music,” indeed, has broader implications than the mere use of musical onomatopoeia, owing to its utilization of literary sources, narrative, and symbolic correspondences between text and music.

According to the scope of the historical research, one might detect either quantitative or qualitative differences between the relatively limited role played by onomatopoeia in some program music (e.g., Berlioz’s “Symphonie Fantastique”), and their fundamental role in some twentieth-century works, such as Messiaen’s “Catalogue des Oiseaux” (1956–58), “Chronochromie” (1960), or Crumb’s “Black Angels” (1970).

More generally, based on the universe of musical examples listed in this article’s second section, the music historian might be led to conclude that, before the twentieth century, musical onomatopoeia were largely restricted to the domain of ornamentation (dispensable embellishments added to an underlying preexisting system, be it modal or tonal), since an expressive number of twentieth-century compositions arrayed there seem to give onomatopoeia a prominent role in musical structuring and style.

Nevertheless, this article will provide neither a definitive answer to the above historical issues nor in-depth analyses of musical onomatopoeia’s historical contexts (in its numerous manifestations). Thus, it should be clear from the outset that when I employ the general term “musical onomatopoeia,” I actually refer to a mere compositional practice, instead of to a broader musical genre, style, or aesthetic trend. Hence, in applying historical rigor to the present study, one will find that the methodology employed reinforces isolated compositional aspects, rather than historical ones (for as we focus our attention on the musical practice in isolation, we will inevitably overlook fundamental historical issues).

The applied methodology reflected this bias in that: 1) it did not seek to provide a balanced representation of all historical periods that

make use of musical onomatopoeia; and 2) it addresses this phenomenon by focusing on the musical score and the sound it prescribes/describes, rather than analyzing its specific historical surroundings.

Based on the above criteria, established here as a starting point for studying musical onomatopoeia as a compositional practice, one may draw the preliminary conclusions: 1) the nature of this practice, the imitation of environmental sounds by musical instruments, is not an innovation of twentieth-century composition, though 2) its importance and range are of no small extent in the 1900s; therefore, 3) a specialized study of this phenomenon is necessary which takes into account its particular characteristics, compositional techniques, and relation to the sounds reproduced.

2. Onomatopoeic Lexicon

The purpose of this article's second part is therefore to draw attention to this specific vocabulary by outlining a micro-dictionary of musical onomatopoeia in the twentieth century. A prototype to be expanded in the future, since there seems to be a theoretical lacuna with respect to the investigation of this practice. Even the scholars arrayed in this study are somewhat laconic and reserved as regards our object of study. Searching tools dedicated to specialized musicological studies offer frustrating, limited results. For example, the search on *Grove Music Online* offers 23 items for the word "onomatopoeia", none of them completely dedicated to it, and usually employing diverse meanings (even ornamental ones). The search on *JSTOR* (which conjoins 39 music journals) presents very few articles relating "Music and onomatopoeia", most of which are outdated or superficial, such as newspaper correspondences or short reviews (e.g.: Αντιδνοματοποίησις 1903).

Our onomatopoeic lexicon may as well be enhanced by some important references to previous centuries, for the use of musical onomatopoeia in the twentieth century is certainly not isolated from the past, thus being interesting to integrate and display past and present versions of it.

Samples of musical onomatopoeia in the twentieth century (and before)

Bees: Mauricio Kagel (b. 1931) in "Hallelujah" (1967), for SATB choir, "III. Protestchor," mm. 7-8, Alto.

[Molto rubato, langsam]

A divisi

(Summen: wie Bienen)
[hum: like bees]

Birdsong:

a. Messiaen (1908-1992) 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 in virtually all of his compositions. The following example is extracted from one of his last works for piano solo “Petites Esquisses D’Oiseaux” (1985), mm. 2-3.

Rouge gorge 8^{va} Un peu vif (♩ = 120) Modéré (♩ = 88)

mf mf

cresc.

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b. Rare example of birdsong occurring in thematic material before Messiaen (Harley, 2006): J. S. Bach’s Sonata in D for keyboard, BWV 963, 5th mov.

5. Thema all' Imitatio Gallina Cuccu

c. Samples of birdsong imitation through woodwind instruments: Saint-Saëns’s (1835-1921) “Le Carnaval des Animaux” (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, clarinet; and Prokofiev’s (1891-1953) “Peter and the Wolf” (1936), for Narrator and Orchestra, rehearsal 5, flute.

CLARINETTE en SI b (dans la coulisse) Andante f

Flute [Andantino ♩ = 92] mp

d. Example of birdsong imitation through violins: Antonio Vivaldi's (1678-1741) "Concerto No. 1 in E Major: *La Primavera*" Opus 8 / RV 269 (1723), first movement, mm. 13-17.

[Allegro] **Il canto degl'uccelli** [The song of the birds]

Caccia: 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 horn motives in the upper voice (Yudkin, 1989, 534):

Cat: Mauricio Kagel (b. 1931) in “Hallelujah” (1967), for SATB choir, “III. Protestchor,” mm. 10-11 (Alto), m. 20 (Bass).

[Molto rubato, langsam]

Clock: Gyorgy Ligeti (1923-2006) in “Reggel” (1955), for SATB choir, m. 1-2, Soprano, Mezzo-Soprano, Alto, Tenor, and Bass. Here is an example that illustrates the boundaries of the concept of musical onomatopoeia (since the imitation of the clock’s sound is not accurate, its classification as a musical onomatopoeia is questionable).

Vivace, stridente ♩ = 184

ff

Soprano

Mar Ring, Tag, u - ti - u - ti mar! bell! hell!

Mezzo-Soprano

Mar Ring, Tag, u - ti - u - ti mar! bell! hell!

Alto

Mar Ring, Tag, u - ti - u - ti mar! bell! hell!

Tenor

Mar Ring, Tag, u - ti - u - ti mar! bell! hell!

Bass

Mar Ring, Tag, u - ti - u - ti mar! bell! hell!

tick - tock, tick - tock, ti - cke, ti - cke

Crickets:

1. George Crumb (b. 1929), in his set of songs “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, first and second measures, piccolo. “The reference to ‘crickets’ is illustrated by a chirping piccolo motif”, Crumb states in the program note.

Vivace (in Tempo I, ♩ = 300)

(Picc.) *p* *delicato* (sim.) *ppp*

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2. “Crickets” may also be found in Crumb’s “Ancient Voices of Children” (1970), for Soprano, Boy Soprano, Oboe, Mandolin, Harp, Electric Piano, and Percussion (Three Players), “I. El Niño busca su voz”. But this time the cricket sound is imitated by three percussionists (through whispers and Tam-tam).

pp *f* *ppp*

Perc. I. cricket sound (whisper) (***)
i - u - i - u - i - u - i - u - i - u - i - u
zz
Tam-tam (scrape) (****) (l.v.)
poco fz

pp *f* *ppp*

Perc. II. cricket sound (whisper) (***)
i - u - i - u - i - u - i - u - i - u - i - u
zz
Tam-tam (scrape) (****) (l.v.)
poco fz

*** while producing a continuous buzzing sound, the lips form alternating vowel positions.
**** Scrape over surface of Tam-tam with very light metal rod (a single, very rapid stroke!)

pp *f* *ppp*

Perc. III. cricket sound (whisper) (***)
i - u - i - u - i - u - i - u
zz
Tam-tam (scrape) (****) (l.v.)
poco fz

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Dog: Mauricio Kagel (b. 1931) in “Hallelujah” (1967), for SATB choir, “III. Protestchor,” mm. 27-28, Tenor.


[Molto rubato, langsam]

12
8 Tutti 1+2 2. Solo

T divisi { *ff*: *semper decresc.* }
(immer Bellen) [always barking]

Duck: Sergei Prokofiev (1891-1953) in “Peter and the Wolf” (1936), for Narrator and Orchestra, rehearsal 21, oboe.

The duck quacked, and in her excitement, jumped out of the pond.

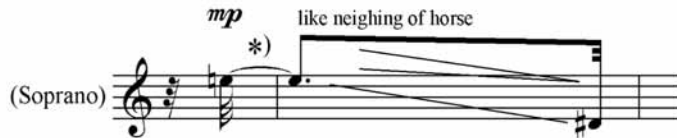
Ob. 

Horse:

1. George Crumb (b. 1929) in his “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.

Vivacissimo Possibile [e.g. ♩ = 76]

mp like neighing of horse

(Soprano) 

*) Monteverdi trill, i.e. "ne-he-he-he (etc.)-gro"

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2. The same effect is encountered in Crumb’s “Songs, Drones, and Refrains of Death” (1968), for Baritone, Electric Guitar, Electric Contrabass, Electric Piano (Electric Harpsichord), and Percussion (2 players), “III. Canción de Jinete, 1860”, this time in the Baritone part.

Insects:

1. George Crumb (b. 1929) in “Black Angels” (1970), for Electric String Quartet, “1. Threnody I: Night of the Electric Insects,” *tutti*.

2. Edino Krieger (b. 1928) in “Canticum Naturale” (1972), for Orchestra and Soprano, first movement “Diálogo dos pássaros”, m. 1, violin I and II.

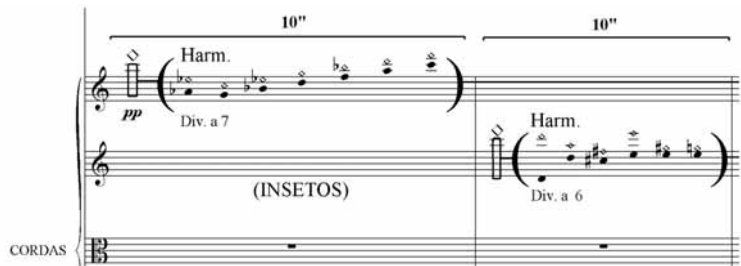
10" 10"

Harm. *pp* Div. a 7

(INSETOS)

Harm. Div. a 6

CORDAS



Knocking on door: Benjamin Britten (1913-1976) in his opera “Peter Grimes” (1945), Act II, Scene II, rehearsal 69, first to fourth measures, Hobson’s drum (snare drum) (Morgan 1992: 341-342).

There is a knocking at the path door

Hobson's Drum *ff*

knocking

Owl: George Crumb (b. 1929) in his set of songs “Night of the Four Moons” (1969), for Alto, Alto Flute (doubling Piccolo), Banjo, Electric Cello, and Percussion (one player); fourth song “¡Huje luna, luna, luna!...”, Alto Flute.

(♩ = 90)

like owl's hoot (slowly)

(Alto Fl.)

p

(bend 1/4 tone)

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Rooster: Gyorgy Ligeti (1923-2006) in “Reggel” (1955), mm. 32-33, tenor-solo.

[Vivace, stridente ♩ = 184]

falsetto da lontano *p.*

gliss.

(Tenor-solo)

3

ki - ke - ri - ki!

Seagull: George Crumb in “Vox Balanae” (1971), for Electric Flute, Electric Cello, and Electric Piano; section “Variations on Sea-Time”, Electric Cello.

ARCHEOZOIC [VAR. I] Timeless, inchoate

act. sound

E. Vc.

play

poco accel.-rit.

gliss.

p

4

***) "seagull effect"

***) This effect is produced automatically. Begin with 4th finger (lightly touching string) on octave above lower note. Keep same space of hand throughout glissando (the interval thereby diminishing).

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Thunder:

1. Antonio Vivaldi (1678-1741) in “Concerto No. 1 in E Major: *La Primavera*” Opus 8 / RV 269 (1723), m. 44, *tutti*.

[Allegro]

Tuoni [Thunder]

Violino principale

Violino I

Violino II

Viola

Violoncello; Basso continuo

2. Hector Berlioz (1803-1869) in “Symphonie Fantastique” (1830), rehearsal U, V, and W, mm. 177-180, 182-186, 188-191, and 192-196, timpani.

tempo 1°
(baguettes d'éponge)

Timb.

pp < *sf* > *p* *pp*

pp < *sf* > *p*

p < *sf* > *p*

m. 182

Timb.

f — *pp*

ppp

ppp — *f* — *pp*

f — *pp*

m. 188

Timb.

pp *poco sf* — *pp*

pp *poco sf* > *p*

pp *poco sf* > *p*

pp *poco sf* > *p*

3. George Crumb in “Music For a Summer Evening”, for Two Amplified Pianos and Percussion (Two Players), “V. Music of the Starry Night”, Piano I and II.

Fantastic, oracular [$\text{♩} = 64$]

(like distant thunder)

Piano

gliss. over str.

4 1 [f.t., then side of thumb]

P.I. sempre

8^{vb}

ppp < >

N. B. P.I. sempre = keep damper pedal depressed throughout (let sounds vibrate through pauses)

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Train (whistle and engine): Villa-Lobos (1887-1959) in “Bachianas Brasileiras No. 2 (Trenzinho Caipira)”, for Chamber Orchestra (1930).

[Un poco moderato]

FLAUTO

CLARINETTO *Sib*

m. 5

f

f

16

Fg.

mf

Cor. *Fa*

f

a 2

gliss. gliss. gliss.

Trbn.

mf

[Rehearsal No. 18, m. 10-13]

Flg.

Gmz. Chel.

R.-r.

Tmbl.

Cel.

Pf.

Vni I.

Vni II.

Vie

Vc.

arm.

pp

p

Re

Sol

arm.

Woodpecker: Edino Krieger (b. 1928) in “Canticum Naturale” (1972), for Orchestra and Soprano, first movement “Diálogo dos pássaros”, m. 10, wood-block.

6''

(PICA-PAU)

wood-block

mf

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