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# Paintings of Music

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### ABSTRACT

Paintings of music are a significant presence in modern art. They are *cross-modal representations*, aimed at representing music, say, musical works or forms, using colors, lines, and shapes in the visual modality. This article aims to provide a conceptual framework for understanding paintings of music. Using examples from modern art, the article addresses the question of what a painting of music is. Implications for the aesthetic appreciation of paintings of music are also drawn.

### I. INTRODUCTION

Artists and critics have long been concerned with the connection between music and paintings (for a historical survey, see Vergo 2005, 2011). There are many examples of paintings that have inspired music. Arnold Böcklin's *Isle of the Dead* has inspired many classical pieces including Sergei Rachmaninov's symphonic poem of the same name. Modest Mussorgsky's *Pictures at an Exhibition* was inspired by a series of pictures by his friend Viktor Hartmann. This article is mainly concerned with the direction of influence from music to pictures; in particular, it is about *paintings of music*, paintings that *represent* music. Examples of the latter are predominantly found in modern art, where it is not uncommon to encounter paintings named after music (Railing 2005; Vergo 2011). Some represent specific pieces of music (e.g., Aubrey Williams's series of paintings of Dmitri Shostakovich's symphonies and string quartets; Jack Ox's *Anton Bruckner: Eighth Symphony*); others specific musical forms (e.g., Paul Klee's *Fugue in Red*; M. K. Čiurlionis's series of "sonatas" and his *Prelude and Fugue*).

Paintings of music represent music. This kind of pictorial representation seems prima facie puzzling—how does an artform in one sense modality, that is a painting, represent an artform in another, that is music? The problem is not that music cannot be represented visually. Modern Western music notation, for instance, can do so effectively. The problem is that paintings of music, which are artworks in their own right, do not, as a rule, incorporate conventional symbols of music, yet they are supposed to represent music. The aim of this article is to shed light on this kind of pictorial representation, and deepen our understanding and appreciation of this type of pictorial art.

The topic of paintings of music is worth exploring for a number of reasons. First, philosophers of art who work on pictorial representation have long been preoccupied, almost exclusively, with depictions (Gombrich 1960; Wollheim 1998; Kulvicki 2006; Abell 2009; Nanay 2016). Depiction is only one type of pictorial representation. Hubert and Jan van Eyck's *Ghent Altarpiece* is a pictorial representation of a lamb in the sense that it depicts a lamb, but it is also a pictorial representation of Jesus in a nondepictive sense. Some abstract paintings, including paintings of music, are pictorial representations but are not depictive or figurative. An in-depth philosophical discussion on paintings of music deepens and broadens our understanding of pictorial representation beyond depiction. Second, paintings of music, though they are hardly paradigmatic cases of pictures, are more common than one might expect. The Tate's online catalogue lists a subcategory titled "musical analogies," which includes many paintings aimed at representing music, suggesting that paintings of music are a significant presence in modern art (see also Vergo 2011). A philosophical analysis of such a pictorial

art will help us get to grips with an important trend in the history of art. Third, the topic of paintings of music ties in with the burgeoning literature, in both psychology and philosophy, on cross-modal correspondences between stimuli from different sensory modalities (see Spence 2011 for a review; see also Green 2007 and Brassey 2020 for philosophical discussion). As we shall see, discussion on cross-modal correspondences can shed light on the nature of paintings of music.

Using examples from modern art, this article addresses the question of what a painting of music is. The goal is to put forward a definition for *paintings of music* that captures core examples of paintings of music such as those mentioned in the beginning of the article, as well as having the predictive power to help us decide whether a painting is a painting of music. The structure of the article is as follows. Section II makes a number of preliminary clarifications, including distinguishing paintings of music from paintings that are done in a "musical manner." This section also introduces the formal definition for paintings of music. Section III and Section IV spell out the means an artist can utilize in representing music pictorially. Section V returns to the definition introduced in Section II and elaborates on it. Section VI concludes the article by drawing implications for the aesthetic appreciation of paintings of music.

### II. PAINTING MUSIC

A painting of music is a representation of music. A representation is a vehicle for content. In the case of paintings of music, the vehicle is a *painting*, and the content is *music*. A clarification is needed on how the notions of *painting* and *music* are understood.

A painting is a visual artifact that has a surface that usually contains colors, lines, and shapes. While this article focuses on paintings, what is said about paintings also applies to other pictorial artworks that represent music, for example, drawings, engravings, and etchings. Throughout the article, I shall be primarily concerned with abstract, that is, nondepictive, paintings, since examples of paintings of music are almost exclusively abstract.

Music is usually understood as, minimally, organized sounds. In ordinary discourse, we also use the term "music" to refer to *musical works*, that is, musical compositions with or without lyrics (e.g., "I like Mahler's music"). We can also talk about *musical forms*, that is, musical works that have a shared structure including the fugue, the sonata, and so forth, or *musical genres*, that is, musical works that belong to a certain tradition or convention including jazz, rock, and so forth. With respect to paintings of music, the notion of music is understood broadly to include musical works, forms, genres, and so forth. As the examples in this article illustrate, paintings of music often represent specific musical works and musical forms.

Paintings of music are cross-modal representations. Cross-modal representations are representations involving different sensory modalities. In the case of paintings of music, the vehicle is in the visual modality and the content pertains to the auditory modality. The latter claim, nevertheless, requires clarification. Consider a painting that allegedly represents Beethoven's Fifth Symphony. The vehicle is clearly in the visual domain—a painting is a physical thing that one can point to. The content is a musical work, which is not some actual sounds. One cannot hear Beethoven's Fifth Symphony *qua* composition, but only a particular performance of the composition. Similarly, one cannot hear a fugue *qua* form, but only a particular performance of a fugal composition. Nevertheless, musical works, as well as musical forms and genres, pertain to the auditory modality insofar as their instances are heard. A musical work is, to quote Jerold Levinson, "a structural type or kind" where "instances of this type are to be found in the individual performances of the work" (Levinson 1980,5–6). Similarly, musical forms like fugues or musical genres like jazz clearly have auditory instances. So, paintings of music are cross-modal representations in the sense that colors, lines, and shapes in the visual modality are used to represent, say, a musical work, form, or genre, whose instances are in the auditory modality.

Given these preliminary clarifications, paintings of music can be distinguished from a number of related but distinct categories of paintings. Paintings of music should be distinguished from the broader category of *music-themed paintings*. The former can be regarded as a subcategory of the latter. Music and musicians have been a common theme for artists throughout history. However, paintings such as Caravaggio's *The Lute Player* or Hans Memling's *Christ Surrounded by Singing and Music-making Angels*, while being music-themed paintings, are not paintings of music. Such paintings merely represent

visual scenes that involve musicians and instruments; they are not cross-modal representations in the aforementioned sense.

Paintings of music also need to be distinguished from paintings that are done in a "musical manner." The latter are associated with many artists in the 19th and 20th centuries who saw an analogy between paintings and music and, in an attempt to emulate music, emphasized pictures' formal properties, for example, colors and shapes. For instance, when asked why he was painting red dogs and pink skies, Paul Gauguin famously replied:

It's music, if you like! Using the pretext of any kind of subject-matter borrowed from life or from nature, by arranging lines and colours I obtain symphonies, harmonies that represent nothing absolutely real in the vulgar sense of the word, that do not express directly any ideas; instead, they make us think, just as music makes us think, without relying on ideas or images, simply because of mysterious affinities that exist between our brains and such arrangements of colours and lines. (1895; quoted in Vergo 2011, 161)

Gauguin sees colors and lines themselves, regardless of their representational content, as having the power to evoke thoughts and emotions in the same way that he thinks music does. James Whistler goes so far as to define painting as "the exact correlative of music, as vague, as purely emotional, as released from all functions of representation" (1872, The Times, quoted in Vergo 2011, 72). One might say that these painters painted "musically" or in a "musical manner," where the notion of "musical" is understood in a metaphorical sense to mean that these artists focused on the formal properties of a picture and its emotional effects, rather than its depictive content. In this sense, painting in a musical manner is only said to emulate music in an attenuated sense. It is painting in a manner that relies, for its effect, on nonrepresentational and, perhaps neurally based, as Gauguin seems to imply, relations of association between arrangements of colors and lines on the one hand, and certain thoughts and emotions on the other hand. The musical manner of painting culminated in the abstract art of artists such as Wassily Kandinsky, who believed that colors themselves had emotive or spiritual effects and saw pure colors and shapes as art in their own right (see Kandinsky 1977).

Painting in a musical manner is different from painting music (Railing 2005). In the former case, as we just saw, the artist's goal is to evoke thoughts and emotions in an analogous way that music does in the auditory domain. In the latter case, the artist's goal is to represent music. Paintings done in a musical manner are often not pictorial representations of music. For instance, while Kandinsky is well known for the former, music is not the subject matter he is usually concerned with (Railing 2005; Vergo 2011, 176). Nevertheless, the distinction between the two is non-exclusive—a painting of music can also be done in a musical manner.

So, a painting of music P is a visual artifact by an artist C that represents music M, where M could be a musical work, form, genre, and so forth. Our next task is to spell out how exactly it is that P represents M. I propose the following definition:

(Def) A painting P by an artist C is a *painting of music* that represents music M (where M could be a musical work, form, genre, etc.) if and only if:

- (1)C intends (elements in) P to cross-modally correspond to (elements in) M or intends P to resemble M in a certain respect(s).
- There are sufficient cross-modal correspondences between (elements in) P and (elements (2) in) M or sufficient resemblances between P and M in the relevant respect(s) because (1) holds.

Condition (1) states the artist's intention in painting music and the means the artist can exploit in doing so. Condition (2) states the relevant features that the painting has to have in order to count as a painting that represents music. The next two sections focus on spelling out different means an artist can exploit to pictorially represent music. Section III summarizes the psychological literature on audio-visual cross-modal correspondences and explains how a painting can represent music by exploiting such cross-modal correspondences. Section IV looks at how a painting can represent music through structural resemblance. Section V elaborates on this definition and clarifies the role of the artist's intentions in determining whether a painting represents music.

## III. CROSS-MODAL CORRESPONDENCES

Recent literature in psychology has shown that there are *cross-modal correspondences* between features or dimensions of stimuli from different sensory modalities (e.g., Marks 1987, 1989; Green 2007, chap.7; Spence 2011; Parise and Spence 2013). *Audio-visual cross-modal correspondences* in particular, which are associations between *auditory* and *visual* features (for a survey, see Parise and Spence 2013), are of central importance to certain types of cross-modal representations involved in paintings of music. In this section, we shall briefly survey the empirical literature on audio-visual cross-modal correspondences and then address how an artist can represent music pictorially via such cross-modal correspondences.

Regarding audio-visual cross-modal correspondences, there are empirically identified nonarbitrary associations between simple auditory stimuli (pitch, volume, and timbre) and simple visual stimuli (color, size, and shape), between complex auditory stimuli (music) and simple visual stimuli (color), as well as between complex auditory stimuli (music) and complex visual stimuli (paintings). Among those obtaining between simple auditory features and simple visual features, higher pitches are associated with brighter colors (Marks 1974; Klapetek, Ngo, and Spence 2012), higher pitches with higher elevation (Roffler and Butler 1968; Rusconi et al. 2006), and low-pitched sounds with large-sized objects (Walker and Smith 1985; Gallace and Spence 2006).

In terms of associations between complex auditory stimuli and simple visual stimuli, there are cross-modal correspondences between *music* on the auditory side and *color patches* on the visual side (see Spence 2020). Bresin (2005) found that music in major tonality was associated with light colors whereas music in minor tonality was associated with dark colors. In an influential study by Palmer et al. (2013) participants listened to eighteen selections of music from Bach, Mozart, and Brahms, which varied in tempo (slow, medium, and fast) and mode (major or minor) while viewing thirty-seven color samples. Participants were asked to select the five best-matching and five worst-matching colors in relation to the music. Results showed strong music-color correspondences and "in particular, faster music in the major mode was generally associated with more saturated, lighter, yellower colors, whereas slower music in the minor mode was associated with more desaturated (grayer), darker, bluer colors" (Palmer et al. 2013, 8840).

In terms of associations between complex auditory stimuli and complex visual stimuli, there is evidence for cross-modal correspondences between *music* on the auditory side and *paintings* on the visual side. In an early study by John T. Cowles (1935) that included eight pieces of instrumental classical music and eight landscape paintings, participants listened to the music while viewing the paintings one by one. They were instructed either to "choose the picture whose affective mood was most similar to that of the music being played," or to select one that "'best fits the music'" and subsequently record introspective reasons identifying elements in the music and in the picture for the correspondence (Cowles 1935, 462). The findings were that "[c]ertain combinations were never chosen" and that "[a]mong the combinations most frequently chosen, pictures with represented content capable of motor activity were nearly always selected with the musical selections of prominent dynamic changes; and likewise, pictures of slight content were nearly always selected with music of relatively weak dynamic qualities" (469). Overall, there was partial agreement among the participants in their choices of pictures for the music, and the agreement was the same regardless of how the picture was chosen (i.e., based on either equivalence of mood or what best fits the music).¹

Interestingly, many painters and musicians have also noted audio-visual cross-modal correspondences, for example Alexander Scriabin, Alexander Wallace Rimington. In his book *Concerning the Spiritual in Art*, Kandinsky wrote on the associations between shades of blue and timbre: "a light blue is like a flute, a darker blue a cello; still darker a thunderous double bass; and the darkest blue of all — an organ" (1977, 37–8). Of course, it is another question as to whether Kandinsky's speculations withstand empirical scrutiny (i.e., are valid for the general public).

Cross-modal correspondences call for an explanation. Different types of cross-modal correspondences might require different explanations. Regarding audio-visual cross-modal correspondences between simple stimuli, Cesare Parise and Charles Spence conjecture that most of these correspondences originate in statistical correlations in nature between features from different sense modalities, which then shape our lexicon such that commonly associated features are described using the same

words (2013, 797). For instance, in English, adjectives such as "bright," "dark," "loud," and "dull" are used to describe both colors and sounds. Through evolution, our brain may have gradually developed mechanisms and strategies for processing associated features, for example, collocating them in connected or neighboring areas (Ramachandran and Hubbard 2001).

Regarding audio-visual cross-modal correspondences involving musical stimuli, a dominant explanation in the literature is the emotion mediation account, according to which the correspondences between music on the one hand and color patches or paintings on the other hand are mediated by their shared emotional associations (see Barbiere, Vidal, and Zellner 2007; Palmer et al. 2013; Spence 2020). In the aforementioned experiment by Palmer et al. (2013), participants were also asked to rate how strongly each color patch and musical sample associated with each of eight emotional descriptors (i.e., happy, sad, angry, calm, strong, weak, lively, and dreary). Results showed strong correlations between the emotional associations of the musical samples and those of the color patches that were chosen to go with the music. Palmer et al. (2013) take their results to support the emotional mediation account. It is not always clear in the literature whether the relevant emotional associations are understood as referring to the audience's experienced emotions in response to the music and colors or merely their cognitive assessments that the music or colors are associated with certain emotions (Gabrielsson 2001; Spence 2020, 13). I shall here remain neutral on how emotional associations are to be understood. According to the emotion mediation account, the key idea is that, as people listen to music, they either have emotional responses as a result or recognize the emotional content of the music, and then pick colors with similar emotional effects or contents (see Palmer et al. 2013, 8838).

Philosopher Mitchell Green (2007, 178–82) puts forward a unified explanation for cross-modal correspondences in general. Green posits three basic dimensions, that is, intense or mild, pleasant or unpleasant, dynamic or static, onto which we can map, in a largely unconscious way, a sensory experience. On this view, there is an audio-visual correspondence between, say, fast music in the major mode and the color yellow, because our sensory experience of the two is mapped onto similar coordinates in the three-dimensional space. Green's proposal also extends to the correspondences between sensory experiences and emotions, as he thinks that emotions, like sensory experiences, can also be mapped onto the same three-dimensional space. While proponents of the emotion mediation account, as we saw, explain music-color or painting correspondences in terms of their shared emotional associations, Green's proposal, which is compatible with the emotion mediation account, provides a further explanation as to why these sensory experiences have certain emotional associations in the first place.<sup>2</sup>

Evaluation of the abovementioned explanations is beyond the scope of this article. For present purposes, we will focus on how an artist can represent music by exploiting cross-modal correspondences, and how these proposed explanations can shed light on how this is done. On Green's proposal for instance, we all have access, though largely unconsciously, to the coordinates of a sensory or emotional experience in a three-dimensional space in terms of intensity, pleasantness, and dynamism. Granted these dimensions, an artist in creating a painting of music can exploit a cross-modal correspondence between the musical work and the painting or between a particular salient element in the musical work and a particular salient element in the painting by, first, accessing the coordinates of the musical work or of the relevant element in the musical work in the three-dimensional space in terms of intensity, pleasantness, and dynamism, and then trying to create a painting or corresponding element in the painting that has a similar coordinates in the three-dimensional space. Much of this may be carried out in an unconscious manner.

The emotion mediation account can also help us understand how an artist can create a painting of music through cross-modal correspondences. One can do so by, first, determining the emotional associations of the music, and then, creating a painting that bears similar associations. This kind of explanation has already been deployed in art criticism, for instance, of the paintings of Aubrey Williams. Williams painted a series of thirty abstract expressionist paintings of Shostakovich's symphonies and string quartets. Writing on Williams's series, art critic Guy Brett (1982) notes the shared emotional associations between Shostakovich's music and Williams's paintings:

[Williams] has found a way, in no sense literal, of evoking struggle, conflict, lyricism, peace, of evoking both historical and personal events that you find in the music. Just as Shostakovich believed that 'every musical composition contains meaning and emotions', Williams feels the same about

so-called abstract forms. ... Williams is wary about trying to express it in words. He will say that he believes his paintings transmit an anxiety which is compounded of many different things: chiefly his feelings about Shostakovich's music. (1982, 32)

Williams's paintings, with frequent use of bold colors, are primarily attempts at representing Shostakovich's music by evoking the same anxiety and emotions expressed by the latter. Consider Williams's Shostakovitch 3rd Symphony Opus 20.3 There is a clear cross-modal correspondence between the music and the painting. The vigor of the musical work and its high intensity and dissonance correspond to the dynamism of the painting and the high intensity and dissonance of its colors. Indeed, we would find it strange if we were told that the painting represented a quiet and soothing nocturne. Williams exploits the music painting cross-modal correspondence primarily through exploiting shared emotional associations. Just as the musical work conveys ecstatic, stormy, bombastic, and unsettling feelings, so does the painting that represents the piece.

In addition to exploiting music painting cross-modal correspondence at a wholistic level, one may speculate that Williams might have also employed what seemed to him to be cross-modal associations between simpler visual and auditory attributes. Loud bombastic sounds characteristic of the music naturally correspond to the solid blocks of dark red in flash-like shapes in the "foreground." Somber and low-pitch parts of the music seem to go together with the dark color in the "background" of the painting. Bright blue and yellow correspond to shrill sounds, likely from the violins that reoccur throughout the opening of the piece.

In this section, we surveyed the empirical literature on audio-visual cross-modal correspondences and a number of proposed accounts for explaining these correspondences. We saw that an artist can appeal to cross-modal correspondences to pictorially represent music. In the next section, we will look at a different means an artist can exploit in representing music.

## IV. STRUCTURAL RESEMBLANCES

In creating a painting that represents music, an artist can also exploit structural resemblances between the music and the painting. The relevant kind of structural resemblance involves one-to-one mappings from elements in one domain to elements in another domain. The London Underground map, for instance, involves this kind of mapping. The underground stations map to hollow black circles with names of the stations next to them. Different underground lines map to different colored lines in the map. These mappings establish some structural resemblances, that is, resemblances in terms of the relations of internal elements, between the London Underground and the map that represents it. The ordering of the underground stations relative to one another resembles the ordering of the black circles.

Pictorial representations of music utilizing structural resemblance occur particularly in paintings of musical forms. Perhaps the most inspirational musical form for painters in the early part of the 20th century was the fugue. By the 1910s, the word "fugue" starts appearing in the titles of many paintings, for example, Kandinsky's Fugue (Controlled Improvisation), Marsden Hartley's Musical Theme No. 2 (Bach Preludes et Fugues); Adolf Hölzel's Fugue on the Theme of Resurrection, Josef Albers's Fugue (Vergo 2011, 205). A fugue is, minimally, a contrapuntal composition that involves two or more voices or parts, where the latter enter in imitations of each other repeated at different pitches. It begins with an exposition where a subject (i.e., a short melody) is introduced by a single voice in the tonic key and a second voice then announces the answer, which is a reproduction of the subject transposed into the dominant key. The process may repeat until every voice has completed its subject or answer. A fugue usually, though not always, has countersubjects—recurring accompanying material after the statement of a subject, and episodes—connective passages in a fugue where the subjects are absent. It generally employs various techniques, for example, augmentation, diminution, inversion, stretto, and so on.

Consider Paul Klee's Fugue in Red (see figure 1), which is a representative example of a painting of a fugue that exploits structural resemblances. Klee himself was a concert violinist and knowledgeable about music, especially the works of Mozart and Bach (Düchting 2012, 7–8). The painting consists of several pink shape sequences (leaf, vase, circle, triangle, and square) in gradations of color from dark to light. Individual shape sequences map to different musical motifs in a fugue (i.e., short melodic



Figure 1 Paul Klee, Fuge in Rot (1921: Fugue in Red), watercolor and pencil on paper and cardboard,  $24.4 \times 31.5$  cm. Private Collection, Switzerland, on extended loan to the Zentrum Paul Klee, Bern. Photo credit: Zentrum Paul Klee, Image Archive. Used by permission.

ideas, usually repeated and developed). The same shape sequences reappear in different parts of the painting (e.g., the vase sequence on the left also appears on the right side of the painting), corresponding to the reoccurrence of the same motifs in a fugue. Peter Vergo suggests that the painting represents the beginning of a double fugue with two subjects, accompanied by their contrasting countersubjects, being announced at the same time (2011, 245). The leaf sequence (first subject) is followed by the circle sequence (first countersubject). The vase sequence (second subject), which is below the leaf sequence in the painting, is followed by the triangle sequence (second countersubject). The left-to-right order of the shape sequences in the painting maps to the temporal order of music (see Düchting 2012, 28). The inverted triangle sequence on the bottom right maps to the technique of inversion frequently used in a fugue. In virtue of the mappings between elements in the painting and elements in a fugue, the painting bears structural resemblances to a fugue. The earlier-later relations between the different musical motifs in the fugue are "projected" onto the painting in terms of the earlier-later relations between different shape sequences.

It is worth noting that the kind of mapping from individual shape sequences to musical motifs in a fugue is different from the kind of "mapping" in cross-modal correspondences that we saw in the last section. In the case of cross-modal correspondences, the "mappings" between stimuli from different modalities are nonarbitrary and often considered natural by psychologists, whereas the mappings from particular shapes (leaf, vase, circle, and so on) to certain musical motifs (subjects, countersubjects, and so on) are arbitrary. Any arbitrary symbol in a painting can serve the function of representing a subject or a countersubject in a fugue, while preserving structural resemblances between the painting and the music.4

In this section, we saw that an artist can pictorially represent music by exploiting structural resemblances. In the next section, we elaborate on the definition for paintings of music proposed at the end of Section II.

# V. DEFINITION

Recall our two-part definition in Section II. Conditions (1) and (2) are jointly sufficient for an artwork to be a painting of music. I shall comment on the two conditions in turn, referring to material from the previous two sections where appropriate.

Condition (1) captures the ways in which an artist can produce a picture surface to represent music. An artist can directly exploit *cross-modal correspondences* between the auditory and visual. As we saw in Section III, audio-visual cross-modal correspondences can hold between simple stimuli and complex stimuli. The artist can directly exploit music-painting correspondences, music-color correspondences, as well as simple audio-visual correspondences such as between pitches and colors. In creating a painting of music, an artist can also intend the painting to *resemble* the music it represents in certain respects. This can be done in various ways. As we saw in Section III, the artist can exploit structural resemblances between the painting and the music (as in the case of Klee). They can also exploit emotional resemblances between the painting and the music (as in the case of Williams). In Section III, we saw that Williams utilizes cross-modal correspondences by directly exploiting the shared emotional associations between his paintings and Shostakovich's music. In successfully executing a music painting cross-modal correspondence in this way, the artist thus creates an emotional resemblance between the painting and the music.

Condition (1) also captures the role of the artist's intentions in determining whether a painting is a painting of music. Audio-visual correspondences or resemblances are widespread and easy to find. Without bringing in the artist's intention, paintings that clearly do not represent music are wrongly counted as paintings of music. Consider Mark Rothko's *No. 61 (Rust and Blue)*. One might say that it resembles Chopin's *Funeral March* in terms of shared emotional associations since both express sadness and gloominess. We also know from the psychological literature on music-color correspondences that slower music in the minor mode, such as Chopin's *Funeral March*, is associated with darker and bluer colors (e.g., Palmer et al. 2013). But this is not a painting of music, precisely because Rothko did not intend it to represent music, let alone a specific piece by Chopin.

The inclusion of artist's intentions in the definition for paintings of music is further supported by the fact that disagreements about whether a painting represents music often boil down to disagreements about artist's intentions. Consider František Kupka's Amorpha, Fugue in Two Colors.<sup>6</sup> Kupka's painting resembles the basic structure of a two-part fugue, where the two colors in the painting—red and blue—map onto the two voices in a two-part fugue. The interwovenness of the two ribbons maps to counterpoint in a fugue, where the two voices, though melodically independent, are harmonically dependent when heard together. However, it is debatable whether it is a painting of a fugue (Railing 2005; Vergo 2011). The painting was preceded by numerous abstract studies of movement. Ludmila Vachtová, in her book on Kupka, describes the painting as being "nearer to Matisse's Dance than to a musical composition" (Vachtová 1968, 258), contending that it is not a representation of a fugue. Peter Vergo, however, disagrees. He notes that pianist Walter Rummel's performances of Bach's fugues during his regular visits to the Kupkas may have "led Kupka to reflect on how one might set about translating a fugue in music into the language of painting" (2011, 224). Vergo (2011, 225) also draws attention to Kupka's choice of title for the painting to argue that Kupka likely intended to paint a fugue. The disagreement among art critics precisely centers around Kupka's intention in creating the painting, that is, whether the relevant resemblances noted above resulted from the artist's intention to resemble a fugue.

So, whether a painting is a painting of music crucially depends on the artist's intentions. Nevertheless, intention alone is insufficient. An artist might intend to represent a musical work without actually representing it. Whether or not a painting is a painting of music depends on, as captured by condition (2), first, whether there are sufficient cross-modal correspondences between (elements in) the painting and (elements in) the music or sufficient resemblances between the painting and the music; and second, whether the relevant cross-modal correspondences or resemblances obtain because of the artist's intention as stated by condition (1). So, condition (2) thus understood consists of two components. Let us look at each in turn.

Consider the first component, which states that there have to be *sufficient* cross-modal correspondences or resemblances. Consider a parallel example in the case of depiction. A toddler's drawing intended to represent a person that results in some minimum resemblance but otherwise looks almost nothing like a person is an example where the resemblance fails to be sufficient to guarantee that the picture depicts a person. Similarly, a painting that bears minimal cross-modal correspondences or resemblances to the music that the artist intends to represent can fail to be a representation of the music. It is hard to give a precise sufficiency threshold. In deciding whether a painting is a painting of music,

we might be looking at which aspects of the music the painting resembles or stands in cross-modal correspondences to and whether the relevant aspects are significant. A painting that only contains, say, a small patch of color that cross-modally corresponds to a particular but otherwise insignificant sound in a musical work does not make the painting a representation of the piece even if this correspondence results from the artist's intention. We might also consider whether a significant portion of the painting serves the function of representing the music. Imagine a painting in which a copy of Klee's Fugue in Red occupies a small corner, surrounded by random color patches that bear no relation to a fugue. It is unclear to me that such a painting as a whole is a representation of a fugue even if the artist intends the small portion of the painting to bear structural resemblances to a fugue. What counts as sufficient cross-modal correspondences or resemblances may be decided on a case-by-case basis. Nevertheless, the sufficiency threshold can be left vague to reflect the fact that in some cases whether or not a painting is a painting of music is up for debate even after the question of the artist's intentions is settled.

Turning now to the second component of condition (2), which states that the relevant sufficient cross-modal correspondences or resemblances are there because of (1), that the artist intends suchand-such. Consider the following case for support. An artist intends a painting to resemble Funeral March with respect to the latter's expressive or emotive character. But due to a fluke event, the paint the artist intends to use accidentally splashes onto the picture surface in a way that precisely captures the artist's intention. Intuitively, the resulting picture does not represent Chopin's Funeral March, just as a similar kind of accident occurring during the painting of a landscape does not result in a picture that represents a landscape (see Abell 2009, 210). A painting is a painting of music only if the relevant resemblances or cross-modal correspondences are there because the artist has intended them to be

Having clarified what a painting of music is, in the next and final section, I shall draw implications with respect to the aesthetic appreciation of paintings of music.

## VI. AESTHETIC APPRECIATION

While a systematic treatment of the aesthetic appreciation of paintings of music awaits another occasion, in this section, I shall briefly address what it is to aesthetically appreciate a painting of music as a painting of music. The aim of this final section is modest. It is not to give necessary and sufficient conditions for aesthetic appreciation of paintings of music simpliciter—one can appreciate a painting of music without appreciating it as a painting of music, but to provide some tentative suggestions regarding what is unique to aesthetically appreciating a painting of music.

Following Levinson (1996, 2009), appreciating an artwork plausibly involves two things: first, experiencing the artwork, where "experiencing" is understood broadly to encompass both perceiving and cognizing; and second, deriving pleasure or satisfaction from such an experience. But not all appreciations are aesthetic appreciations. One might appreciate a painting for its instrumental value. It might have a soothing effect on the viewer. It might complement the color scheme of the furniture in a room. To aesthetically appreciate an artwork is to appreciate it for its own sake. A number of philosophers have pointed out that our experience of aesthetically appreciating an artwork is closely related to how we exercise attention, especially attention to the interrelations and dependency between different elements in an artwork (e.g., Levinson 2009; Nanay 2016). For instance, in the case of depictions, Bence Nanay (2016, 59-62) emphasizes that attending to the interrelations between the surface features of a painting and the depicted object in that painting is an important part of aesthetically appreciating a depiction. In discussing the aesthetic appreciation of paintings of music, I shall also make reference to how we exercise attention with respect to different elements in the painting.

Paintings of music, like all other forms of pictorial art, have *surface features*, features of the painting described by making references to the colors, lines, shapes, and their locations on the two-dimensional surface. Let us label these surface features "S." What is unique to a painting of music is the fact that it represents music, usually a musical work or form. Call this the "musical content" (labelled as "M" henceforth). For instance, the musical content of Klee's Fugue in Red is a fugal composition. The musical content of Williams's Shostakovitch 3rd Symphony Opus 20 is the musical work by the same name. Aesthetic appreciation of a painting of music as a painting of music involves, I propose, the following:

- 1. Recognizing that the painting has musical content M;
- 2. Either (2a) attending to the relation between S and M, or (2b) contemplating (or imagining or surmising) what M is like given S.
- 3. Deriving pleasure from the experience of engaging with (1) and (2).

As mentioned, aesthetic appreciation of an artwork involves both *experiencing* the artwork in a certain way (where the notion of experiencing is understood broadly) and deriving *pleasure* from the experience. (1) and (2) are aimed at capturing the kind of experience that is relevant to aesthetically appreciating a painting of music as a painting of music. Nevertheless, they are not sufficient for aesthetically appreciating a painting of music as a painting of music. One could be doing both and still fail to have a genuine appreciation of the painting. The relevant aesthetic appreciation presumably also involves (3). While there is more to be said about what makes such an engagement pleasurable, in the rest of this section, I want to look at (1) and (2) in more detail.

Consider (1). Aesthetically appreciating a painting as a painting of music requires, first and foremost, the viewer to recognize that the painting represents music, that is, has content M. Recognizing that the painting has content M is to latch onto the artist's intention of representing M in creating a painting of music. Such recognition in the case of paintings of music is markedly different from recognizing that a picture has a certain depictive content in the case of depiction. In the latter case, our intuition is that one literally sees the depicted object in the picture, whereas in the former case, the musical content is not literally seen. One can visually inspect Klee's *Fugue in Red* and still fail to recognize that it represents a fugue. Recognizing that a painting has musical content M often requires, minimally, reading the title of the painting. The viewer may also need to acquire background knowledge about the artist or the painting.

Let us turn to (2) and address (2a) and (2b) in turn. Consider Čiurlionis's Sonata I (Sonata of the Sun) Allegro (see figure 2), which is a pictorial representation of the first movement of a sonata. Attending to the relation between S and M, that is (2a), involves in this case gradually working out the structural resemblances between S and M. The latter requires sufficient knowledge about M. The first movement of a sonata has what is known as a sonata form, which consists of three parts: the exposition, which introduces two theme groups in contrasting keys; the development, where the material introduced in the exposition is further developed and elaborated in looser structures and related keys; and recapitulation, which recapitulates the exposition and returns to the home key. These main features of the sonata form are captured by Čiurlionis's painting (Vergo 2011, 212). Attending to the structural resemblances between S and M, in this case, involves working out the relevant mappings from M to S. Two theme groups are introduced in the bottom left of the painting: the castle-like shape maps to the first group and the three sun-like shapes map to the second group.8 The modified and altered shapes towards the right side of the painting map to the development of these two theme groups. As we move our gaze from the bottom left to the right and then up towards the top left, we meet the same shapes introduced in the bottom left. The recapitulation, where the two theme groups return in the first movement of a sonata, is thus captured by the top left corner of the painting. Aesthetically appreciating a painting as a painting of music in this case involves, at least, recognizing that the painting is a representation of the first movement of a sonata, that is (1), and second, attending to the relations between the elements in the first movement of a sonata and the elements in the painting, that is (2a).

It is worth noting that in representing music, the artist presumably chooses between a vast number of possible correspondences and resemblances. For instance, Čiurlionis's painting focuses on the salient structure of the first movement of a sonata, for example, the fact that it has two theme groups and contains three main sections. Consider also Williams's *Shostakovitch 3rd Symphony Opus 20*. It is quite a simple composition (unlike some of his other paintings of Shostakovich's music, e.g., *Shostakovich Symphony no. 5, opus 47*), yet the music it represents is complex. One could say that Williams is emphasizing the bombastic character of the music at the expense of its chaotic jitteriness. In this sense, the artist is portraying the music in a certain light, emphasizing certain aspects over others. An important part of (2a) involves reflecting on and working out *which* correspondences and resemblances were exploited by the artist.

However, when seeing a painting of music, the viewer might not be familiar with the music being represented. In such a case, it is nevertheless still possible for the viewer to aesthetically appreciate the



Figure 2 Mikalojus Konstantinas Čiurlionis, Sonata I (Sonata of the Sun) Allegro. Tempera on paper, 1907. Photograph by A. Baltenas. Used by permission.

painting as a painting of music through (2b), that is, contemplating (or imagining or surmising) what M is like given S. A viewer who has never heard Shostakovich's 3rd Symphony can make rudimentary conjectures as to what the music might sound like in seeing Williams's painting. Just as the painting may be described as bold, invigorating, and strident, one might surmise the music it represents to have these characteristics. Solid blocks of color suggest loud bombastic sounds. The strong contrast between the gloomy background and the brightly colored forms in the foreground suggests that the music has a dramatic character.

This way of appreciating paintings of music, that is, contemplating what the music is like, is not altogether different from a common way of appreciating portraits. Portraits are often thought to reveal the inner subjectivity of the portrayed subject, including their personal traits and psychological states (Freeland 2007). Writing on Rembrandt's Portrait of Nicolaes Ruts, Simon Schama observes that Rembrandt used "catchlights dancing in the pupils between slightly pinked inner eyelids as though Ruts [who was a merchant] had sacrificed his sleep for the good of the investors" (Schama 1999, 337). In seeing a portrait without knowing much about the person being portrayed, one can surmise and imagine characteristics associated with the depicted person given what is immediately seen in the painting, for example, the person's clothing, pose, surroundings, and so forth (Schneider 2002, 25–7; Freeland 2007, 98). Just as the inner world of a portrayed person is revealed to the viewer through a portrait, the structure or character of the represented music can also be conveyed to the viewer through a painting of music, regardless of whether or not the viewer is familiar with the music.

In the course of this article, I have aimed to develop a conceptual framework for understanding paintings of music. We saw that in pictorially representing music, the artist can appeal to audio-visual

cross-modal correspondences and exploit structural or emotional resemblances between the painting and the music it represents. Paintings of music represent music precisely because they exhibit such correspondences or resemblances in virtue of the artist's intentions. The discussion here should help us to better understand the intentions of artists who have painted paintings of music, as well as what such artists can plausibly hope to achieve in doing so, and so to approach and evaluate their artworks in a clear sighted and charitable way.<sup>9</sup>

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#### REFERENCES

Abell, Catherine. 2009. "Canny Resemblance." Philosophical Review 118: 183–223.

Albertazzi, Liliana, Luisa Canal, Rocco Micciolo, and Iacopo Hachen. 2020. "Cross-Modal Perceptual Organization in Works of Art." *i-Perception* 11: 1–22.

Barbiere, J. Michael, Ana Vidal, and Debra A. Zellner. 2007. "The Color of Music: Correspondence through Emotion." *Empirical Studies of the Arts* 25:193–208.

Brassey, Vanessa. 2020. "Still Moving." Debates in Aesthetics 15: 35–50.

Bresin, Roberto. 2005. "What Is the Color of That Music Performance?" Proceedings of the International Computer Music Conference–ICMC: 367–70.

Brett, Guy. 1982. "The Shostakovich Pictures of Aubrey Williams." Index on Censorship 11: 32-3.

Cowles, John T. 1935. "An Experimental Study of the Pairing of Certain Auditory and Visual Stimuli." Journal of Experimental Psychology 18: 461–9.

Düchting, Hajo. 2012. Paul Klee: Painting Music. Munich: Prestel.

Freeland, Cynthia. 2007. "Portraits in Painting and Photography." Philosophical Studies 135: 95-109.

Gabrielsson, Alf. 2001. "Emotion Perceived and Emotion Felt: Same or Different?" Musicae Scientiae 5: 123-47.

Gallace, Alberto, and Charles Spence. 2006. "Multisensory Synesthetic Interactions in the Speeded Classification of Visual Size." *Perception and Psychophysics* 68: 1191–203.

Gombrich, Ernst. 1960. Art and Illusion. London: Phaidon.

Green, Mitchell. 2007. Self-Expression. Oxford, UK: Oxford University Press.

Kandinsky, Wassily. 1977. Concerning the Spiritual in Art. Translated by M.T.H. Sadler. New York: Dover Publications. Klapetek, Anna, Mary Kim Ngo, and Charles Spence. 2012. "Does Crossmodal Correspondence Modulate the Facilitatory Effect of Auditory Cues on Visual Search?" Attention, Perception & Psychophysics 74: 1154–67.

Kulvicki, John V. 2006. On Images: Their Structure and Content. Oxford, UK: Oxford University Press.

Levinson, Jerrold. 1980. "What a Musical Work Is." Journal of Philosophy 77: 5-28.

- ———. 1996. The Pleasures of Aesthetics. Ithaca, NY: Cornell University Press.
- ———. 2009. "The Aesthetic Appreciation of Music." *British Journal of Aesthetics* 49: 415–25.

Marks, Lawrence E. 1974. "On Associations of Light and Sound: The Mediation of Brightness, Pitch, and Loudness." American Journal of Psychology 87: 173–88.

- 1987. "On Cross-Modal Similarity: Perceiving Temporal Patterns by Hearing, Touch, and Vision." Perception and Psychophysics 42: 250–6.
- ———. 1989. "On Cross-Modal Similarity: The Perceptual Structure of Pitch, Loudness, and Brightness." *Journal of Experimental Psychology: Human Perception and Performance* 15: 586–602.

Nanay, Bence. 2016. Aesthetics as Philosophy of Perception. Oxford, UK: Oxford University Press.

Palmer, Stephen E., Karen B. Schloss, Zoe Xu, and Lilia R. Prado-León. 2013. "Music-Color Associations Are Mediated by Emotion." PNAS 110: 8836–41.

Parise, Cesare, and Charles Spence. 2013. "Audiovisual Cross-Modal Correspondences in the General Population." In *The Oxford Handbook of Synaesthesia*, edited by Julia Simner and Edward Hubbard, 790–815. Oxford, UK: Oxford University Press.

Railing, Patricia. 2005. "Abstract Art Is Not Music." Philosophy Now 50: 32–5. https://philosophynow.org/issues/50/Why\_Abstract\_Painting\_Isnt\_Music.

Ramachandran, Vilayanur S., and Edward M. Hubbard. 2001. "Synaesthesia: A Window into Perception, Thought and Language." *Journal of Consciousness Studies* 8: 3–34.

Roffler, Suzanne H., and Robert A. Butler. 1968. "Localization of Tonal Stimuli in the Vertical Plane." *Journal of the Acoustical Society of America* 43: 1260–66.

Rusconi, Elena, Bonnie Kwan, Bruno L. Giordano, Carlo Umiltà, and Brian Butterworth. 2006. "Spatial Representation of Pitch Height: The SMARC Effect." *Cognition* 99: 113–29.

Schama, Simon. 1999. Rembrandt's Eyes. New York: Alfred A. Knopf.

Schneider, Norbert. 2002. The Art of the Portrait: Masterpieces of European Portrait Painting 1420–1760. Köln: Taschen.

Spence, Charles. 2011. "Crossmodal Correspondences: A Tutorial Review." Attention, Perception, and Psychophysics 73: 971–95.

——. 2020. "Assessing the Role of Emotional Mediation in Explaining Crossmodal Correspondneces involving Musical Stimuli." *Multisensory Research* 33: 1–29.

Vachtová, Ludmila. 1968. Frank Kupka. London: Thames & Hudson Ltd.

Vergo, Peter. 2005. That Divine Order: Music and the Visual Arts from Antiquity to the Eighteenth Century. London: Phaidon.

———. 2011. The Music of Painting: Music, Modernism and the Visual Arts from the Romantics to John Cage. London: Phaidon.

Walker, Peter, and Sylvia Smith. 1985. "Stroop Interference Based on the Multimodal Correlates of Haptic Size and Auditory Pitch." *Perception* 14: 729–36.

Wollheim, Richard. 1998. "On Pictorial Representation." The Journal of Aesthetics and Art Criticism 56(3): 217–26.

## **ENDNOTES**

- 1 A recent study by Albertazzi et al. (2020) also showed correspondences between Schoenberg's piano works and Kandinsky's paintings.
- 2 For a critical discussion of Green's proposal, see Brassey (2020).
- 3 This work is in the Tate collection: https://www.tate.org.uk/art/artworks/williams-shostakovitch-3rd-symphony-opus-20-t06694.
- 4 Nevertheless, the mapping from the left-to-right order of the shape sequences to the temporal order of music, as well as the mapping from the inverted triangle sequence to the technique of inversion are nonarbitrary.
- 5 Depending on what the correct explanation for audio-visual cross-modal correspondences is, some cross-modal correspondences may turn out to be relations of resemblance along some dimensions, for example, intensity, pleasantness, and dynamism as according to Green's account. But this does not necessarily mean that an artist, in intending (elements in) the painting to cross-modally correspond to (elements in) the music, *intends*, understood as a conscious act, the painting to resemble the music with respect to these dimensions.
- 6 A photograph of this work can be seen online at https://en.wikipedia.org/wiki/File:Franti%C5%A1ek\_ Kupka,\_1912,\_Amorpha,\_fugue\_en\_deux\_couleurs\_(Fugue\_in\_Two\_Colors),\_210\_x\_200\_cm,\_ Narodni Galerie, Prague.jpg.
- 7 It is worth noting that artistic creations often involve "accidents" that the artists then intend to include in the artwork. It may be that after the aforementioned accident, the artists notice the resemblance and decide to have the paint splash serve the relevant representational function they intended the picture to have but did not execute herself. In this case, I am inclined to say that the resulting painting is a painting of Chopin's Funeral March, precisely because the artist intends the resemblance to be there and it is kept there because of this intention, though what directly bought the resemblance into existence was an accident.
- 8 One might contend that this painting depicts castles and suns, which are not mere surface features of the painting but are depicted objects in the painting. If they are treated as depicted objects, then  $(2_a)$  can be reformulated as "attending to the relation between the painting's depictive content and its musical content." Given that the "castles" and "suns" are highly schematic, I have treated them as surface features of the painting for simplicity.
- 9 I am grateful to two reviewers for their valuable comments. Thanks also to Martin Davies, Brendan Larvor, and Anne Polkamp for helpful written feedback on earlier versions of the article. Special thanks to Luke King-Salter, whose paintings and thoughts on the topic inspired this article.