

# Um percurso histórico da Visual Music

Para fins de exposição didática do conteúdo apresentado, ele foi organizado em ordem o mais cronológica possível, mas respeitando a extensão de produção de cada realizador. Isto faz com que, em vários momentos, aconteçam elipses no tempo, quando um realizador que, por exemplo, começou sua produção nos anos 1940 continua produzindo até os anos 1970. Os slides vão acompanhar sua cronologia, e depois retornar para os anos 1950. Além disso, certas datas foram determinadas de forma arbitrária, a partir do momento de maior relevância ou representatividade do realizador. Assim, por exemplo, os irmãos Whitney estão relacionados aos anos 1940 (quando fizeram suas experiências consideradas mais radicais por William Moritz, um dos principais críticos de Visual Music) — apesar de sua produção ter se estendido até os anos 1960. Há casos como o de Jordan Belson, que está associado aos anos 1960, quando sua obra adquire as características mais marcantes — apesar de ele já estar produzindo desde o final dos anos 1940. Em que pesem estas minúcias, o objetivo dos slides é oferecer uma cronologia da Visual Music.

Outro aspecto da seleção de trabalhos foi a disponibilidade do material. As obras de Visual Music aparecem de forma até relativamente completas na Internet. Mesmo assim, no caso de certos artistas, as obras escolhidas deram-se pelo fator disponibilidade. Um exemplo é Shutter Interface, de Paul Sharits. Trata-se, sem dúvida, de uma instalação importante, todavia qualquer outra de suas primeiras instalações poderia ter sido escolhida para compor este conjunto, sendo igualmente representativa de sua produção. Um aspecto desta disponibilidade digital do material, todavia, é crítico para a experiência proporcionada. Por se tratarem de obras com grandes nuances gráficas e de textura, a maioria dos trabalhos de Visual Music requer uma resolução ótima para oferecer uma experiência adequada de visionamento. Este não vai ser o caso da grande maioria dos trabalhos aqui apresentados. A menor qualidade, entretanto, torna possível um contato abrangente com os materiais apresentados. Foi considerado que, para tratar das obras em questão, era mais produtivo um visionamento em baixa resolução que uma fala descritiva sobre as obras.

Apesar de já existir uma bibliografia inicial sobre o tema, a área de Visual Music é carente de leituras críticas das obras, assim como tratamentos mais monográficos de certos artistas e aspectos. Diante deste cenário, foi feita a opção pela apresentação de um grande panorama de obras, com eventuais inserções interpretativas quando for o caso. Mas, em geral, o objetivo desta apresentação é o contato direto com as obras e seu desdobramento cronológico, ficando para um segundo momento eventuais leituras mais transversais, categorizações e outros exercícios de interpretação que se mostrem possíveis.

The first idea of projecting an image on a surface was envisioned in a drawing by Johannes de Fontana In 1420.

It was a sketch of a monk holding a lantern. In the side of the lantern, there was a small translucent window that had an image of a devil holding a lance.

The image, probably drawn on a thin sheet of bone, was projected onto a wall by the flame in the lantern. Without a lens, the image on the wall would have been very blurry.

But the idea had provided inspiration to develop a projection model that would really work. Several people caught that inspiration, and any one of them could've been the actual inventor of the projector – it just depended who you asked and what country you were in.

cf. History Librarium,  
[The History of Projectors](#)

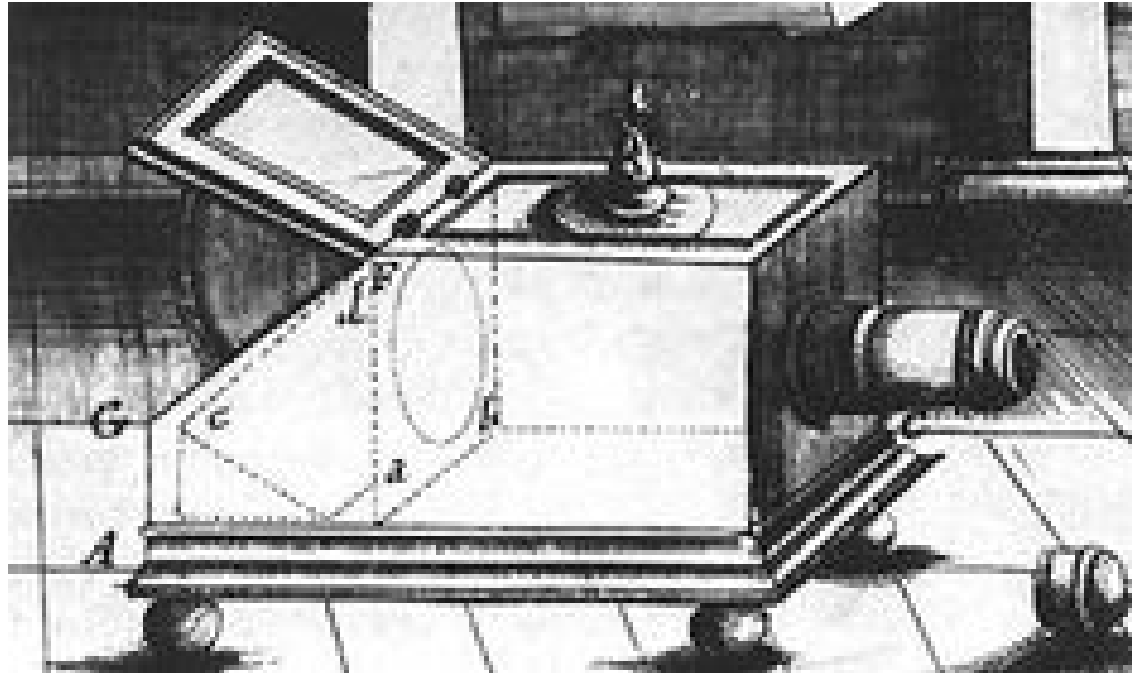


Johannes de Fontana  
1420



Pierre Fourrier  
1515  
França





Giambattista della Porta  
1589  
Itália



1590 Arcimboldo



Pintor com estilo bastante particular dentro da escola Maneirista que emerge nos anos finais da Alta Renascença, em torno de 1520.

O estilo maneirista abrange uma variedade de abordagens influenciadas por, e reagindo aos ideais harmoniosos associados com artistas como Leonardo da Vinci, Rafael e Michelangelo. Enquanto a alta renascença enfatiza a proporção, o equilíbrio e a beleza ideal, o Maneirismo exagera essas qualidades, geralmente resultando em composições que são assimétricas ou artificialmente elegantes. É um estilo marcado por sua sofisticação intelectual assim como por sua artificialidade, em oposição às características naturalistas do renascimento. O maneirismo privilegia a tensão composicional e a instabilidade, ao invés do equilíbrio e da clareza da primeira pintura Renascentista.



1573 As quatro estações



“Este quadro assemelha-se muito ao sonho de um verdureiro. Ao se tomar uma certa distância, emerge uma cabeça humana, feita inteiramente de frutas e legumes de verão – pode-se ver peras, pêssegos, cerejas e ameixas.

Além de usar com frequência frutas e legumes para criar seus retratos, Giuseppe Arcimboldo também era conhecido por utilizar vasos, panelas e até ferramentas para criar suas imagens misteriosas.

A obra Verão faz parte da série As Quatro Estações. Nessa série, o artista realizou sua composição a partir dos elementos da natureza correspondentes a cada uma das estações. Todos os elementos agrupados compõem fisionomias humanas em referência ao gênero do retrato.

A obra é um busto de perfil, mostrando um personagem antropomorfo, fantástico. O que salta aos olhos do observador é o jogo de ilusão de ótica no qual Arcimboldo nos envolve. O observador é instigado a montar uma personificação imaginária e a penetrar a imagem em seus detalhes e nos vários caminhos simbólicos que ela sugere.

Na roupa, feita de trigo, aparece na gola a assinatura do artista, e no ombro da roupa aparece o ano que a obra foi realizada: 1573. Quando Arcimboldo fez essa pintura ele tinha 46 anos.

Seus trabalhos possuem características do Maneirismo, que valorizava as interpretações individuais, o dinamismo e a complexidade de suas formas, conseguindo maior emoção, elegância, poder e tensão.

As pinturas de Arcimboldo eram consideradas um tanto malucas, embora tenham sido imitadas com certa frequência. Ele só se tornou popular quando os surrealistas o reconheceram como um colega artista, que gostava de gostava de trocadilhos visuais.”

<https://www.historiadasartes.com/sala-dos-professores/verao-giuseppe-arcimboldo/>

“O ocultismo foi uma referência importante para Arcimboldo, como vemos em suas paisagens antropomorfadas, nas quais corpos e faces humanas são sugeridos pela representação dos relevos, das árvores, das pedras, e de outros elementos de uma paisagem, e em suas séries ligadas à natureza, por exemplo, “As Quatro Estações”, feitas para Maximiliano II. Nesta série, o artista fez referência ao gênero do retrato, preservando a opulência do retrato cortesão, mas construiu seus personagens a partir de imagens da fauna e da flora”.

<https://www.historiadasartes.com/prazer-em-conhecer/giuseppe-arcimboldo/>

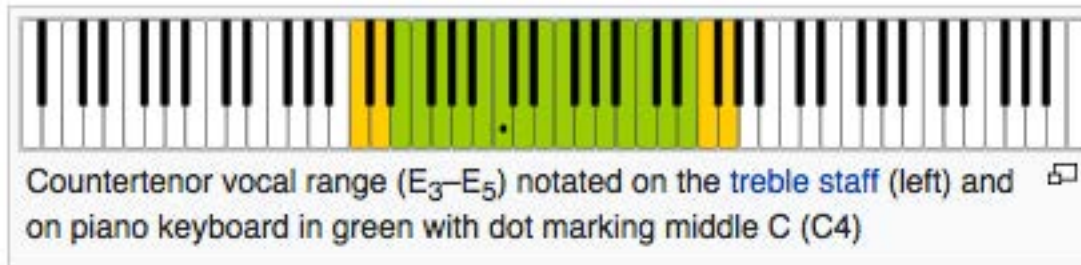
Segundo Teun Lucassen, e conforme já apontado na citação de Basbaum acima, o primeiro instrumento que relaciona cor e som foi criado por Arcimboldo. Seu objetivo não era usá-lo em apresentações públicas mas sim em suas pesquisas pessoais. Para construir tal instrumento, ele convenceu um músico da corte de Rodolfo 2º, em Praga, a anexar pedaços de papel pintado às pinças de seu cravo, de forma que quando uma tecla era pressionada, o pedaço de papel correspondente era mostrado. Numa primeira experiência, ainda com conhecimentos matemáticos insuficientes sobre o brilho das cores, Arcimboldo propôs uma escala em preto-e-branco em que as notas graves eram mais claras e as notas agudas mais escuras. Depois ele fez uma experiência com cores, descrita em detalhe por Lucassen:



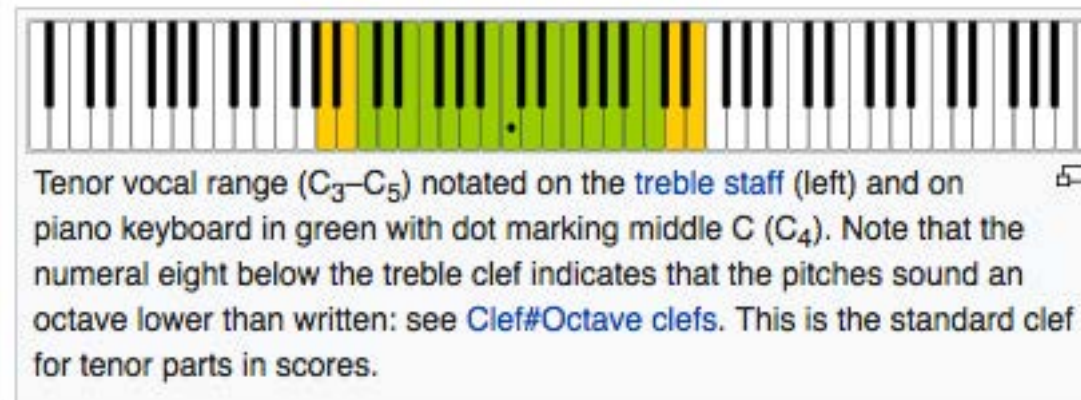
Em sua opinião, as notas graves deveriam ser conectadas com o branco, as tenores com o verde, o quintus com o azul, o altus com o cinza e o superius com o marrom. Uma descendente gradual de luminância ainda é vista conforme as notas se tornam mais altas. Esta correspondência nota-cor é marcadamente diferente do espectro mais comum do arco-íris.

O texto refere-se às vozes na música barroca, sendo o quintus a quinta voz adiciona às quatro alturas padrão: superius

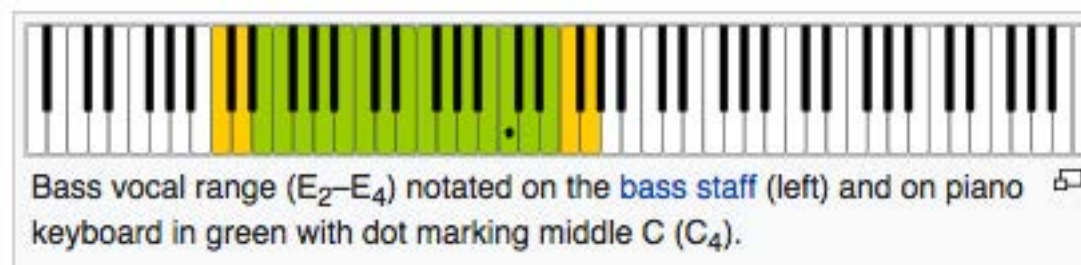
altus (ou contratenor)



tenor



bassus



quintus



superius



altus (ou contratenor)



tenor



bassus

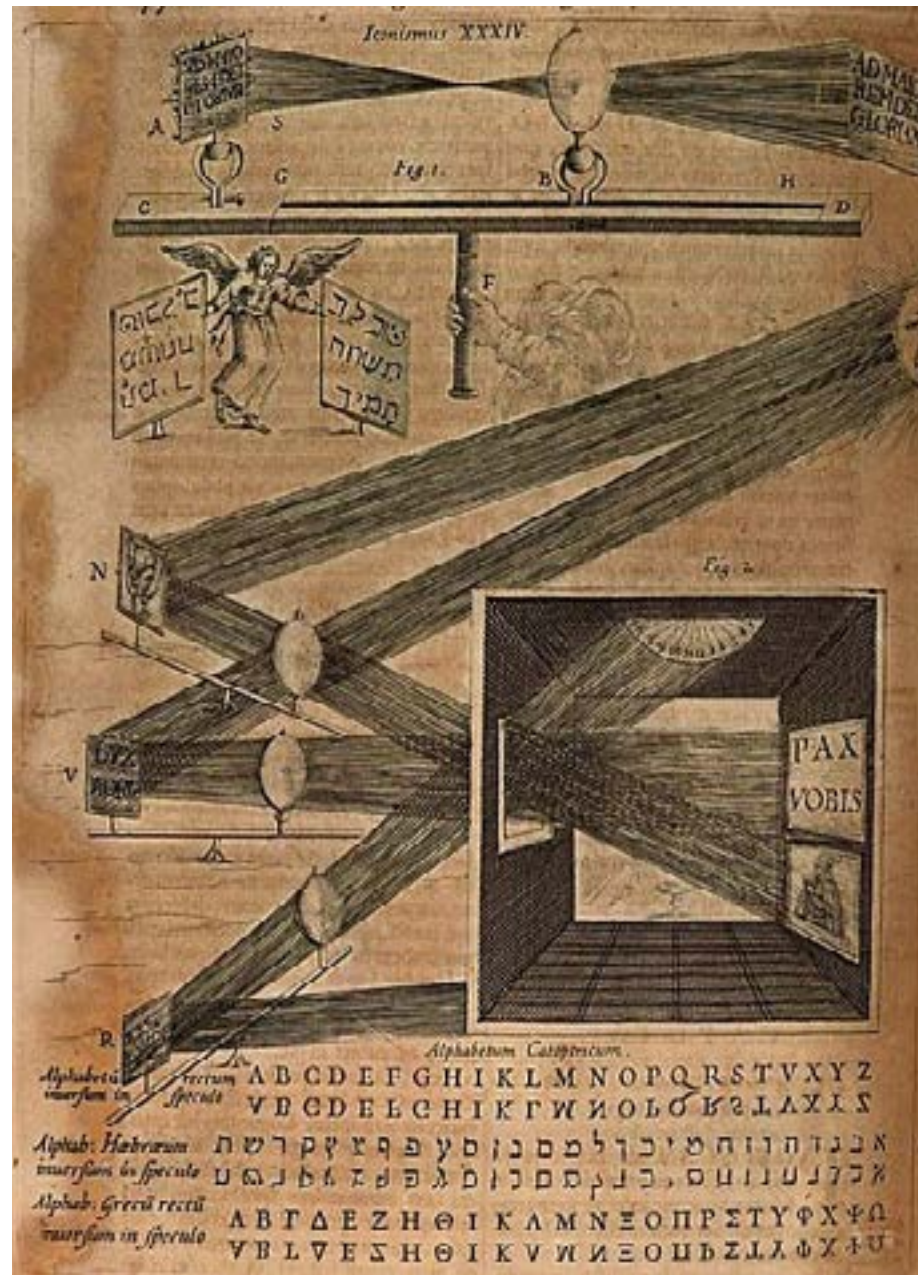




Athanasius Kircher  
1646  
Germany

### Steganographic Mirror

A primitive projection system with a focusing lens and text or pictures painted on a concave mirror reflecting sunlight, mostly intended for long distance communication. He saw limitations in the increase of size and diminished clarity over a long distance and expressed his hope that someone would find a method to improve on this. Kircher also suggested projecting live flies and shadow puppets from the surface of the mirror.

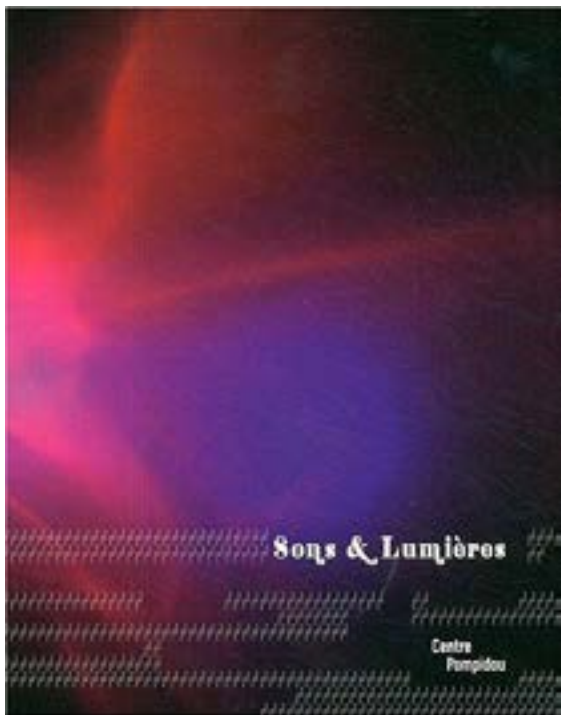






Christiaan Huygens  
1659  
Holland





No artigo Bach et l'art de la fugue. Modèle structurel musical pour la création d'un langage pictural abstrait, Karin von Maur argumenta em favor do entendimento do contraponto como modelo estrutural para pensar a pintura abstrata, em sua busca por um diálogo explícito com a música. Não se trata de uma relação direta de Bach com a tradição das artes sinestésicas, que em nossa cronologia só começa em 1590, mas sim de uma relação mais abstrata.

1725 Bach  
Wie schön leuchtet der Morgenstern,

A polifonia, com suas vozes soando em simultaneidade articulada, é tomada como técnica que pode explicar o modo como a pintura do início do século 20 vai relacionar formas e cores em busca de ritmos e relações que extrapolam o lugar que a figura sempre havia ocupado na história da pintura.

*De la structure fuguée au principe sériel*

Dans les années 1920, on peut observer une tendance toujours plus marquée en faveur de la rationalisation, tant dans le domaine artistique que dans le domaine musical. À l'instar de Schönberg et de Webern qui procédèrent à une codification de la musique atonale en se servant de la technique sérielle, Kandinsky et Klee développèrent au Bauhaus une théorie plastique élémentaire qui leur permit de tirer des conséquences systématiques de l'analyse de leurs premières improvisations. En détachant de l'organisation générale du tableau certains éléments qu'ils traitaient de façon singulière, les peintres agissaient en correspondance avec ce qui s'était accompli dans l'évolution musicale de leur époque, quand les compositeurs avaient isolé et donné à chaque note de la gamme une valeur identique dans la technique d'écriture sérielle. Ce système reposait lui-même, en dernière analyse, sur le contrepoint polyphonique et, comme nous le verrons plus bas, les artistes furent nombreux, notamment au Bauhaus, à tenter de le transposer visuellement, suivant toutes sortes de variantes.





*Que vient de tous employés leur temps à la même Machine.  
Le Sec. Castel. rapport de Louis et des autres.*

1725 Louis Bertrand Castel

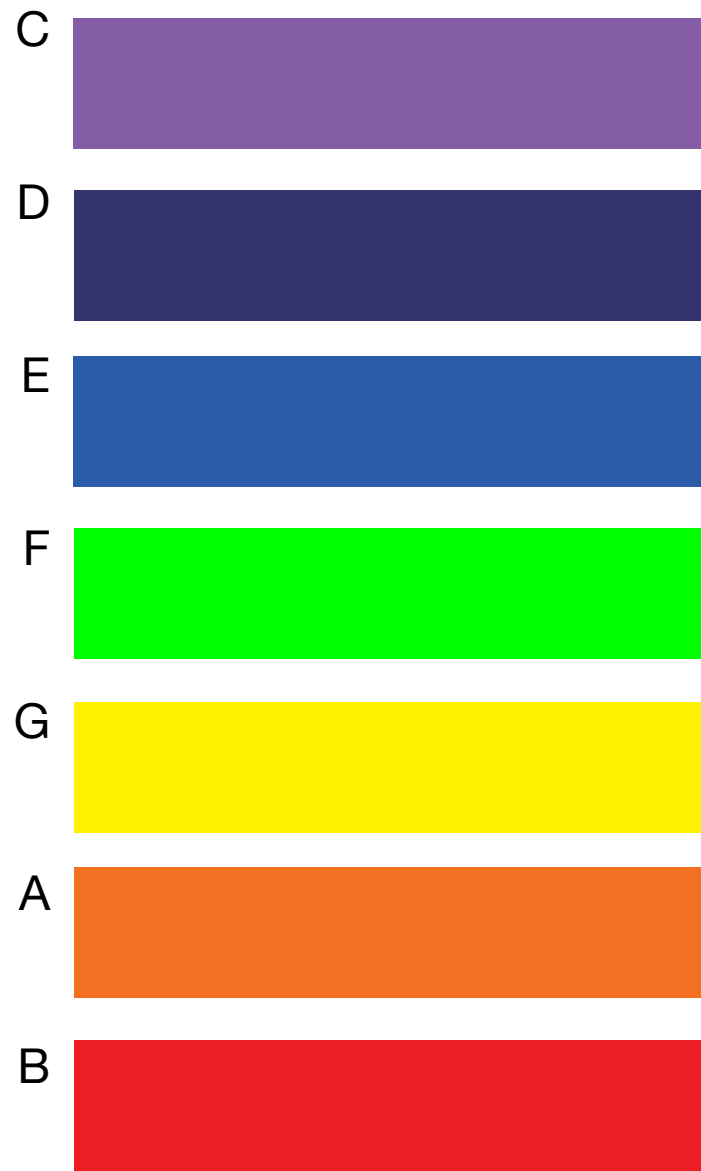
Depois de Arcimboldo, quem fará uma experiência de desenvolvimento de um instrumento que relaciona cores e notas e Louis-Bertrand Castel. Em *The Ocular Harpischord of Louis-Bertrand Castel; or, The Instrument That Wasn't*, Tomas Hankins afirma:

Ele anunciou seu cravo ocular em 1725 por incitação do compositor Jean-Philippe Rameau, que tinha sido um organista em Clermont quando Castel ensinou lá. A analogia entre cor e tom musical não era de forma alguma original de Castel. Newton havia afirmado de forma bastante proeminente, assim como Kircher /.../ Porque Newton também leu Kircher, é possível que Kircher seja a fonte da analogia de Newton como Voltaire reivindicava, mas também é certo que a suposta descoberta de Newton de uma nova relação harmônica entre as cores no espectro colocou a analogia cor-tom em proeminência /.../ Em 1730, Castel exibiu algum tipo de dispositivo, mas aparentemente tudo o que ele fazia era levantar tiras de papel coloridas à visão.

Segundo Hankins, apesar de modesto, supostamente este instrumento teve bastante repercussão em Paris. Em 1734, Castel virá a demonstrar um instrumento mais avançado, mesmo admitindo que se tratava de “um modelo e portanto bastante imperfeito”. Após a morte de Castel, seu assistente inglês anônimo fez um instrumento que ele demonstrou em Londres. Este cravo continha quinhentas lâmpadas (provavelmente velas), o que tornava o instrumento excessivamente quente. Por isso, chegou a ser dito que era um instrumento para ser visto, e não tocado. É um fato conhecido que as descrições que Castel fez em vida do cravo ocular são bastante vagas, o que não impediu de ele conseguir farto financiamento para suas pesquisas. Em todo caso, trata-se de um primeiro esforço para construir uma interface que permite a interação entre som e imagem que, como na música de concerto com que dialoga, proporciona a experiência da execução de uma peça ao vivo diante de uma platéia.

“Castel’s starting point was to take the analogy between the tone scale and the colour scale as literal as possible. Between the two tones that together form an octave, there is a continuum of possible vibration rates, but we discern only a limited number of distinct tones, that is, we interpret any arbitrary tone as one of the twelve notes of the chromatic scale. According to Castel, our observation of colours is subject to the same rule; although all colours continuously merge into each other, we discern only a limited number of distinct colours. Then, if the Newtonian colour scale violet-indigo-blue-green-yellow-orange-red were the true analogue of the diatonic scale, the transition blue-green would correspond to the smallest possible interval E-F, which would imply that we do not discern a separate colour between blue and green.”

<https://d1rkab7tlqy5f1.cloudfront.net/TBM/Over%20faculteit/Afdelingen/Values%2C%20Technology%20and%20Innovation/People/Associate%20Professors/OcuHarpsCastel.pdf>



In 1734, a mathematician, Abbe Castel, tried to give an optophon-ic concert using coloured records appearing above a harpsichord where each key corresponded to a record. This process can be used to characterise the alphabetic translation of music by colour, that is equally expressed by the fantasy of Arthur Rimbaud: A = black, E= white, I = red, U = green.

<https://baranoff-rossine.com/optophonic-piano/>

1782 The Eidophusikon  
Edward Francis Burney

**"A new art—the picturesque of sound"**

Musical live performance and music video have become more and more entwined in the recent past—a tendency that also reflects the fact that they are fundamentally and intrinsically connected by a common legacy: historically music video has developed out of forms close to theatrical performances such as the Eidophusikon, a mechanical picture theater developed by the Anglo-French painter Philippe Jacques de Loutherbourg and presented for the first time in his house in London at Leicester Square on February 26, 1781. Here, actions such as storms and shipwrecks (the usual subjects of de Loutherbourg's paintings, who therefore called his invention a "movable canvas") were combined with music and sound on a small stage.<sup>1</sup> His efforts were applauded by another painter, the Englishman William Henry Pyne, who in 1823, remembering a visit to the Eidophusikon in 1786, not only praised the realistic appearance of de Loutherbourg's simulations of nature, but hailed the scenic designer and colleague as having "introduced a new art—the picturesque of sound."<sup>2</sup>

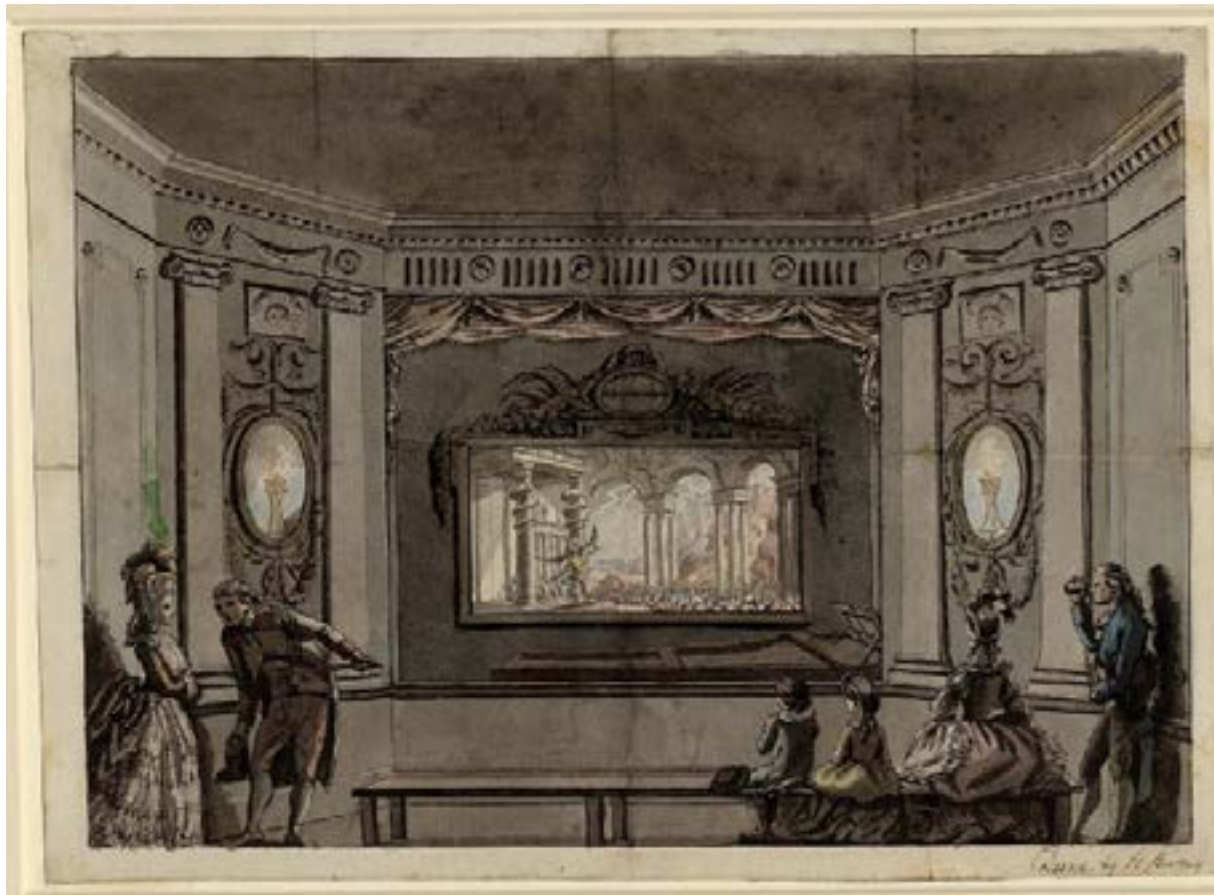
Henry Keazor, Visual Music in Mark romanek / Coldplay, Speed of Sound



On 26 February 1781 a novel attraction opened in Lisle Street, Leicester Square. Described in a press announcement as ‘Moving Pictures representing Phenomena of Nature’, the new spectacle was the ‘Eidophusikon’. It was the first of several visual attractions with Greek-inspired names – ‘Panorama’, ‘Cosmorama’, ‘Eidometropolis’, and ‘Diorama’ – that were to appear in the next few years and provide London audiences with immersive experiences of landscape.<sup>1</sup> ‘Eidophusikon’ derives from eidoion (‘phantom’, ‘image’ or ‘apparition’) combined with phusis (‘nature’ or ‘natural appearance’) and eikon (‘image’ or ‘likeness’). The blending of the natural with the supernatural, implied in its name, suited the Eidophusikon’s magical simulations of natural scenes. Like so many of the visual attractions of the time, the Eidophusikon hovered between the worlds of art and technology, entertainment and science; moreover, in its illusions, it evoked the magical and uncanny.

The Eidophusikon's mixture of technical wizardry and visual magic touched on a number of issues that would in successive years come to define the boundaries between art and technology, art and entertainment, science and spectacle. As one of the earliest examples of technology-driven visual entertainment, the Eidophusikon clearly prefigures modern cinema. But understanding the attraction's cultural and historical significance as an eighteenth-century object requires consideration of such apparently disparate subjects as theatrical scenography, clockwork automata, theories of the natural world, occult metaphysics, plein air oil sketching, landscape painting, and the production of immersive visual entertainments.

The one surviving image of the Eidophusikon is Edward Francis Burney's watercolour drawing from 1782 (plate 1). This drawing depicts a theatre interior with some figures entering and others already seated on benches. To the right, separated from the audience by a low enclosure, is a harpsichord. The audience faces a miniature stage framed by a proscenium arch. Two metres wide, one and a quarter metres high, and two and a half metres deep, this stage was used to present a series of scenic illusions designed to mimic natural phenomena. These illusions employed changing light effects to simulate different times of day and various atmospheric conditions. The scenes were accompanied by sound effects and by music by Johann Christian Bach, Michael Arne and Charles Burney, performed on the harpsichord, and occasionally accompanied by singing.



Edward Francis Burney,  
The Eidophusikon showing Satan arraying his Troops on the Banks  
of a Fiery Lake with the Rising of the Palace of Pandemonium from  
Milton, c. 1782.

1863 Farbenklavier

Em 1863, W. F. Philippy criou o Farbenklavier, um instrumento inserido na tradição de pesquisa de relação entre cor e som feitas por Newton e no desenvolvimento de instrumentos de cor e som iniciada por Arcimboldo e Castel. O instrumento é constituído de uma prancha de cores com 60 tiras de papel relacionadas com os 60 sons de um teclado de cinco oitavas. Em Von der Farben-Ton-Beziehung zur Farblichtmusik<sup>1</sup>, Jewanski explica o funcionamento do instrumento, que se baseia no encaixe das tiras por meio de teclas em ambos os lados, diante de um espelho colorido escondido sob sua superfície.

1867 Die Meistersinger von Nürnberg

30m44 a 34m44

Wagner também é importante para a discussão sobre as linguagens intersemióticas por seu conceito de gesamtkunstwerk, ou obra de arte total.

Richard Wagner was one of the most influential nineteenth-century opera composers and men of theatre. Besides his stage works, he also wrote a significant number of philosophical essays encompassing a wide range of topics from music to drama theory, and from politics to social issues. He was one of the first musicians to ponder on the nature of media and on its manifestations as forms of communication between artist and public. One of his best known concepts about the ideal media is Gesamtkunstwerk, which is usually translated as “total work of art” or “synthesis of arts.” (Millington, 232)

The term Gesamtkunstwerk was first used by the philosopher and writer Eusebius Trahdorff (1783-1863) in his work *Ästhetik oder Lehre von der Weltanschauung und Kunst* (Aesthetics of the Study of World View and Art) (1827). Wagner mentioned the word Gesamtkunstwerk in his essay “Art and Revolution” in 1849, where he applied the concept for describing the ideal relationship of music, text and dance in the drama, which he regarded the highest art form, the art-work of the future.



The idea of Gesamtkunstwerk is closely related to Wagner's social- aesthetic utopias. In "The Art-Work of the Future" Wagner not only laid down the founding ideas of the ideal opera, which he called musical drama, but he also elaborated on his ideas about the ideal relationship between artist and audience. Art theory and social theory are inseparably intertwined in Wagner's oeuvre. It would be quite misleading to discuss them separately, since together they form the specific Wagnerian world view which has a strongly overaestheticised character.

One of the prototypes of this aestheticised Weltanschauung is represented in *Die Meistersinger von Nürnberg* (1868). The state of Art is a direct indication about the state of society and vice versa. Wagner believed that Art has a formative impact on society, and one of the highest purposes of Art should be the creation and representation of the ideals of the universal mankind. The separate artistic media – music, text, dance, painting, architecture – which represent the different human senses – auditive, visual and kinesthetic – can only fulfil their original function if they interact in perfect harmony with each other.

Love is symbol of this ideal communion of arts and people. This was a recurrent topic in all of Wagner's stage works from the earliest *Das Liebesverbot* (The Ban on Love) (1834) to his last musical drama, *Parsifal* (1882).

Each separate faculty of man is limited by bounds; but his united, agreed, and reciprocally helping faculties – and thus his faculties in mutual love of one another – combine to form the self-completing, unbounded, universal faculty of men. [...] Knowledge through Love is Freedom; and freedom of man's faculties is – All-faculty. Only the Art which answers to this 'all-faculty' of man is, therefore, free; and not the Art-variety, which only issues from a single human faculty. [...] And when every barrier has thus fallen, then are there no more arts and no more boundaries, but only Art, the universal, undivided. ("The Art-Work of the Future," 25)

## Gesamtkunstwerk

The term Gesamtkunstwerk refers to the utopian aspirations beginning in the early nineteenth century toward the union of all the arts into a single work of art. Its insufficient treatment in terms of art history is one of the main reasons for the sustainedly arbitrary use of the word.[1] Lexical definitions which define the Gesamtkunstwerk as a term for the synergy of all the arts (poetry, music, dance, visual art, architecture) in a work for the stage,[2] or as the German art-theoretical term for the synthesis of all the different spatial arts (including architecture, urban development, garden design, ornament),[3] provide only vague information about the actual relation between the arts in the Gesamtkunstwerk, the form this relation takes, and for what purpose.

The concept of a universal poetry first emerged in early romanticism, having received its theoretical foundations by philosophers such as Friedrich Schlegel and Friedrich Wilhelm Schelling. In his essay *Das Kunstwerk der Zukunft* (The Artwork of the Future, 1849), Richard Wagner brought the idea of the Gesamtkunstwerk to fame. The new, leading genre was the musical drama, which was meant to unite all the other arts. Abstract tendencies in visual art and the emergence of atonal music led to a new, commensurable relationship among the arts. Since the 1970s, the use of digital media has accelerated the process of the dissolution of art genre boundaries. (Sandra Naumann)

Die Meistersinger von Nürnberg can be interpreted as an artistic realisation of the theoretical premises presented in the Art and Revolution, “The Art-Work of the Future” and Opera and Drama about the Gesamtkunstwerk. The relationship of Word and Music, Art and Society, Art as medium and Aesthetic State as a political masterwork are the major topics of this musical drama.

The plot of the opera revolves around winning a singing contest by a knight, who came to Nürnberg for the sake of Art. As a prize of his victory, the winner gains Eva, the daughter of one of the Meistersingers. The love story between Walther von Stolzing and Eva Pogner runs parallel with Walther’s education process to become a Mastersinger and to create the perfect work of art. Hence, producing the master song leads to love and union with Eva. But on the other hand, in order to create the master song, Walther needs the inspiration of love. Performing an artistic act is strongly bound with the following enactment of love. According to the logic of the dramaturgy – very similarly to Tannhäuser and to his ideas in Opera and Drama – love is linked to the artistic enactment of the master song, while the performance of the master song is itself the enactment of love. As Walther sings in the third stanza of his prize song: “through victory in song, I had won / Parnassus and Paradise!”.

Borchmeyer points out that the idea of the Folk as it appears in *Die Meistersinger* must have been influenced by Gervinus's *Geschichte der poetischen National-Litteratur der Deutschen* (History of German Literature) (1835-42). According to Gervinus, the goal which mankind must set itself was to lead the Volk into the realm of history. (Borchmeyer 2002, 253) In *A Communication to My Friends*, where Wagner explicates the genesis of his operas and their ideology, he wrote that I took Hans Sachs as the last manifestation of the art productive spirit of the Folk (Volksgeist), and set him, in this sense, in contrast to the pettifogging bombast of the other Meistersinger; to whose absurd pedanticism, of tabulatur and prosody, I gave a concrete personal expression in the figure of the "Marker" (Beckmesser). (*A Communication to My Friends*, 45)

These lines remind of his ideas about the Folk in "The Art-Work of the Future," where Wagner sets as ideal for his Gesamtkunstwerk the organic and natural creation of the Folk, who is the embodiment of "Life's immediate utterance." Who speaks and sings, at the same time expresses his feelings by gestures and by motion – at least whoever does this from sheer instinct, like the Folk, – though not the tutored foundling of our song-professors. Where such an art still flourishes, it finds of itself a constant train of fresh turns of expression, fresh forms of composition ("Dichtung"). ("The Art-Work of the Future," 57)

A few pages earlier we can read the following:

Where the Folk made poetry, – and only by the Folk, or in the footsteps of the Folk, can poetry be really made, – there did the Poetic purpose rise to life alone upon the shoulders of the arts of Dance and Tone, as the head of the full- edged human being. [...] Tragedy was therefore the entry of the Art- work of the Folk upon the public arena of political life. (“The Art-Work of the Future,” 50-51)

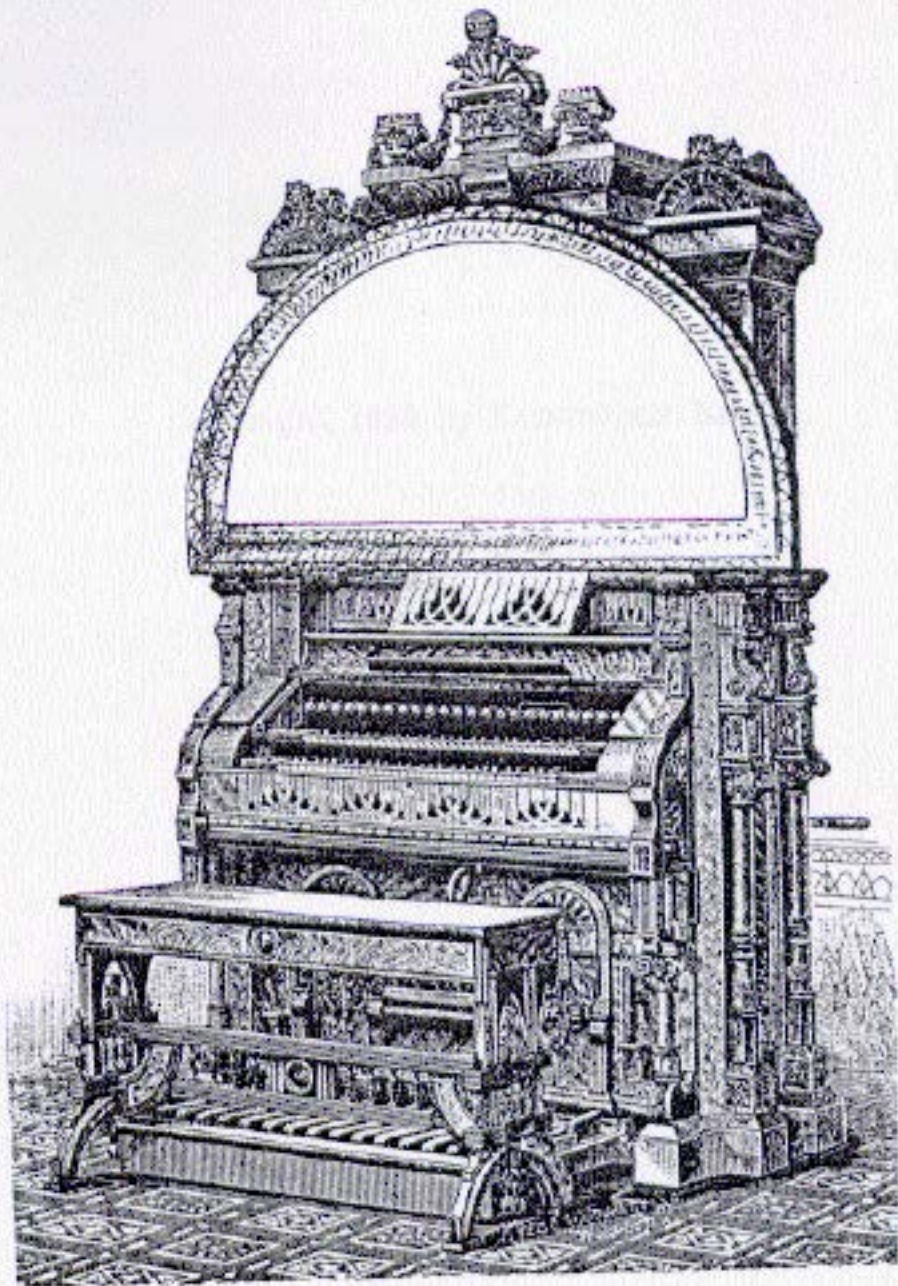
Theatre as medium and Gesamtkunstwerk as the act of mediation should be the ideal sphere for both Art and Politics. The true goal of both Art and Politics according to Wagner, should be the creation of a spiritual community, whose individuals live in harmony with each other and their actions are characterised by the unity of Will. Media – and especially the Theatre because of its Gesamtkunstwerk multimedia character – is an effective tool for shaping and developing the sense of communality and unity in society. This context of the Gesamtkunstwerk affects the traditional roles of creator and receiver, because instead of passive aesthetic experience, it enables the active participation in the creation of the art-work. The artistic act and enactment takes place not in a hermetically closed artistic space, but in a social context, therefore the borders between Art and reality become blurred. Wagner argued that the media is not only an external manifestation of social reality, but they are the “message” of the society. Wagner was one of the first intellectuals to consciously reflect on the relation of media as an important factor in society, and to realise its ability and importance in shaping the world- view of the people. Therefore he might be regarded the forerunner of modern media theorists.

1875 Bainbridge Bishop

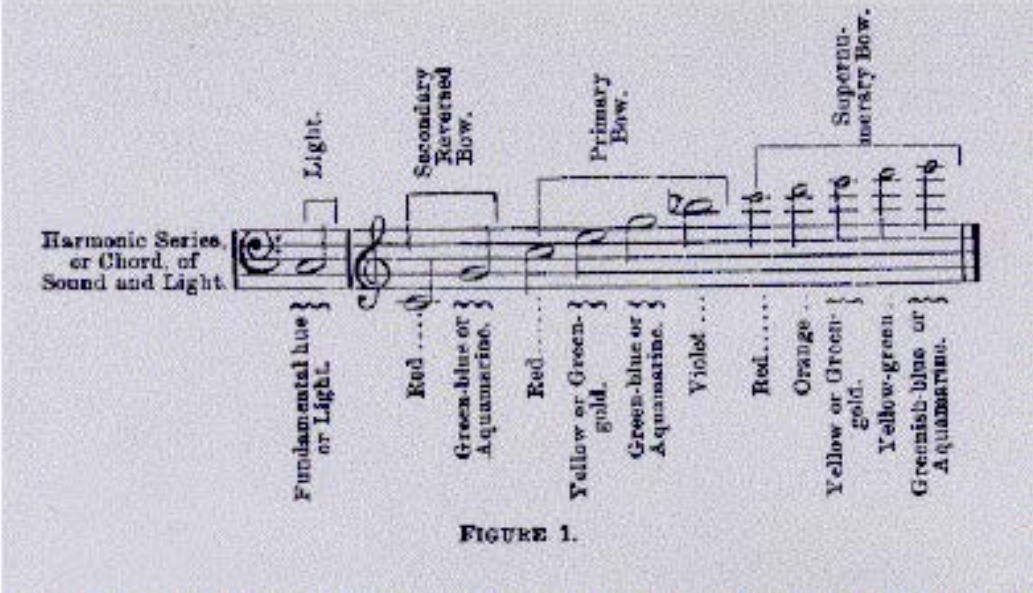
O primeiro órgão de cor a ser efetivamente construído foi feito por Bainbridge Bishop, em 1875. Seu dispositivo usava painéis de vidro colorido que projetavam a cor desejada sobre uma tela. Para o efeito acontecer, era preciso que o instrumento fosse colocado diante de uma janela exposta à luz solar. Em *Harmony of Light*, Bishop descreve em detalhes sua invenção:

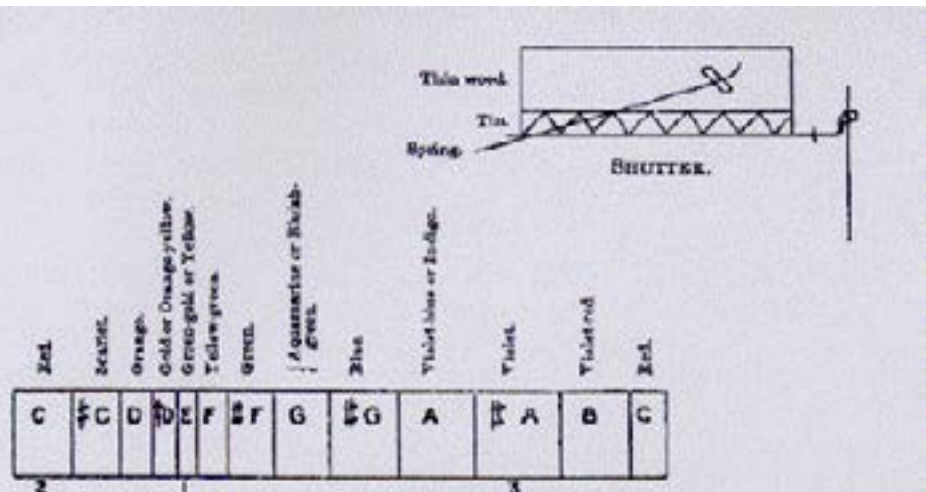
O mais satisfatório que fiz tinha um grande anteparo de vidro de aproximadamente um metro e meio de diâmetro, emoldurado como um quadro, e posicionado na parte superior do instrumento. Nele as cores eram mostradas. O instrumento tinha pequenas janelas envidraçadas com vidros de diferentes cores, cada uma com um obturador, e arranjada de tal forma que ao pressionar as teclas do teclado o obturador era jogado para trás, deixando passar uma luz colorida. Esta luz, difusa e refletida numa tela branca atrás do anteparo de vidro e parcialmente no vidro, produziu uma cor que era suavemente sombreada nas tintas neutras do vidro.



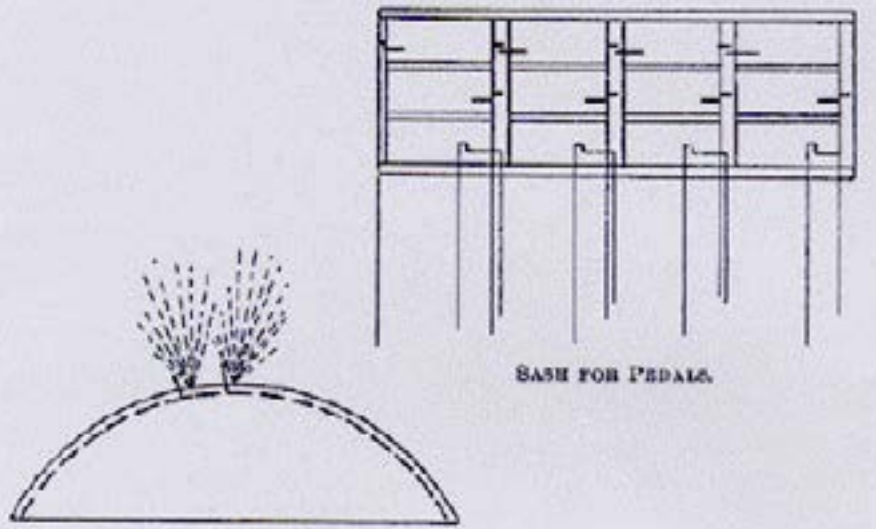


THE COLOR-ORGAN.



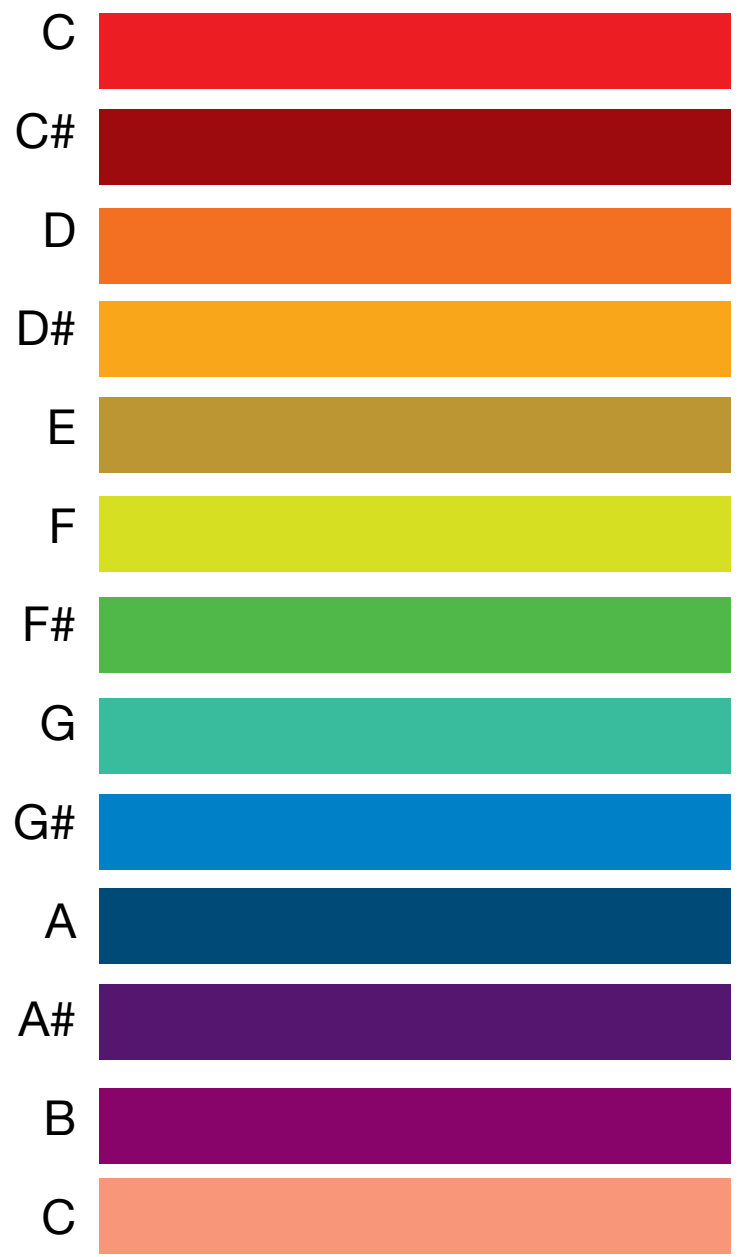


COMPARATIVE SIZE OF COLORED GLASS WINDOWS.



FRONT VIEW OF UPPER SASH.

SASH FOR PEDALS.





1893 Clavier des Lumières, Alexander Wallace Rimington



I had some trouble in deciding how to space the intervals of color, and what colors to use, but finally decided to employ red for C, and divide the prismatic spectrum of color into eleven semitones, adding crimson or violet-red for B, and a lighter red for the upper C of the octave, and doubling the depth and volume of color in each descending octave, the lower or pedalbass notes or colors being reflected evenly over the entire ground. The whole effect was to present to the eye the movement and harmony of the music, and also its sentiment.

Após a invenção deste primeiro instrumento de cor e som [de Bainbridge Bishop], Alexander Wallace Rimington vai criar o termo que ficou consagrado para tratar destes dispositivos, órgão de cor. Ele ficou conhecido como patrono das relações entre cor e som no início do século 20. Mas, ao contrário dos experimentos anteriores, o instrumento de Rimington não se baseia na correspondência direta entre cor e som, e sim em dois teclados independentes, uma para executar as notas e outro para executar as cores, permitindo que a escolha das combinações fique a critério do artista que usa o dispositivo, ou uma configuração que mapeava a escala arco-íris para as cores. Lucassen afirma que “as teorias de Rimington eram baseadas nos mesmos princípios que, por exemplo, as de Castel, nomeadamente que tanto a música quanto a cor são criadas por vibrações”.

## COLOUR-MUSIC

VISUAL SENSATIONS	AUDITORY SENSATIONS
<p>2. Hue, saturation, and intensity are dependent in the main upon wave-length, wave-complexity, and wave-amplitude respectively.</p>	<p>2. Pitch, timbre, and loudness are dependent in the main upon wave-length, wave-complexity, and wave-amplitude respectively.</p>
<p>3. A series of greys extending from white to black are due to a mixture of rays of all wave-lengths.</p> <p>Non-neutral greys are due to predominance of some rays of particular wave-lengths.</p>	<p>3. Noise, as distinguished from musical tones, probably due to a mixture of all tones.</p> <p>Noises may differ in pitch. This is due to predominance of certain tones.</p>



<p>4. From a physiological point of view well-marked turning-points in the spectrum are at yellow, green, blue, and red.</p>	<p>4. Salient points in the musical scale—in order of closeness of physiological relation to the fundamental tone—are octave, fifth, fourth, major third, minor third and sixth.</p>
<p>5. Colour mixtures or fusion of colours.</p>	<p>5. Combination tones, interruption tones, beats, etc.</p>
<p>6. Simultaneous colour contrast. This occurs usually when two or more colours occupy visibly separate spaces in proximity to each other.</p>	<p>6. Tonal fusion, or the sensation produced by a number of notes in a united chord or noise. Ebbingham follows Stumpf in considering that it is a characteristic</p>

## VISUAL SENSATIONS

But it may also occur when these spaces are so small as to be separately indistinguishable, as in the case of many colours in flowers or insects, or in three-colour photographic processes, and this would seem to correspond to some extent to tonal fusion, i.e. a number of notes combined in a chord.

## AUDITORY SENSATIONS

peculiarity of hearing that it is possible to distinguish individual tones in a combination—"die allgemeine Fähigkeit eine objectiv zugleich vorhandene Mehrzahl von Tönen auch subjectiv als eine solche zu erkennen."

But this distinction seems somewhat artificial, the real difference being that whereas the constituent tones do not occupy separate spaces, in the case of contrasting colours they must do so.

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7. Successive colour contrast—including “after images.” (Successive contrast is an important feature of colour-music).

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7. Less marked than in colour, but as to “after-images” a similar effect probably occurs in the realm of sound, but of very short duration. The question has yet to be explored.

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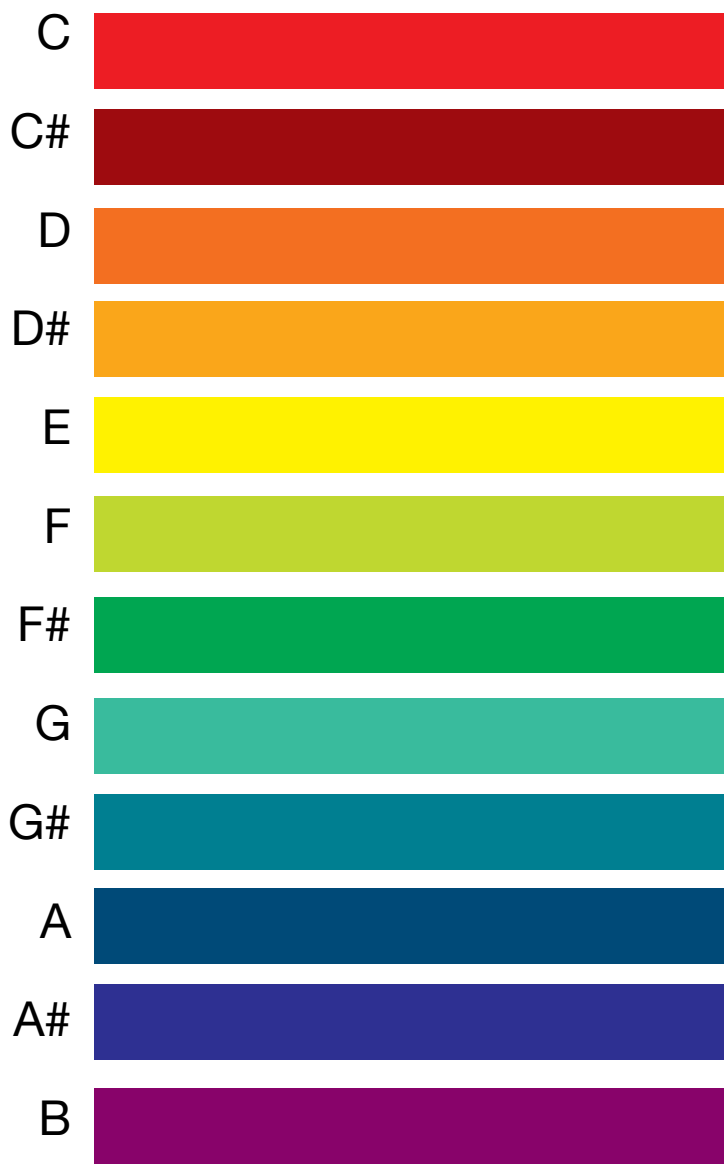
If the spectrum and the octave be divided into similar intervals in accordance with the diatonic scale, the following table shows the approximate frequencies of relative vibration and the relative colours corresponding to each note or interval. The verbal description of these colours is, however, of course an inadequate and inaccurate one. Colours, like musical

tones, cannot be properly described in words. Greenish blue, for instance, may mean any one of many thousand shades of the colour with varying tendencies towards green and blue.

It is also nearly, if not quite, impossible to represent pure spectrum colours by means of pigments. Any diagrams in this book into which colour enters must therefore, like the following table, be taken merely as approximate statements.

TO SHOW DIVISION OF COLOUR SCALE UPON KEYBOARD COLOUR-  
 ORGAN WITH MIDDLE C CORRESPONDING TO LOWEST RED  
 OF SPECTRUM

Approximate ether vibrations MIL. mil. per sec.	395·0	433·0	466·0	500·0	533·0	566·0	600·0	633·0	666·0	700·0	733·0	757·0	Invisi- ble
Approximate colour	Deep red	Crim- son	Orange- crim- son	Orange	Yellow	Yellow- green	Green	Bluish green	Blue- green	Indigo	Deep blue	Violet	
Musical note	(Middle) C	C#	D	D#	E	F	F#	G	G#	A	A#	B	C <sub>1</sub>
Vibrations per sec.	256·0	277·0	298·0	319·0	341·0	362·0	383·0	405·0	426·0	447·0	469·0	490·0	512·0



## 1895 Edison Kinetophone

O tema da mecanização, Benjamin e o sequestro do som no pensamento sobre cultura e tecnologia ao longo do século 20

Other predecessors of the music video, such as Thomas Alva Edison's Kinetophone from 1891, attempted to provide a substitute for live performances by giving users the possibility to follow e.g. a famous singer's opera appearance while comfortably sitting at home, listening to the voice and watching "every feature and expression"<sup>3</sup> on the singer's face and seeing all his actions. This strategy was taken up not only 80 years later by pop groups such as ABBA and Queen, who used music videos as substitutes for live performances in the early 1970s, but was also used as early as the 1940s and 1960s by musical stars thanks to visual jukeboxes such as the so-called Soundies and Scopitones.<sup>4</sup>

Henry Keazor, Visual Music in Mark Romanek / Coldplay, Speed of Sound

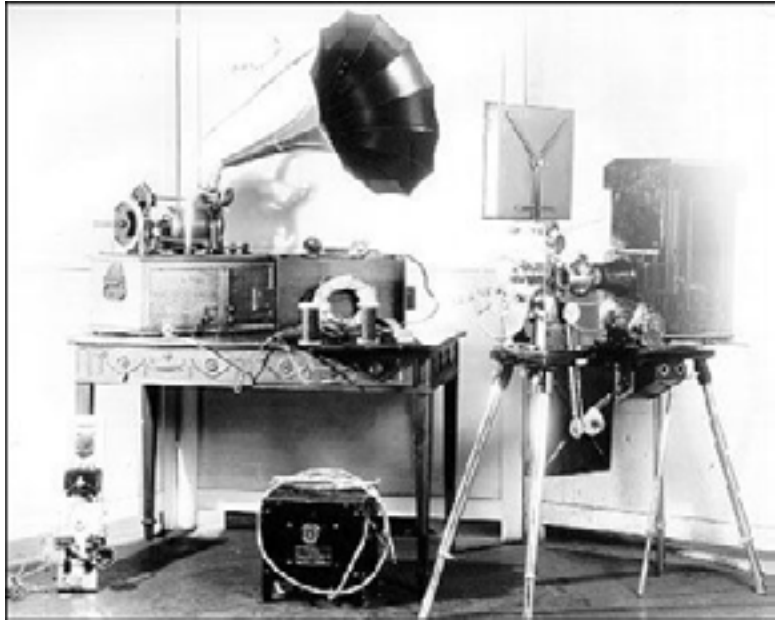
By the spring of 1895, Edison was offering Kinetophones--Kinetoscopes with phonographs inside their cabinets. The viewer would look into the peep-holes of the Kinetoscope to watch the motion picture while listening to the accompanying phonograph through two rubber ear tubes connected to the machine. The picture and sound were made somewhat synchronous by connecting the two with a belt. Although the initial novelty of the machine drew attention, the decline of the Kinetoscope business and Dickson's departure from Edison ended any further work on the Kinetophone for 18 years.

In 1913, a different version of the Kinetophone was introduced to the public. This time, the sound was made to synchronize with a motion picture projected onto a screen. A celluloid cylinder record measuring 5 1/2" in diameter was used for the phonograph.



Synchronization was achieved by connecting the projector at one end of the theater and the phonograph at the other end with a long pulley.

Nineteen talking pictures were produced in 1913 by Edison, but by 1915 he had abandoned sound motion pictures. There were several reasons for this. First, union rules stipulated that local union projectionists had to operate the Kinetophones, even though they hadn't been trained properly in its use. This led to many instances where synchronization was not achieved, causing audience dissatisfaction. The method of synchronization used was still less than perfect, and breaks in the film would cause the motion picture to get out of step with the phonograph record. The dissolution of the Motion Picture Patents Corp. in 1915 may also have contributed to Edison's departure from sound films, since this act deprived him of patent protection for his motion picture inventions.



1912 Announcement of the Edison Kinetophone

1913 Edison Kinetophone Sound Film



1897 Invenção do Fonógrafo, por Thomas Edison, permite a reprodução e gravação de sons mecânicos

Tem início uma nova etapa da era de reprodutibilidade técnica iniciada com a imprensa, de que Benjamin fala em seu artigo. O conhecido texto aborda o problema a partir do ponto-de-vista das imagens, discutindo o modo como a fotografia vai resultar em uma cultura onde há a perda da aura que o estatuto de objeto único emprestava à pintura. Todavia, a reprodução do som vai levar a questões semelhantes.

Com a popularização do fonógrafo e o surgimento do rádio, o campo da música sofre alterações significativas, especialmente com o surgimento da canção popular, um formato cuja duração é própria para ser gravada em disco, e o apelo comercial coaduna-se com o engajamento de grandes audiências do rádio. Não se trata de estabelecer uma diferença qualitativa entre a música de concerto e a canção popular, mas de apontar a diferença essencial entre seus modos de circulação, e as conseqüentes diferenças de sintaxe em que isso implica.

## 1911 Alexander's Ragtime Band, de Irving Berlin

Edison Amberol Cylinder - Billy Murray - Alexander's Ragtime Band 1911 (Reached US Billboard #2 - Nov 1911 (7 weeks) Recorded in November of 1911. "Alexander's Ragtime Band" is a song by Irving Berlin. It was his first major hit, in 1911. There is some evidence, although inconclusive, that Berlin borrowed the melody from a draft of "A Real Slow Drag" by Scott Joplin that had been submitted to a publisher. William Thomas "Billy" Murray (May 25, 1877 -- August 17, 1954) was one of the most popular singers in the United States in the early decades of the 20th century. While he received star billing in Vaudeville, he was best known for his prolific work in the recording studio, making records for almost every record label of the era.



## Relação entre Pintura e Música

Citações tiradas de *A IMAGEM EXPANDIDA — SOBRE A MUSICALIZAÇÃO DAS ARTES VISUAIS NO SÉCULO 20*, de Sandra Naumann

Podemos identificar quatro tendências principais que nos permitem traçar a história da musicalização nas artes visuais:

1. um desvio do princípio mimético na representação pictórica;
2. a integração da dimensão musical do tempo nas artes visuais e o uso de métodos composicionais para estruturar o visual;
3. a expansão do visual no espaço;
4. o geração de imagens por meio de improviso e uso de mídias em tempo-real.

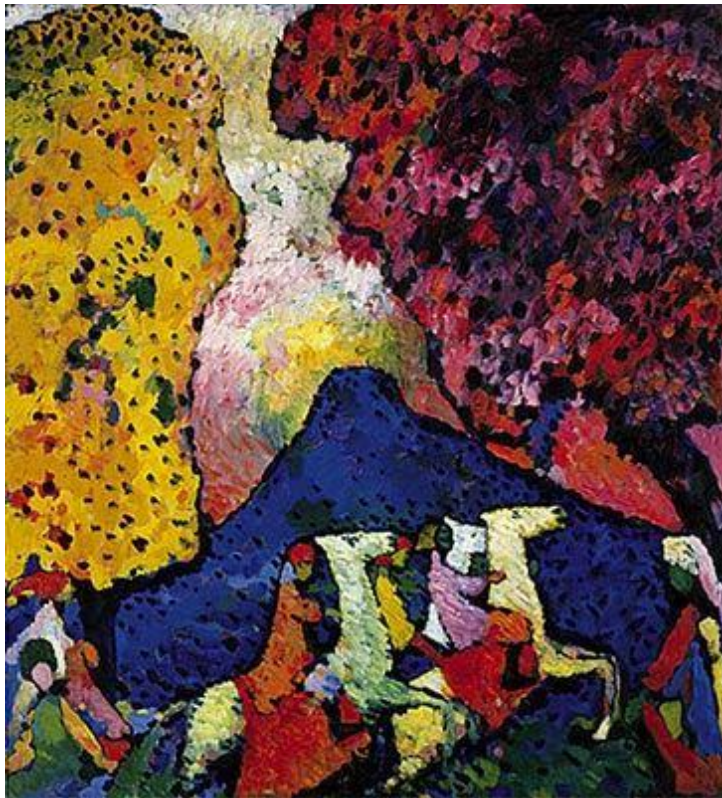
## Um desvio do princípio mimético na representação pictórica

O crítico de arte e literatura Hermann Bahr falou em musicalização da pintura desde a virada do século passado, almejando um público que **“não precisa mais de um objeto, mas está feliz em ouvir a música das cores”** (Bahr, citado em Haftmann, 1974, p. 8-41). Para muitos artistas visuais do início do século XX, a música corporificou o que eles acreditavam que as artes visuais deveriam idealmente atingir: **“Não mais conteúdo para simplesmente reproduzir o mundo visível, os pintores deveriam ao invés disso buscar preencher suas telas com intensidade emocional, integridade estrutural, e pureza estética como acontecia com a música”** (Zilczer, 2005). A tendência às formas reduzidas e tratar cores e linhas como tendo seu próprio valor intrínseco já tinha começado no final do século XIX; agora a pintura moderna (seguindo a trilha da música absoluta) estava finalmente liberada da necessidade de referências externas e rumou para a abstração completa. Por volta de 1910, artistas em vários países da Europa – simultaneamente e com freqüência sem conhecimento um do outro – tomaram o rumo da “pintura absoluta” usando várias técnicas e estilos.

## Kandinsky

O objetivo da analogia entre cor e forma de um lado, e timbres musicais de outro, era transferir princípios como consonância, dissonância e contraponto para a pintura, e estabelecer relações correspondentes, matemáticas, entre elementos individuais.

## Um percurso de distanciamento cada vez maior do figurativo



### 1908 – 1909 Der Blaue Berg (The Blue Mountain)

In this work, the influence of the Fauves on Kandinsky's color palette is apparent as he distorted colors and moved away from the natural world. He presented a bright blue mountain, framed by a red and yellow tree on either side. In the foreground, riders on horseback charge through the scene. At this stage in Kandinsky's career, Saint John's Book of Revelation became a major literary source for his art, and the riders signify the four horsemen of the apocalypse. The horsemen, although an indicator of the mass destruction of the apocalypse, also represent the potential for redemption afterward.

Kandinsky's vibrant palette and expressive brushwork provide the viewer with a sense of hope rather than despair. Further, the brilliant colors and dark outlines recall his love of the Russian folk art. These influences would remain part of Kandinsky's style throughout the rest of his career, with bright colors dominating his representational and non-objective canvases. From this figurative and highly symbolic work, Kandinsky progressed further towards pure abstraction. The forms are already schematized from their observable appearance in the surrounding world in this canvas, and his abstraction only progressed as Kandinsky refined his theories about art.

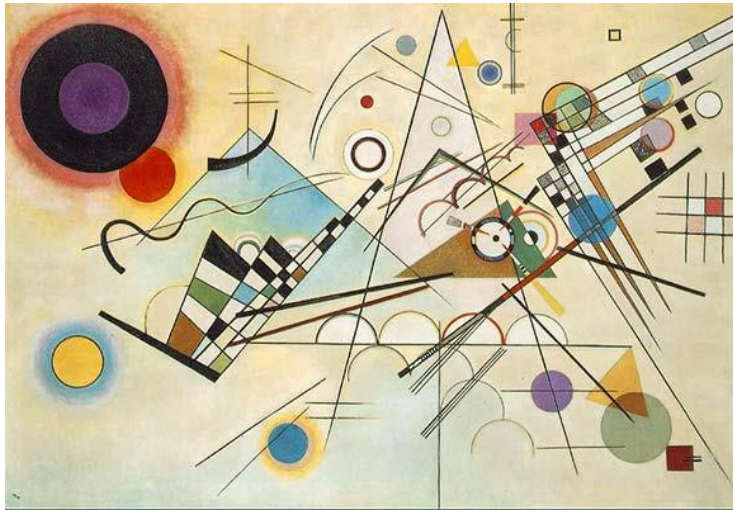
*Oil on canvas - The Solomon R. Guggenheim Museum of Art*



### 1911 Composition IV

Hidden within the bright swaths of color and the clear black lines of *Composition IV*, Kandinsky portrayed several Cossacks with lances, as well as boats, reclining figures, and a castle on a hilltop. As with many paintings from this period, he represented the apocalyptic battle that would lead to eternal peace. The notion of battle is conveyed by the Cossacks, while the calm of the flowing forms and reclining figures on the right alludes to the peace and redemption to follow. In order to facilitate his development of a non-objective style of painting, as described in his text *Concerning the Spiritual in Art* (1912), Kandinsky reduced objects to pictographic symbols. Through his elimination of most references to the outside world, Kandinsky expressed his vision in a more universal manner, distilling the spiritual essence of the subject through these forms into a visual vocabulary. Many of these symbolic figures were repeated and refined in later works, becoming further and further abstracted as Kandinsky developed his mature, purely abstract style.

*Oil on canvas - Kunstsammlung Nordrhein-Westfalen, Düsseldorf*



### 1923 Composition VIII

The rational, geometric order of *Composition VIII* is a polar opposite of the operatic composition of *Composition VII* (1913). Painted while he taught at the Bauhaus, this work illustrates how Kandinsky synthesized elements from Suprematism, Constructivism, and the school's own ethos. By combining aspects of all three movements, he arrived at the flat planes of color and the clear, linear quality seen in this work. Form, as opposed to color, structured the painting in a dynamic balance that pulses throughout the canvas. This work is an expression of Kandinsky's clarified ideas about modern, non-objective art, particularly the significance of shapes like triangles, circles, and the checkerboard. Kandinsky relied upon a hard-edged style to communicate the deeper content of his work for the rest of his career.

*Oil on canvas - Solomon R. Guggenheim Museum*



## 1926 Several Circles

Kandinsky painted this work in his sixtieth year and it demonstrates his lifelong search for the ideal form of spiritual expression in art. Created as part of his experimentation with a linear style of painting, this work shows his interest in the form of the circle. "The circle," claimed Kandinsky, "is the synthesis of the greatest oppositions. It combines the concentric and the eccentric in a single form and in equilibrium. Of the three primary forms, it points most clearly to the fourth dimension." He relied upon the varied possibilities of interpretation for the circle to create a sense of spiritual and emotional harmony in this work. The diverse dimensions and bright hues of each circle bubble up through the canvas and are balanced through Kandinsky's careful juxtapositions of proportion and color. The dynamic movement of the round forms evokes their universality - from the stars in the cosmos to drops of dew; the circle a shape integral to life.

*Oil on canvas - Solomon R. Guggenheim Museum*





### 1939 Composition X

Influenced by the flowing biomorphic forms of Surrealism, Kandinsky later incorporated organic shapes back into his pictorial vocabulary. Executed in France, this monumental painting relies upon a black background to heighten the visual impact of the brightly colored undulating forms in the foreground. The presence of the black expanse is significant, as Kandinsky only used the color sparingly; it is evocative of the cosmos as well as the darkness at the end of life. The undulating planes of color call to mind microscopic organisms, but also express the inner emotional and spiritual feelings Kandinsky experienced near the end of his life. The uplifting organization of forms in contrast with the harsh edges and black background illustrates the harmony and tension present throughout the universe, as well as the rise and fall of the cycle of life. Last in his lifelong series of *Compositions*, this work is the culmination of Kandinsky's investigation into the purity of form and expression through nonrepresentational painting.

*Oil on canvas - Kunstsammlung Nordrhein-Westfalen, Düsseldorf*



Estas associações de relações sincrônicas entre cor e forma com a teoria harmônica foram acompanhadas de esforços para também integrar a dimensão temporal da música na pintura – em outras palavras, processos dinâmicos. Isto é evidente em um grupo de artistas sediado em Paris como **Robert Delaunay, Frantisek Kupka, e Francis Picabia**, que continuaram esforços iniciados no cubismo para representar a simultaneidade por meio de regras geométricas e teorias de proporção e cores análogas à arte musical. Apollinaire cunhou o nome **“orfismo”** para este movimento. Delaunay, por exemplo, que preferia o termo *peinture pure*, justapunha cores complementares em contraste simultâneo, em seus quadros; sua percepção simultânea pretendia evocar a impressão de movimento no plano e no espaço. **“Por volta de 1912-1913”, escreve Delaunay, “eu tive a ideia de um tipo de pintura baseado tecnicamente apenas na cor e em contrastes de cor, mas que se desenvolve no tempo e pode ser percebida simultaneamente num piscar de olhos. Para isso eu usei o termo ‘contrastos simultâneos’ de [Michel Eugène] Chevreul. Eu explorei cores da mesma forma que na música alguém pode se expressar pela fuga de frases coloridas”.**\* Em 1912, os pintores norte-americanos **Morgan Russell e Stanton MacDonald-Wright**, que também viveram na capital francesa durante o período, criaram a teoria do sincronismo relacionada ao orfismo, em que eles desenvolveram harmonias cromáticas a partir de **“acordes cromáticos” e “ritmos cromáticos”**. Estes **“ritmos cromáticos”** de alguma forma **embutem na pintura a noção de tempo**: eles criam a ilusão de que a pintura se desdobra, com uma peça musical, em um intervalo de tempo, enquanto a pintura antiga existiu estritamente no espaço...”.

Robert Delaunay



1912 Simultaneous Windows (2nd Motif, 1st Part) (Les fenêtres simultanées [2e motif, 1re partie])

The *Simultaneous Windows* series are Delaunay's last semi figurative works before he began experimenting with complete non-objectivity. Here we are looking through a window - the outline of the Eiffel Tower reveals itself beneath fragmented color panes, creating an illusion of depth along with the kaleidoscopic effect that was characteristic of Orphism. The palette is bright and the fluid blocks of color give the illusion of softness and movement. In 1911, Sonia had created a patchwork blanket for their son that famously inspired these works. The *Windows* series is characterized by a forward thinking and Futurist aesthetic but Delaunay also drew on earlier movements, the motif of looking through windows could be seen in works of the Impressionists and Fauvists and could also have been inspired by the Symbolist concept of a window onto the soul.

*Oil on canvas - Solomon R. Guggenheim Museum, New York*



### 1934 Endless Rhythm (Rythme sans fin)

*Endless Rhythm* was named by Sonia Delaunay as a way to describe the cyclical looping effect of the circular forms that seem to mimic the flow of electric currents. By 1930 Delaunay had returned to abstraction, producing the large spinning disc compositions for which he is perhaps best known. Building on his earlier experiments, Delaunay achieved the illusion of movement through juxtaposition of colors with geometric form. Delaunay carefully selected his colors to present subtle gradients and then contrasts these with the thick black and pale blue background. The diagonal composition enhances the effect of dynamism. A year after this painting was produced, the discs were brought to life on a monumental scale in his public murals for the Paris exposition.

*Oil paint on canvas - Tate*



## 1938 Rhythm n1

Propelled on by the success of the Exposition commission, a year later Delaunay produced another major commission, this time for the Salon de Tuileries. Again reminiscent of aeroplane propellers, and the swirls and plumes that surround them in motion, this painting evokes the artist's love of speed and technology, as well as his renewed commitment to pure abstraction. It also illustrates his application of color theory. By using the large scale he had become comfortable with, Delaunay heightened the visual sensation of the work by creating simultaneous form and depth rather than descriptive reality. This was to be Delaunay's last major piece before the couple fled Paris for the south of France, where Robert died a premature death just three years later.

*Oil on canvas*

## Paul Klee

Na Bauhaus, Paul Klee também descobriu uma série de analogias entre gradações harmônicas e cromáticas, entre as regras do contraponto musical e as relações entre diferentes elementos pictóricos, e entre sequências formais e arranjos composicionais na pintura.

## Paul Klee - Música

Citações tiradas de **O PARALELO ENTRE A PINTURA E A MÚSICA NO PENSAMENTO E NA OBRA DE PAUL KLEE**, de Arthur Valle

"É notório o fato de que Klee, nascido em uma família de músicos, se definiu apenas tardia e hesitantemente como pintor: durante toda a sua infância e juventude, ele ficou dividido entre a prática das artes plásticas, da música e, em menor medida, da literatura. Desde os sete anos, favorecido pelo ambiente da casa, Klee desenvolveu um talento notável como violinista, que o capacitou a participar de concertos sinfônicos, inclusive como solista, notadamente na orquestra municipal de sua cidade natal, Berna. [...] A intuição de que laços profundos, verdadeiramente "cósmicos" - para usar um termo caro ao pintor - ligavam pintura e música, alimentada pela sua vivência artística multiforme, nunca o abandonaria, vindo a se manifestar mesmo em seus trabalhos tardios" (VALLE, 2007,p.1)

Klee: "Cada vez mais, sou forçado a enxergar paralelos entre a música e as artes plásticas [...] Não há dúvida de que as duas são artes temporais, o que é fácil de se comprovar"

Citações tiradas de **SOBRE A ARTE MODERNA E A MÚSICA**, de Paul Klee

Klee: “Quando o ponto se torna movimento e linha, isso implica tempo. A mesma coisa ocorre quando uma linha se desloca para formar um plano. Igualmente no que diz respeito ao movimento dos planos para formar espaços” (KLEE, 2001: 45-46)

Klee: "Na obra de arte encontram-se disponíveis os caminhos que conduzem para o olho do espectador, o olho que tateia ao redor como faz um animal ruminante ao pastar (Na música, como todos sabem, encontram-se disponíveis os 3 canais que conduzem ao ouvido; no teatro, ambos os sentidos estão à disposição)" (KLEE, 2001: 47)

“A obra de arte [...] é em primeira instância gênese, nunca pode ser vivenciada (puramente) como produto” (KLEE, 2001: 47).

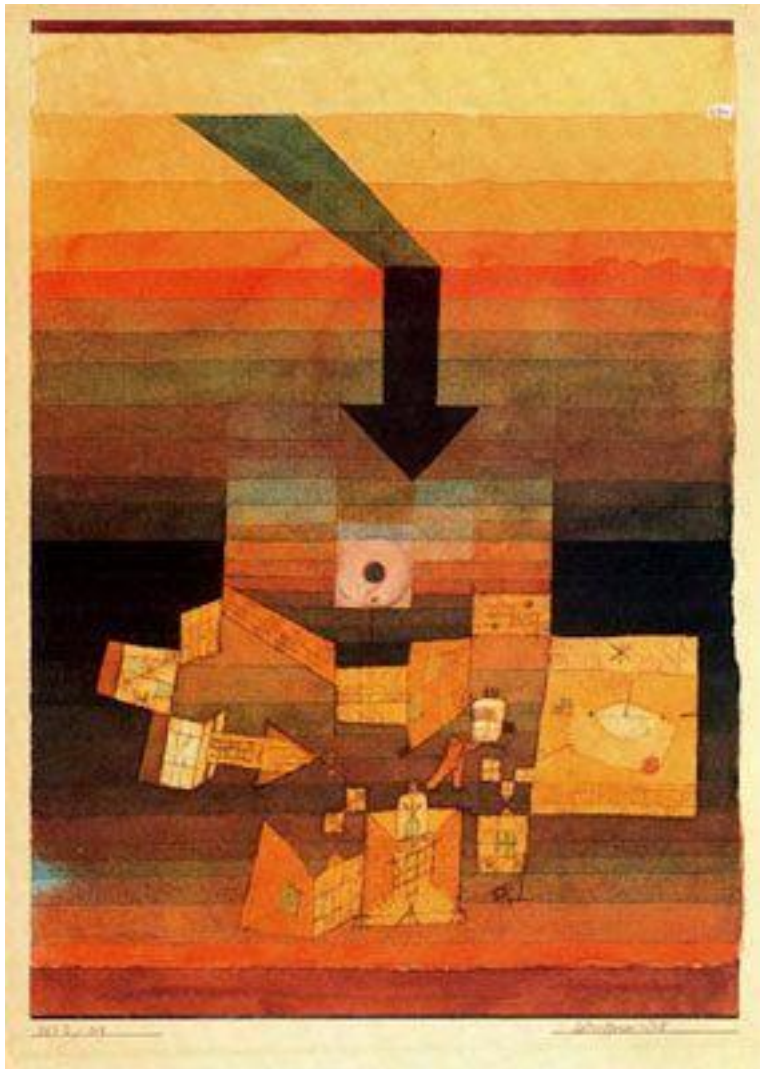
Citações tiradas de **O PARALELO ENTRE A PINTURA E A MÚSICA NO PENSAMENTO E NA OBRA DE PAUL KLEE**, de Arthur Valle

"Nos trabalhos plásticos de Klee, um segundo nível de aproximação entre pintura e música se manifesta por intermédio da incorporação de uma lógica estrutural inspirada em formas ou procedimentos musicais tradicionais, especialmente aqueles ligados à chamada música polifônica ou contrapontística." (VALLE, 2007, p.9)

Havia um "profundo interesse do pintor pelas formas musicais polifônicas e o seu esforço por tentar encontrar equivalentes visuais da mesmas."

"Klee vai, em várias momentos, defender como o derradeiro valor de uma obra de arte a sua capacidade de explicitar o seu próprio processo de execução, o seu devir, afirmando-se não como um fim em si-mesma, mas sobretudo como "um entrave ocasional" - ainda que repleto de beleza - do movimento que é o verdadeiro princípio regente do cosmos."





### 1922 Affected Place [*Betroffener Ort*]

Created in Klee's early Bauhaus years, this piece shows a scene of ambiguous signs and symbols over a background of modulated purples and oranges. The various strips of color hint at a horizon, their horizontal emphasis counteracted only by the boldly painted arrow, which abruptly suggests something as ordinary as a road sign. Like the many gradations of color, the arrow generates movement, compelling the viewer's eye to the center of the picture. The influence on Klee of Cubist still lifes, such as those of Picasso and Braque, is clearly apparent: Klee suggests a motif painted from nature while also cancelling it, as though to remind us that this is no window but a kind of abstract sign system.

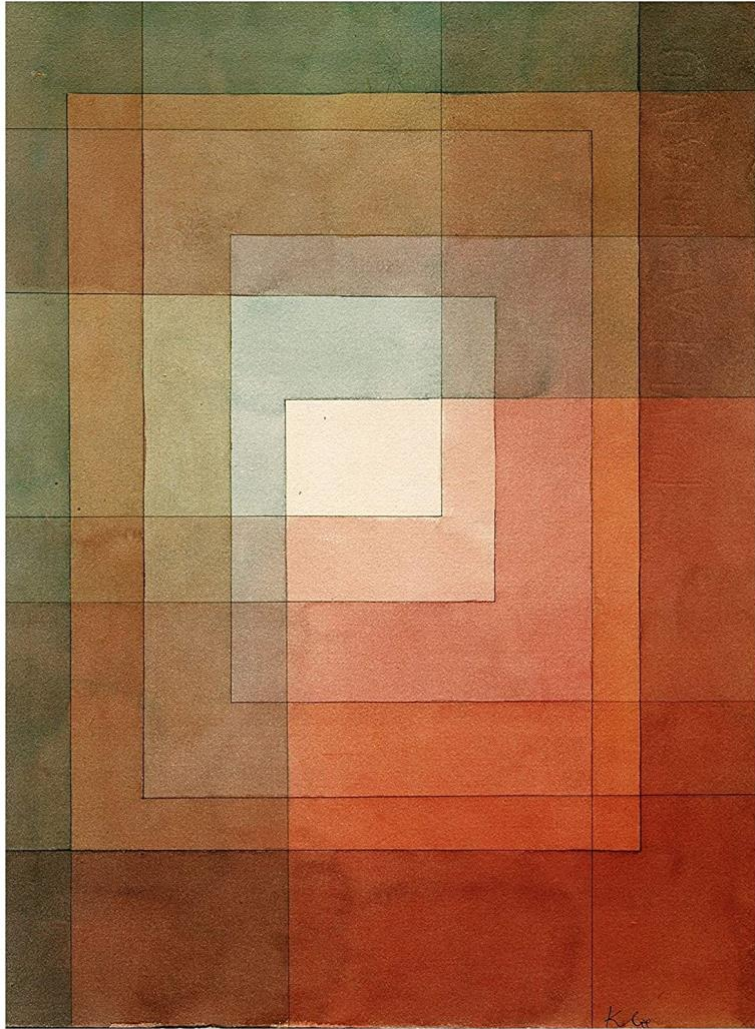
*Ink, pencil, and watercolor on paper; top and bottom strips with watercolor and ink, mounted on cardboard - Zentrum Paul Klee, Berne*



### 1928 Affected Place [*Betroffener Ort*]

Created in Klee's early Bauhaus years, this piece shows a scene of ambiguous signs and symbols over a background of modulated purples and oranges. The various strips of color hint at a horizon, their horizontal emphasis counteracted only by the boldly painted arrow, which abruptly suggests something as ordinary as a road sign. Like the many gradations of color, the arrow generates movement, compelling the viewer's eye to the center of the picture. The influence on Klee of Cubist still lifes, such as those of Picasso and Braque, is clearly apparent: Klee suggests a motif painted from nature while also cancelling it, as though to remind us that this is no window but a kind of abstract sign system.

*Ink, pencil, and watercolor on paper; top and bottom strips with watercolor and ink, mounted on cardboard - Zentrum Paul Klee, Berne*



**1930 Branco Emoldurado Polifonicamente**

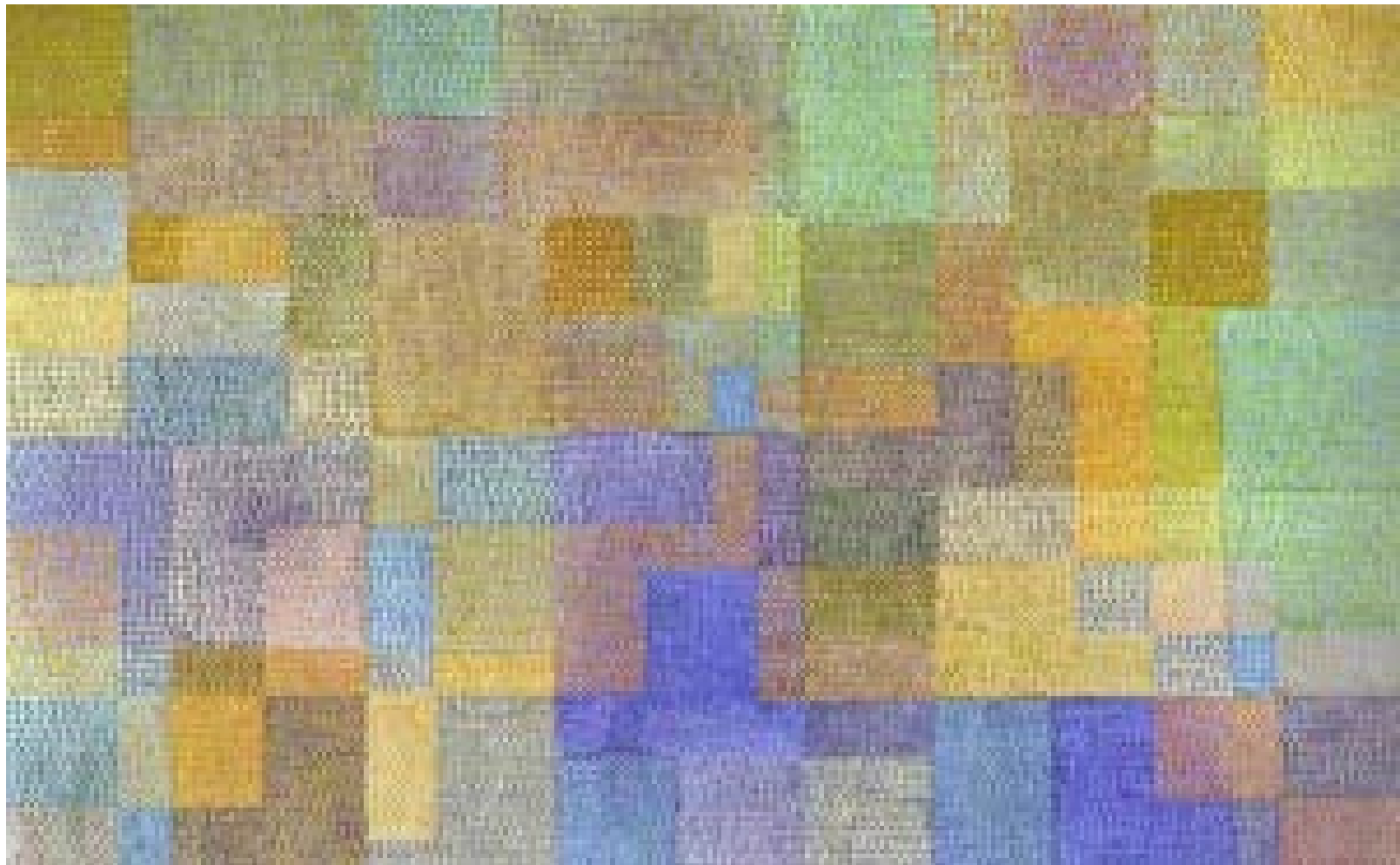




**1932 Polifonia**



**8.** Paul Klee, *Polyphonie*, 1932  
Huile sur toile, 66,5 x 106 cm  
Fondation Emanuel Hoffmann.  
Prêt permanent au Öffentliche  
Kunstsammlung Basel, Bâle, Suisse



“In his painting Polyphony, 1932 Klee uses color to express his musical ideas. Background color blocks simulate the deep base chords of a musical composition, but then on the painting’s surface, Klee superimposes tiny dots in different colors in luminous fashion — acting here too like the counterpoint of Bach’s polyphonic musical structures.”

<https://www.interlude.hk/front/paul-klee-painting-music/>

Com estrutura complexa, Polyphonie, de Klee, estabelece linhas de contraponto entre diferentes padrões das áreas retangulares que compõe o quadro. O jogo de rimas de cor, além do já citado contraponto entre figura e fundo, estabelece conexões entre as diferentes áreas. Como naquelas imagens de ilusão de ótica bastante usadas para explicar as teorias da gestalt, os retângulos assumem um papel dinâmico e mudam de função estrutural a cada lance do olhar, fazendo com que o quadro mova-se entre diferentes configurações, como num percurso polifônico.

As formas retangulares são matrizes que disparam este campo de relações possíveis, no plano macro estrutural. O diálogo entre retângulos e malhas de pontos estabelece campos de tensão localizados, no plano microestrutural.





1930 Polyphon gefastes Weiss,  
de Paul Klee

Em Polyphon gefastes Weiss, retângulos que parecem estar defasados entre si e produzir diferentes padrões de cor, nos segmentos que suas intersecções geram, emolduram o centro branco, num jogo de propagação e contração. No formato cor luz, o branco é a soma de todas as cores. E não há, na pintura, uma sobreposição de todas as cores do espectro senão a soma de alguns matizes que variam em torno de vermelhos e laranjas e cinzas azulados.

A composição formal sugere uma recursividade entre os retângulos, como se formassem séries dentro de si próprias (lembrando que a música serial foi contemporânea destas obras).