

«Synesthesia and Colorlight Music»

An interdisciplinary project at the Zurich University of Arts, Switzerland, 2003/04



A combined scientific and artistic project entitled Synesthesia and Color-light music took place at the Zurich Conservatory in 2003 to 2004. The starting point for the project was a so-called 'Farblichtflügel', a colour-light organ, developed by pianist Natalia Sidler (Illustration 1).

This color-light piano has little in common with a normal piano apart from the basic piano shape and keyboard. The instrument projects colours in three simultaneous modes.

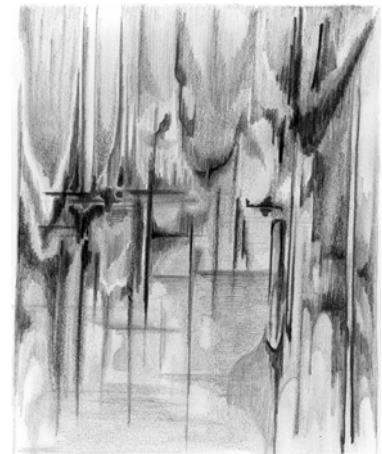
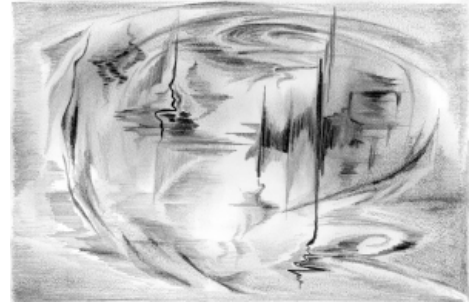
In the first, which operates on a foreground sector, each musical tone produces its own colour. For

practical reasons, seven colors and seven tones of an octave were chosen for this mode, in keeping with the piano keyboard which was the point of departure. The colors become brighter in higher octaves and darker in lower ones.

The second mode produces a background color in keeping with a scheme whereby seven colors are spread over the entire keyboard in order of brightness.

The third mode functions on the basis of timbre, shapes and modifies the color shapes in the foreground. Natalia Sidler defined it by dividing the colors of the spectrum synthetically to correspond to the seven timbres of the keyboard.

Synesthesia occurs in that every timbre generates a picture based on her own synesthesia, with elements suggestive of water-pots string, or high-sounding bells (Illustrations 2a-c).



The color-light piano's very design is thus based partly on synesthesia. The instrument is connected to a computer that projects these colors and shapes onto a screen.

In 2003, a composers' competition was announced for pieces using the color piano and an ordinary ensemble of string and wind instruments. Three compositions won a prize, and all were first performed in 2004. In the score for one of these, written by Spaniard José Lopez-Montes the color-piano notation is similar to that of other instruments.

The part for the colour organ is set in the middle of the score. The figures at the top are the colours and shapes seen by the synesthete composer. A photograph taken at the first performance (Illustration 3) shows the chamber orchestra on the left, the conductor in the centre and the colour organ next to the conductor, with its own illumination. The colour-organ projection is visible on the right, while the audience is visible in the foreground. At that performance, the color piano was played by the composer himself.

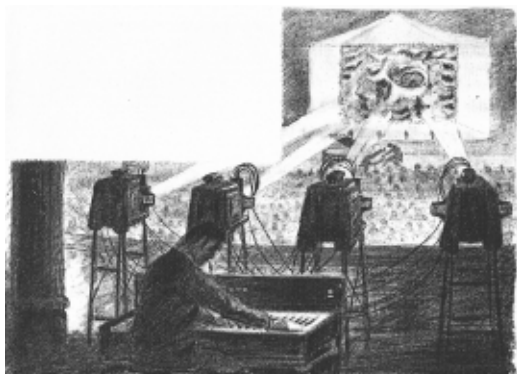
Working independently of this competition, Swiss composer Martin Wettstein, who is not a synesthete, has written a piece of music for color piano, choir and ensemble (Illustration 4).

The Zurich project consisted of three parts, the first of which was devoted to the color piano and pieces composed for it, such as the pieces described above.

The second part of the project consisted of a new, modern version of the color-light music of Alexander László from 1925. A drawing dating from 1925, depicting a moment during a performance of László's color-light music, shows the auditorium divided into three parts: the foreground, with the audience, the stage, with the pianist, and a screen at the back, used for projection (Illustration 5). This drawing highlights László's intent to mix music



with colors and shapes in a new type of artistic synthesis he called 'Farblichtmusik', color-light music.



The first performance took place in Kiel, Germany, during a music festival in 1925. By 1927 –nearly two years – László had given more than a thousand performances in Germany. László's color associations are probably not genuine synesthesia. From childhood, László had learned to make this association between sound and color using it intentionally to make his playing visually beautiful.

Unfortunately, no film of his concerts has survived. The reviews written at the time, along with the surviving pictures and László's own articles, provide only an incomplete impression of his concerts. Altogether we know of seven pictures two in colour and five in black and white. For the Zurich project, we reconstructed one of László's concert programmes. The visual part was produced by a graphic programmer, working on the basis of the original sources, but allowed total artistic freedom. That effort produced the first public performance, complete with projection (Illustration 6), of László's colour-light music since 1927.

The third part of the project consisted of fresh reactions, to the color-light music by visual artists and synesthetes. For this part, we chose five visual artists and four synesthetes and gave each a copy of László's score, a CD with performances and some sources. The visual artists' group consisted of one sculptor, a pair of photographers, one working in black and white, and one working in colour, and two painters. None of these was a synesthete. All artists transferred the fluid character of the music into their art.



One of the synesthetes, Sean Day, sees every kind of piano music as a sky-blue fog dotted with three-dimensional plastic drops. "It makes no difference for me who the composer is. Whether the piece is a Beethoven sonata, or Debussy's 'Claire de Lune', I always see nearly the same things I see for László's Sonata." For Melanie Filsinger, colour strokes appear and fade, and they seem to gleam, as if they were under

water. "The second movement of the Sonatina sounds like an evening mood at a lake, with quiet tones being played very softly and fading out." Christine Söffing sees different shades of blue. "I would like to listen to more pieces by László. Are they all blue?" For Matthias Waldeck, piano tones are open hemispheres. "The higher the tones, the smaller and brighter the balls become, changing in color into a yellowy white. The shapes grow in size, and become darker in color, as the tones become louder."

Jörg Jewansky, Germany

Bibliography, and copyright for the illustrations:

The results of this project were presented to the public in two concerts in Zurich in January 2004. In 2006 a book on the topic was published by Jörg Jewanski & Natalia Sidler (edd.), *Farbe – Licht – Musik. Synästhesie und Farblichtmusik* (in German), Bern: Lang 2006, 528 pp. (= Zürcher Musikstudien Band 5, ed. by Dominik Sackmann) [www.peterlang.com; an English translation and a DVD are in preparation for 2009/10]. A new version of the colour-light organ is being developed for 2009/10.

All photos in this article have been taken from the Jewanski/Sidler book: Illustration 1 = p. 433, 2 = pp. 440-441, 3 = 455, 4 = p. 504, 5 = p. 241, 6 = 453. The book lists the copyright protection applying for each illustration.

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