The State of the Art

Visual Music as a Performing Art

By Fred Collopy

With the invention of the ocular harpsichord in 1725, Louis-Bertrand Castel attempted to integrate sound and image in real-time. Almost three hundred years later, as the paths of inventors have crossed with painters, musicians, and filmmakers, we are on the cusp of realizing the potential for an audiovisual performing art on par with the other great mediums of history.

Castel believed that there was an analogy between sound and light that could serve as the basis for a visual art that was as powerful in its emotional appeal as music. Though sound and light share certain characteristics, there are also important differences between them. Tones merge while colors remain separate, and tones are fleeting while colors persist. Since tones could not be made persistent, Castel proposed to make colors transient and use them in combinations to create visual harmonies.

While inventors worried about making colors move in time, painters were devising bases for arranging colors in appealing combinations. Some did so in the specific context of color music. Between 1912 and 1914 Leopold Survage painted over 200 watercolors intended to form the basis for an abstract film,

Colored Rhythm. Both its colors and the movements implied by its changing forms are stunning, especially given that it anticipated both color stock and abstract animation by years.

With the addition of form, Survage changed color music into visual music. Devising a language for their movement was immediately important. "An immobile abstract form does not say much...It is only when it sets in motion, when it is transformed and meets other forms, that it becomes capable of evoking a feeling" (quoted in Graves 1951:412). Soon after, Thomas Wilfred's invention, the Clavilux, also incorporated form and motion. "Form, color and motion are the three basic factors in lumia - as in all visual experience - and form and motion are the two most important," Wilfred wrote (Wilfred 1947:252).

The 20th century continued to see the invention of visual instruments, but this era belonged to the filmmakers. Viking Eggeling and Hans Richter were scroll painters who turned to film in order to make their forms move. Following their 1919 debuts, dozens of filmmakers created abstract films that addressed such visual problems as counterpoint, continuity, tension-release, figure-ground, implied causality, and changing perspective. But film is fixed, each showing of a film very like every other, while the performance of live music is not.

Though the goal of color music's inventors was to create an art as powerful as music, few composers committed themselves to any significant degree. Telemann was supportive of Castel's ocular harpsichord, expressing certainty that its play of colors would please. Schönberg, Scriabin, Baranoff-

Rossiné, Stokowski and Varèse experimented in modest ways with its potential. But musicians' attitudes are now changing as they become increasingly interested in controlling the visual element of their performances.

With computers we are again in an age of the instrument inventor. What was difficult in the 18th century is no longer so. Moreover, we now have three centuries of thinking and experimentation to guide us. This art, while not entirely imitating painting or film, music or dance, draws on each of these. Audiences are watching, and musicians are playing along, as we create abstract visuals that move. Perhaps technology has now caught up with early ideals, and we will finally find a new art form in audiovisual performance on par with the time-tested appeal of music alone.

Sources Cited:

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Bio:

Fred Collopy designed the first version of Imager - software for playing abstract visuals - for the Apple II computer in 1977. His work has been presented at ISEA, SIGGRAPH, Sonic Light, and the IEEE Symposium on Visual Languages and been published in *Leonardo* and elsewhere. He has performed visuals live with the jazz ensemble Kassaba, electronic musicians Dino Felipe and Henry Warwick, and others. He has been a visiting scientist at IBM's Watson Research Lab and is on the faculty at Case Western Reserve University. An expanded version of this essay is located at his site, RhythmicLight.com.