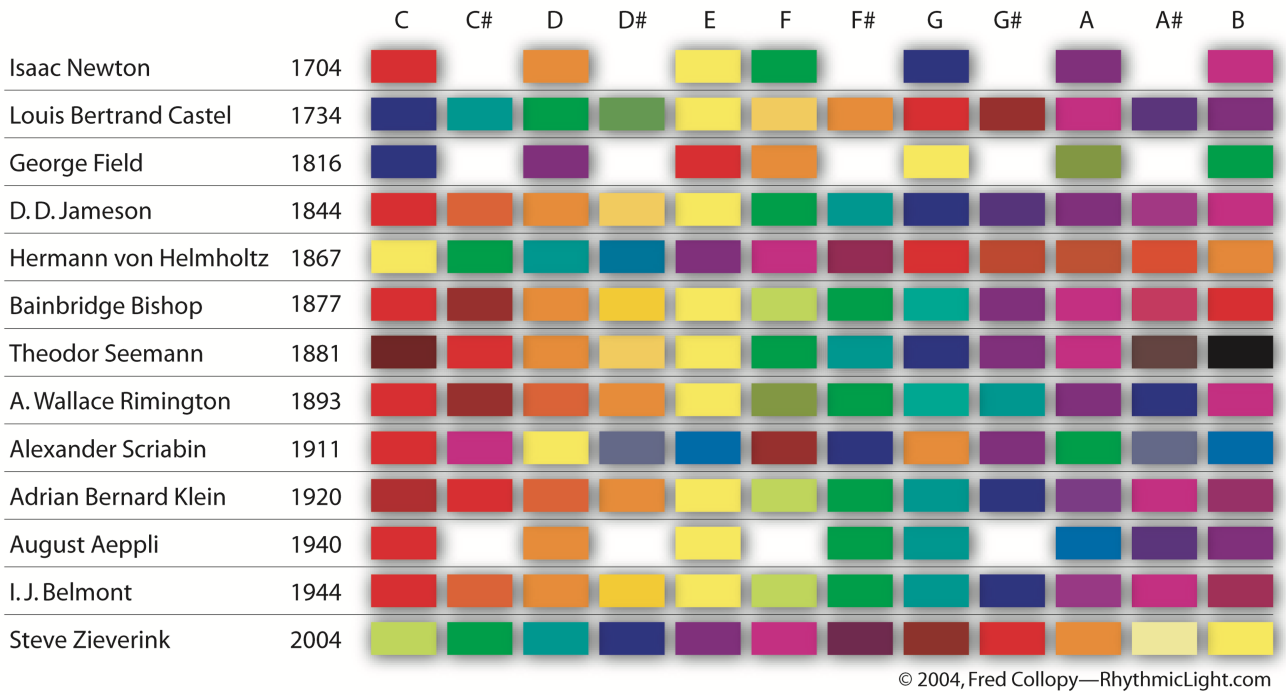
RHYTHMIC LIGHT®

musical visuals in the hands of artists

HUE TO PITCH



Three Centuries of Color Scales

Newton, Castel, and others maintained that there is a real analogy between elementary colors and the notes of the musical scale. Newton, for example, named seven supposedly primary colors of the spectrum–red, orange, yellow, green, blue, indigo, and violet–one to parallel each note on the musical scale. Castel incorporated his own scheme into his color organ: blue for do, green for re, yellow for mi, red for sol, etc. Castel's version was in turn criticized by Field, who proposed still another organization. And so it went. Sadly, one finds that synesthetic associations between colors and musical notes fail to favor any particular scheme over the others.

Lawrence E. Marks, *The Unity of the Senses,* 1978, 93.

A natural mystic, Scriabin devoted much time to color-music analogies. In writing "Prometheus," he adopted a unique color scale which, according to Klein, "has no order from the spectroscopic point of view if written in the order of the

chromatic scale, but which assumes an approximately spectral order if we commence with the note C and proceed in the 'circle of fifths.'"

Tom Douglas Jones, *The Art of Light & Color*, 1972, 104.

Even so, it must not be forgotten that any comparison between sound waves and light waves ceases to have any sense at all as soon as the numerical values of the musical intervals are modified entirely by the process of raising them all to a certain fractional power. Moreover, the spectrum is broken off arbitrarily at both ends, because, as a matter of fact, the faint terminal colours of the spectrum extend much farther on both sides. And finally Newton's division into seven principal colours was perfectly arbitrary from the beginning and deliberately founded on the musical analogies. Golden yellow has just as much right to a place between yellow and orange as indigo has between blue and violet; and the same is true with respect to yellow-green and blue-green. Indeed, there are no real boundaries between the colours of the spectrum. These divisions are more or less capricious and largely the result of a mere love of calling things by names. In the author's opinion, therefore, this comparison between music and colour must be abandoned.

H. Von Helmholtz, *Treatise on Physiological Optics*, 1910 , Vol II, 117.

If it could be shown without possibility of dispute that similarly divided scales of colour and musical sounds have insufficent features in common to establish any emotional analogy whatever based upon numerical division, the general theory and the main advantages of colour-music as an art and as a mode of experimental research would remain unaffected and the force of the chief arguments, which can be advanced in support of it as a separate and distinct art would not be weakened in the least. The question of a possible analogy between the two scales is an interesting one, but how far it holds good is relatively not of very much importance.

A. Wallace Rimington, *Colour-Music: The Art of Mobile Colour,* 1912, 33.

It should be added that Strubin (not an exact scientist but an exact artist) painted hundreds of pictures according to his color-tone scale, converting note by note into colors, which were for him absolutely correct. He was so certain of what he was doing that, impoverished as he was, he preferred not to sell a fugue by Bach rather than comply with a customer's wish and alter a color. What was unreasonable, as he saw it, was not that he was expected to alter the picture but to alter Bach.

Each note can be modulated continuously into any other in shades that may be as delicate as desired. But perception does not change uniformly with the stimulus; it is

discontinuous. Concerning this, the color psychologist Max Luscher states, “The psychical effect of a primary color can be altered to a large extent by the admixture of a color. When red becomes brown red, it denotes calm after excitement; when red becomes orange, it denotes excitement, hectic instead of passionate.”

This state of affairs is also reflected in the fact that colors have a higher degree of individuality, or personality, than musical notes. The latter are coded, denoted by A, B, C (or do re mi), whereas the former are characterized by proper names: yellow, red, blue, or vermilion, scarlet, crimson, purple, lilac, and the like.

Karl Gerstner, *The Forms of Color*, 1986, 171-172