Color harmony and meaning.

It has been suggested that "Colors seen together to produce a pleasing affective response are said to be in harmony".[[1]](http://en.wikipedia.org/wiki/Color_theory#cite_note-0) However, color harmony is a somewhat misleading notion in that responses to color can be influenced by a range of different factors including individual differences (age, gender, etc.); cultural and social differences; as well as contextual, temporal and perceptual factors. The following conceptual model illustrates this approach to color harmony:

 Color harmony = *f*(Col 1, 2, 3…n)\*(ID+CE+CX+P+T)

Wherein color harmony is a function (*f*) of the interaction between color/s (Col1,2,3...n) and the factors that influence positive aesthetic response to color: individual differences (ID) such as age, gender, personality and affective state; cultural experiences (CE), the prevailing context (CX) which includes setting and ambient lighting; intervening perceptual effects (P) and the effects of time (T) in terms of prevailing social trends.[[2]](http://en.wikipedia.org/wiki/Color_theory#cite_note-1)

In addition, given that humans can perceive over 2.8 million different hues,[[3]](http://en.wikipedia.org/wiki/Color_theory%22%20%5Cl%20%22cite_note-2) it has been suggested that the number of possible color combinations is virtually infinite thereby implying that predictive color harmony formulae are fundamentally unsound.[[4]](http://en.wikipedia.org/wiki/Color_theory#cite_note-3) Despite this, many color theorists have devised formulae, principles or guidelines for color combination with the aim being to predict or specify positive aesthetic response or 'color harmony'. Color wheel models have often been used as a basis for color combination principles or guidelines and for defining relationships between colors. Some theorists and artists believe juxtapositions of complementary color will produce strong contrast, a sense of visual tension as well as 'color harmony'; while others believe juxtapositions of analogous colors will elicit positive aesthetic response. Color combination guidelines suggest that colors next to each other on the color wheel model (analogous colors) tend to produce a single-hued or monochromatic color experience and some theorists also refer to these as 'simple harmonies'. In addition, split complementary color schemes usually depict a range of analogous hues plus a key complementary color. A triadic color scheme adopts any three colors approximately equidistant around a color wheel model. Feisner and Mahnke are among a number of authors who provide color combination guidelines in greater detail.[[5]](http://en.wikipedia.org/wiki/Color_theory#cite_note-4)[[6]](http://en.wikipedia.org/wiki/Color_theory#cite_note-5)

Color combination formulae and principles may provide some guidance but have limited practical application. This is because of the influence of contextual, perceptual and temporal factors which will influence how color/s are perceived in any given situation, setting or context. Such formulae and principles may be useful in fashion, interior and graphic design, but much depends on the tastes, lifestyle and cultural norms of the viewer or consumer.

As early as the ancient Greek philosophers, many theorists have devised color associations and linked particular connotative meanings to specific colors. However, connotative color associations and color symbolism tends to be culture-bound and may also vary across different contexts and circumstances. For example, red has many different connotative and symbolic meanings from exciting, arousing, sensual, romantic and feminine; to a symbol of good luck; and also acts as a signal of danger. Such color associations tend to be learned and do not necessarily hold irrespective of individual and cultural differences or contextual, temporal or perceptual factors.[[7]](http://en.wikipedia.org/wiki/Color_theory#cite_note-6) It is important to note that while color symbolism and color associations exist, their existence does not provide evidential support for color psychology or claims that color has therapeutic properties.[[8]](http://en.wikipedia.org/wiki/Color_theory#cite_note-7)