

Understanding Color

Giordano Beretta

Hewlett-Packard Company
Palo Alto

<http://www.inventoland.net/imaging/uc/>

2003



PAINT

PUBLISHING AUTOMATION AND INTEGRATION TECHNOLOGIES



brilliance	Colloquial term denoting sparkling brightness.
candela (cd)	SI unit of → luminous intensity: The candela is the luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency $540 \cdot 10^{12}$ hertz and that has a radiant intensity in that direction of 1/683 watt per steradian. [16]
categorization	Classification of information into groups or concepts. Categorization may be viewed as an instance of reasoning by inductive argument. Traditionally, conceptual categories were regarded as being sharply defined through a set of necessary and sufficient conditions for category membership. More recently, it has been recognized that category boundaries are not always sharp and that some members of a given category tend to be regarded as more typical than other members. [21]
cesia	Set of visual sensations due to differences in the spatial distribution of light. [Caivano]
choroid	Resilient network of connective tissue within the → sclera.
chroma	Chromaticness, → colorfulness, of an area judged as a proportion of the brightness of a similarly illuminated area that appears white or highly transmitting. For given viewing conditions and at luminance levels within the range of photopic vision, a color stimulus perceived as a related color, of a given chromaticity and from a surface having a given luminance factor, exhibits approximately constant chroma for all levels of illuminance except when the brightness is very high. In the same circumstances, at a given level of illuminance, if the luminance factor is increased, the chroma usually increases. [16] Levels of chroma range from “strong” to “weak.”
chromatic adaptation	→ Adaptation by stimuli in which the dominant effect is that of different relative spectral distributions. [16]
chromaticity	Property of a color stimulus defined by its chromaticity coordinates, or by its dominant or complementary wavelength and purity taken together. [16]
chromaticity coordinates	Ratio of each of a set of three tristimulus values to their sum. [16]