
VISUAL APPEARANCE – COLOUR AND BEYOND

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This presentation will discuss the components of a framework on which a set of measurements could be made to provide some correlates of the visual appearance of materials be they for example, discrete objects in the home or products in a store. It will be shown that the interactions between the various components of the framework are complex, that *physical* parameters relating to those objects are influenced, at the perception stage, by the *physiological* response of the human visual system and, in addition by the *psychological* aspects of human learning, pattern, culture and tradition, as well as the *expectation* of the final user of the material: the customer.

The end result might be to conclude that an attempt to *measure* appearance may be too bold a step to take. Thus, a sub-framework must be considered in terms of what can now be measured, and what might be measured after further investigation and research. By dealing with the optical properties of materials it will be suggested that there are, perhaps, four headings under which possible measures might be made: colour, gloss, translucency and surface texture. It is recognised that these measures are not necessarily independent; colour may influence gloss, colour will certainly influence translucency, and surface texture is probably a function of all three of the other measures.

In addition to measurements of each of these four optical properties, the concept of colour emotion and colour harmony will be introduced. Experiments will be described that attempted to develop colour-science based models for these parameters and these include an investigation of single colour emotional responses using ten colour emotion scales, an investigation of the colour emotion for twocolour

combinations and an investigation of the colour harmony of two-colour combinations. In addition, a method will be described in which the total appearance of scene might be measured and related to the final expectation of customer.