

CATASTROPHE THEORY AND THE BERLIN-KAY COLOUR TERMS.**Gyorgy Darvas**

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This paper investigates the possibility of analysing colour-term categories by the same catastrophe theoretic approach used by Petitot and Wildgen for phonemes and semantics. By considering a progressive development of the colour space as a series of catastrophe sets: the Fold, Cusp, Swallowtail and Butterfly, the first 4 of Berlin and Kay's stages are accounted for with some novel predictions. Some psychophysical phenomena are found to be qualitatively consistent with the pattern: the Bezold-Brucke hue shift and the so-called small-field tritanopia effect. Extension: Analogies are examined linking colour-terms to their semantic connotations using Osgood's semantic differential studies and Chang and Carroll's work on color categories. This also leads to a proposal for a 'universal' structure for the first 3 dimensions which correlates with Osgood's work, but also has interesting relations to Peirce's triadic system and communication theory.