## Metaphors of Color Space in Latin

In modern color studies, the metaphor of "color space" is pervasive and foundational (for just two examples, see Rosch Heider and Oliver 1972, Lindsay and Brown 2006). Major models of color relations all use some version of a two- or three-dimensional color space to represent the relations of colors to one another with respect to their hue, saturation, and lightness (see for example Munsell 2016). Additionally, color researchers typically talk about color space as if it were some kind of cognitive reality that language strives to represent, and MacLaury's Vantage Theory assumes explicitly that all color cognition is founded on the relationship of various "vantages" in a cognitive color space (MacLaury 1997).

But much modern research on color cognition has been criticized for inappropriately applying modern concepts of color cognition to ancient or primitive peoples' color language (Saunders and van Brakel 1997 and 1999, Wiersbicka 2008). The question then arises, did the ancients – and in particular, the Romans – have or use any concept of a "color space"?

The answer is, at least some of them did. Pliny the Elder (*Naturalis Historia*) and Aulus Gellius (*Atticae Noctes* 2.26) both discuss relations between colors using metaphors of space (for Pliny, see Wharton 2016). These authors – some of the very few ancient who actually talk about how colors are related to one another -- use expressions of location, proximity, direction, and motion that point to a metaphorically structured (Lakoff and Johnson 1980, Lakoff 1987) conceptualization of an abstract color space, wherein colors are conceived as regions, or where being a certain color is conceived as being in a region, and the regions themselves are conceived as having "fuzzy" and partially overlapping boundaries.

The presence of the color space metaphor in ancient authors, and the similarity of its geography to that of modern color space representations, supports the view that this element of color cognition is universal, and is not culturally bound.

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