



# The Rensselaer Color Measurement Laboratory

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Miss Dorothy Nickerson  
4800 Fillmore Avenue, Apt. 450  
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Dear Dorothy:

Is the Munsell System right-handed or left-handed? In discussions with Macbeth, for whom I now consult, I was asked this question.

In "A Color Notation," page 16, Mr. Munsell sketched the hue circle in his Fig. 1 using the fingers and thumb of the left hand, such that hue number increases and the hues progress R, Y, G, B, P in a clockwise direction when looked down on from above; this is what I call a left-handed system. (It is interesting to note that Mr. Munsell appeared to like to look at things from below, as indicated in his Figures 3 and 4.)

The left-handed system appears to have been used only a few times. It was used in NBS Circular 553 on the ISCC-NBS system (assuming one IS looking down on the constant-value planes from the top), but the Color Tree shown on the cover of NBS 440 is right-handed. All three editions of Judd's book have a diagram that is left-handed if, again, one assumes that you look down on it, but the second and third editions have a perspective drawing that is unambiguously right-handed. Most modern Munsell product literature show a left-handed system, but the Munsell Book of Color, spread open, is right-handed. Some other "authorities" (such as Billmeyer and Saltzman) appear to be totally confused.

All the other systems I could think of quickly -- CIEx,y; Adams-Nickerson; CIELAB, CIELUV; and OSA, for example, are right-handed. Possibly in consequence, your figures for the paper you are doing for COLOR show the Munsell constant-value planes right-handed.

Should there be a convention? And if so, what should it be? The Macbeth people would like to know, and I would like to see both the journal and the second edition of Billmeyer and Saltzman (which is almost ready for the printers) do it right.

With very best wishes for the holidays.

Sincerely yours,

*Fred*  
Fred W. Billmeyer, Jr.