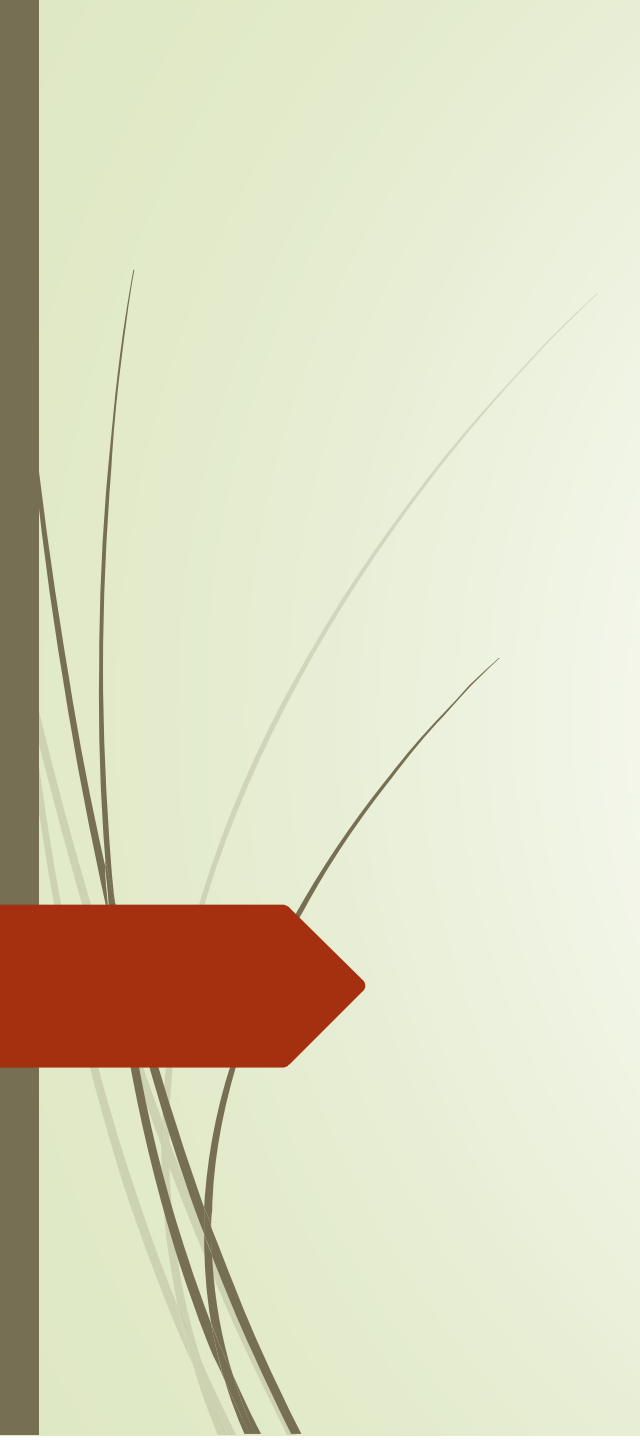


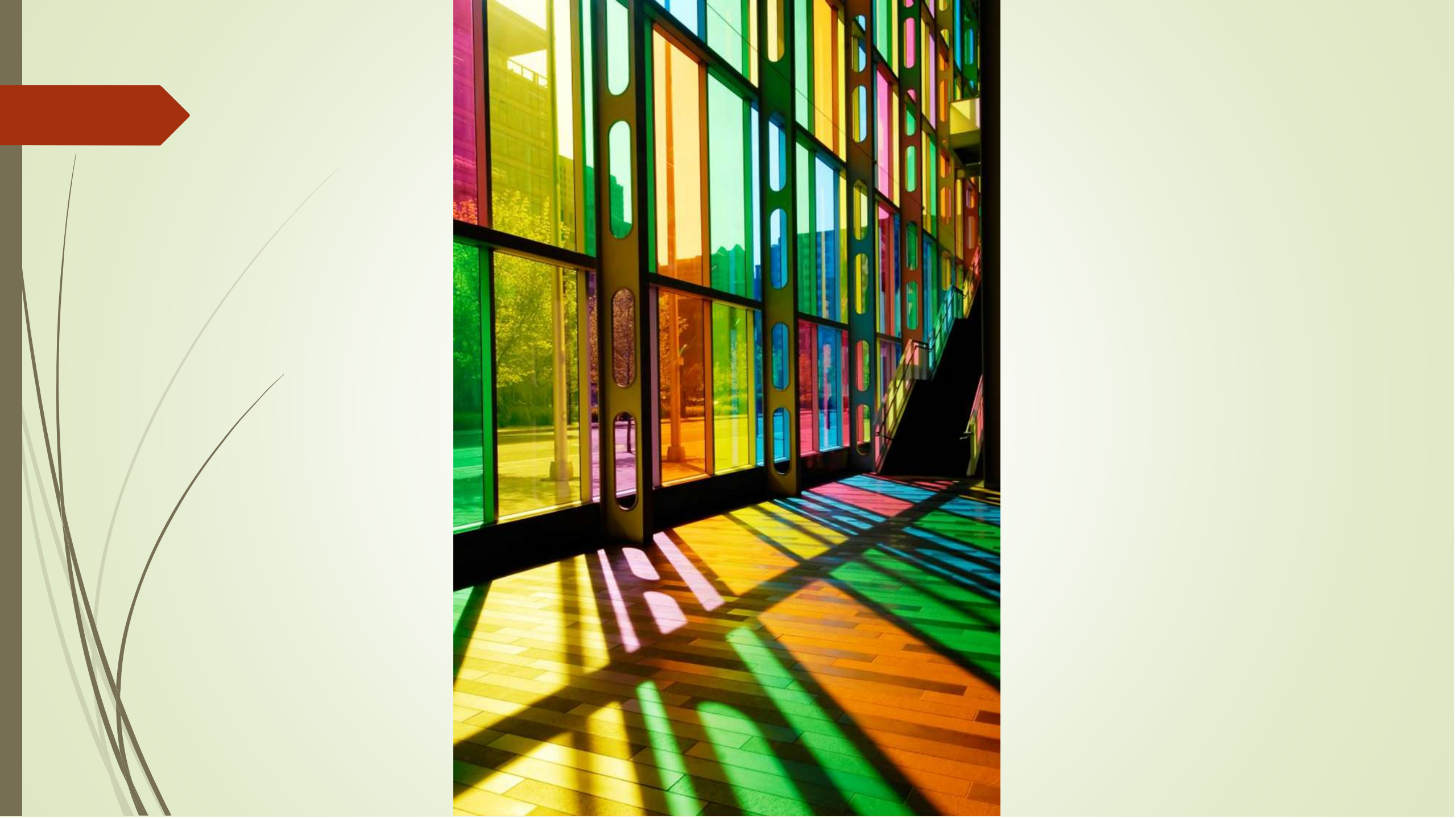


The Colours of Transparencies

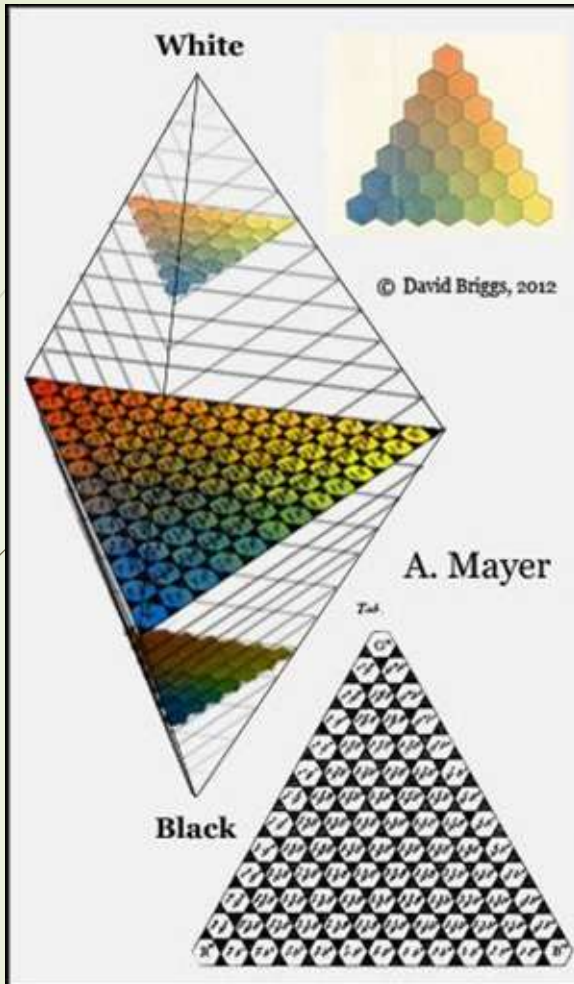
Will Davies

St Anne's College, University of Oxford

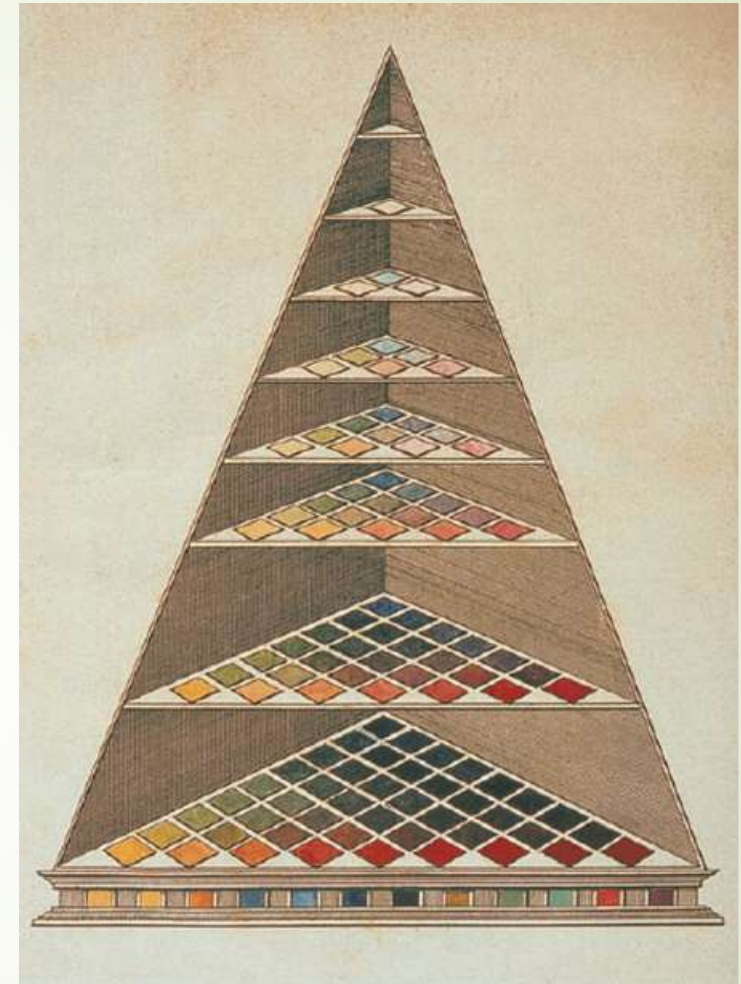




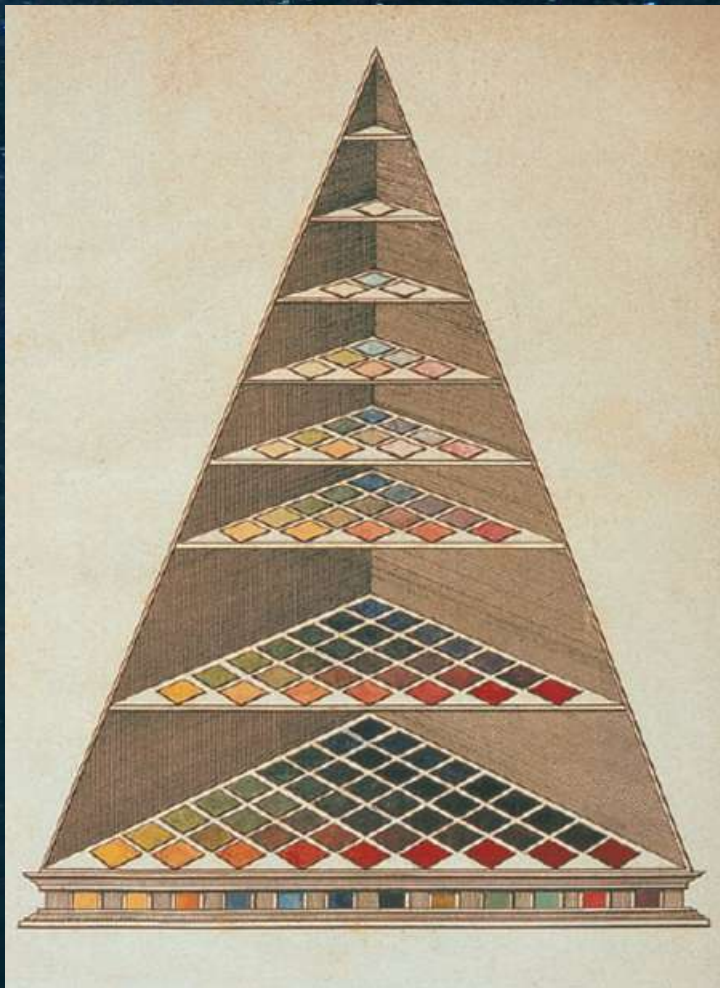




Tobias Mayer, 1758



J. H. Lambert, 1772



Transparent



Opaque

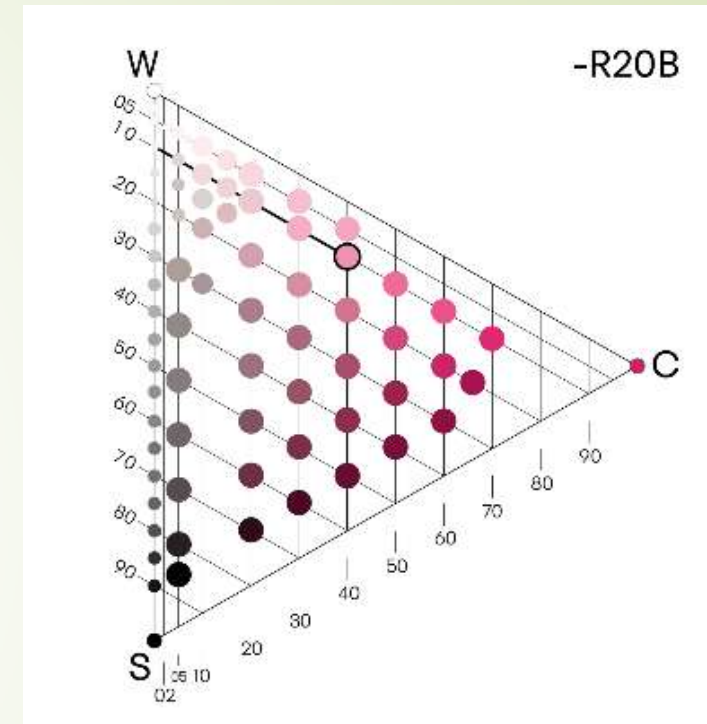
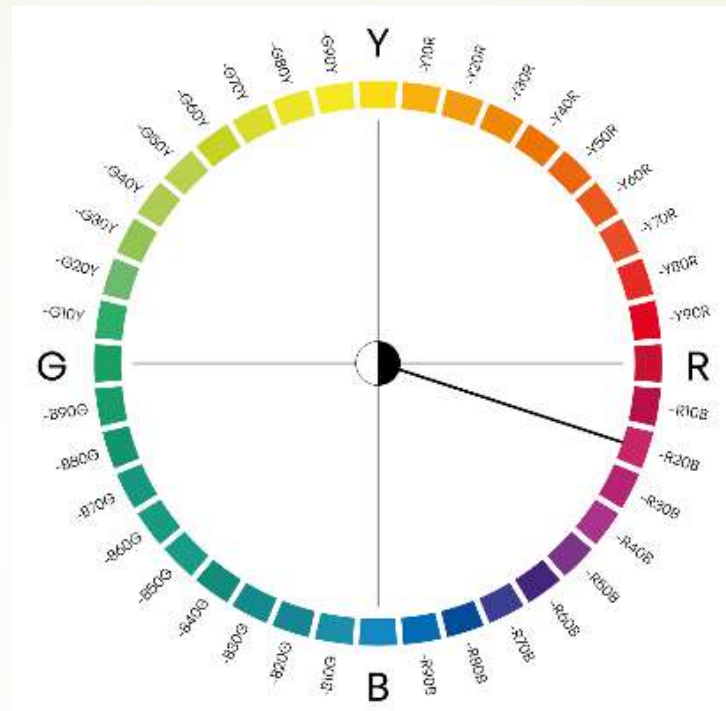
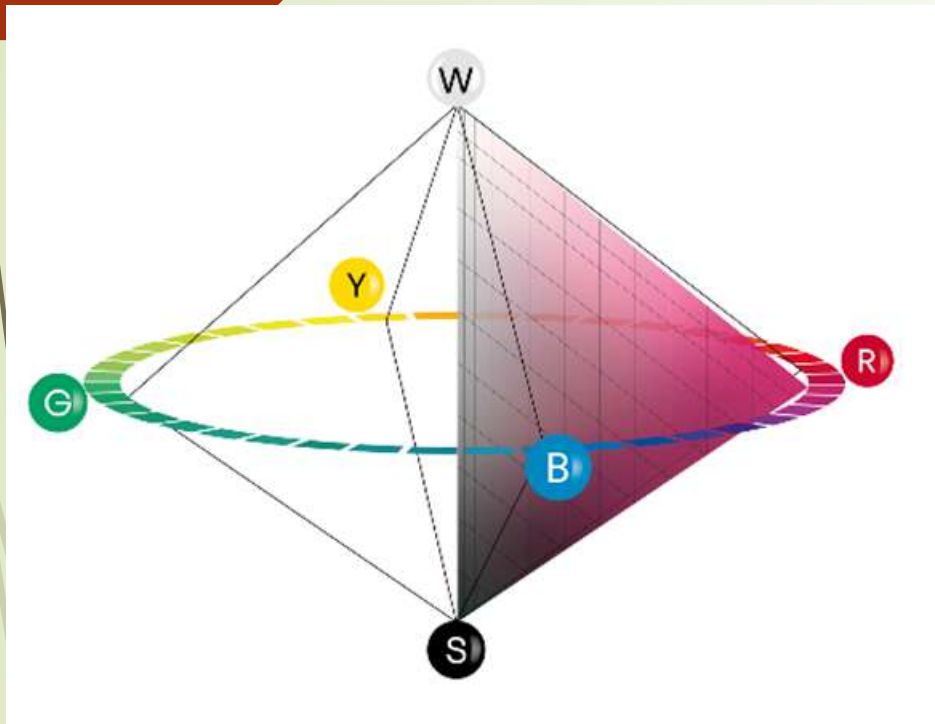


Figure X. (a) NCS solid, (b) hue circle, (c) colour triangle. Source: <https://ncscolour.com/en-int/pages/the-system>





Incident
beam

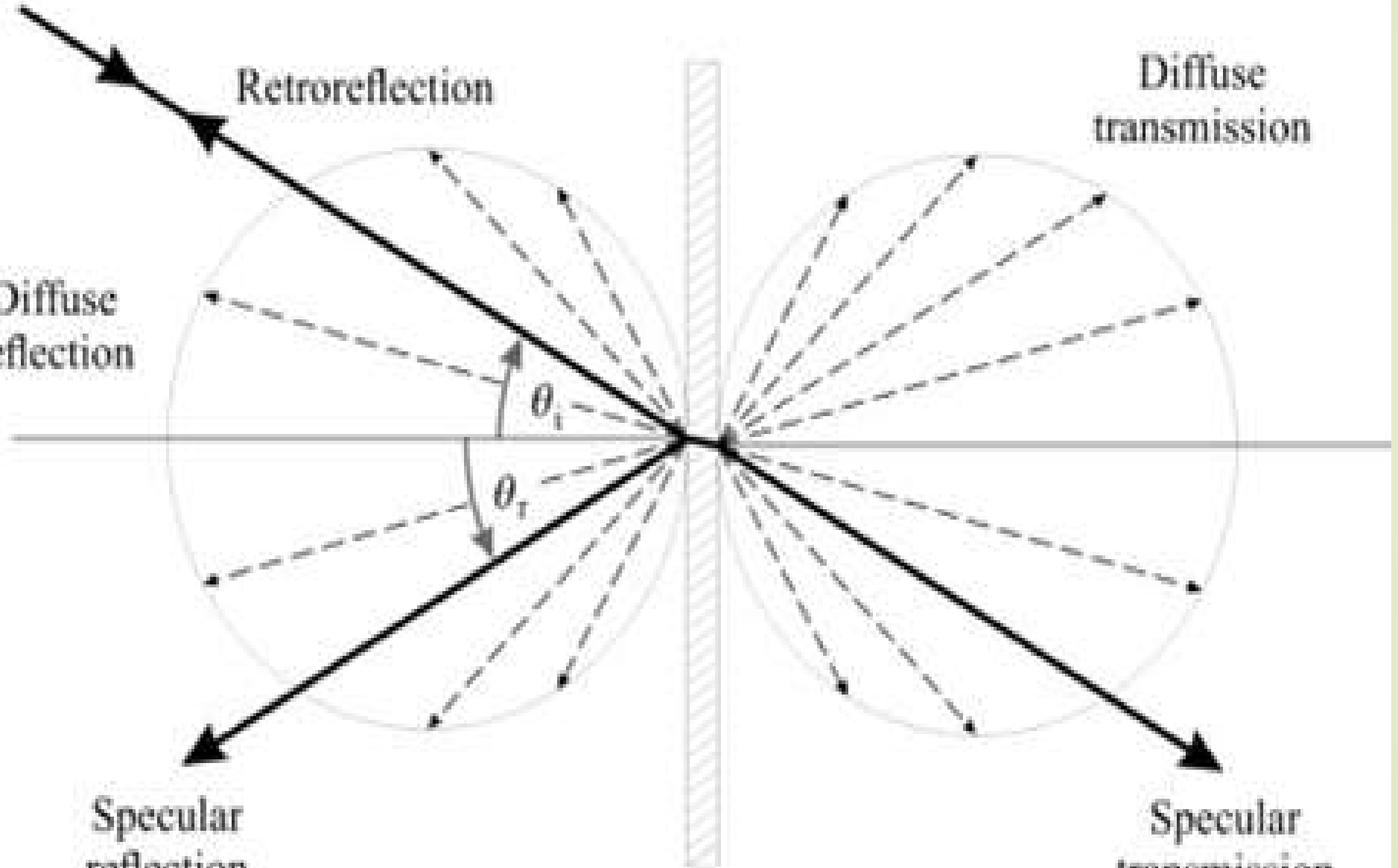
Retroreflection

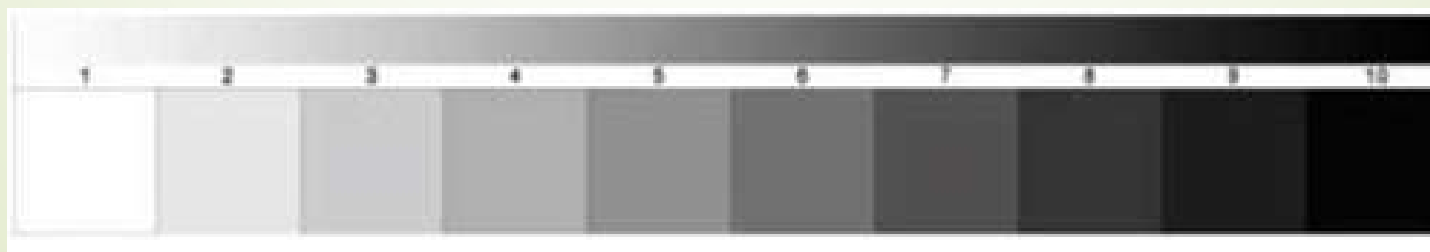
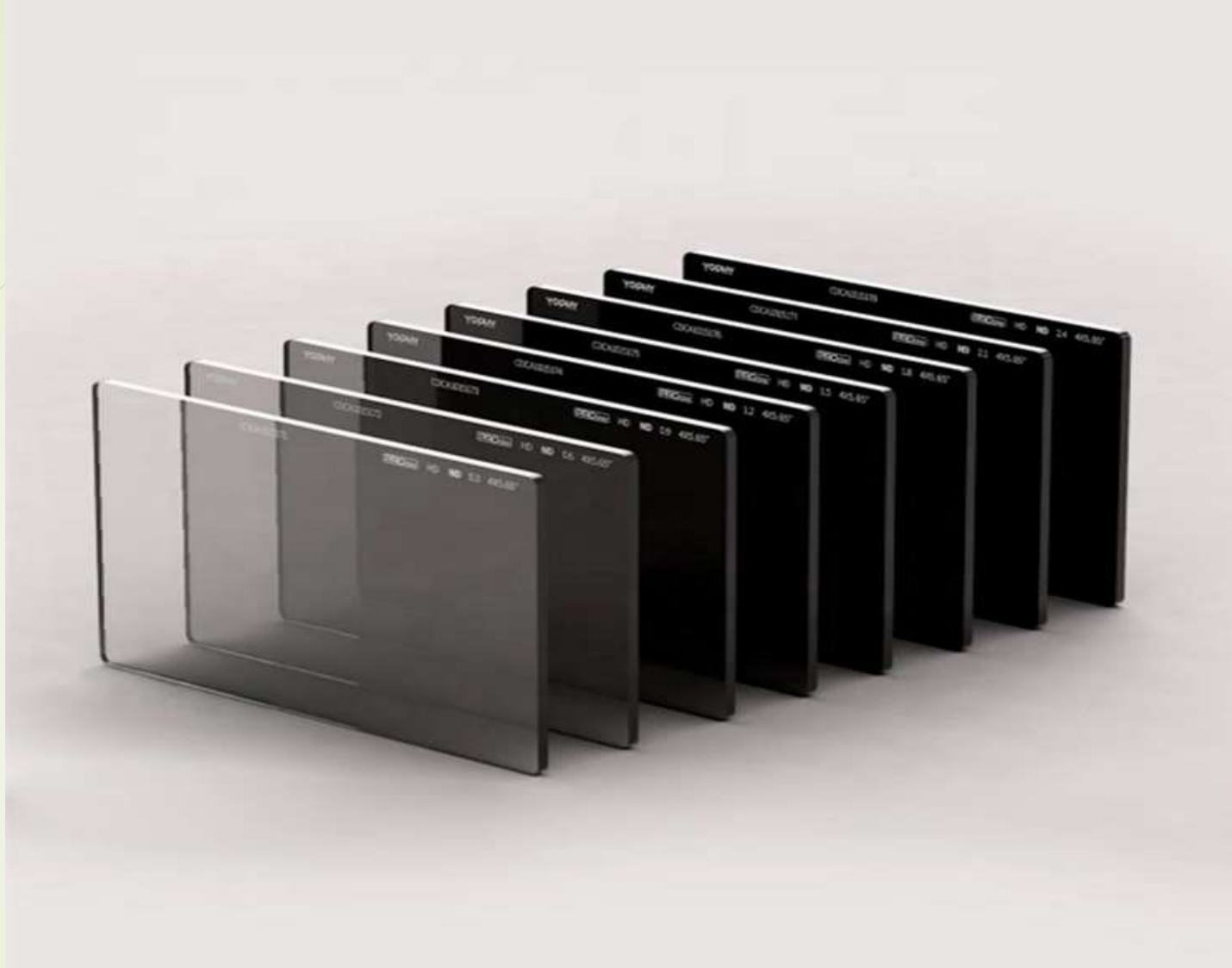
Diffuse
transmission

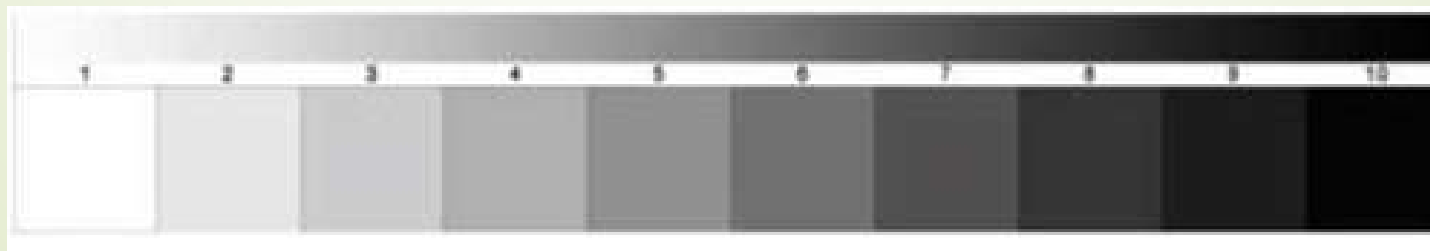
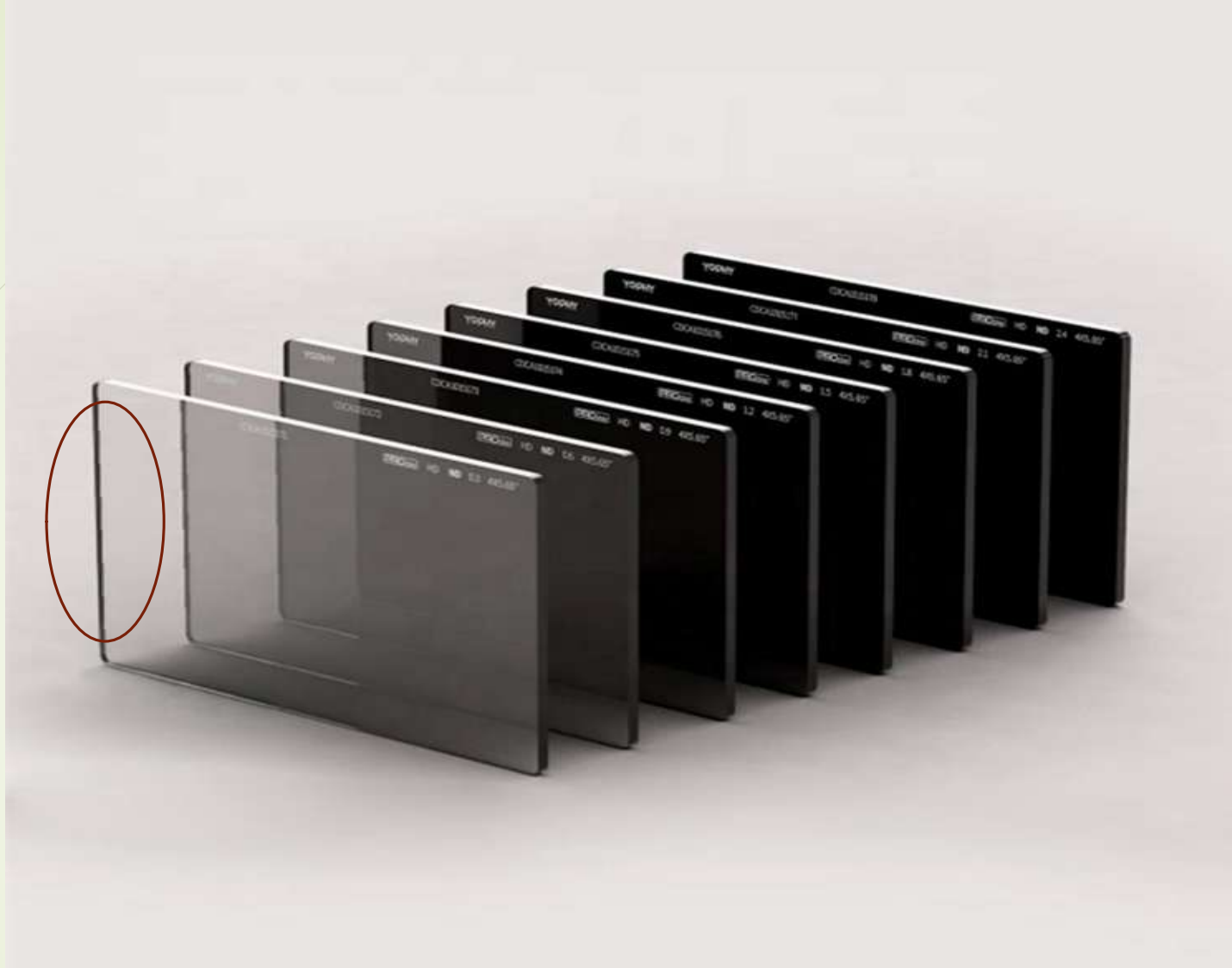
Diffuse
reflection

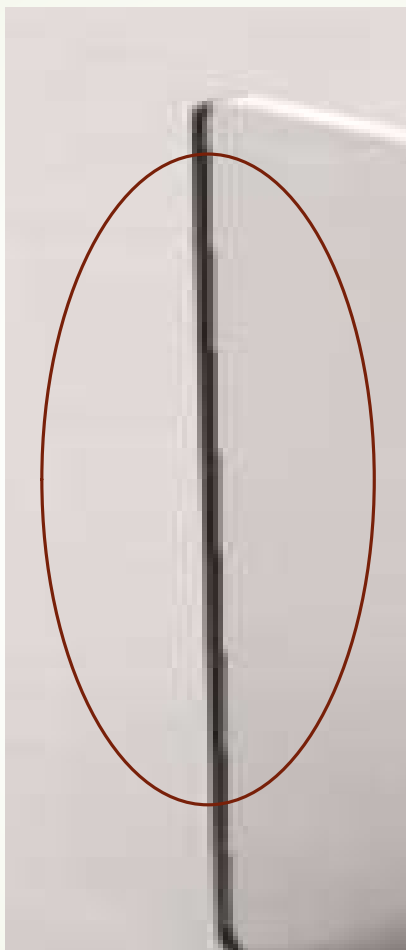
Specular
reflection

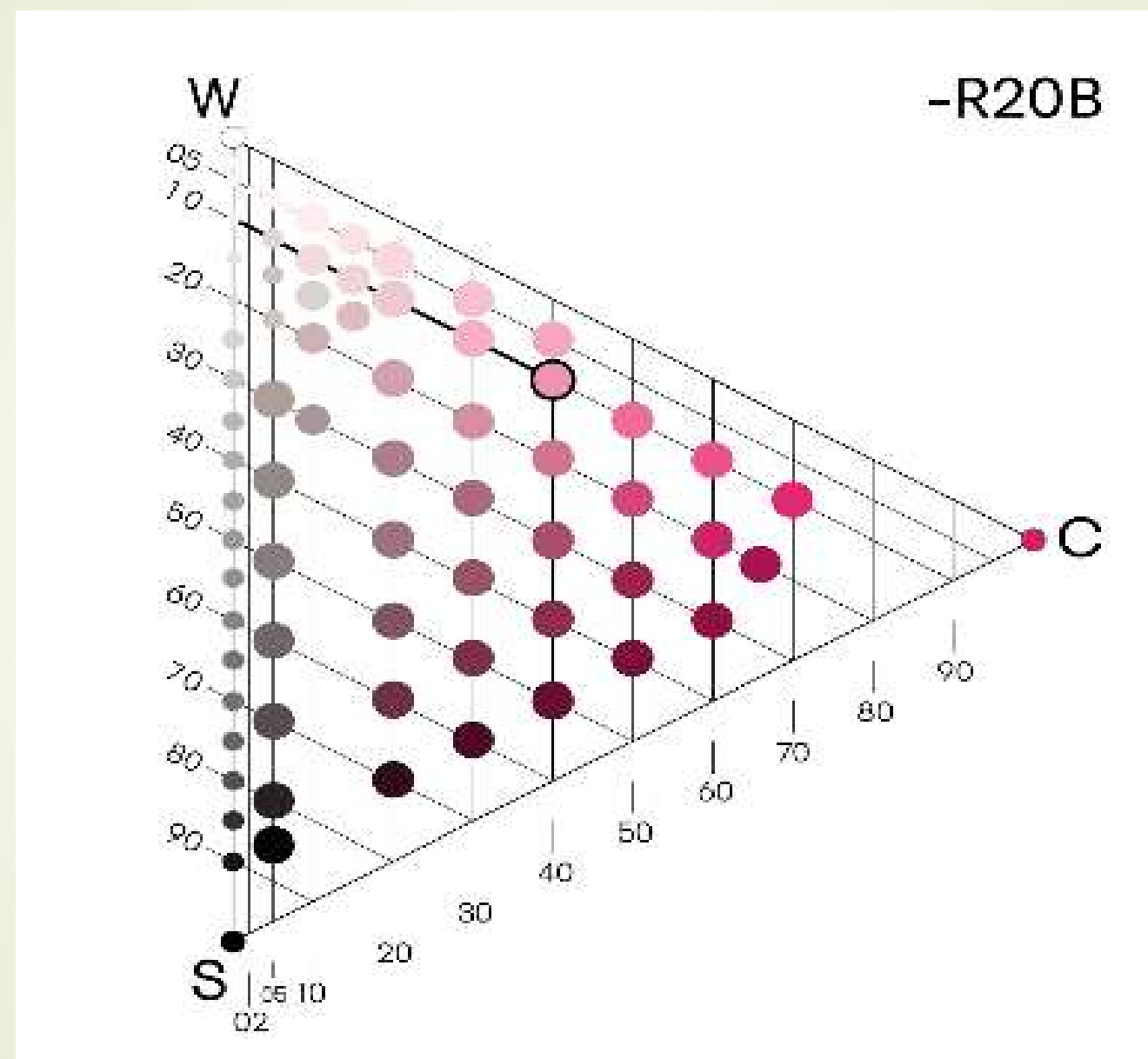
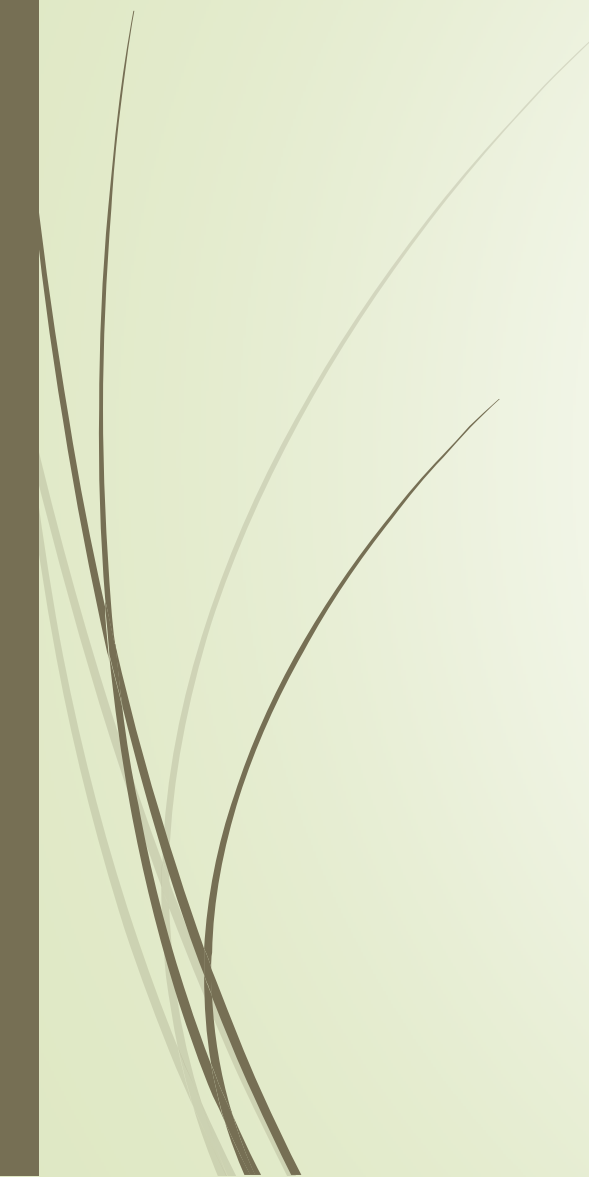
Specular
transmission





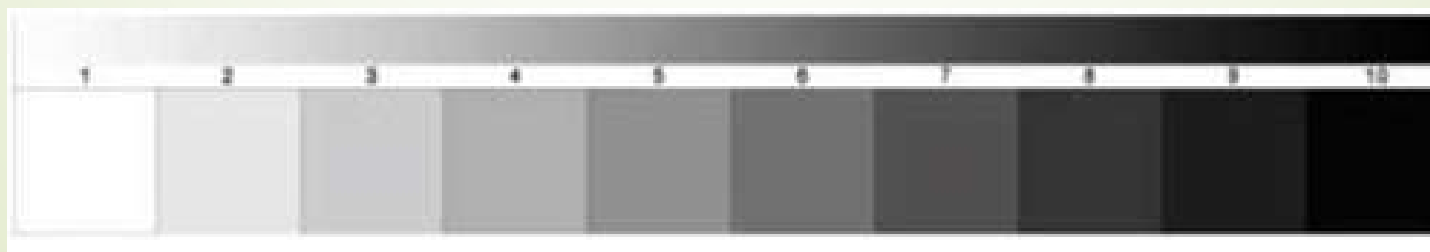
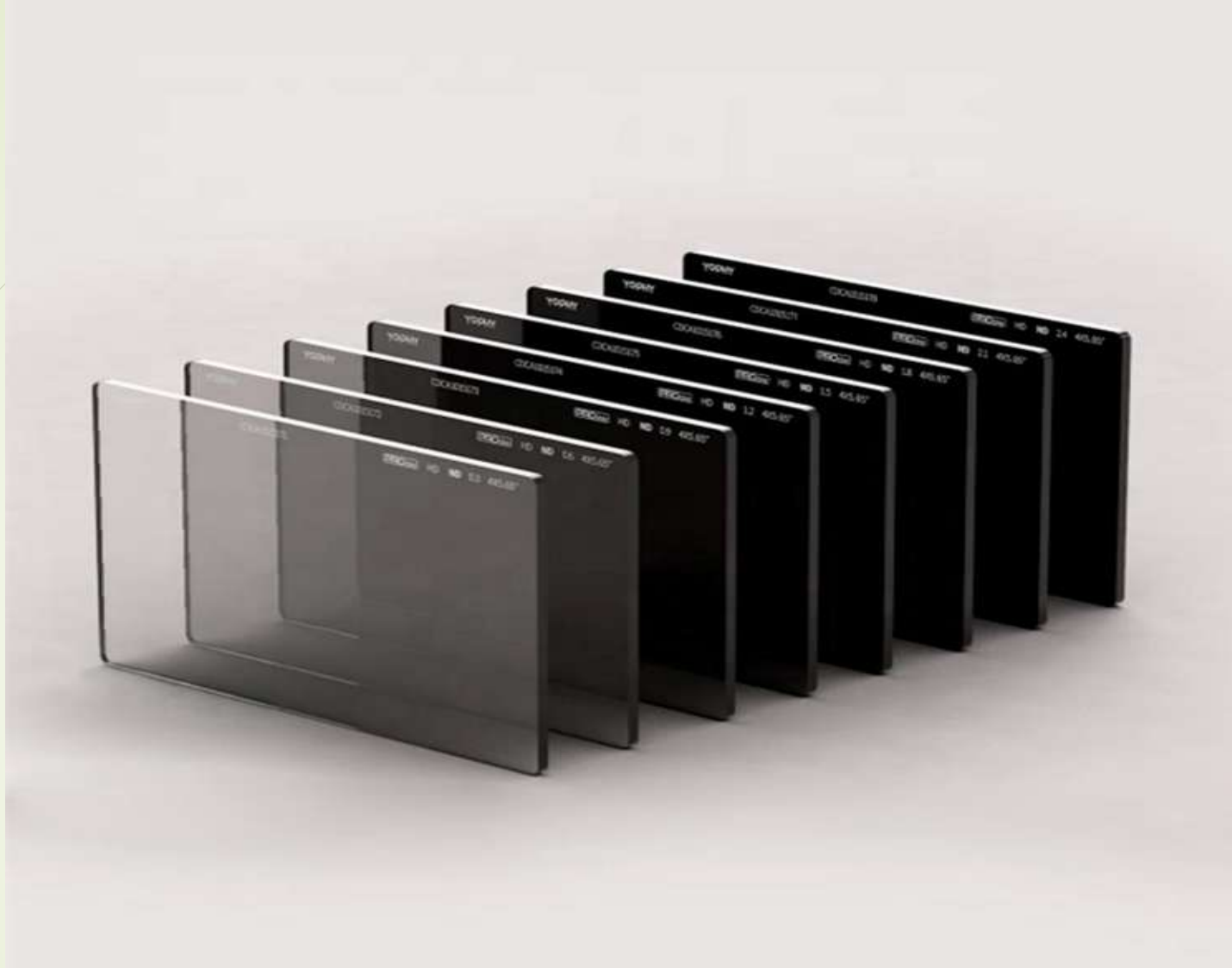














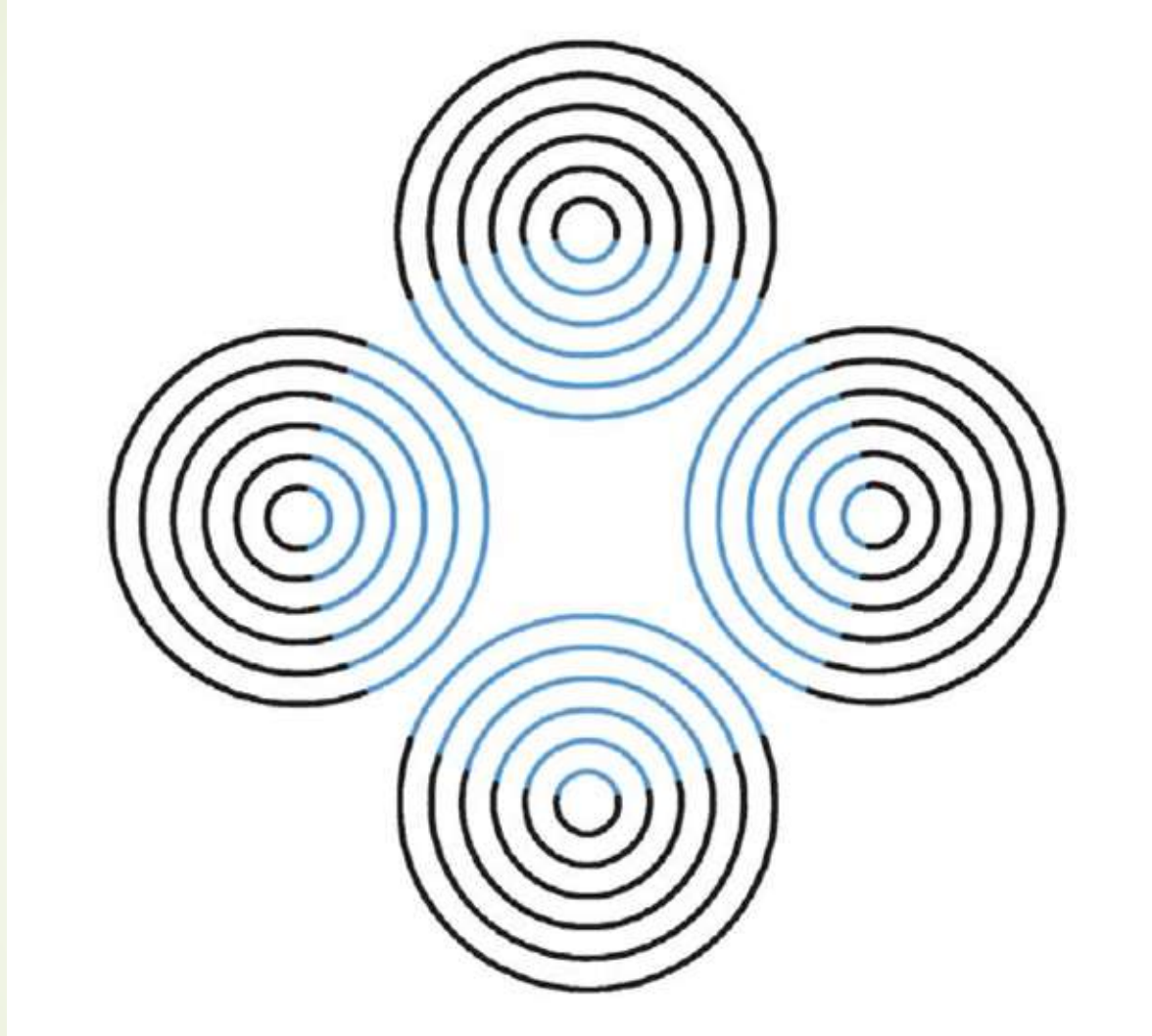


Figure 8. Neon colour spreading. Source: Pinna & Grossberg (2005).



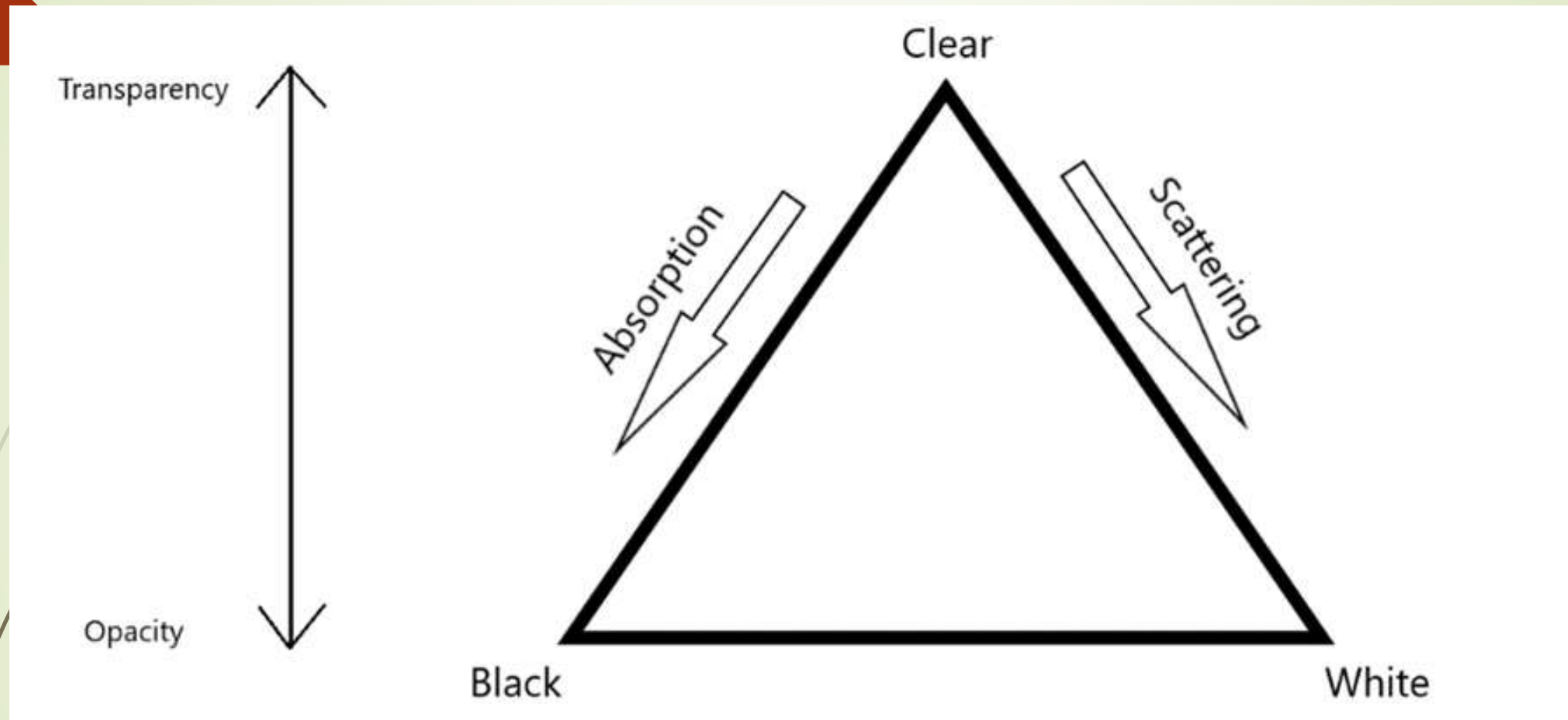
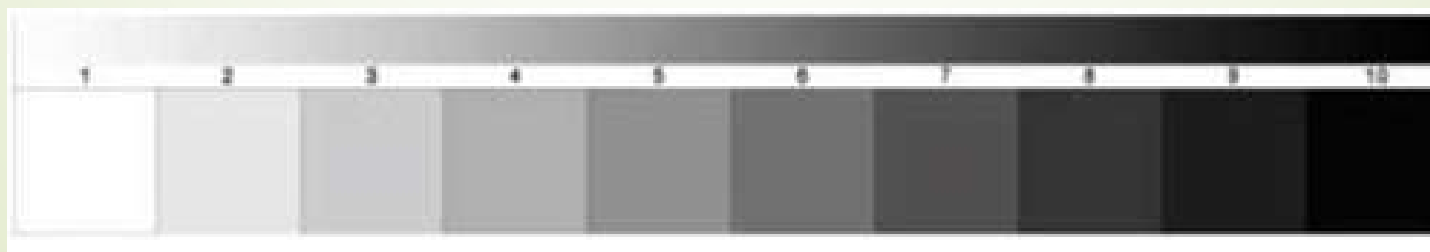
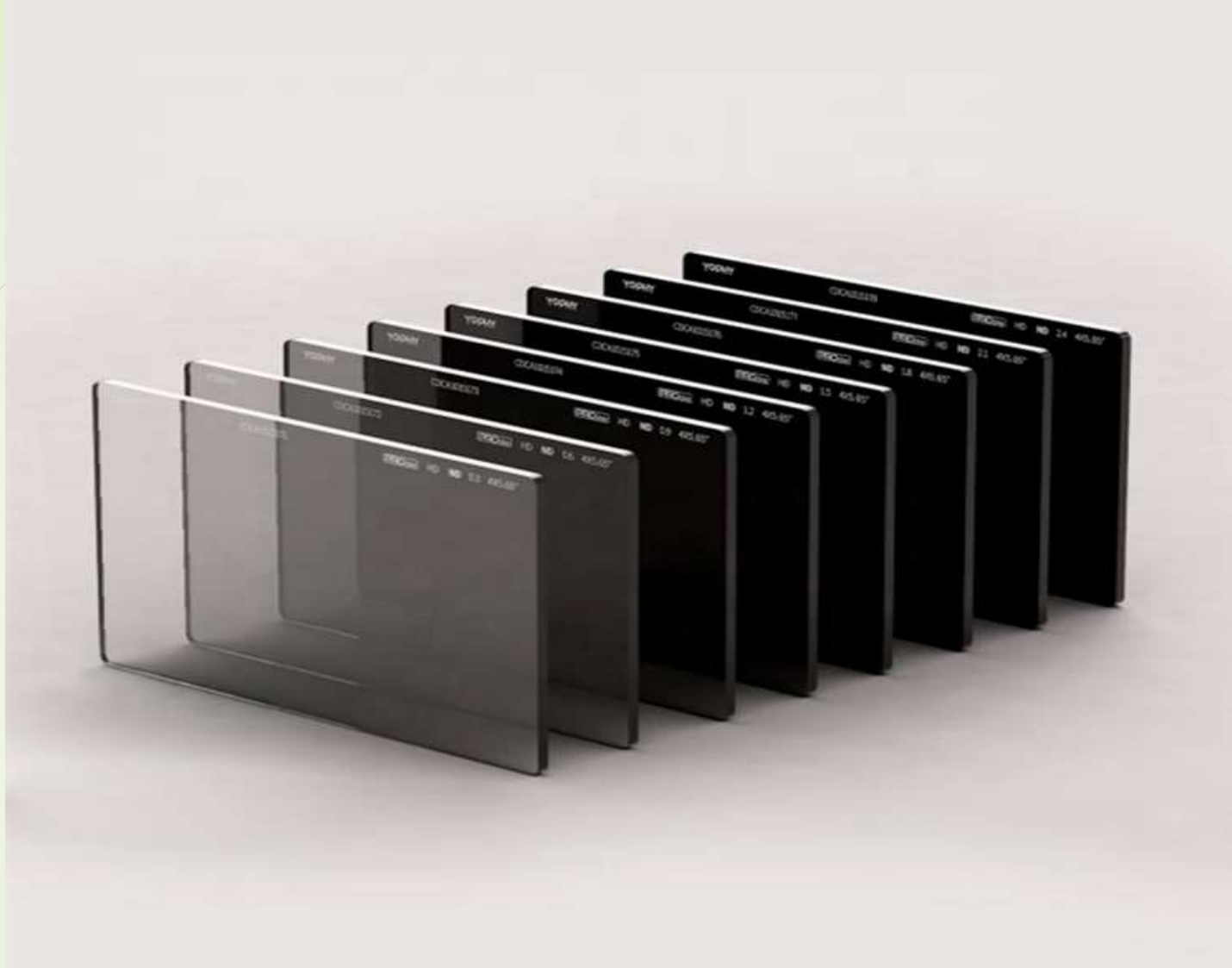
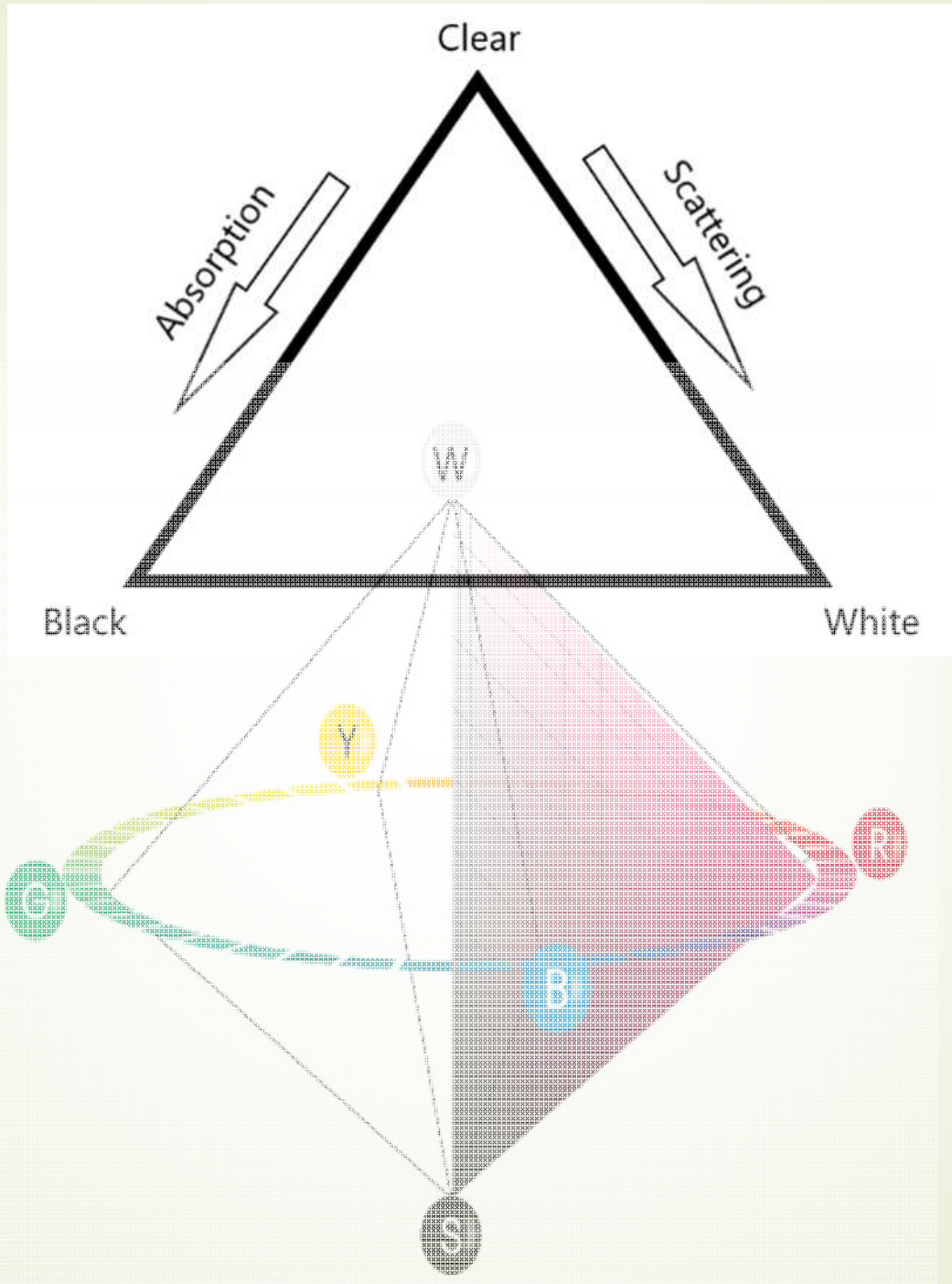
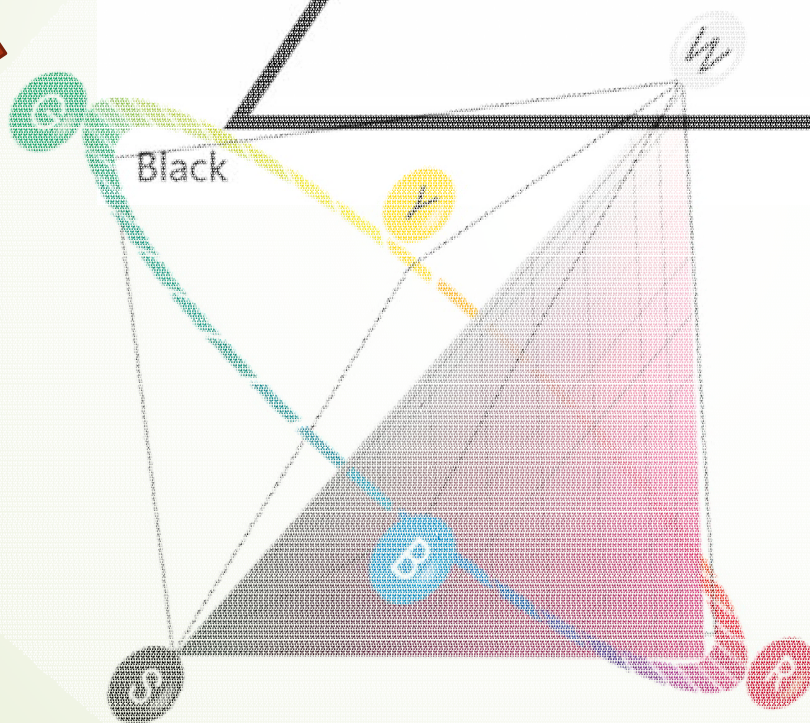
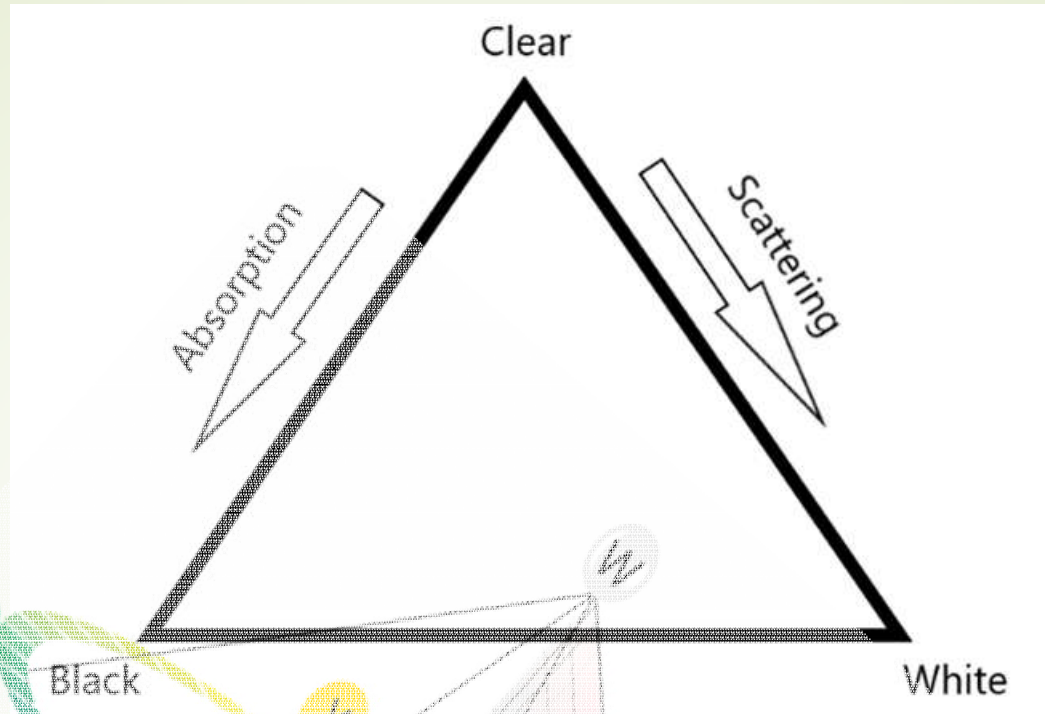
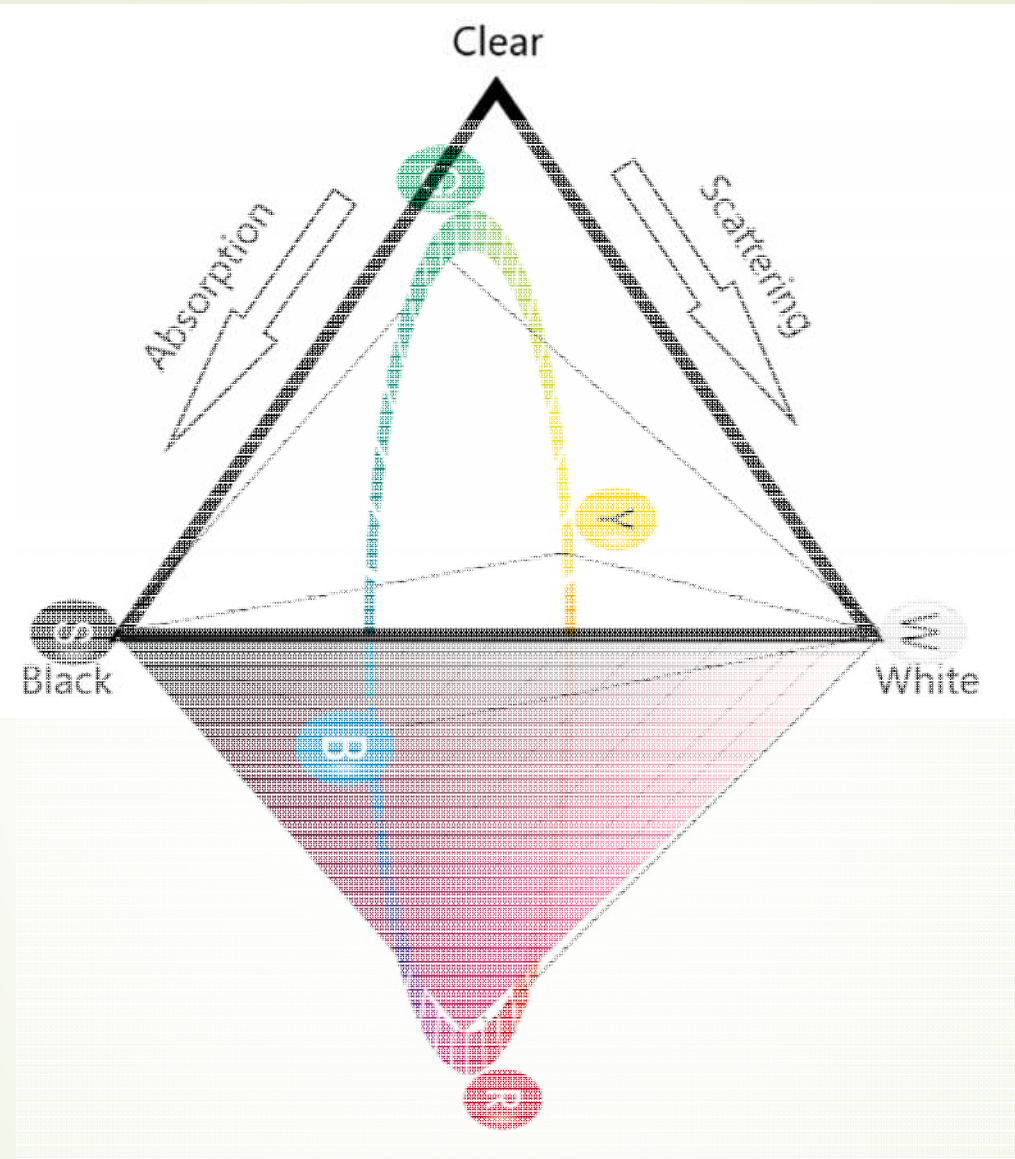


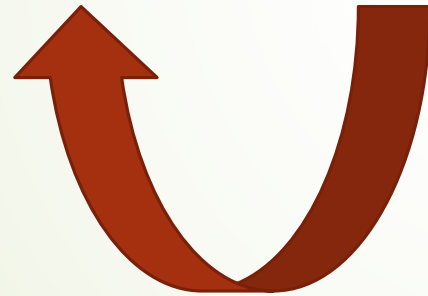
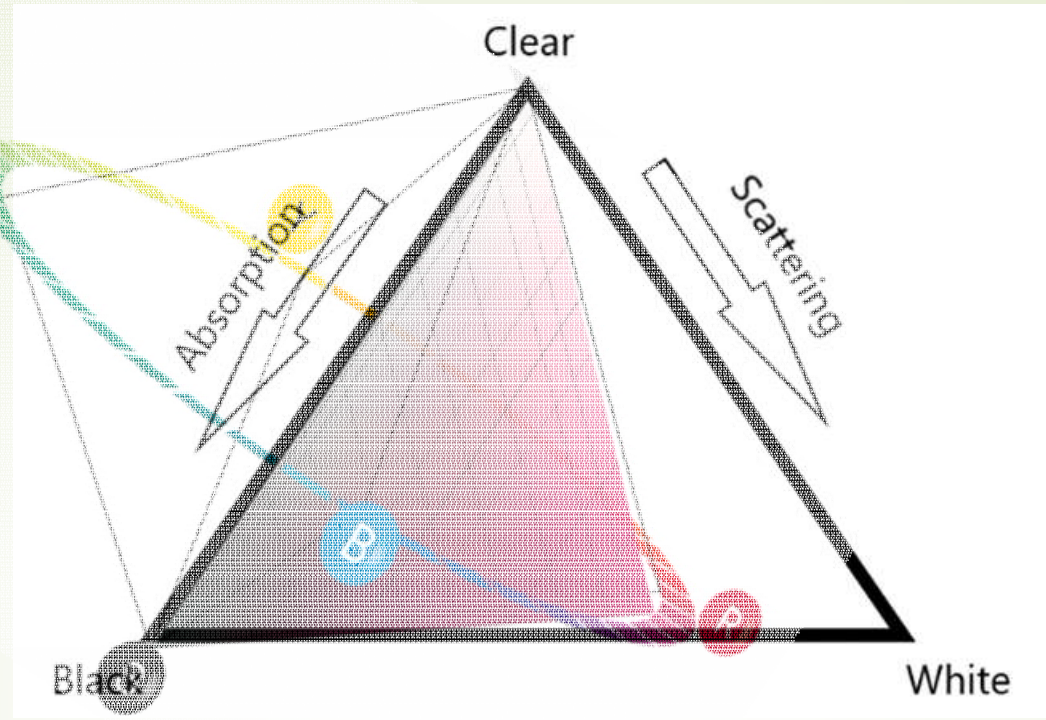
Figure X. Transparency-Opacity Manifold













Thanks!