

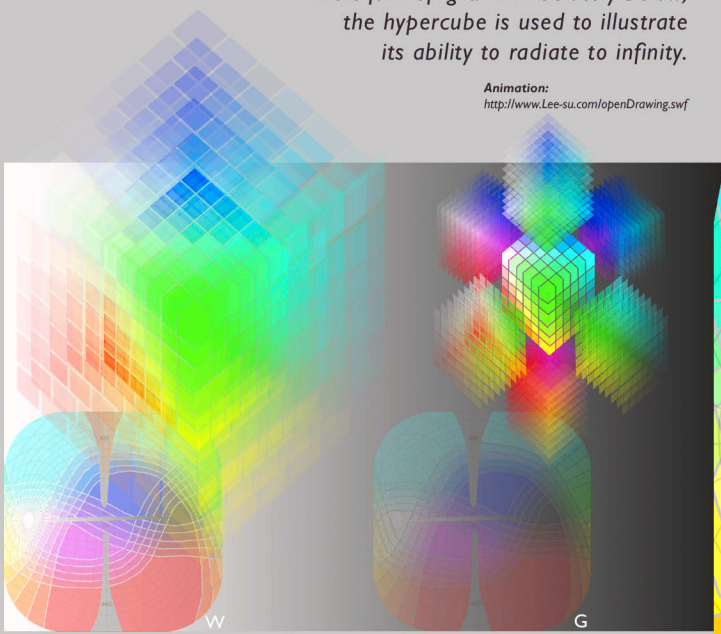
# Sketches of Light

## from the Shoulders of Giants

### Overview of Four-Dimensional (4-D) Color System

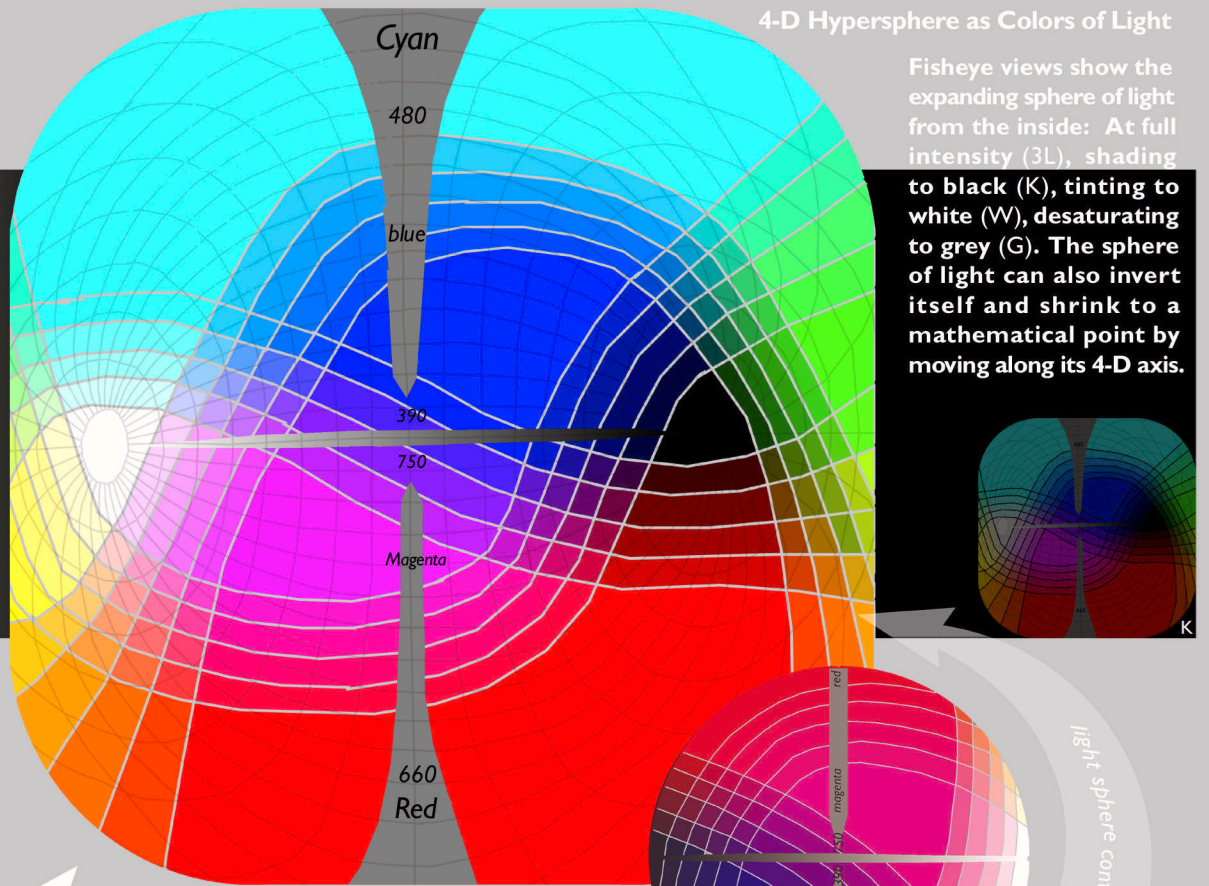
A four-dimensional color system can diminish to a mathematical point & radiate to infinity in the form of light. Immediately below, the hypercube is used to illustrate its ability to radiate to infinity.

Animation:  
<http://www.Lee-su.com/openDrawing.swf>



### 4-D Hypersphere as Colors of Light

Fisheye views show the expanding sphere of light from the inside: At full intensity (3L), shading to black (K), tinting to white (W), desaturating to grey (G). The sphere of light can also invert itself and shrink to a mathematical point by moving along its 4-D axis.

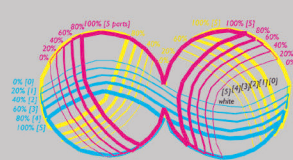


### 4-D Hypersphere Representing Colors of Paint

The hypersphere appears as a sphere in 3-dimensions; however, it can diminish to a mathematical point as shown below, and expand to infinity.

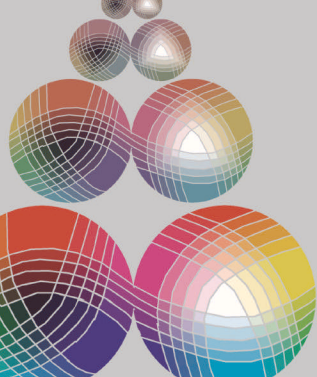
Animation:  
<http://www.Lee-Su.com/4dColorSpace.swf>

saturation axis (add opponent color)



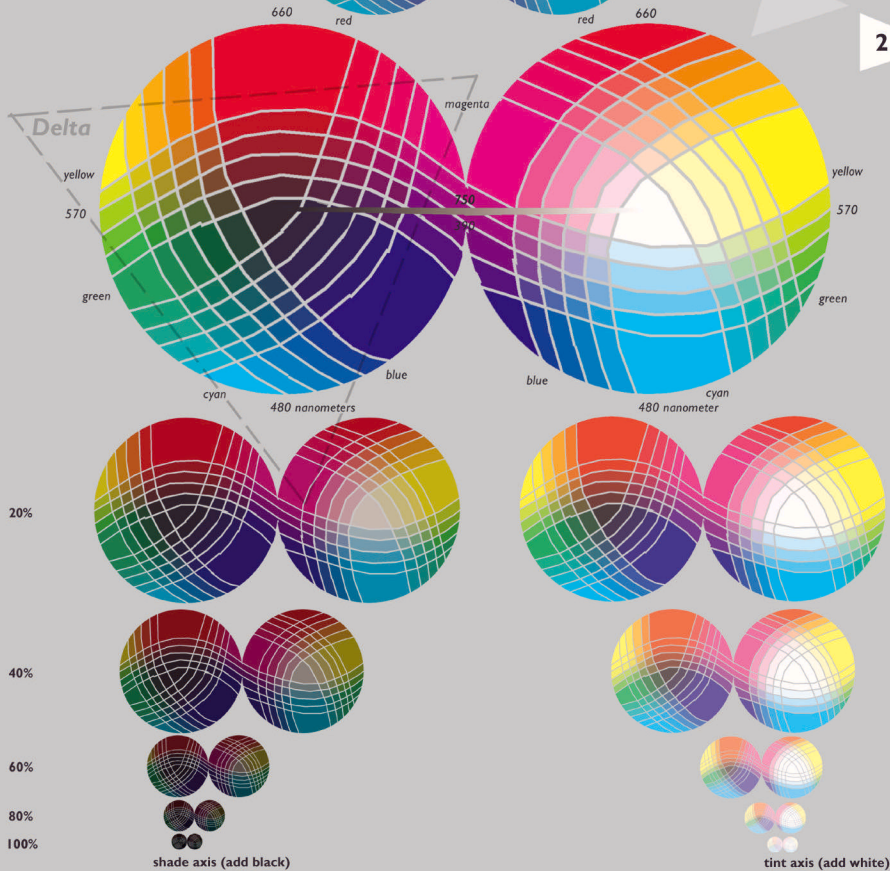
### Paint Mixing Index

The index above shows Cyan (C), Magenta (M), Yellow (Y), & White (W) mixtures. CMYW is suitable for mixing paint to cover surfaces opaquely while keeping colors brilliant - more so than CMYK (K is Black); Instead, black is used only to shade the resulting CMYW colors when absolutely necessary.



3L View of Light Sphere from Within

3P Side of Paint Sphere After Separation of Light Sphere



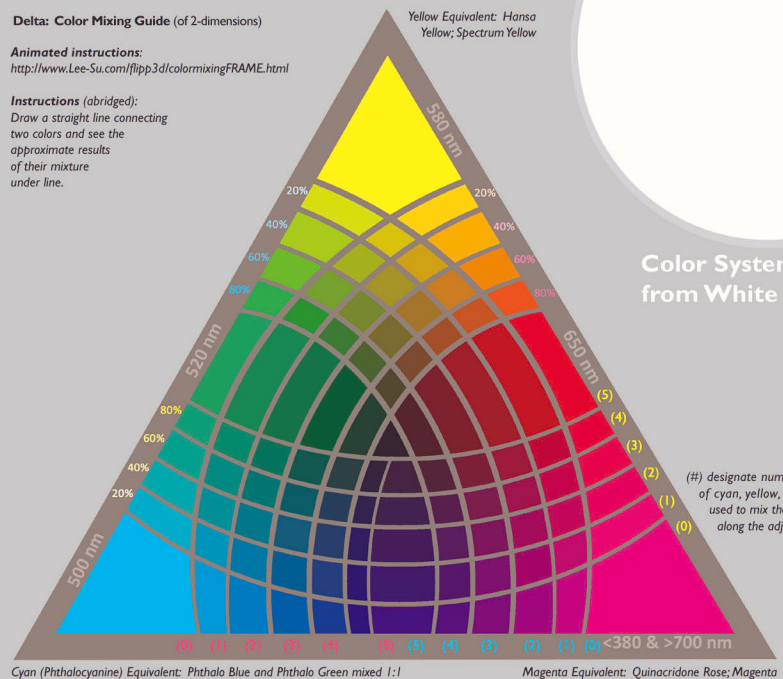
2 Section of White Orb (Light Separating from Paint Colors)

1 Side View of a White Orb of Light

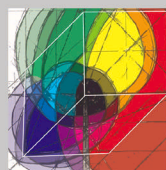
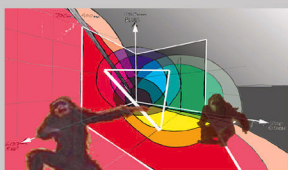
### Delta: Color Mixing Guide (of 2-dimensions)

Animated instructions:  
<http://www.Lee-Su.com/flip3d/colormixingFRAME.html>

Instructions (abridged):  
Draw a straight line connecting two colors and see the approximate results of their mixture under line.



Color System Distilled from White Light Orb



Isaac Newton Johann Wolfgang Goethe CIE 1931 & subsequent color scientists Carl Fasano Edwin Abbott Abbott Josef Albers Albert Einstein Richard Feynman