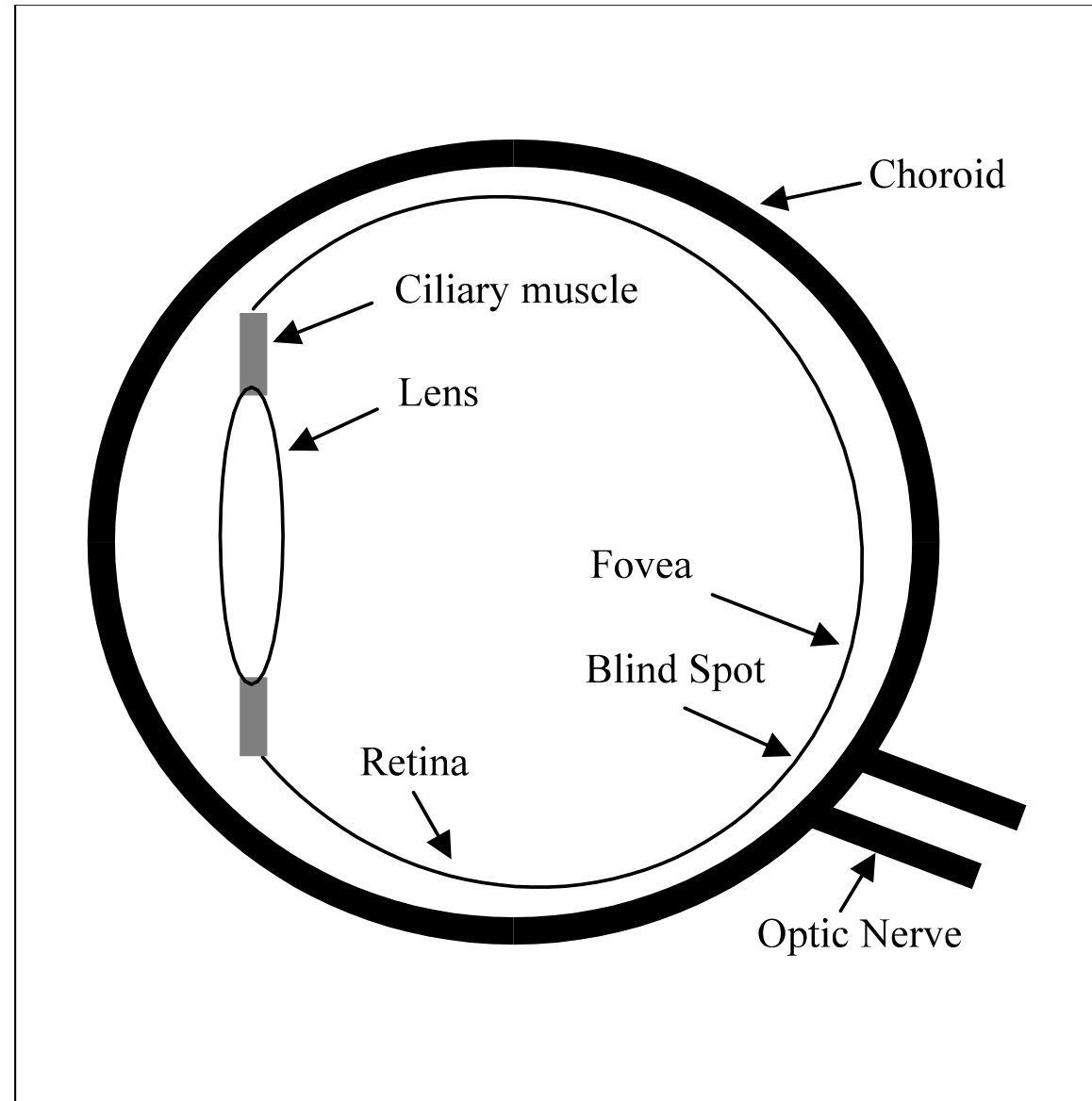
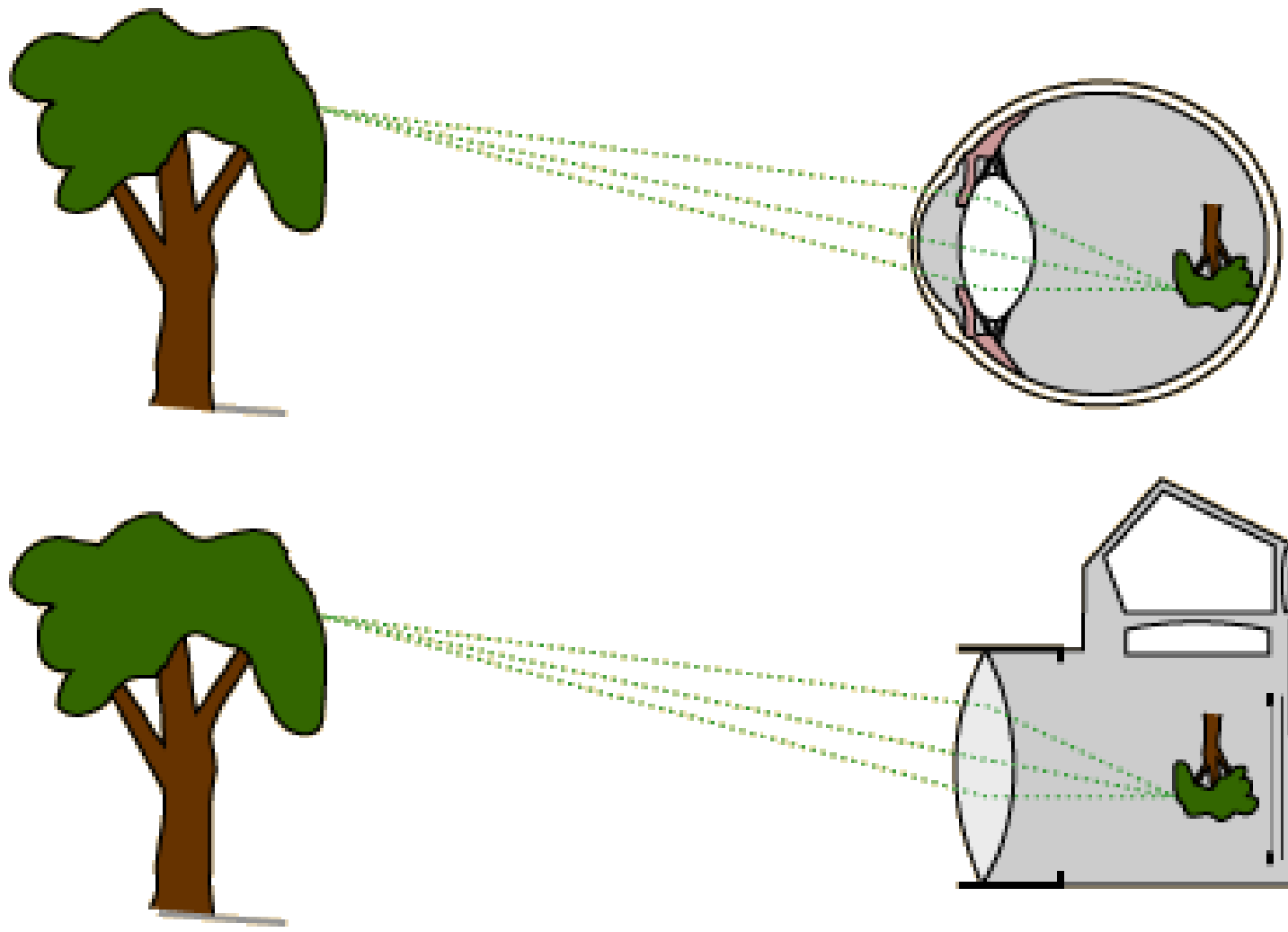


# Lecture 1 Eye and Human Vision

COMP3204 & COMP6223 Computer Vision

**Is human vision a good model for computer vision?**





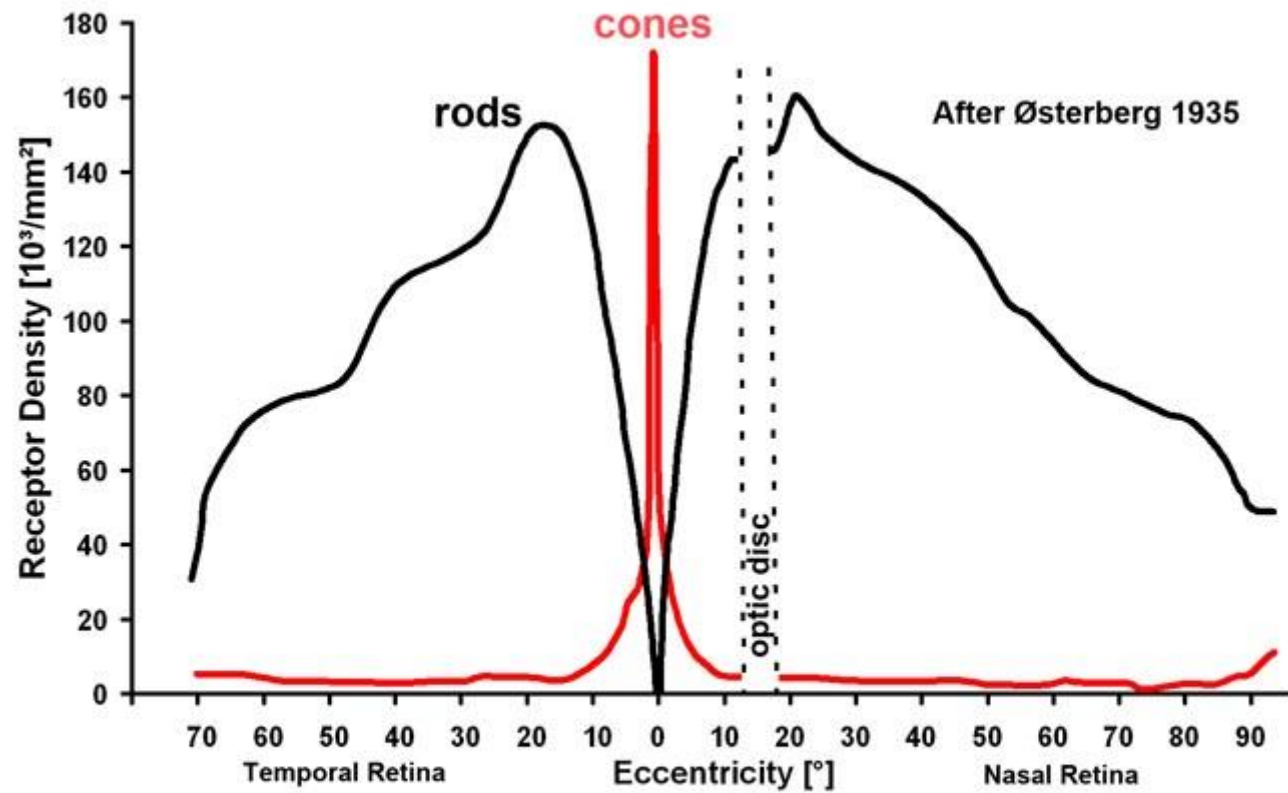
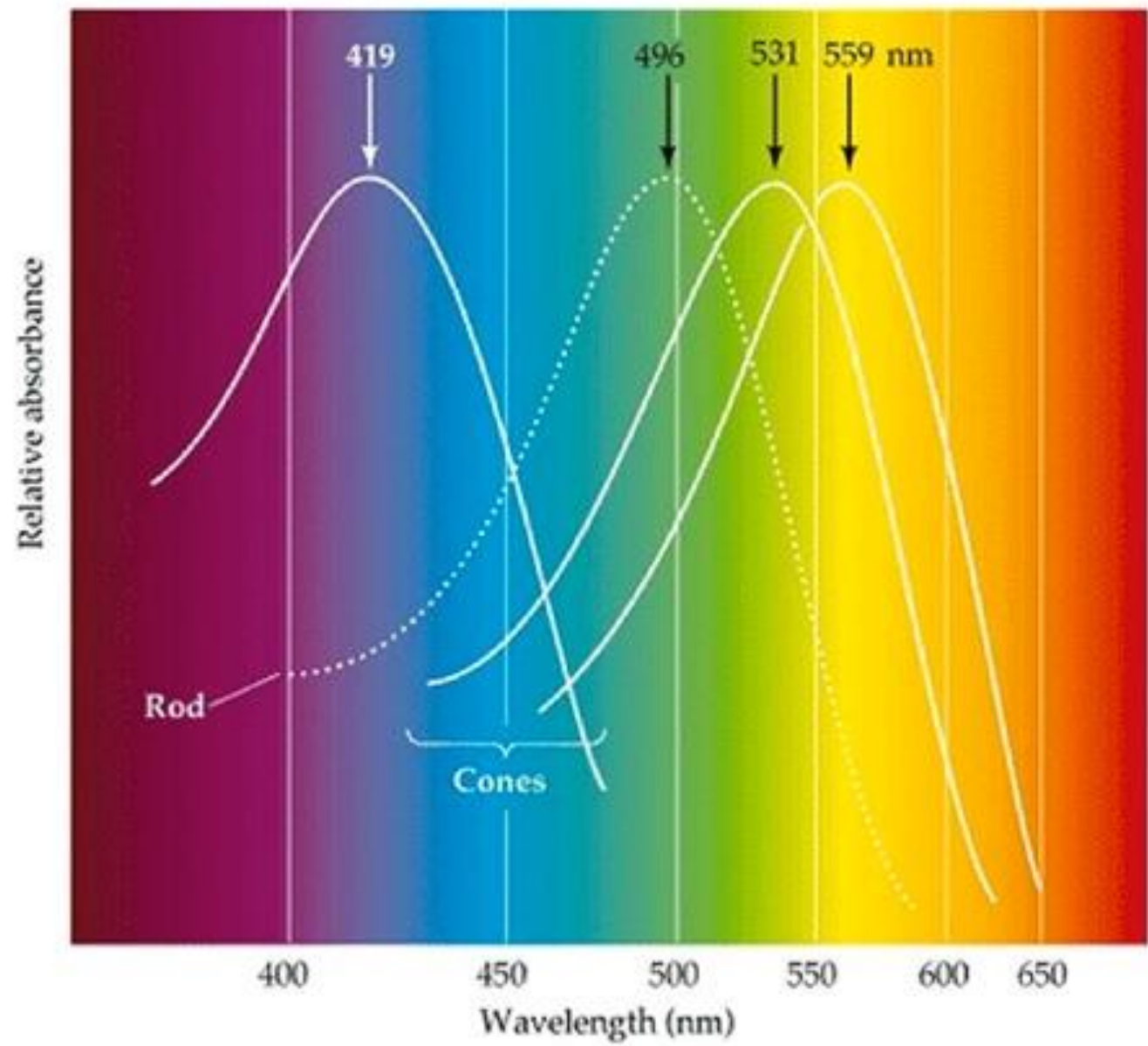


Fig. 20. Graph to show rod and cone densities along the horizontal meridian.



<http://webvision.med.utah.edu/wp-content/uploads/2011/03/Spectrum.jpeg>

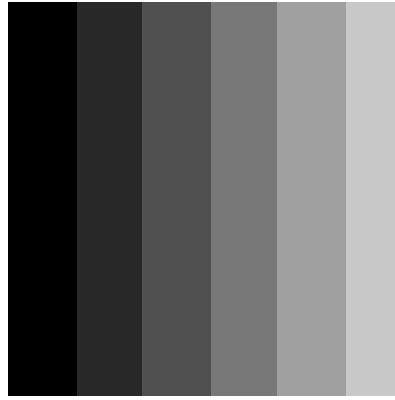
Spectral response



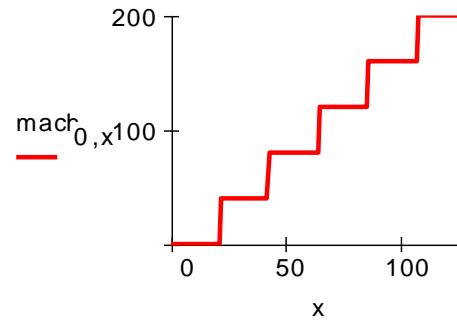
Blue

Red

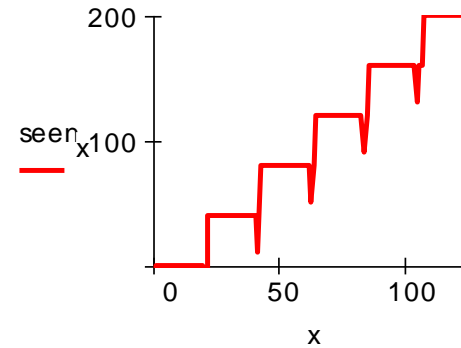
**Spectral Response of Sensors**



(a) image showing the Mach band effect



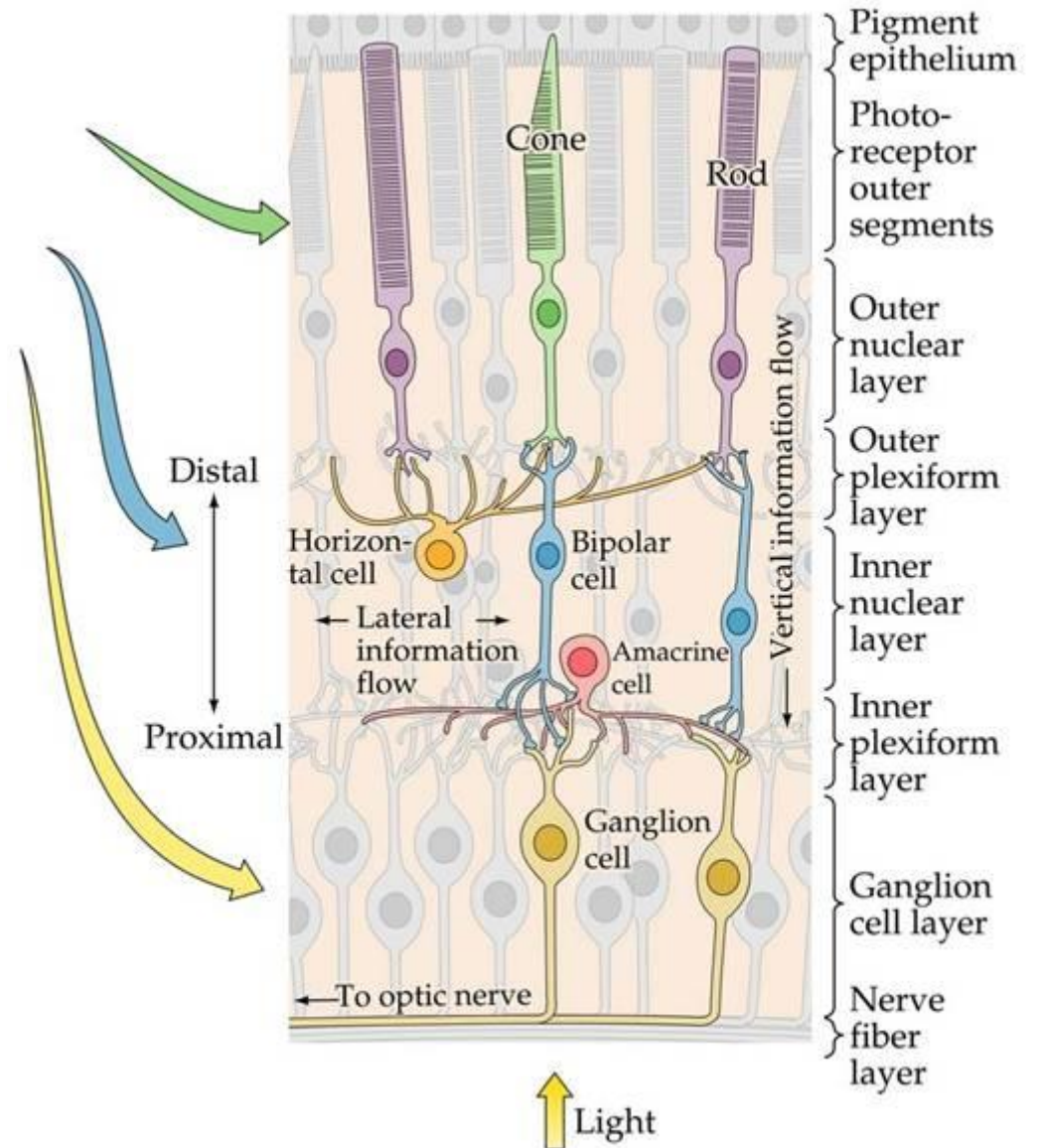
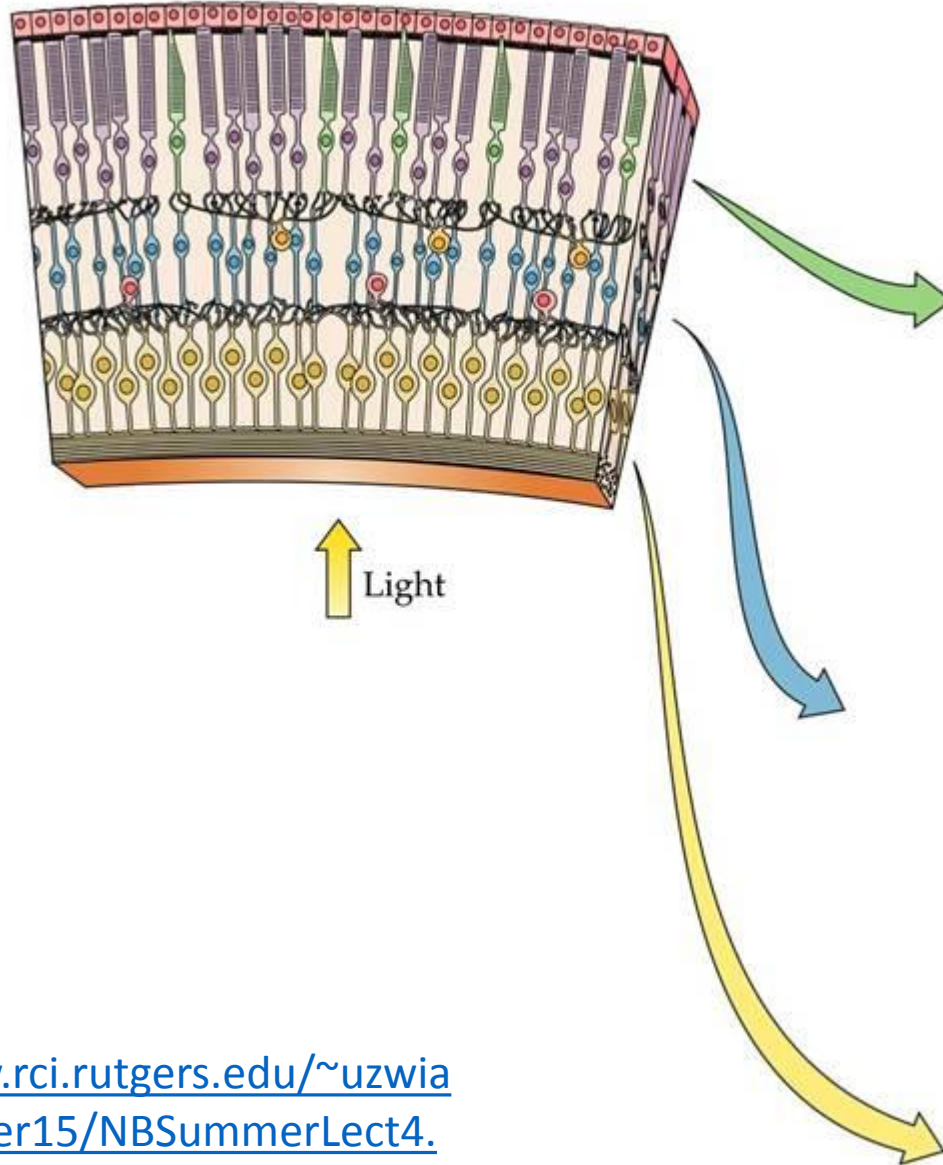
(b) cross-section through (a)



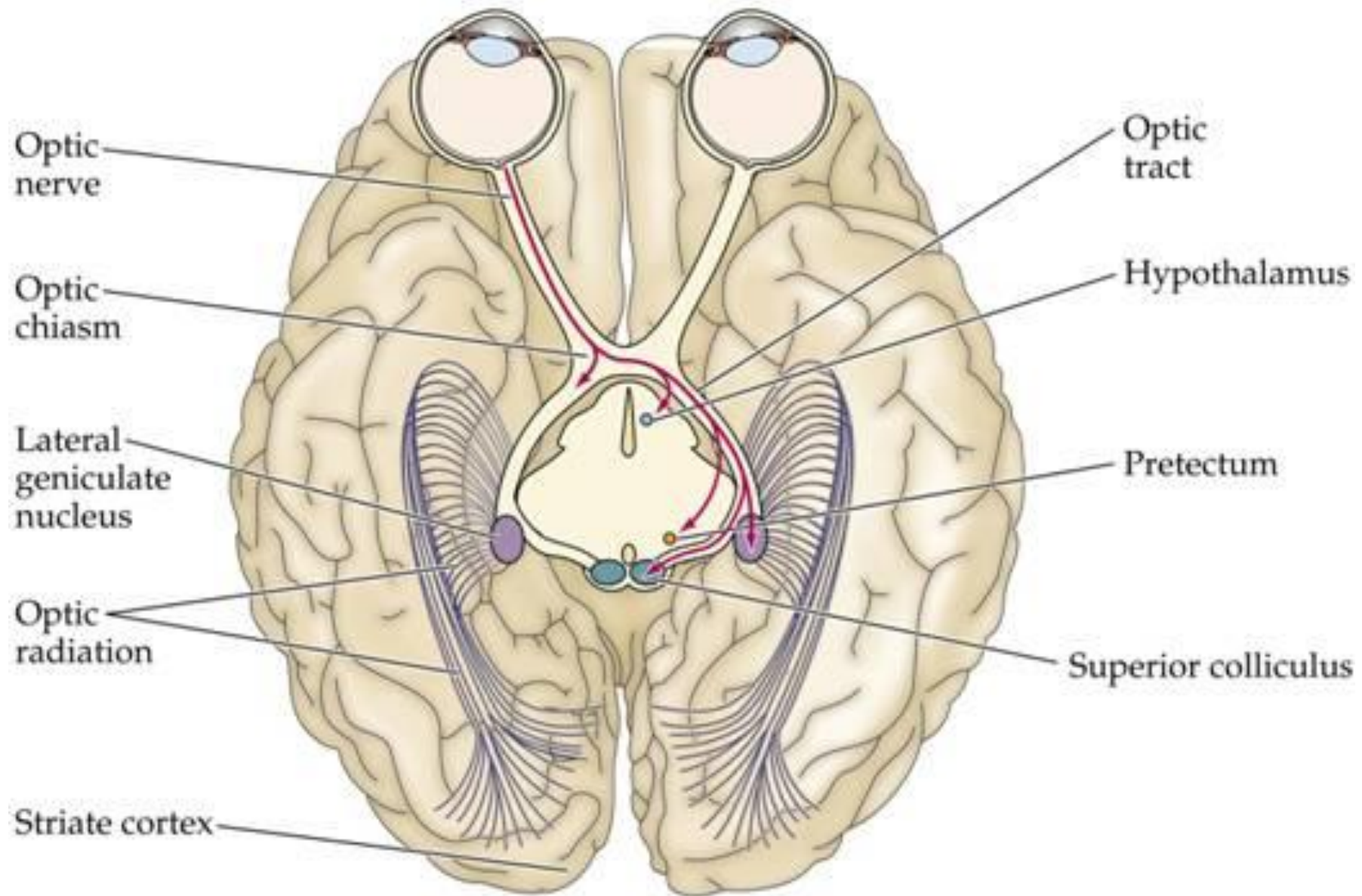
(c) perceived cross-section through (a)

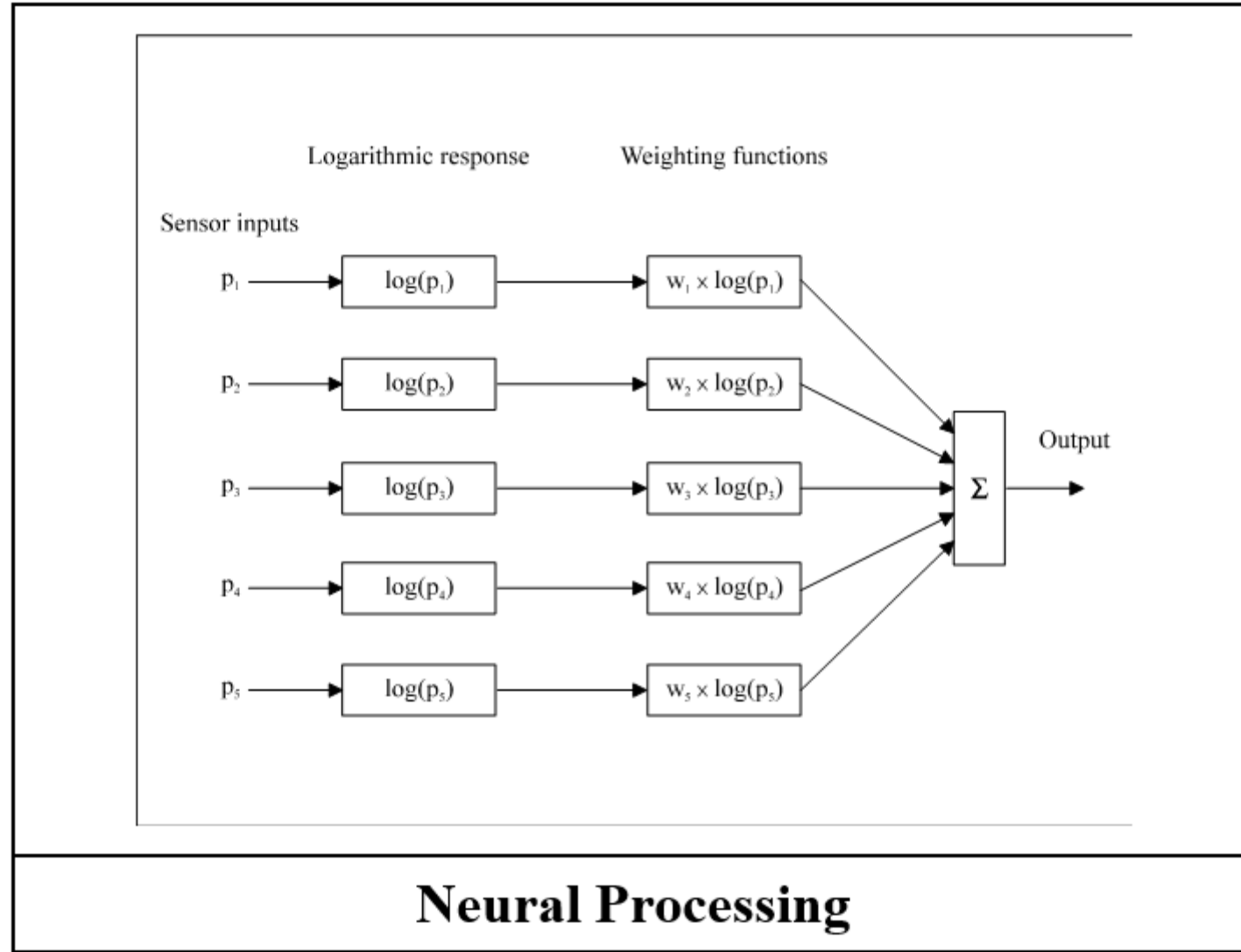
**Illustrating the Mach Band Effect**

Section of retina



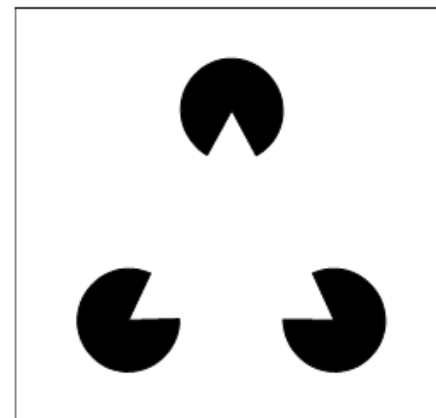






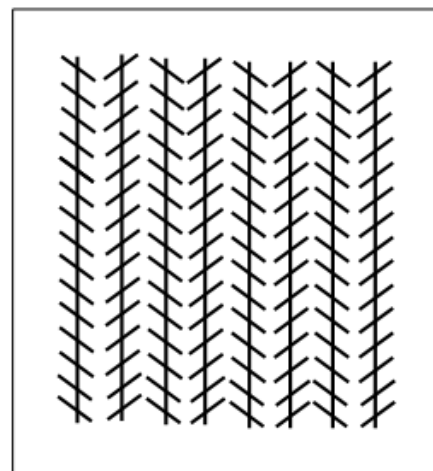


(a) word?

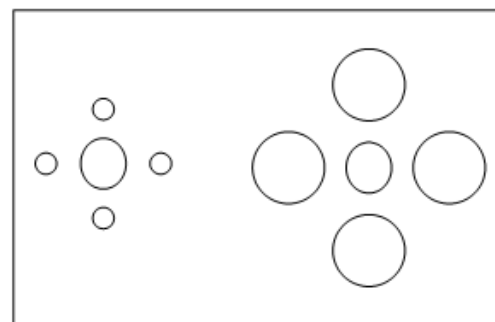


(b) Pacmen?

### How Human Vision Uses Edges

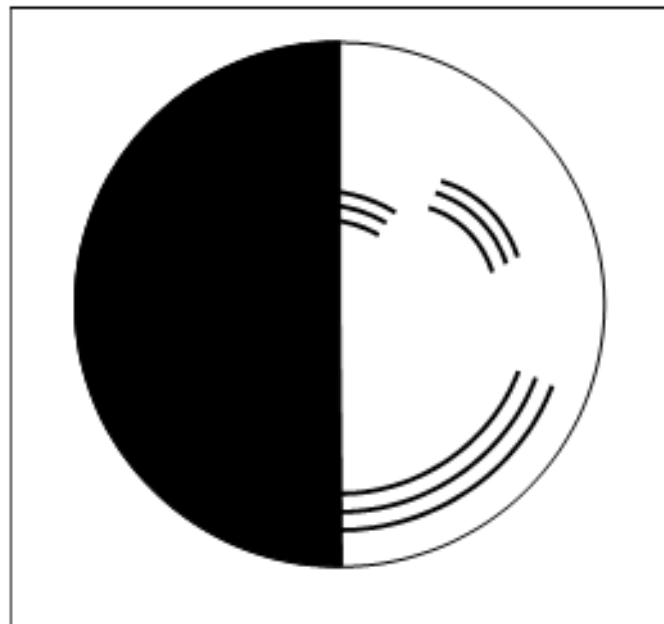


(a) Zollner



(b) Ebbinghaus

### Static Illusions



**Benham's disk**