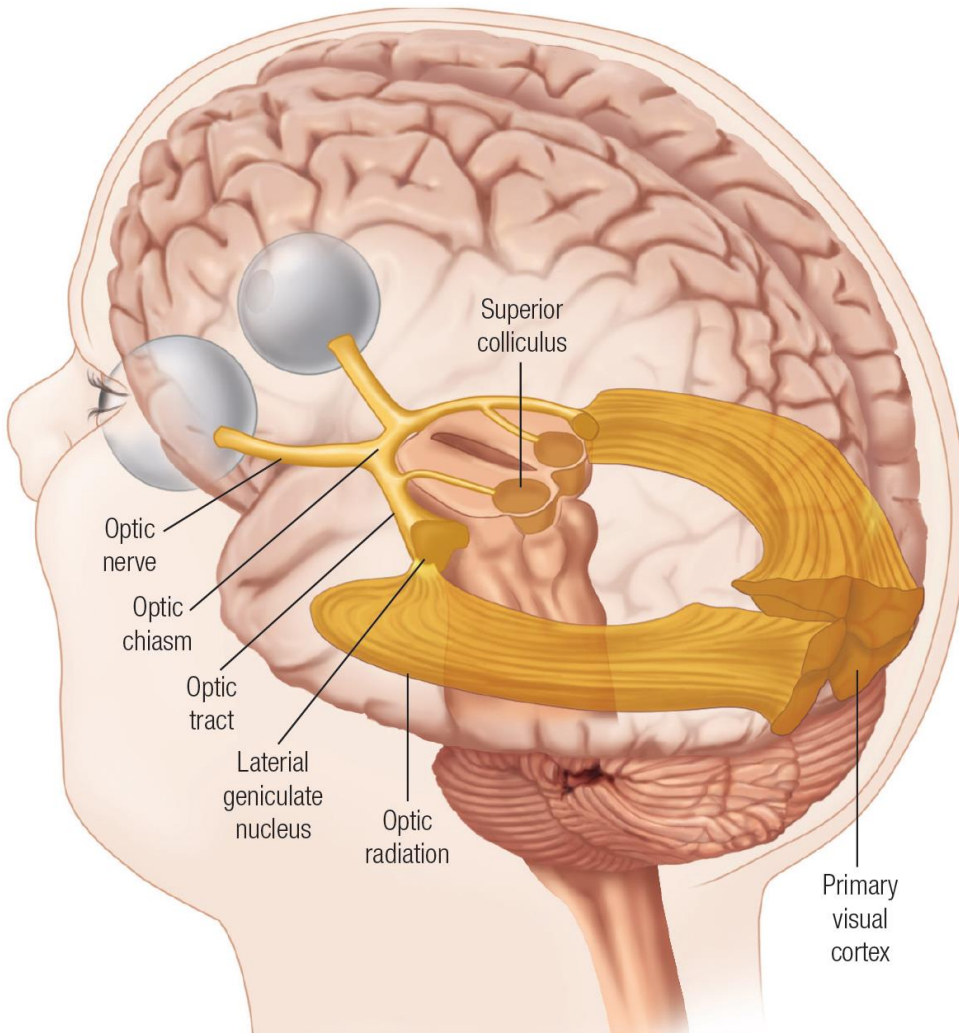


Ascending Visual Pathways

Retina-LGN-Cortical Route



Optic Nerve

Optic Chiasm

Optic Tract

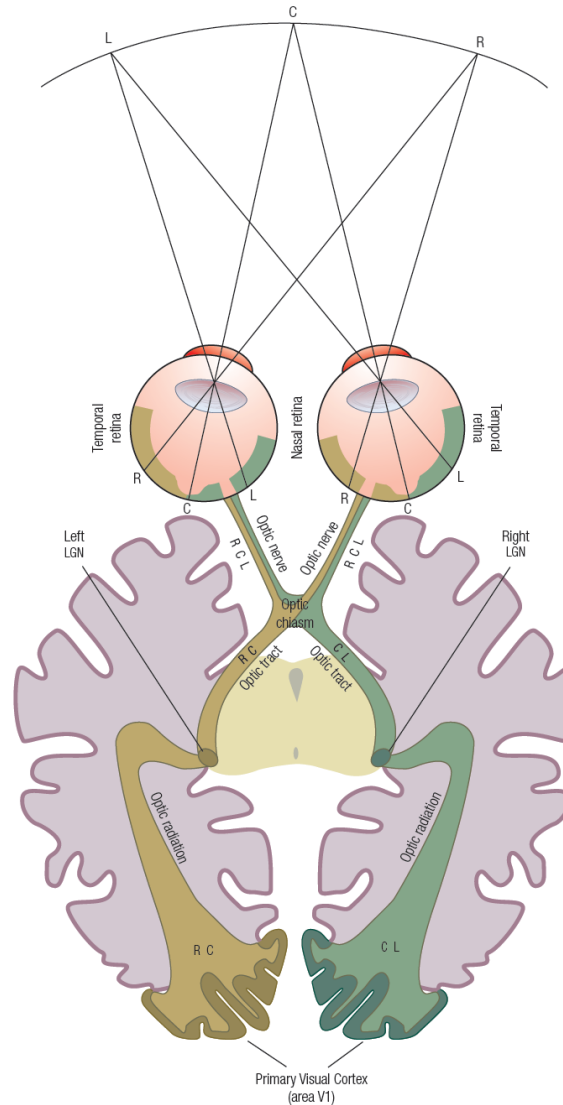
LGN

Primary Visual Cortex

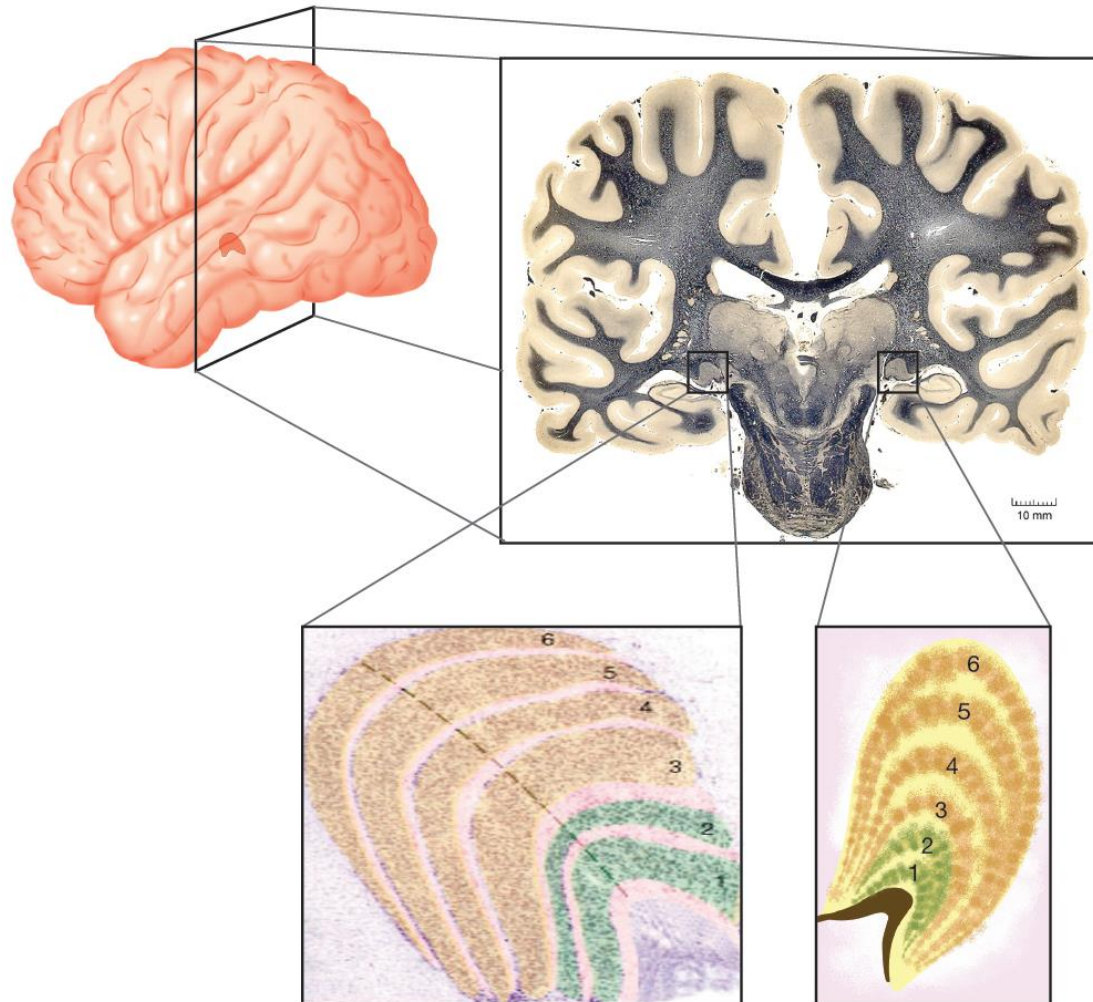
Superior Colliculus

Optic Tracts

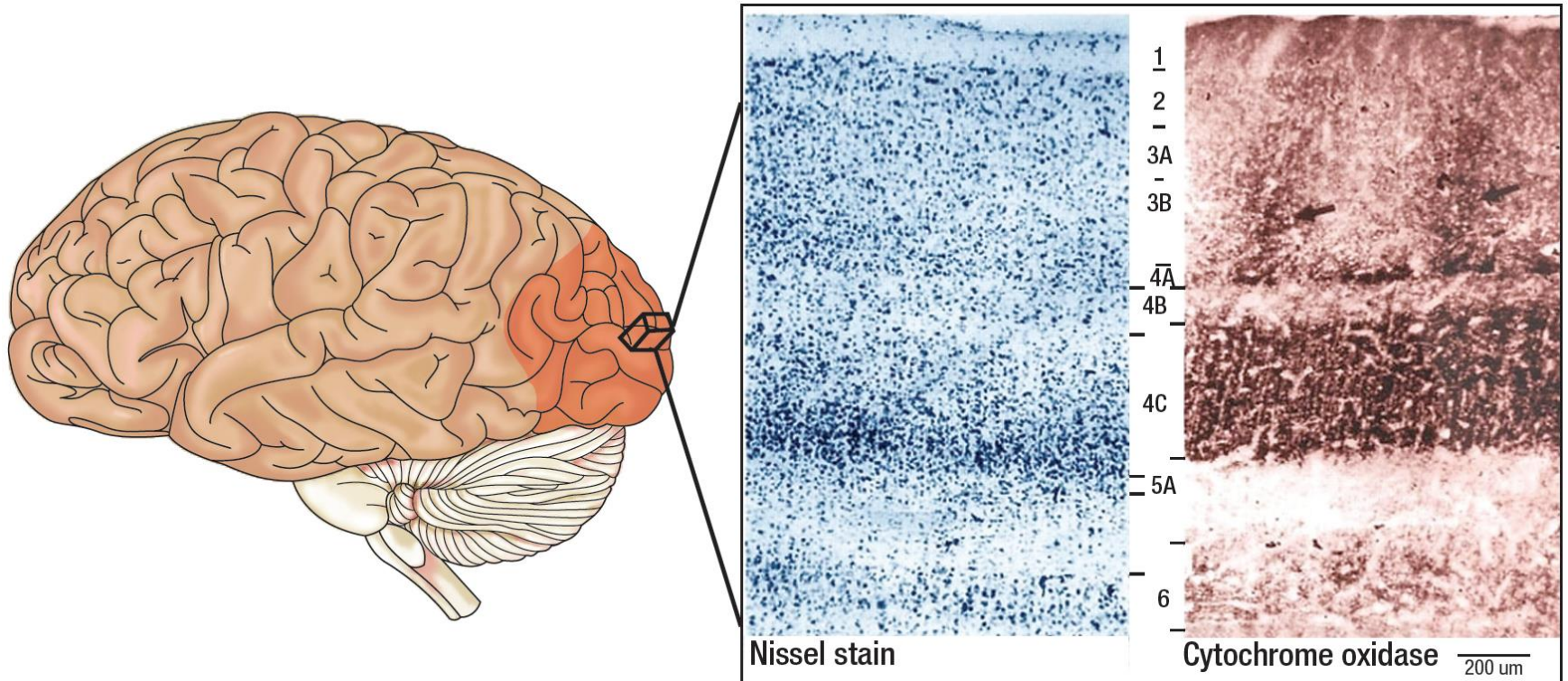
Segregation of the Visual Fields



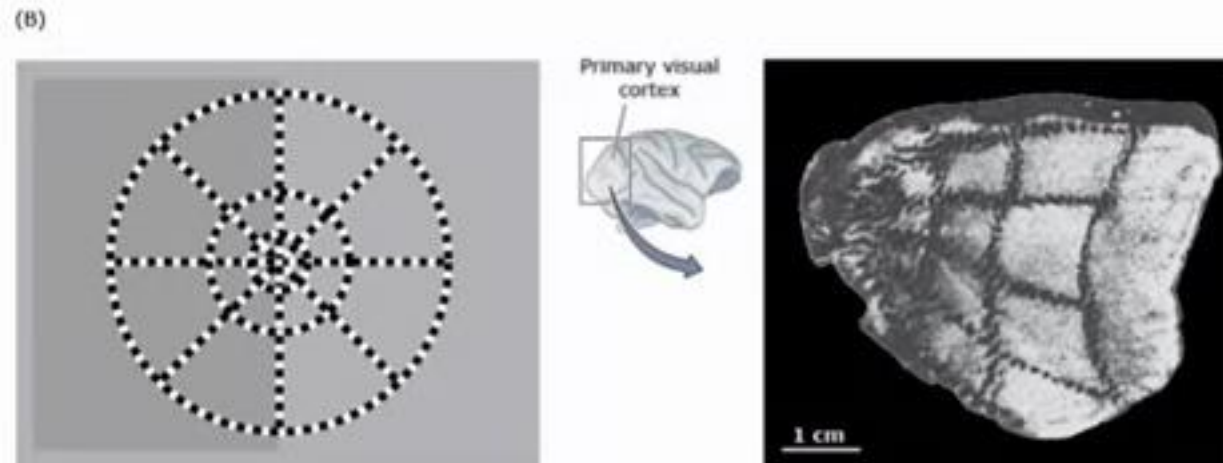
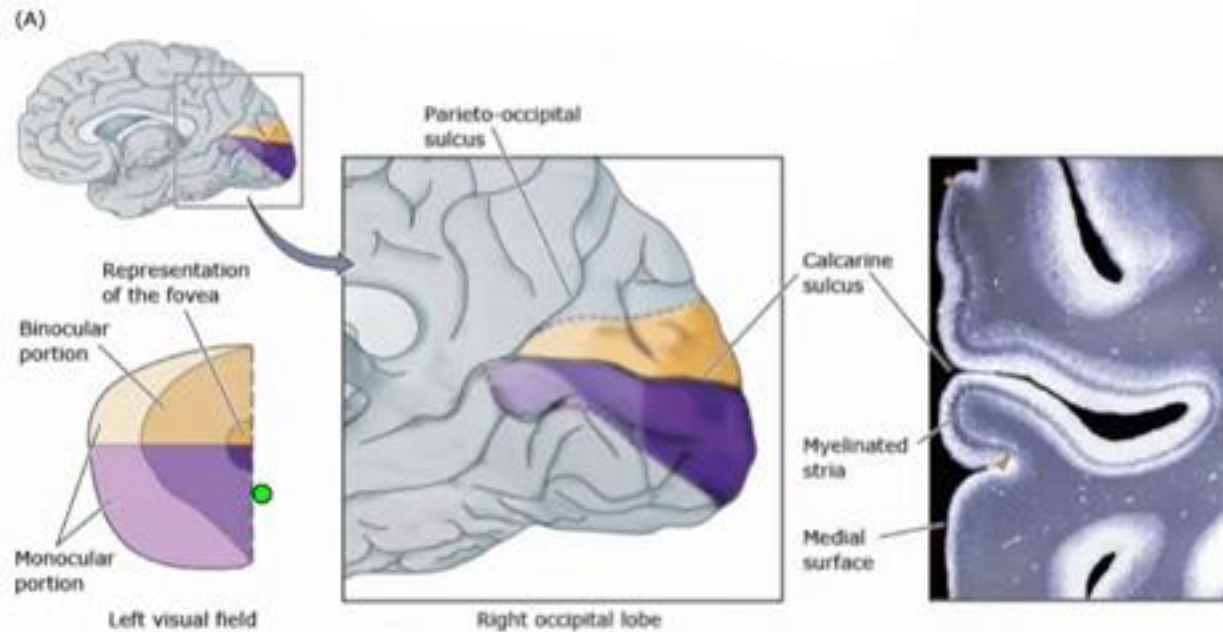
Lateral Geniculate Nucleus of the Thalamus (LGN)



Primary Visual Cortex (V1)



Retinotopic Layout of V1



Emergent Properties of Cortical Cells

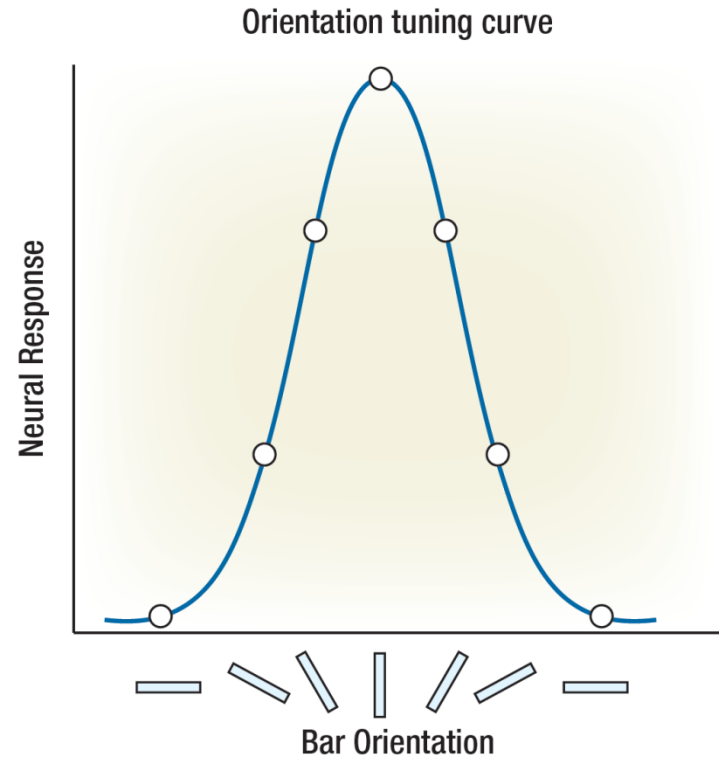
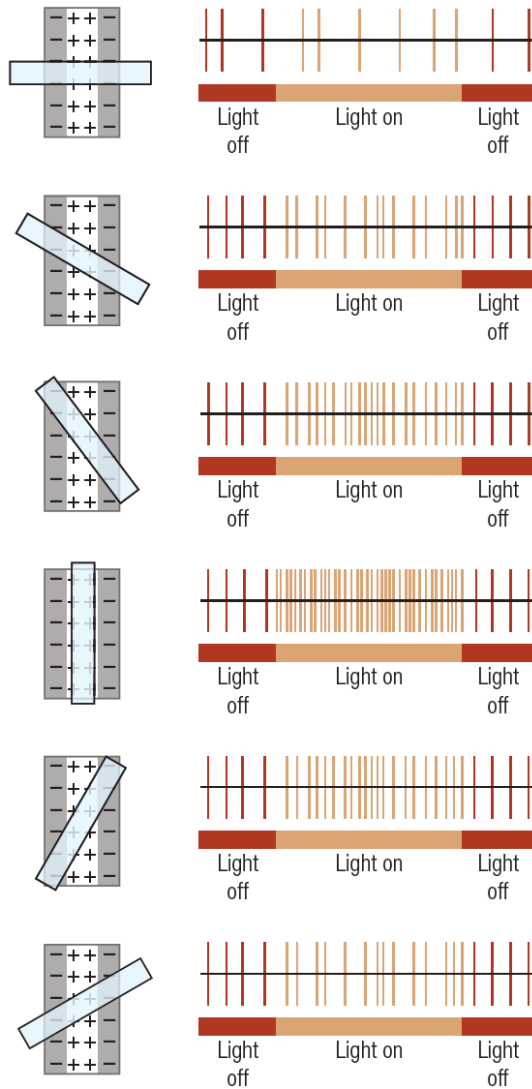
Orientation Specificity

Binocularity

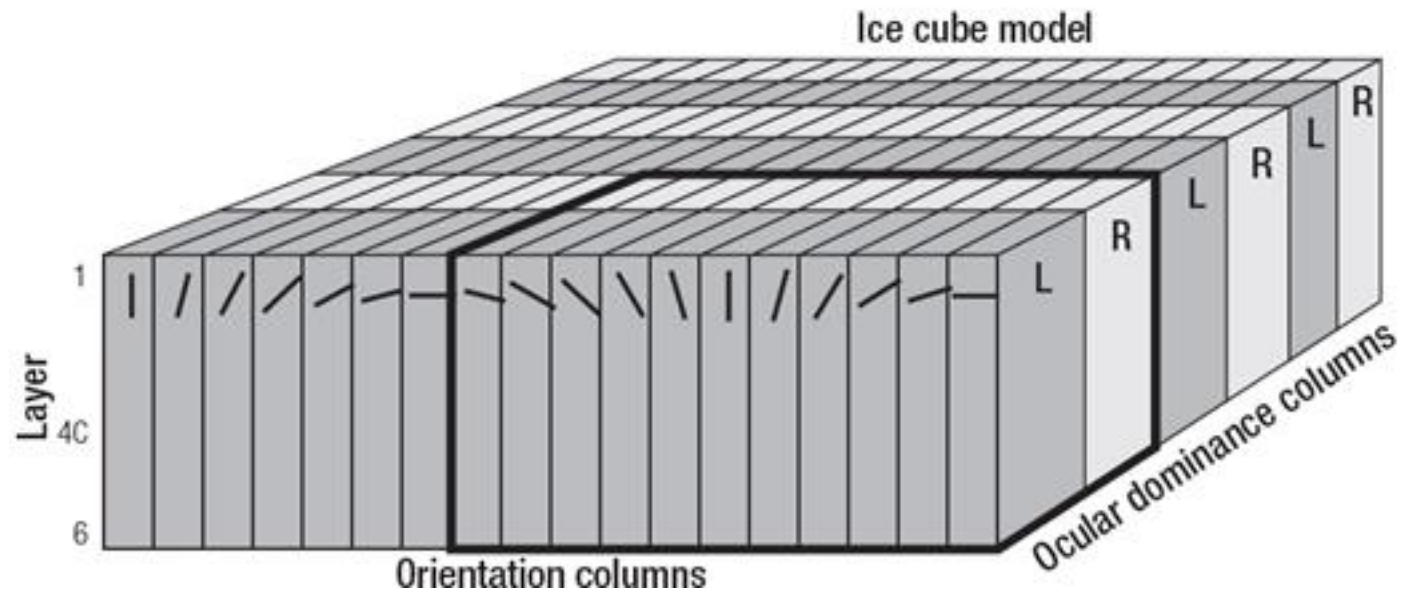
Local-to-Global Representation

Directional Motion Specificity [MT]

Orientation Selectivity



Orientation Hypercolumn



Orientation Architecture

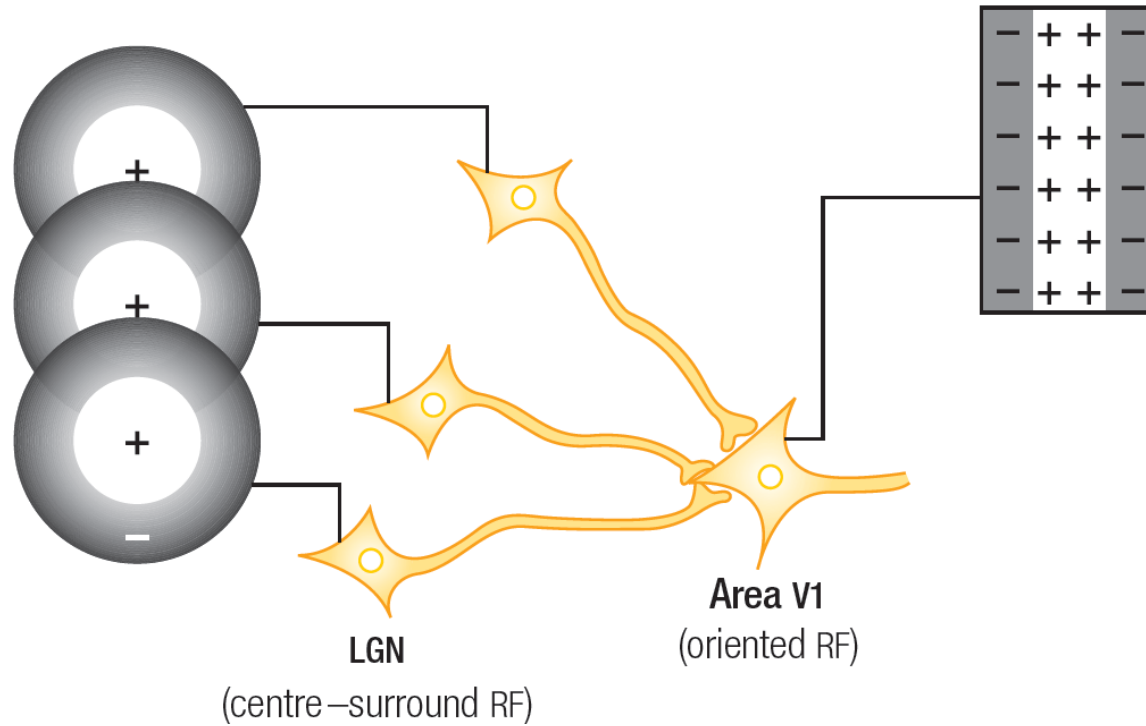
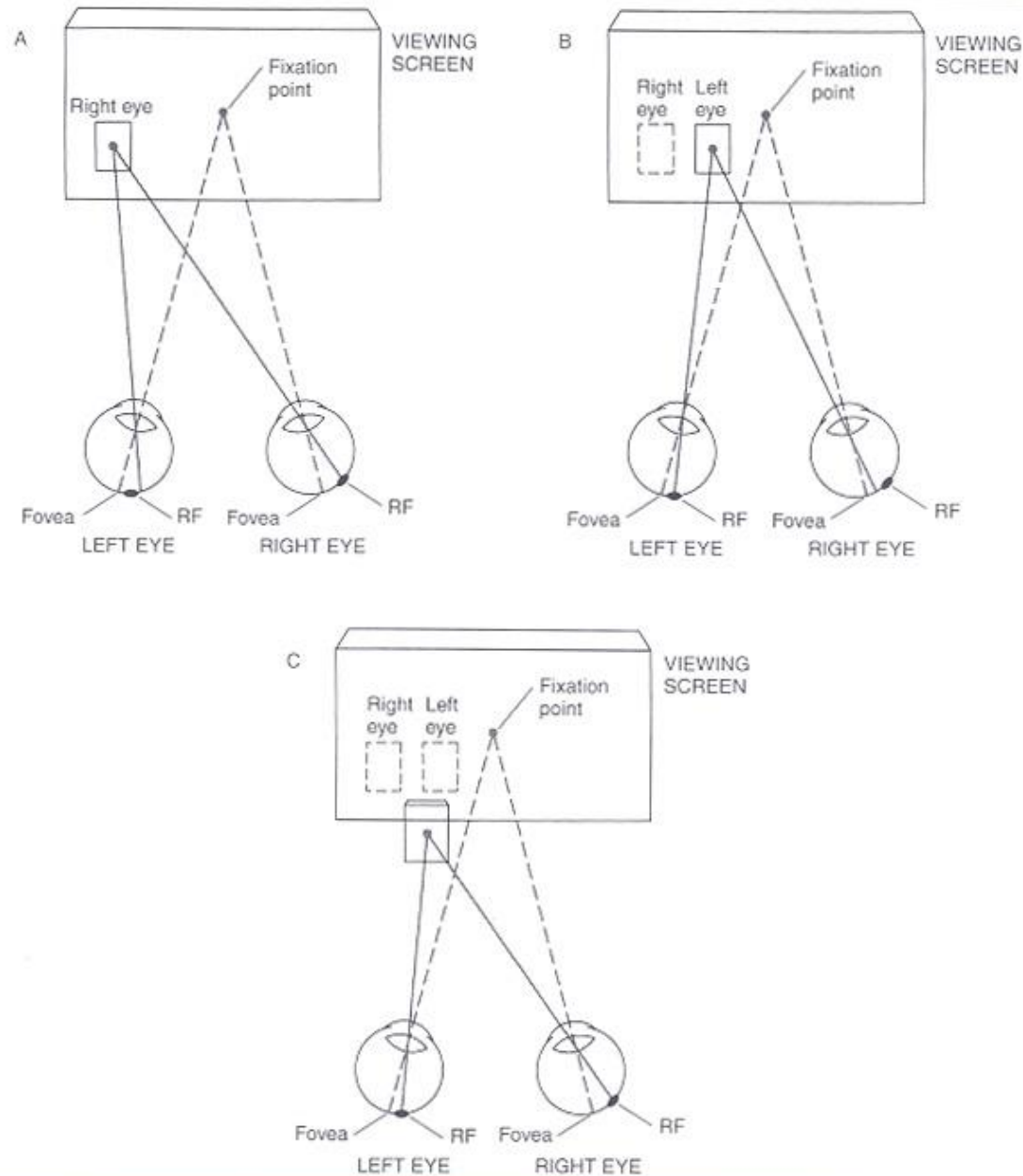


FIGURE 4.17 I This series of drawings illustrates why a single object must be situated in a particular location in visual space to optimally stimulate both receptive fields (RFs) of a single binocular cell. For details, see the text.



Binocularity

Cortical Modular Hierarchy

