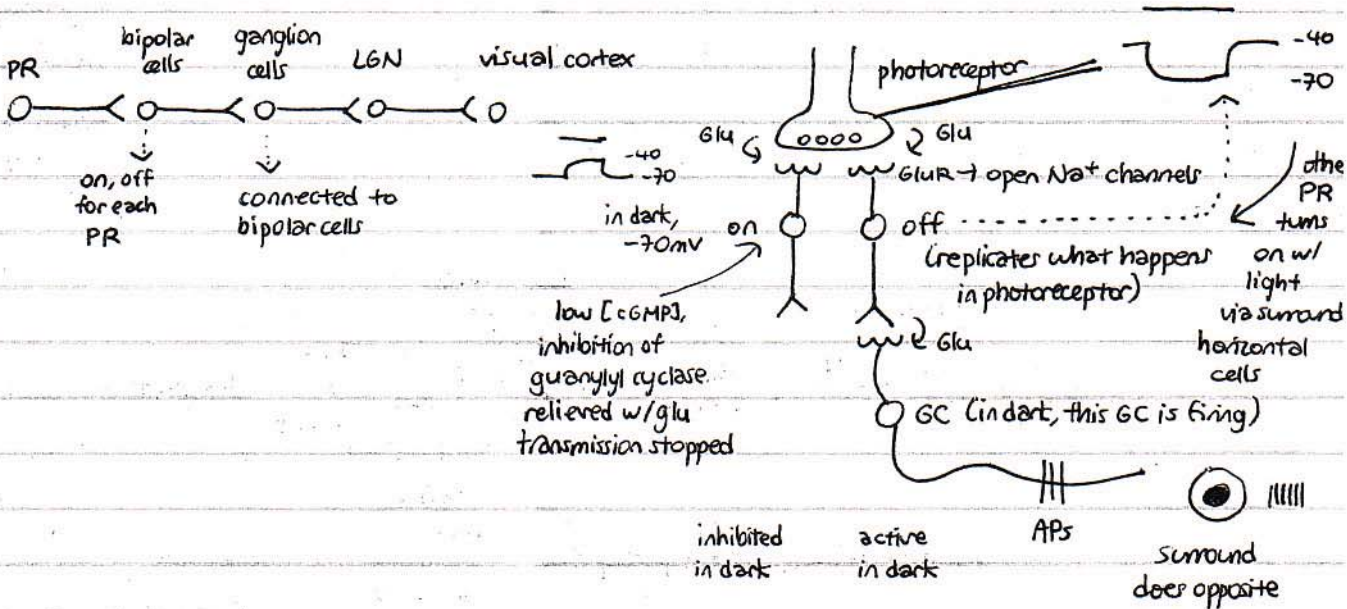
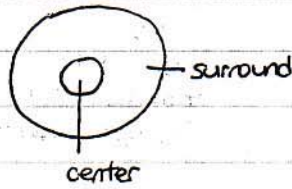


- brain hard-wired to expect certain images, constructs what it expects to see

- on-center & off-center ganglion cells

- off-center: light on, in center, stop firing
- light off, fire (in center)
- light on, in surround, start firing
- light off, in surround, stop firing



ganglion cells: dark

- on-center ||| |||

off-center |||||

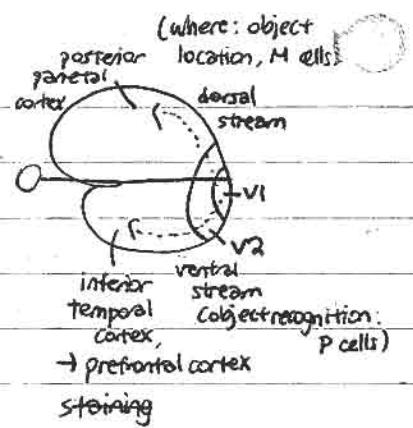
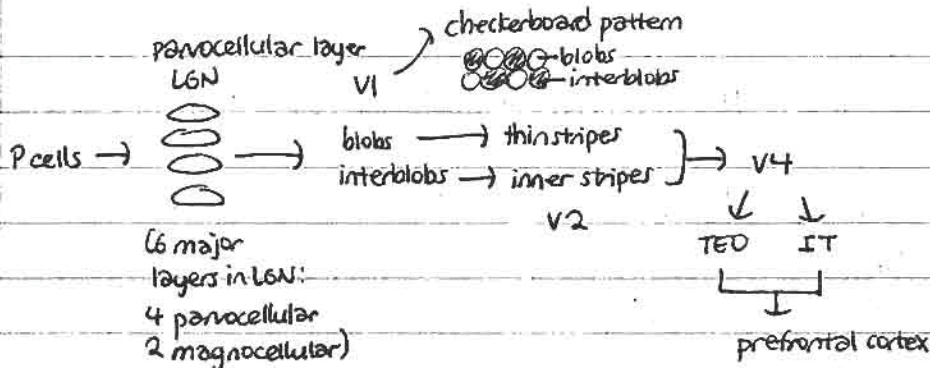
- 2 other classes of ganglion cells: (both have on & off-center cells) different roles in vision

Pavo (small)
 small receptive field (eg single bipolar cell)
 so greater acuity, boundaries
 1,000,000
 very responsive to color
 concentrated in fovea

Magno (large)
 large receptive field (connect to many bipolar cells) inputs from
 good for detecting motion
 100,000
 poorly sensitive to color

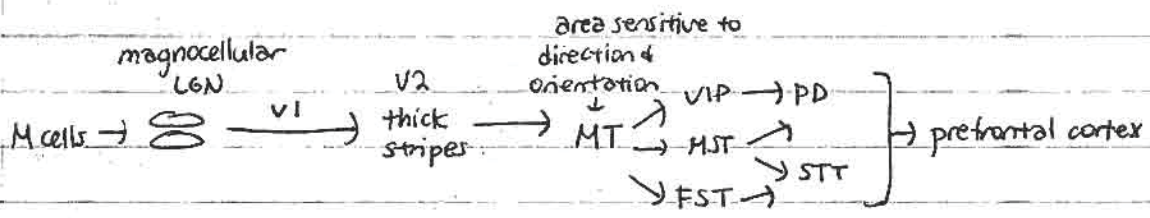
can have more prolonged firing
 (good for stationary objects)

1 fire transiently & stop (good for motion)



shape, form, orientation, color, high resolution

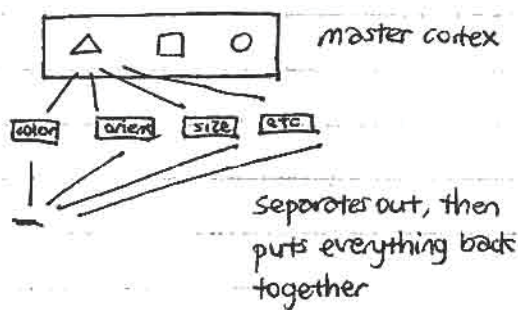
lesions in ventral stream
 bilateral lead to agnosias:
 object agnosia
 color agnosias
 facial agnosia (prosopagnosia)



moving objects, depth perception

each area processes one feature, ignores all else

agnosias:
 visuospatial agnosia
 movement agnosias



1. preatten preattentive stage
 - notice everything vaguely?
2. attentive stage
 - ignore all else in visual field

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