What is Perception?

Object Recognition

Time

Size

Motion Perception

Brightness & Color

Distance & Location
Visual Input

Low-Level Vision:
- Edges
- Motion
- Depth

High-Level Vision:
- Object recognition
- Face recognition

Spatial Frequencies
Visual Receptive Fields as Spatial Frequency Detectors
Localization

• To localize
  – segregate each object from others and from background
  – determine distance object is from us
  – determine motion relative to us

Segregation
Depth

Linear Perspective

Attached and Cast Shadows
Attached and Cast Shadows

Shading and Shadows
Again

Pick A Card

Did Your Card Disappear?
Texture Gradients

Stereopsis

Crossed and Uncrossed Disparity
Feature Detection Models

http://epsych.msstate.edu/descriptive/Vision/swamp/Pandemonium/intro1.html

Pandemonium

http://epsych.msstate.edu/descriptive/Vision/swamp/Pandemonium/intro1.html
Problems

- $T$ vs $+$
- Assumes objects have been identified and isolated

Structural Theories
Problems

- Some objects hard to define with geons
- Hard to distinguish between objects with similar geon descriptions

Template Matching

Prototype Model