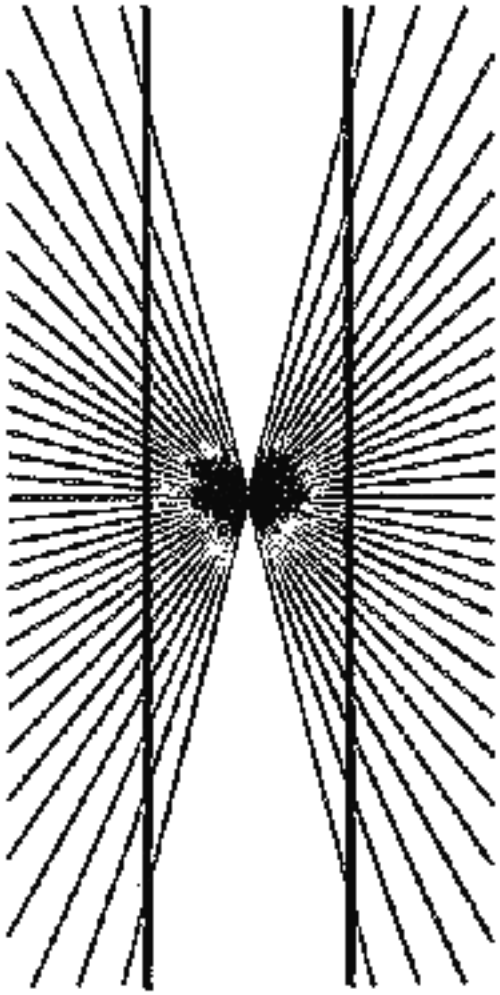
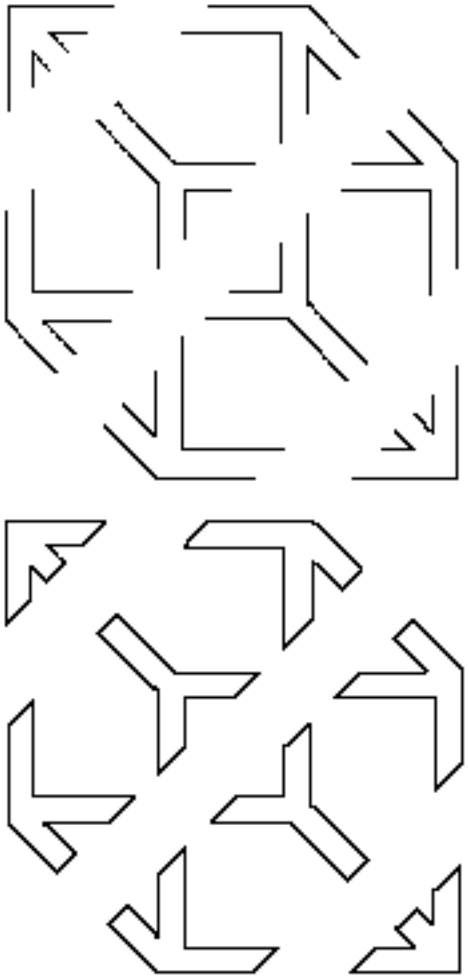
# Today's Lecture

- Computational Vision
  - *Biological vision with emphasis on grouping*
  - *Scene recovery*
  - *Recognition*

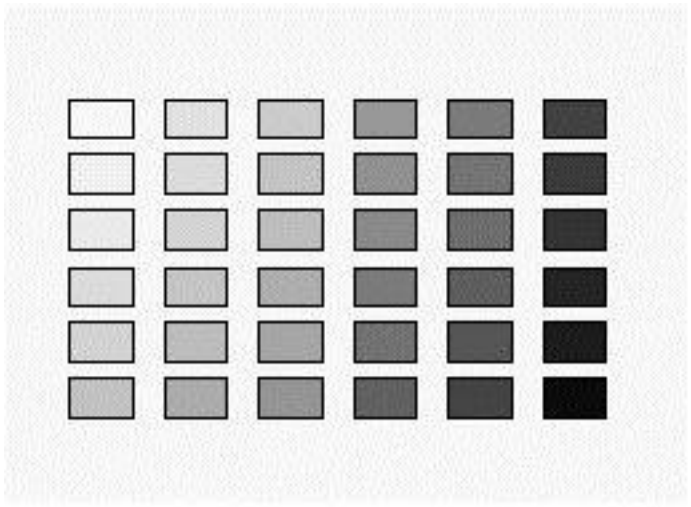
## Mostly not on computer

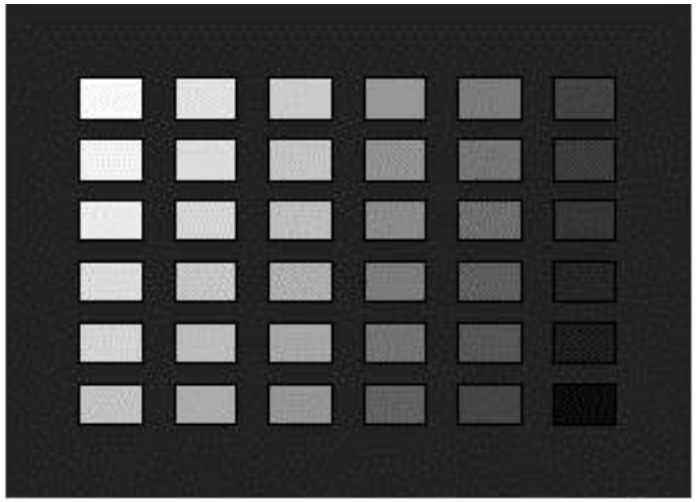


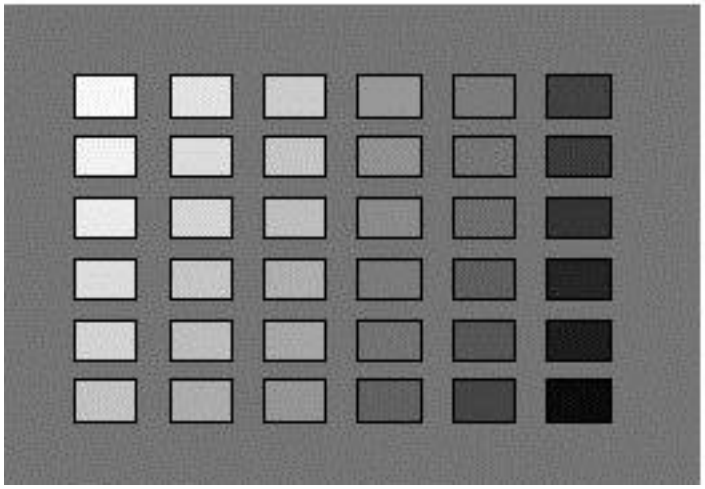
**CS-424 Gregory Dudek**

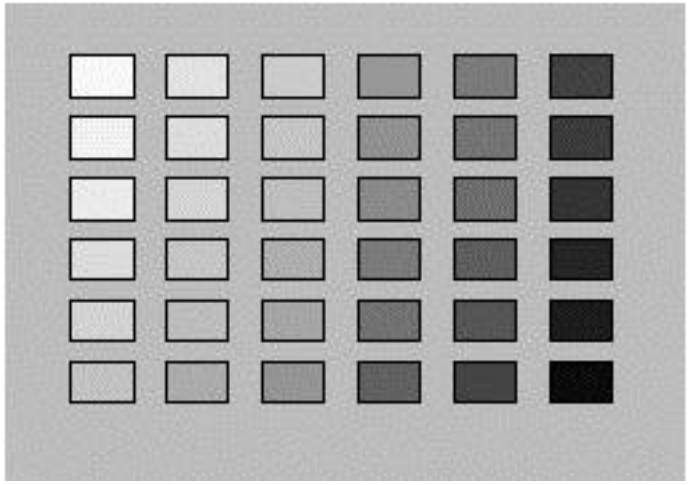


**CS-424 Gregory Dudek**









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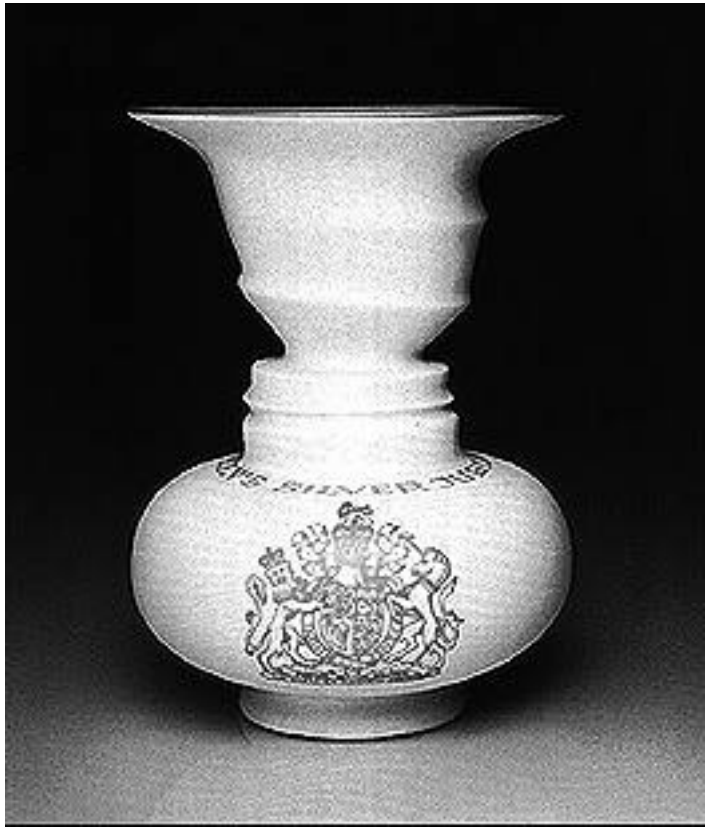

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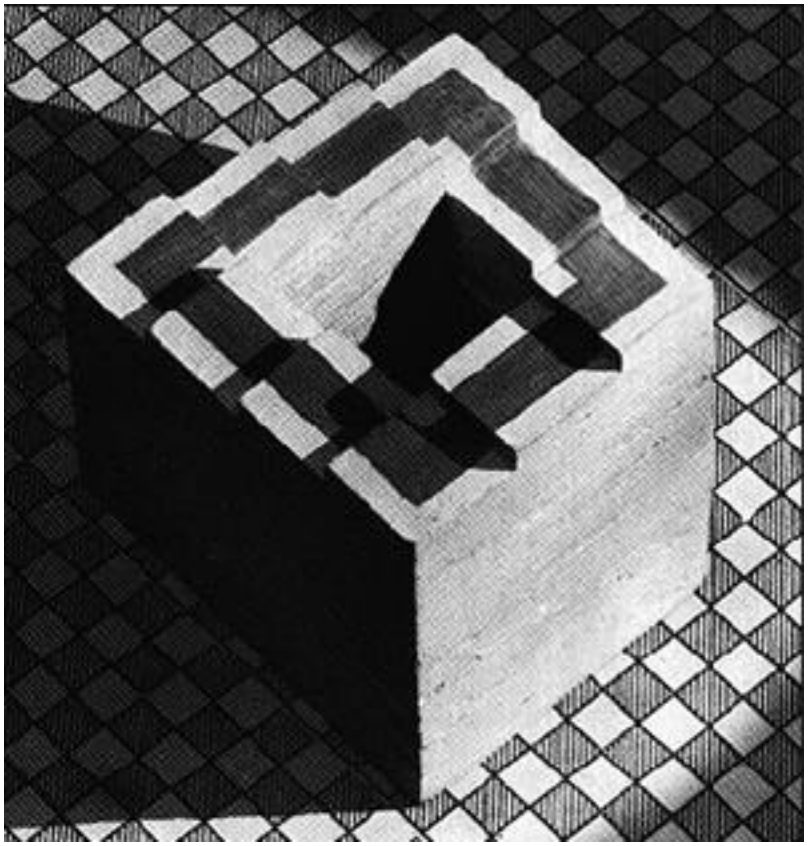

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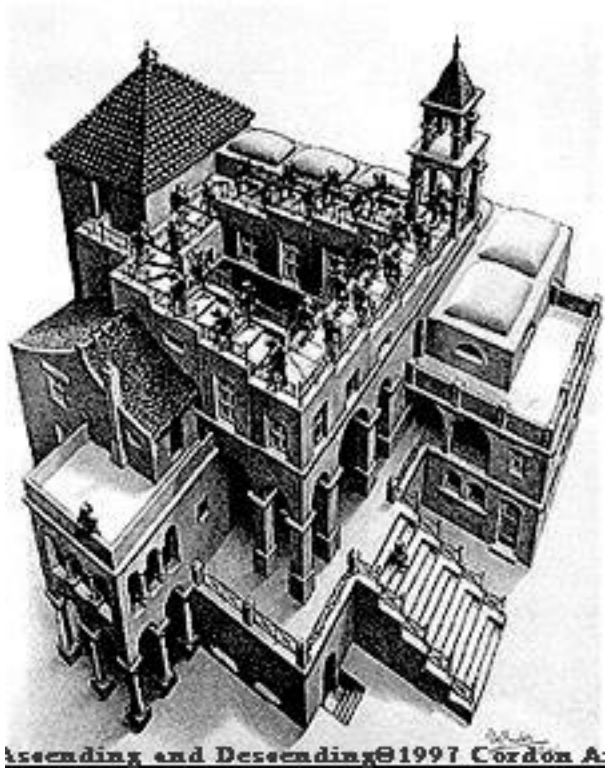


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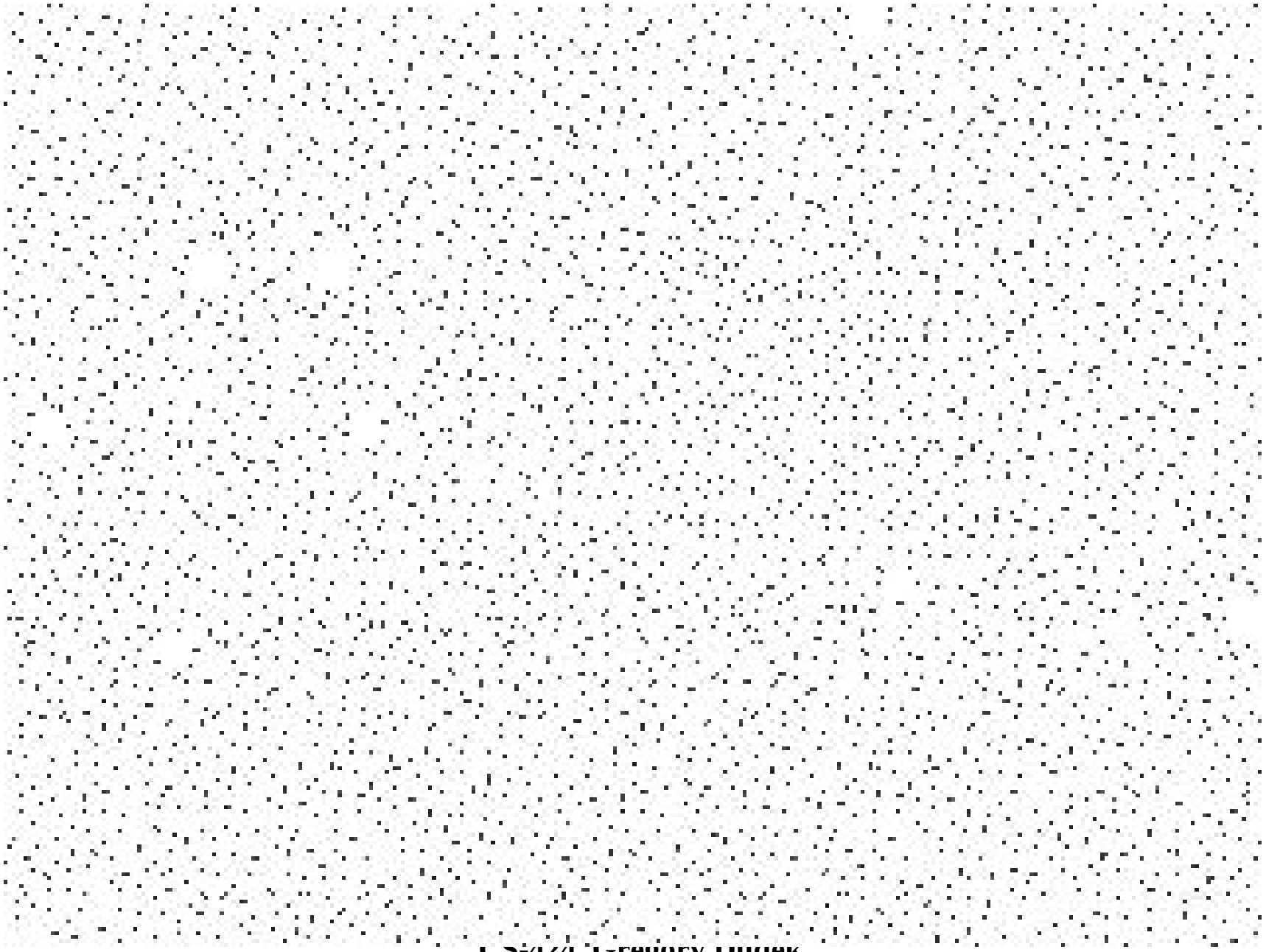

# Shape from Shading

- [on blackboard]
- Intensity  i = f (e,g,n)
  - Reflected intensity depends on viewing position and light source position (assumed known) AND surface normal.
  - Given the knowns we can estimate the surface normal, although there is usually a “circular” ambiguity that is resolved by assuming something about surface structure.
- Recover the surface by integration
  - Oldest method: along strips from a point of known normal
- Problem: sometime get inconsistent solutions
- Check this by using integrability constraint.