Today: Topographic and Geologic Maps

- We have looked at many images, some of which are maps such as this one.
- This is a map showing crustal provinces of NA
- There are all sorts of Maps: Tectonic, geographic, road etc.
  - We want to consider Topographic and Geologic Maps

Topographic maps:

- Show changes in elevation and shape of the land surface
- Show locations of
  - Roads, towns, schools and churches
  - Railroads
  - Quarries
  - Benchmarks
Contours:

- Contour lines
  - All points along a contour line have same elevation
  - Contour lines are continuous
- Contour Interval
  - Vertical distance between contour lines.
  - On this map it is 200 ft

Compare the photo to the map
These rocks show the distribution of rocks over the surface. The patterns provide information about the geologic history of an area.

- **Formations** = rock units
  - Extend over area
  - Contacts are clear
  - Record history of that area over interval of time
- **Structures** too...
  - e.g. Illinois Basin
Black Hills = Dome

This geologic map illustrates change from Costal Plain to Appalachian province.
Basin & Range to Sierra Nevada Faults