Tectonic Forces

- Increase elevation, internal force
- Vulcanism (movement of magma)
  - Intrusive
  - Extrusive
- Diastrophism (not due to magma)
  - Break, joint, fault
  - Bending, folding
Intrusive Vulcanism

- Batholith
- Laccolith
- Dikes and sills
Extrusive Vulcanism

- Volcanoes
  - Shield
  - Composite or strato
  - Cinder Cones
    - Crater, caldera, neck
- Lava or fissure flows
  - Many sizes, Deccan Plateau

Lava, aa, pahoehoe
**Caldera**
- Caldera – a large depression created by the collapse of a volcano

**Cinder Cone**
- Cinder Cone – a simple volcano built from blobs of lava ejected from a single vent

**Shield Volcano**
- Shield Volcano – built from countless outpourings of fluid lava flows

**Stratovolcano**
- Stratovolcano – built of layers of lava, ash, and volcanic debris
Prevalent Volcanoes
Diastrophism

- Range of scales
- Break
- Joint, no relative displacement, streams
- Fault
- Folding, bending
Faults

- Normal
- Reverse
- Strike-slip, transform – earthquakes
- Fault block mountains, Nevada
- Horst and Graben
- Rift Valley
Diastrophism Continued

- Bending
- Warping
- Anticlines
- Synclines
- Domes
- Basins
- Differential erosion