

World View, pre-1700s

- The Bible is the source of knowledge about the human past.
- The sole purpose of the earth was for us to live on it.
- History of the earth is short
- Prehistory is non-existent.

Stone Tools as Artifacts

- Artifacts lumped into category w/crystals and fossils.
  - They were found in or on the ground.
  - They had distinctive shapes.
  - They had a distinctive feel (hard and stony).
- Detailed observations made.
  - Steno: *Head of a Dissected Shark*
  - modern stone tools
- New explanations
  - Newtonian physics

Principle of Superposition: Strata tell time

Steno 1669

- In any pile of undisturbed strata, the oldest is at the bottom, the youngest is at the top.
- The order of the undisturbed strata from bottom to top is also the order of deposition from youngest to oldest

Principle of Strata Identified by Fossils

William Smith 1799

Georges Cuvier and Alexandre Brongniart 1808

- Each stratum or closely related strata contains its own set of fossils by which it can be recognized.

New observation: people found only in upper layers

New belief: lengthy history of the earth represents God's preparation of earth for us

Georges Buffon

*Epochs of Nature* 1778

- Earth had a long and dynamic history.
- People were recent on earth.
- People appeared only after the earth was 'modern' in form.

### Georges Cuvier

new observation: remains of large mammals that have never been seen before

new belief: extinction

providence: refers to the kind and caring creator who takes care of us

plenitude: refers to the idea that all living things that could exist, do exist

Great Chain of Being

Cuvier's line

pre-modern earth w/megafauna before modern earth w/people

### Charles Schmerling

Engis Cave, Liege, Belgium

extinct animals w/human skulls

Lyell: can't trust cave deposits

### Jacques Boucher de Perthes

Abbeville, Somme River, France

open site w/extinct animals and artifacts

meticulous recording of artifacts' context

bizarre, outdated interpretations

### Brixham Cave

William Pengelly and Hugh Falconer

artifacts and extinct animal remains sealed under limestone floor

Lyell still skeptical of caves

### Back to Abbeville, 1858/1859

### World Views, post-1859

- The Bible was not the only source about the human past.
- The earth was not created for us by God.
- Earth had a lengthy history.
- People are ancient.