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
plentitude: 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bizarre, outdated interpretations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.