

# What is Science? What is Biology?

- A systematic way of viewing the natural/living world
  - Biological science as a way of seeing e.g., the biologist's point of view
- The application of a method (e.g., the hypothetico-deductive method) to specific aspects of the natural/living world
  - Biological science as an activity
- A body of knowledge obtained by the scientific method
  - Science as an area of study (e.g., "I'm majoring in biology")

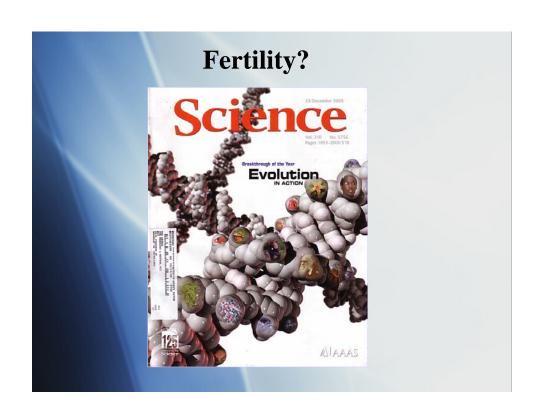
## What is Darwinian Evolution?

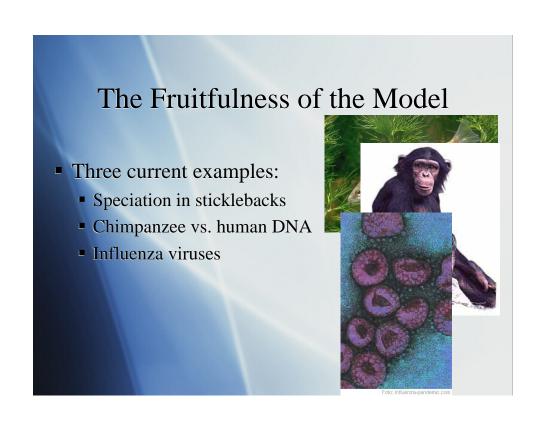
- Descent with modification from a common ancestor
- Natural selection influences reproductive success
  - "natural" is used as a counterpoint to "artificial selection" as practiced by breeders
- Current species are the result of this process over a long span of time
  - Deep time (geological)

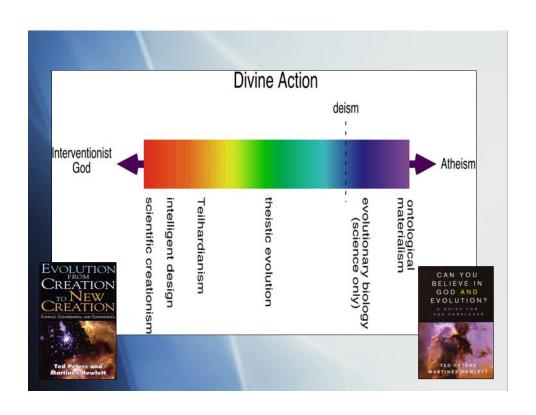


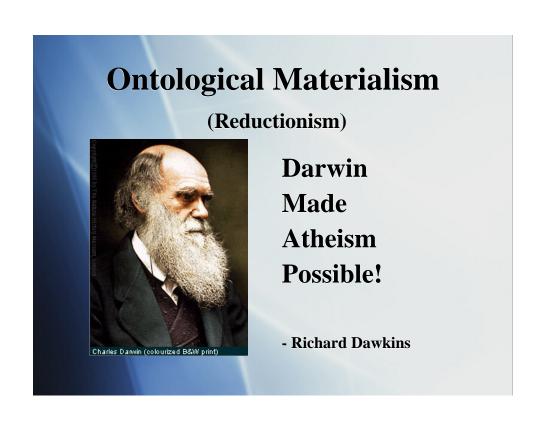
# Kinds of Evidence in Support of the Darwinian Model

- The fossil record
- Phylogenetics/cladistics
- Molecular data
  - Protein
  - DNA











"The evolutionary vision is enabling us to discern... the lineaments of a new religion."

- 1959

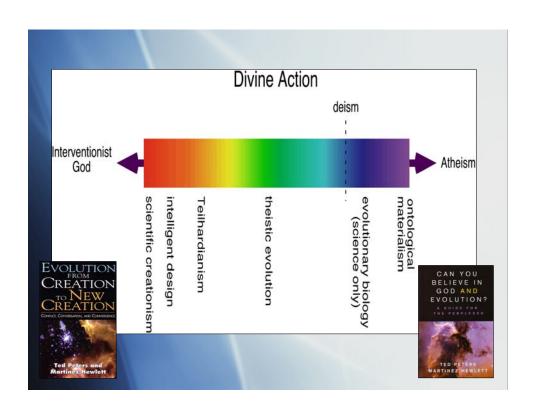
Julian Huxley

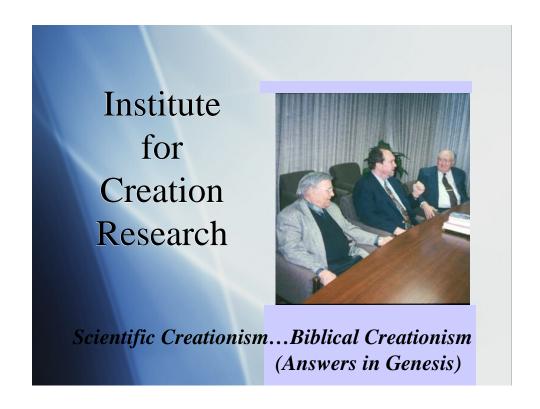
## Darwin Enshrined?

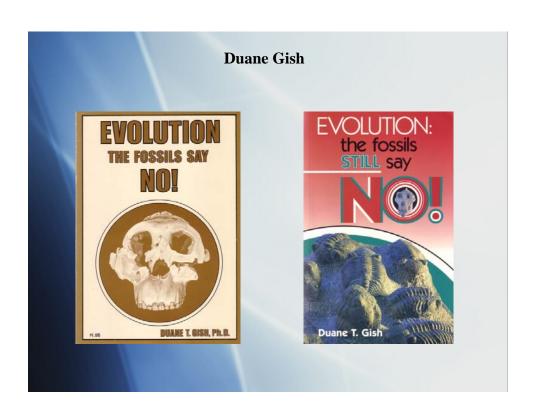
- Nature News
  - Nature **447**, 896 (21 June 2007)
- World Heritage site application withdrawn by British government
- Comment: James More, Open University, Milton Keynes:
  - "Muslims go to Mecca, Christians go to Jerusalem, Darwinians go to Downe."

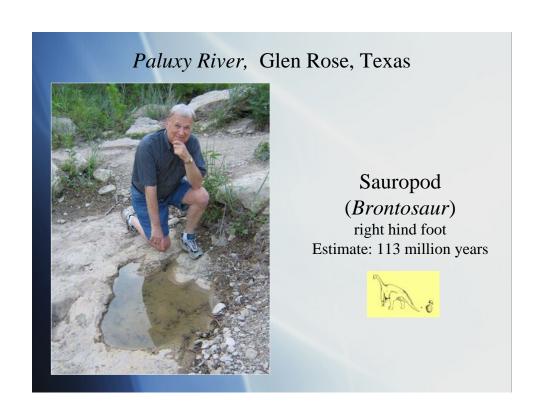


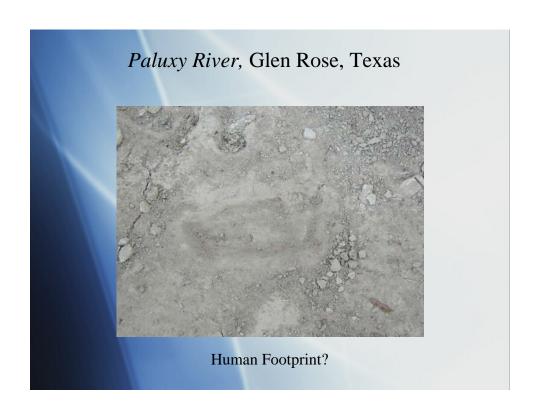
Downe House, Kent

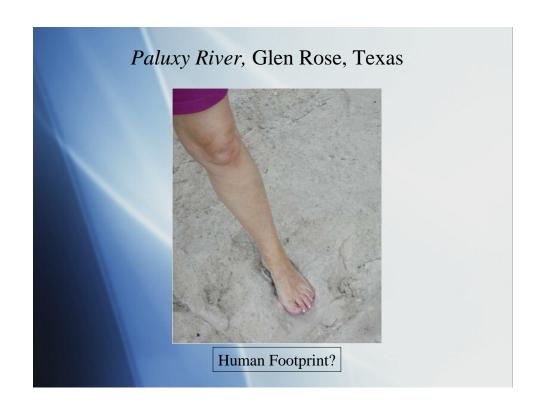












# **Young Earth Creationism**

(Scientific Creationism)

- 1. Creation out of nothing
- 2. Recent origin: 10,000 yrs
- 3. Species fixed at origin
- 4. Microevolution: yes
- 5. Macroevolution: no
- 6. Separate ancestry for humans and apes
- 7. Flood geology explains layers of fossils



# 5 Fundamentals

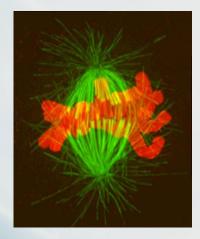
- 1. Inerrancy of Scriptures in original documents
- 2. Deity of Jesus Christ...virgin birth
- 3. Substitutionary Atonement
- 4. Physical Resurrection on Easter
- 5. Miracle Working Power of Jesus
- Also Rans: Natural Depravity; Justification by Faith;
   Premillenialism; Literal Heaven & Hell.

# Intelligent Design: A Definition

• An object or process in the natural world is so complex that its existence cannot possibly be explained by standard, naturalistic models (i.e., neo-Darwinian evolution). Therefore, the object or process must have had an intelligent designer

# Design in Biology

- An Example: Spindle fibers during mitosis
  - The question: What are these fibers and what do they do?
  - Two kinds of answers
    - Structural
    - Functional
  - Non-teleological answer is impossible
    - Teleonomy?



# The Work of the Angelic Doctor

- St. Thomas
  - Summa Theologica
  - Summa Contra Gentiles
- The "ways" of knowing something about God
  - Analogous knowledge



# The Fifth Way

- Erroneously called the "argument from design"
- Actually, an argument from governance
  - The fifth way is taken from the governance of the world..." (Summa Theologica)
  - "Therefore the whole operation of nature must be directed by some knowledge. This must be traced back to God mediately or immediately..." (Summa Contra Gentiles)
- What does this mean?

# Primary vs. Secondary Causes

- Primary Cause
  - Properly ascribed to God
    - "the uncaused cause," "the prime mover"
- Secondary cause
  - Everything else
    - Processes and objects in the natural world
  - This is what science seeks to investigate

# Intelligent Design

- Rev. William Paley
  - "Natural Theology" (1802)
    - Watch/watchmaker analogy
    - Source of Dawkins title
  - Makes the processes and objects of governance proof for God's existence
- Michael Behe
  - "Darwin's Black Box" (1998)
- William Dembski
  - "No Free Lunch" (2001)



### St. Thomas Aquinas

Summa Theologica, Part 1, Q2, Art. 3, Response

The fifth way is taken from the governance of the world. We see that things which lack intelligence, such as natural bodies, act for an end, and this is evident from their acting always, or nearly always, in the same way, so as to obtain the best result. Hence it is plain that not fortuitously, but designedly, do they achieve their end. Now whatever lacks intelligence cannot move towards an end, unless it be directed by some being endowed with knowledge and intelligence; as the arrow is shot to its mark by the archer. Therefore some intelligent being exists by whom all natural things are directed to their end; and this being we call God.





Consider and archer, an arrow in flight and a target

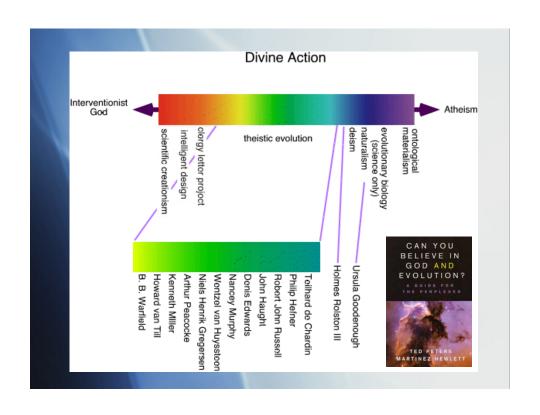
What can science see?

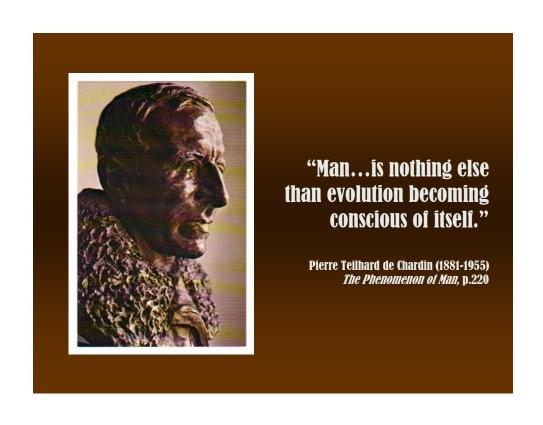
Science, by choice, can only see the arrow itself (secondary causes)

In order to see the archer and target, we need to be able to consider purpose

This is the job of philosophy and theology

We see purpose for nature, not within nature





# THEISTIC EVOLUTION: A CONSTRUCTIVE PROPOSAL

- Only the Best Science!
- Primary & Secondary Causation
- Eschatology rather than Entelechy
- Not purpose in Nature but for Nature
- Theology of the Cross & Resurrection
- Science as Vocation

# The Theodicy Question Did God create us with selfish genes?

