

# ***The Sacred Chain***

## **Chs 11-13**

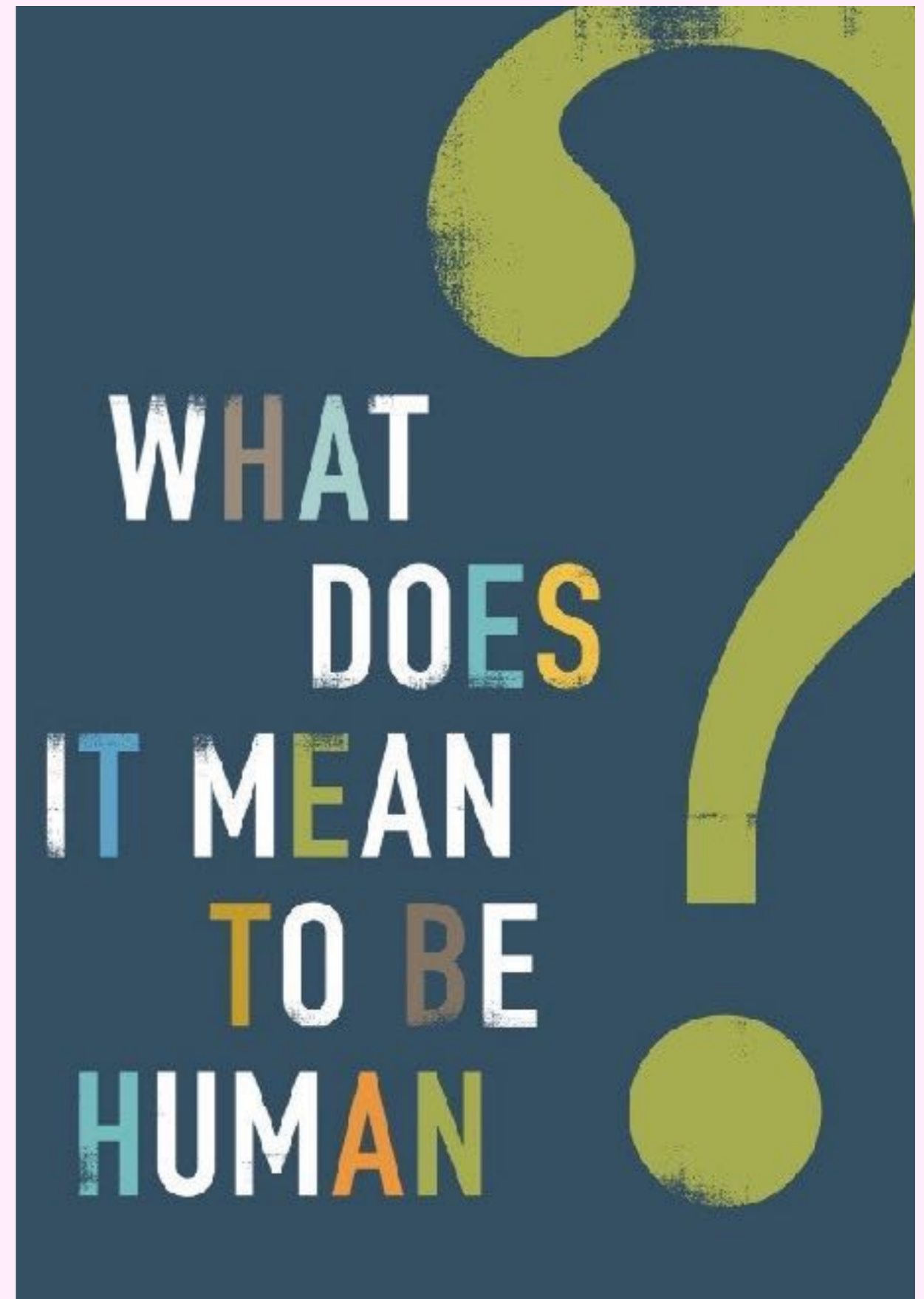
**Life Together • 10/20/2024 • Doug Olena**

**Jim Stump**

# Outline

## Part III: Species

- 11. What is a Human?
- 12. Our Closest Cousins
- 13. Our Ancestry in Baseball Cards



**Jim Stump**



# **What is a Human?**

**Reflections on Scientific Categories**

# Moroccan Discovery

## Museum Misadventure

- Poor Jim arrived at the Museum of History and Civilizations in Rabat, Morocco hoping to examine some Homo sapiens fossils to find that it was closed for the day and he was refused entry. His plane left that night.
- “What could I learn in the museum that I couldn’t by reading about the fossils? And were they even human?” 107
- That’s a good question when the fossils were dated to about 300,000 years ago.

# Hall of Human Origins

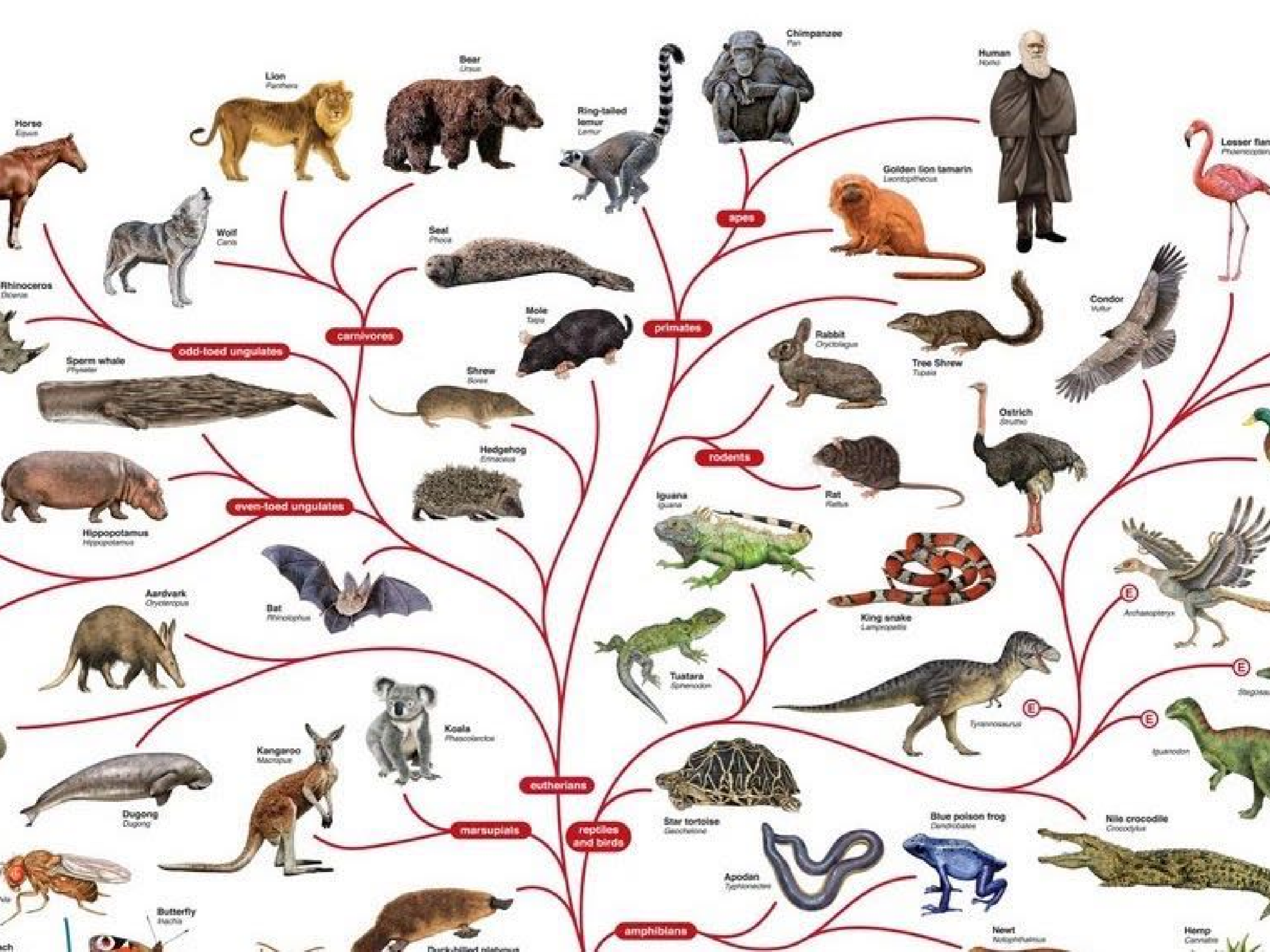
## Rick Potts, Smithsonian Museum of Natural History

- Jim is presented with a 2 million year old tool considered human in origin, a chopper used to make sharp stone tools. 108
- “Were those creatures 2 million years ago—not even our own species, *Homo Sapiens*, but our distant ancestors—also image bearers?” 108-9
- “The deeper problem with understanding humans in evolutionary terms, though, is that it doesn’t seem like we can legitimately say that we humans are a different kind of creature. We seem only to differ by degree from other animals. How would I be able to reconcile that with my faith?” 108
- In other words, what hangs on the idea of being image bearers?

# Carl Linnaeus

## Classifying species by commonalities

- Linnaeus understood that humans are different, but this classification consisted of comparative anatomy.
- What does a seeming contradiction like this require as an answer?
- Proceeding from more general to specific: Kingdom | Phylum | Class | Order | Family | Genus | Species. You'll recall the image of a tree and its branches.



Horse  
*Equus*



Lion  
*Panthera*



Bear  
*Ursus*



Ring-tailed lemur  
*Lemur*



Chimpanzee  
*Pan*



Human  
*Homo*



Golden lion tamarin  
*Leontopithecus*



Lower flamingo  
*Phoenicopterus*



Wolf  
*Canis*



Seal  
*Phoca*

apes

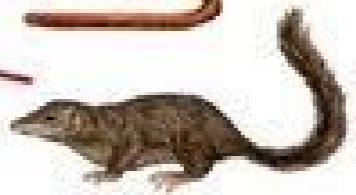
odd-toed ungulates

carnivores

primates



Rabbit  
*Cyclopitagus*



Tree Shrew  
*Tupaia*



Condor  
*Vultur*



Sperm whale  
*Physeter*



Mole  
*Talp*

rodents

even-toed ungulates



Shrew  
*Sorex*



Rat  
*Rattus*



Ostrich  
*Struthio*



Hippopotamus  
*Hippopotamus*



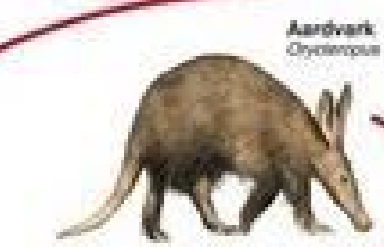
Hedgehog  
*Ermacina*



Iguana  
*Iguana*



King snake  
*Lampropeltis*



Aardvark  
*Cyclops*



Bat  
*Myotis*



Tuatara  
*Sphenodon*



Tyrannosaurus



Archaeopteryx



Koala  
*Phascolanthe*

eutherians

reptiles and birds



Star tortoise  
*Geochelone*



Apodan  
*Typhlonectes*



Blue poison frog  
*Dendrobates*



Nile crocodile  
*Crocodylus*



Dugong  
*Dugong*



Kangaroo  
*Macropus*



Duck-billed platypus

amphibians



Butterfly  
*Papaio*

Newt  
*Notophthalmus*

Hemp  
*Cannabis*

# Homo Sapiens Sapiens

## Our branch

- **Homo** means Human Being and scientists believe there is evidence for at least thirteen species of human, twelve of which have gone extinct.
- **Homo Sapiens** means Thinking Human, and to differentiate between species like our near-ancient predecessors who had a rich life and culture and Modern Humans with language and technology, Modern Humans have been labeled **Homo Sapiens Sapiens**.
- Is the 50,000 year old date of the emergence of modern humans the time of Adam and Eve?



**Jim Stump**

# **Our Closest Cousins**

**Reflections on ancient Humans**

# Homo Neanderthalensis

## The tree may be bushier

- Faced with fossil evidence of a species much like but obviously not us, scientists concluded that there must have been an “ancient and previously unrecognized form of human.” 115
- Who were they and where did they come from?
- Neanderthals emerged from Africa around 200,000 to 300,000 years ago, and died out 20 to 30 thousand years ago having lived alongside **Homo Sapiens** for around 20 thousand years.
- What does this tell us about the biblical record?

# The General Picture

## From 6 - 7 million years ago

- One branch of the tree evolved into chimpanzees and bonobos, while the other branch evolved into modern humans with a wide variety of offshoots that have all become extinct.
- The offshoots are not our direct ancestors but branches of **Homo** that sprang from the same lineage as we did. Stump gives a short list.

**Jim Stump**



# **Our Ancestry in Baseball Cards**

**Obviously long periods of time are unimaginable without metaphor.**

# Imagining Many Generations

**One card equals roughly 25 years.**

- The thirty-fifth card in Jim's stack is Olaf II. A one inch stack takes Jim's lineage back to around 770 AD the time of Charlemagne.
- Looking back we might wonder why there are not more ancestors if grandparents double with every generation. If we look back far enough it becomes clear that in our lineages distant, (or not so distant) cousins are marrying each other, diminishing the number of ancestors needed.

# Imagining Many Generations

**One card equals roughly 25 years.**

- At 3.5” tall, the stack of cards takes us back to the time of Abraham, 2000 BC, about 161 generations ago.
- Modern humans came from Africa about 50 thousand years ago and bred with Neanderthals, evidenced by our 2% to 4% Neanderthal DNA in our genome.
- “This means that one of your 1,997th great-grandparents was a Neanderthal.” That equates to a 40” stack of baseball cards. 126

# Who Are the Image Bearers?

## Modern Humans or their predecessors?

- Anatomical Humans with small differences are found in the fossil record up to 300,000 years ago.
- Behaviorally modern Humans emerge from about 50 to 60 thousand years ago, with evidences of art and some symbolic language ability.

# How Tall Is the Stack of Cards?

**333,333 generations from the split**

- When Humans split from the Chimpanzees and Bonobos, around 6.5 million years ago, that represents a stack about 555 feet tall, the height of the Washington Monument.
- This shows how gradual the changes happened.
- “There is no precise point at which one species turns into another.” 130
- 500,000 years ago, there were no Homo Sapiens, but at 100,000 years ago, there were.



“It seems, then, that all we will ever get from evolution is small changes by degree. How are we supposed to reconcile that with the theological commitment that we humans are a different *kind* of thing?”

**Jim Stump, p. 130**