
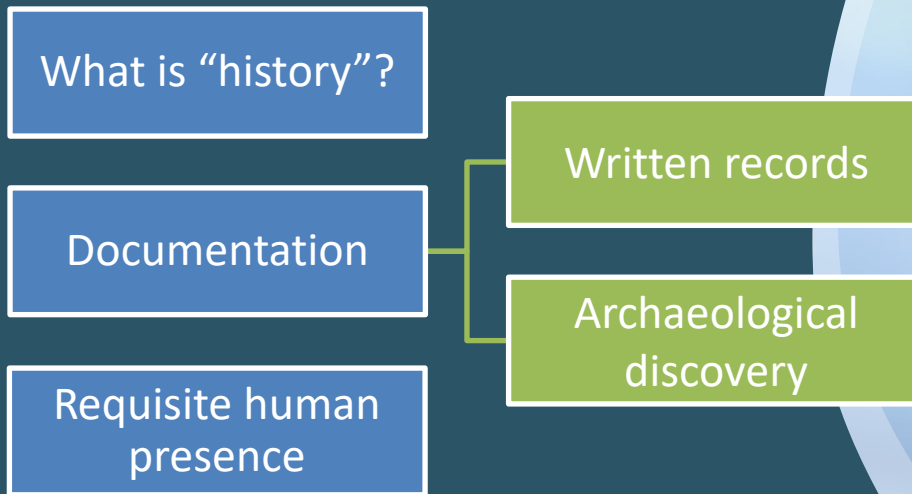


# Paleolithic & Neolithic Ages

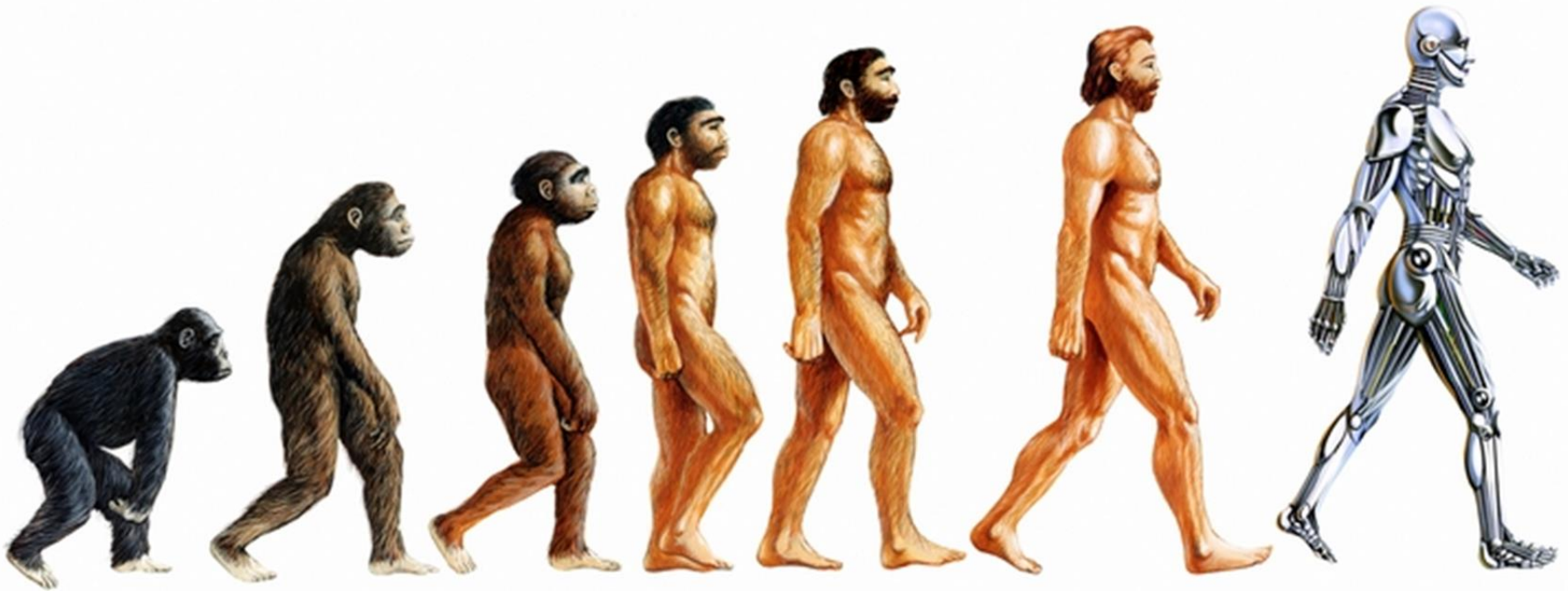


# Prehistory

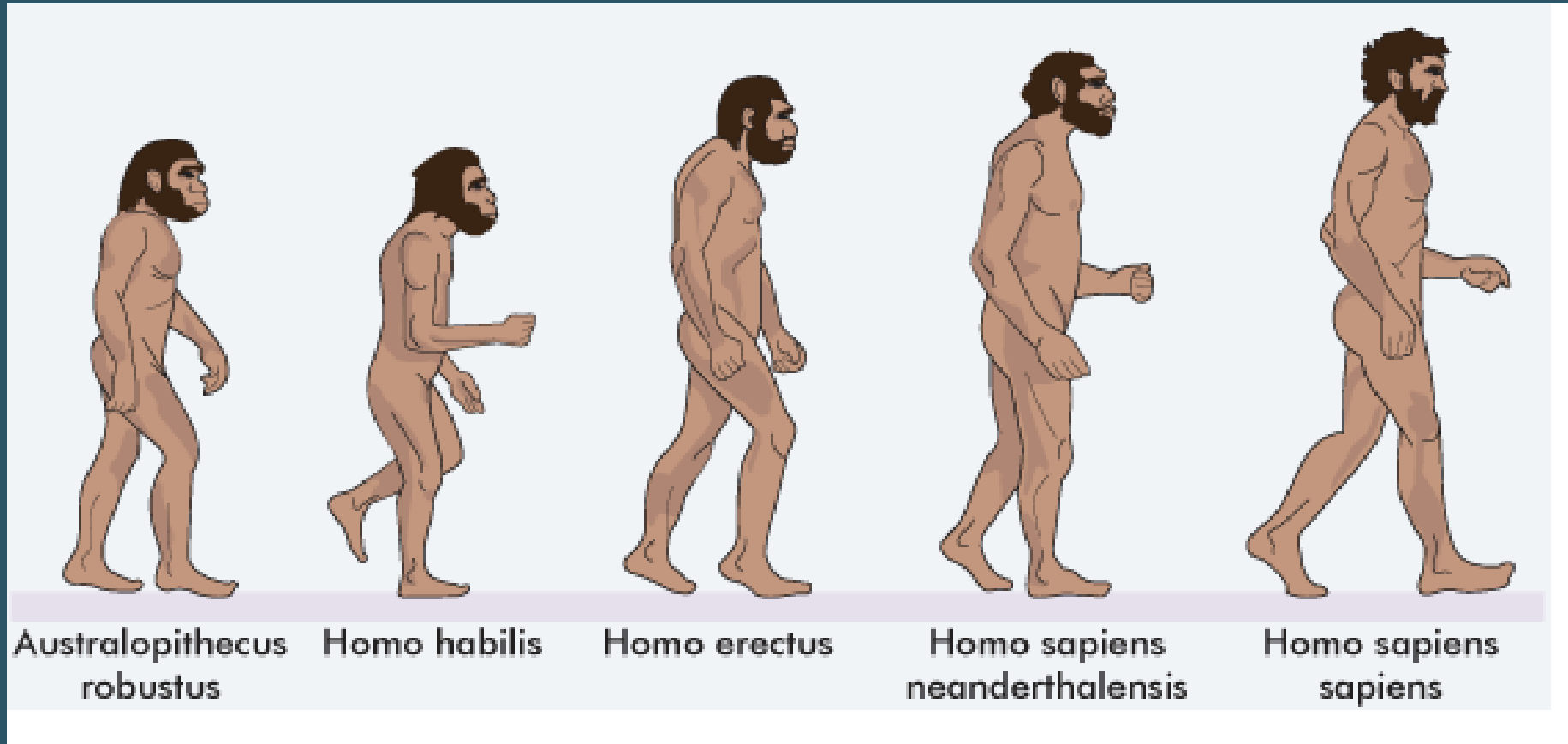


Prehistory is what happened before there were written records.

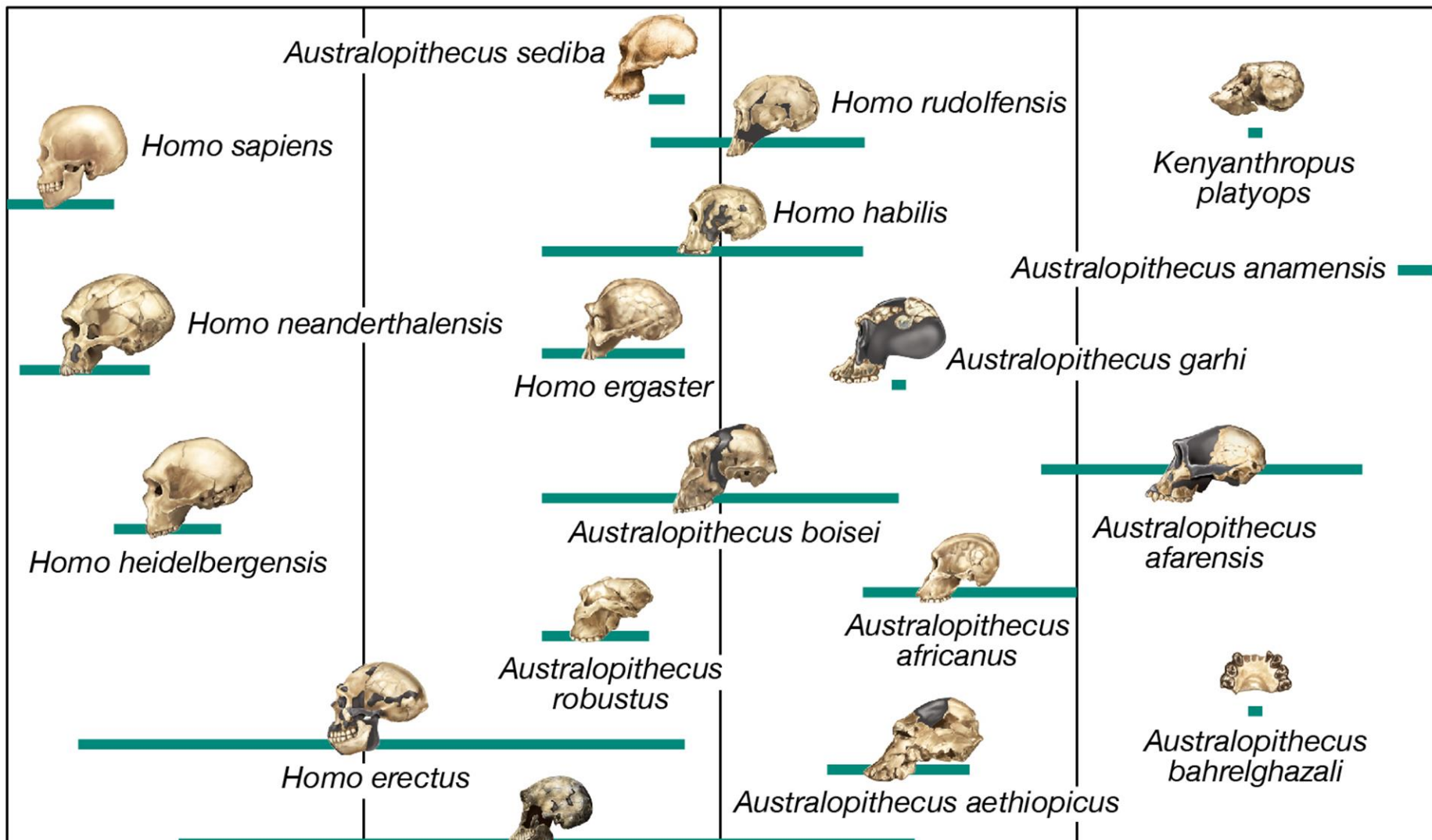
# Traditional View of Evolution



# What's wrong with this picture?



Too simplistic. Evolution was not a straight line. There were many branches that died out; some of which interbred.



## Neanderthal

## Modern human

Lower cranium

Larger bowridge

Larger nose

Larger, broader  
rib cage

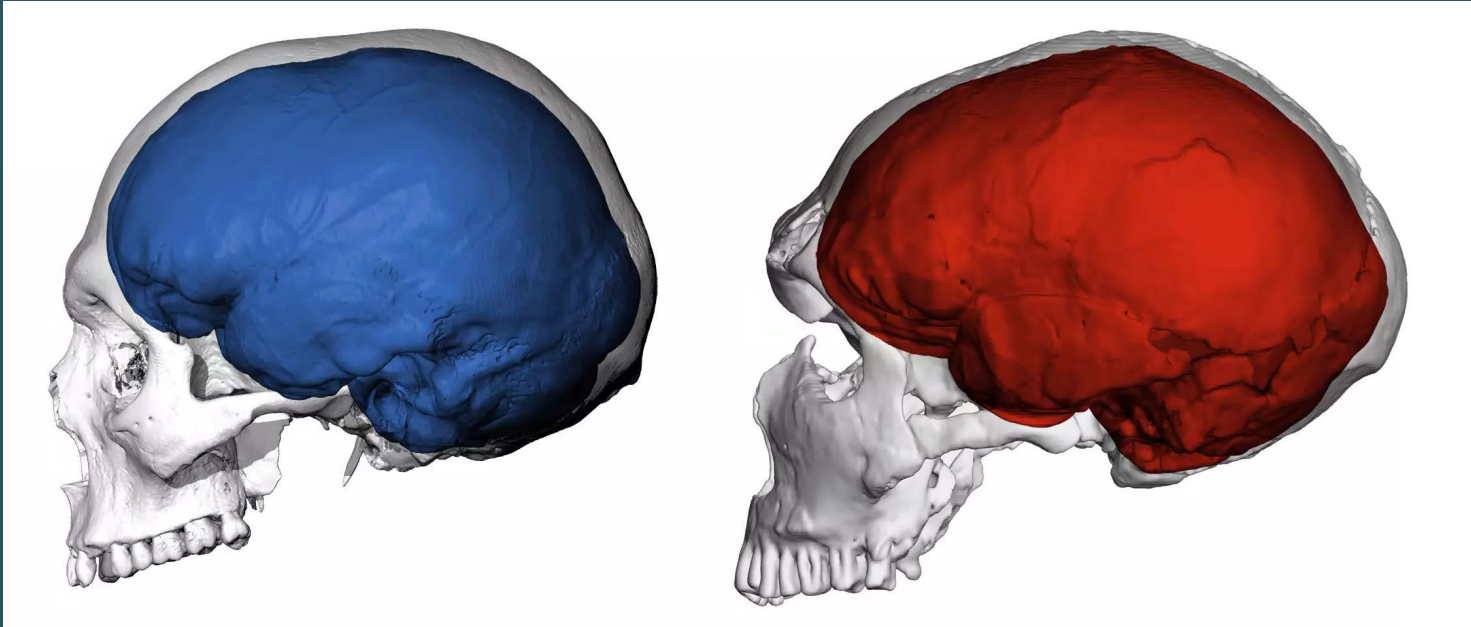
Shorter forearm

Broader hips

Shorter tibia

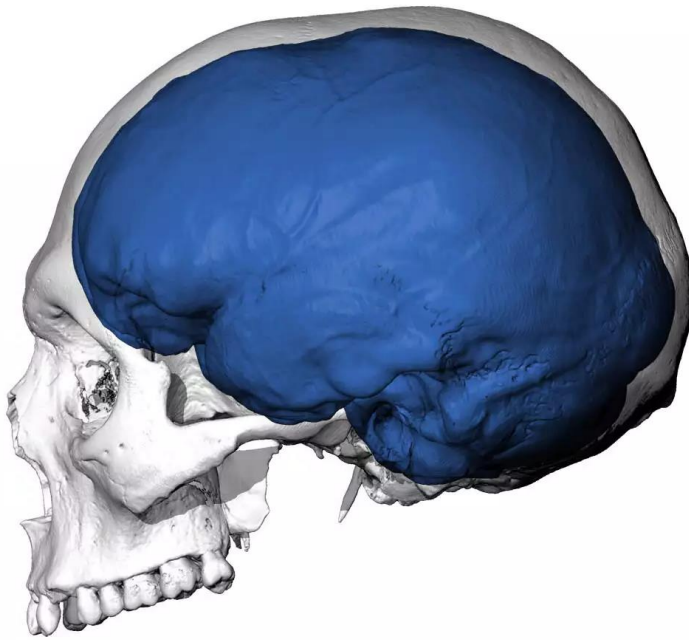


# Which is Neanderthal?



Homo Sapien

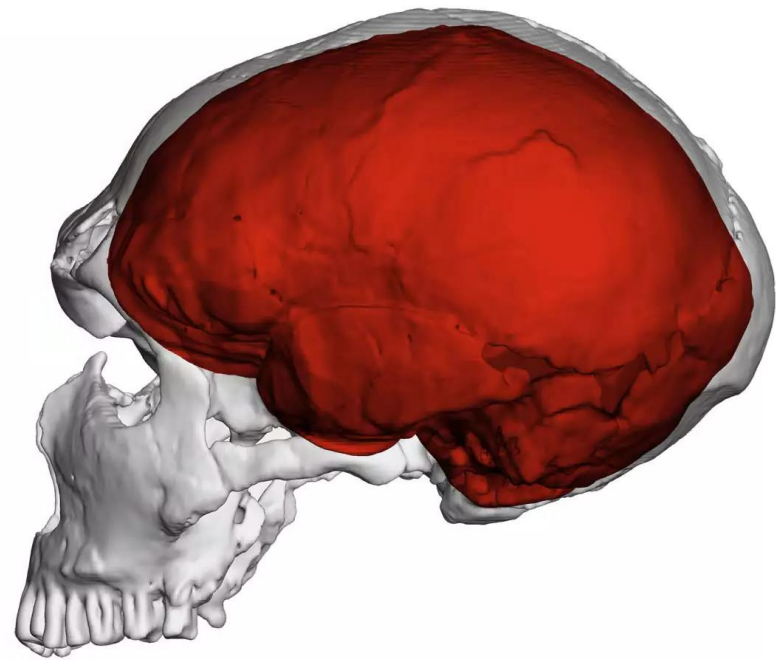
Neanderthal



Homo Sapien

Larger frontal cortex

- memory
- language
- forward thinking



Neanderthal

Slightly Larger Brain

Smaller frontal cortex

Larger visual processing center



# Why did Neanderthals go extinct?



Competing Academic Theories



# Why did Neanderthals go extinct?

Three main theories:

1) Climate

2) Design Flaw(Neanderthal Flaw)

3) Us (Outcompeted by Homo Sapiens)

# Why did Neanderthals go extinct?

## 1) Climate

Large arctic glaciers breaking off  
– cooling effect

Large volcanic eruption in Italy

- 39,000 years ago

-ash forms the dividing line between

Neanderthal and Homo Sapien remains  
and artifacts

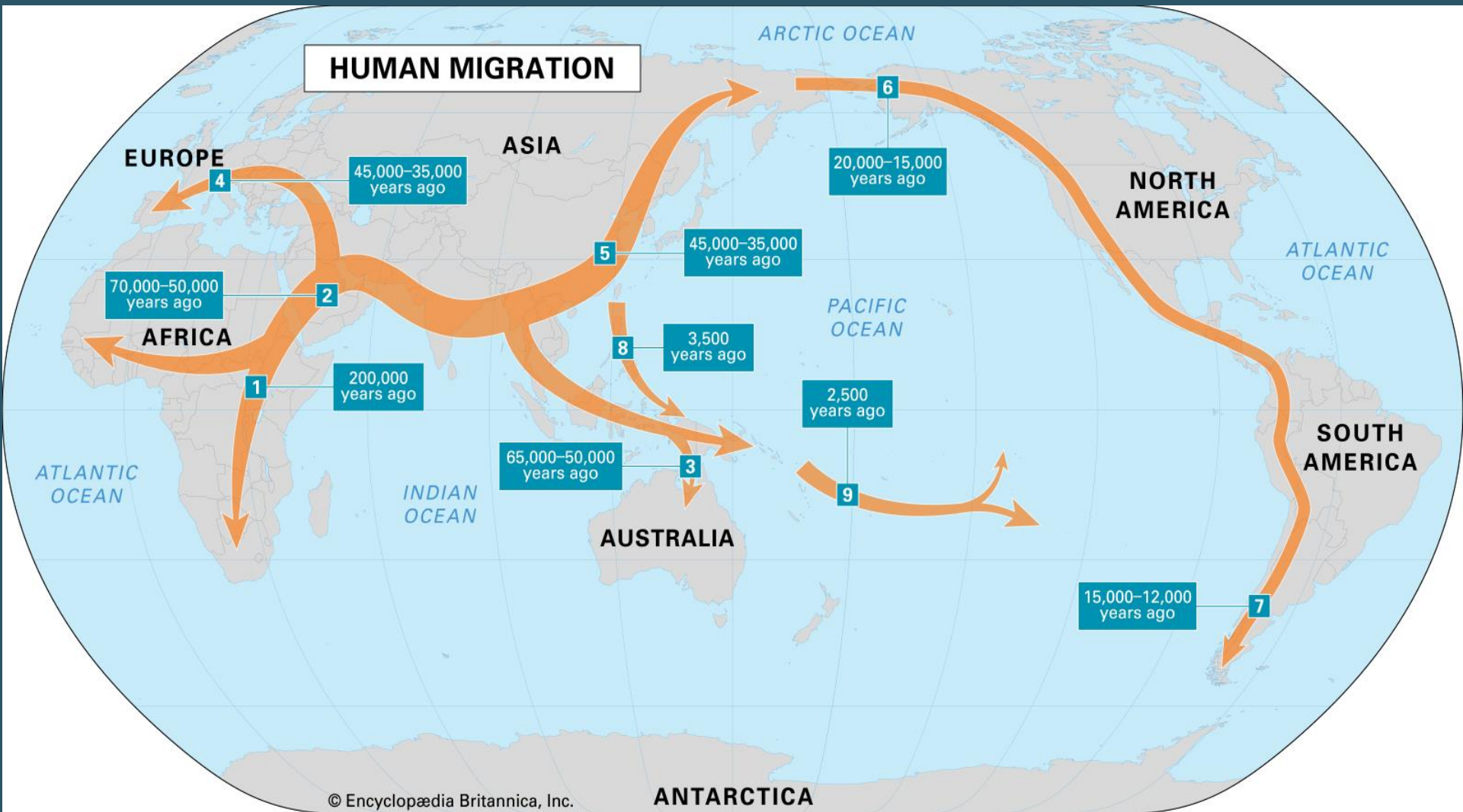
## 2. Neanderthal Flaw

- matured quicker so a shorter life span
- double the calories needed
- little genetic diversity
- populations contracting before Homo Sapiens emerged on the scene

### 3. Us (Outcompeted by Homo Sapiens)

Homo Sapiens moved into Neanderthal territories around 40,000 years ago

- Possibly introduced pathogens
- Cooked food – easier to digest
- More tools and material culture(ex. Distance hunting)



By 13,000 B.C.E., *Homo sapiens* in every inhabitable part of the world.

Stone Age

Bronze  
Age

Iron  
Age

Paleolithic Mesolithic Neolithic

# “Lithos” = stone

## Paleolithic Age

- ◇ Greek “paleo” means “old”
- ◇ Upper Paleolithic age was 50 000 – 10 000 years ago

## Neolithic Age

- ◇ Greek “neo” means “new”
- ◇ Neolithic Revolution occurred between 9000 – 4000 BCE





# Comparing the Stone Ages

## PALEOLITHIC

- ◆ small groups of 5-10 families
- ◆ Nomadic to semi-nomadic
- ◆ Closer relationships between bands of people  
ie. Cro-Magnon society

## NEOLITHIC

- ◆ People abandoned semi-nomadic life and began farming
- ◆ Agricultural revolution was a progression of the “Great Leap Forward”
- ◆ planting of crops
- ◆ domesticating of animals
- ◆ Better tools & weapons

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What can you infer  
about paleolithic  
life from the  
following sources?

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The man was adorned with 2,936 beads made of mammoth tusk arranged in strands found on all parts of his body including his head, which was apparently covered with a beaded cap that also bore several fox teeth.

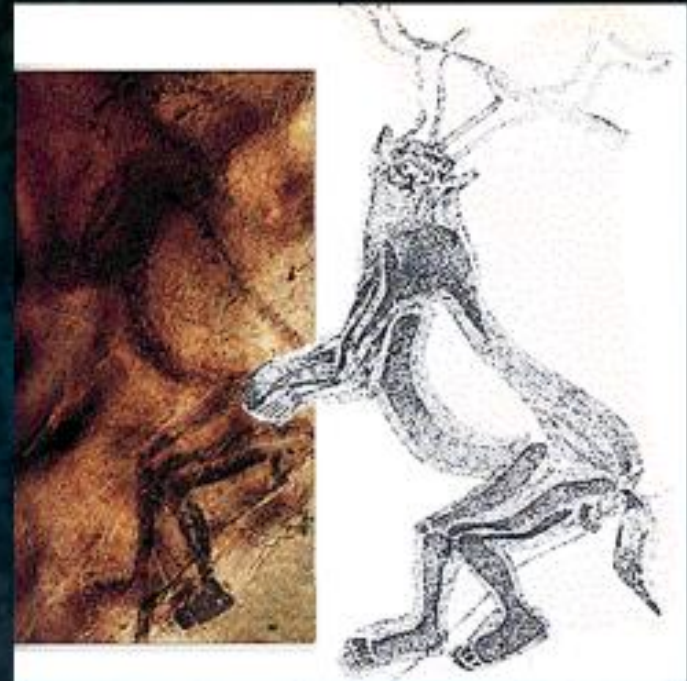


Experiments reveal that each of the ivory beads at Sungir took more than an hour to fabricate. Hence, the man's beadwork took more than 3,000 hours.



Collection #2 - The  
Cave Bear Skull  
The Chauvet Caves,  
France





Therianthropes are basically human-animal mixes. While most Paleolithic cave paintings were of bison, bears, rhinos, and other large mammals, some caves have paintings or carvings therianthropes like the ones above.

**What can we infer about Paleolithic Life from these therianthropes?**

Some scientists believe these show spirituality— either humans blessed with animal characteristics, or animals being portrayed as humans.



Carbon dating tells us that this flute is at least 35,000 years old. It is made from the the bones of a griffon vulture. Other flutes found were made of ivory, which are more difficult to make because the ivory has to be split, hollowed out, and refitted together.

Music experts say the instrument was well made and produced distinct musical notes.

**What can we infer about Paleolithic Life from this flute?**

MYA	Million years ago
BP	Years Before Present
BCE	Before Christian Era
AD	Anno Domini



Arrival of Early Humans

Homo sapiens (160,000 BP)



Introduction of Communication through Cave art



Introduction of Pottery  
Introduction of Agriculture

Lower Paleolithic

Middle Paleolithic

Upper Paleolithic

Meso-Lithic

Neolithic

2.5 Mya

300,000 BP

30,000 BP

14,000 BP

11,700 BP

3300 BCE (In India)

Introduction crude stone & bone tools by the early communities of Homo - genus



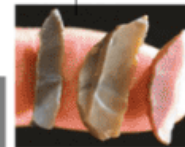
- Finer tools
- Invention of fire
- Cooked food



Finer bone tools



Microliths



- Polished Tools
- Often with handles



99NOTES.in.org

# Timeline of STONE AGE



Societies during the  
**Paleolithic Era** (Old Stone Age)

- were nomadic, migrating in search of food, water, shelter
- Hunter-gatherers
- invented the first tools, including simple weapons
- learned how to make and use fire
- lived in clans
- developed oral language
- created “cave art.”

Societies during the  
**Neolithic Era** (New Stone Age)

- developed agriculture (domesticated plants)
- permanent settlements
- domesticated animals
- used advanced tools
- made pottery
- developed weaving skills

## Paleo = Old Lithos + Stone

---

# Early Paleolithic Age - Evidence

Archaeological finds:

- Sophisticated tools
  - Choppers, scrapers, axes, knives, bows, arrows
  - Cave and hut-like dwellings
  - Use of fire, animal skins

Extrapolation from modern hunter-gatherer societies

Nomadic existence precludes complex civilization

---

Hunted several mammal species to extinction

- Climatic change may have accelerated process

# PALEOLITHIC TOOLS

## LOWER PALEOLITHIC



**Chopper:** pebble, roughly worked on one side. Used for digging and skinning.



**Biface:** hand axe knapped on both sides. Used for cutting.

## MIDDLE PALEOLITHIC



**Knife:** utensil knapped on one side. Used for cutting or as a weapon.



**Scraper:** used for cleaning animal hides<sup>5</sup> and sharpening knives.

## UPPER PALEOLITHIC

**Blade:** finely knapped. Used as spear heads.



**Harpoon:** used for fishing.



**Spear thrower:** used to throw javelins.



**Javelin:** weapon for throwing. Similar to a small spear.



**Needle:** made of bone and used for sewing.

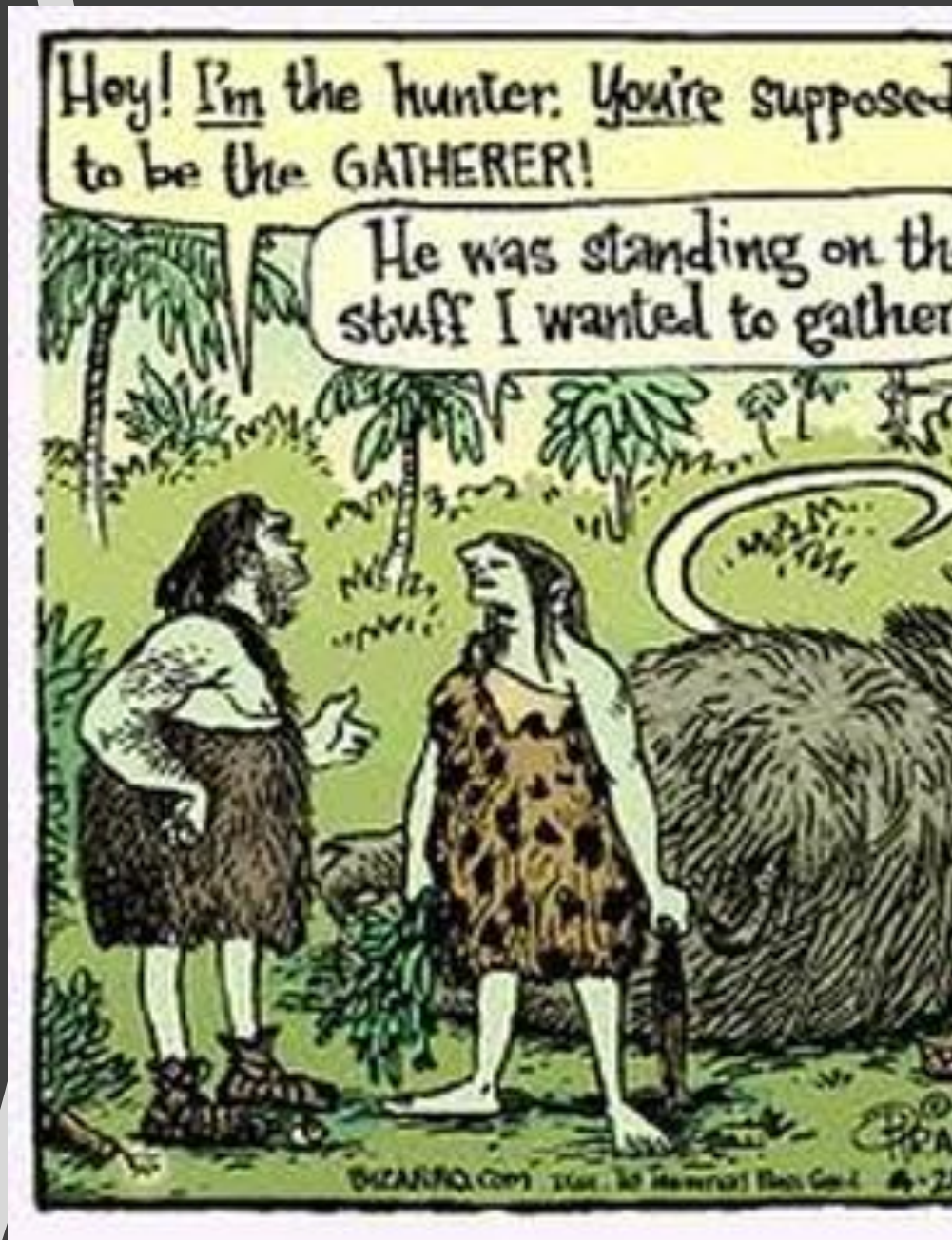


**Perforator:** used for making holes in hides.

# Paleolithic Era

**Hunting-foraging bands** migrated from E. Africa to Eurasia, Australia, & Americas

- Adapt technology & culture to climate
- Fire used for hunting, protection, & adaption to climate
- Tools for different environments
- Economic structures= **small kinship groups**



# Paleolithic Economy and the Environment

Hunting and gathering peoples used to be regarded as “primitive” and impoverished

- Some modern studies point out that they worked fewer hours (but this feature is different depending on time and location)
- Some extensive trade networks existed



**Prehistoric cowrie shells  
have been found in  
Hungary – Evidence of an  
extensive trade network**



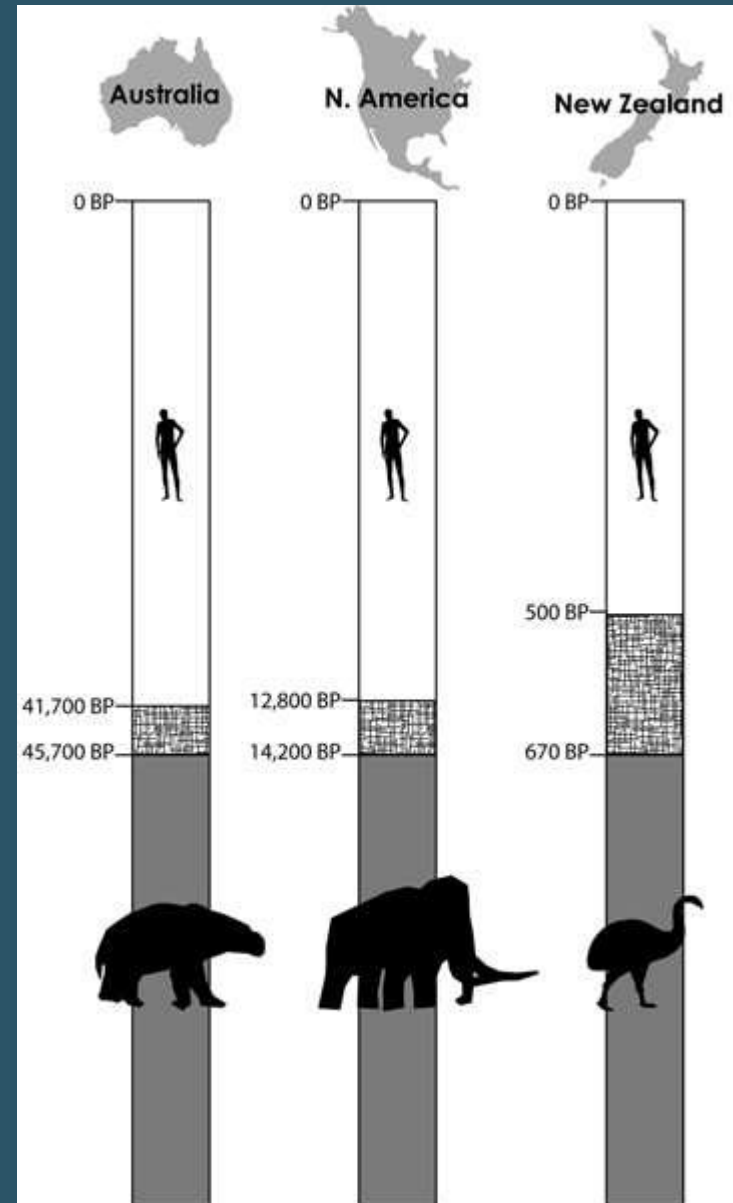
## Paleolithic Age - Alteration of natural environments

**Slash and burn horticulture** - deliberately set fires to encourage growth of certain plants

Extinction of many large animals shortly after humans arrived

Gradual extinction of other hominids, like the Neanderthals (Europe) and Flores man (Indonesia)

Did megafauna die from hunting or climate change?

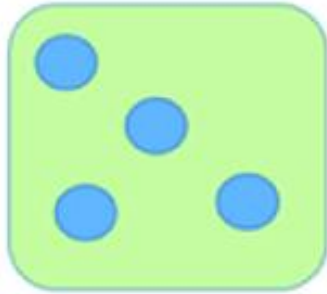




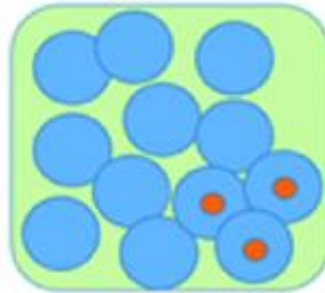
Amount of land required to sustain a hunter-gatherer



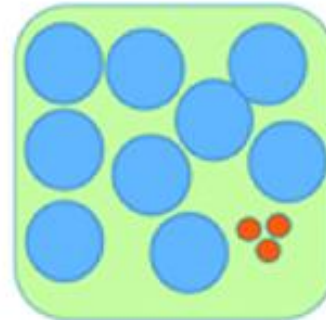
Amount of land required to sustain a farmer



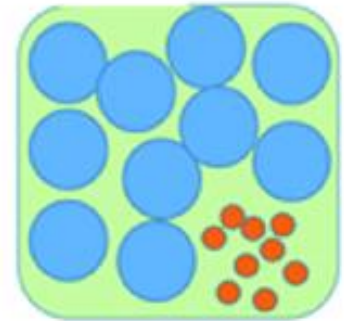
Hunter-Gatherers with a relative leisurely existence on land that easily support them.



Through population growth (more circles) or changing environmental conditions (larger circles), the pressure on the land increased to where the land could no longer support the lifestyle.



Some of the population adopts an agricultural lifestyle reducing their need for land.



The larger population growth rate of the agricultural community reduces the land available for the hunter-gatherer lifestyle., sustaining the positive feedback towards a transition to



# The First Human Societies

1. societies were small, bands of 25–50 people

2. **very low population density** (because of available technology) = very slow population growth

3. **Seasonally mobile** or nomadic

a. moved in regular patterns to exploit wild plants and animals

b. since they moved around, they couldn't accumulate goods



# The First Human Societies

4. societies tended to be **highly egalitarian**(though there is great variation)

**\*Exception\* Affluent Hunter Gatherers**

- had specific sites where they would live
- collection and storage of resources - wealth
- often highly stratified society social structure which could include free and enslaved people

- did not have many specialists, so most people had the same skills



# The First Human Societies

- relationships between women and men were far more equal than in later societies

5. Paleolithic societies had clearly defined rules

- a. men hunted, women gathered
- b. clear rules about distribution of meat from a kill
- c. rules about marriage



# The Realm of the Spirit

1. It is difficult to decipher the spiritual world of Paleolithic people
  - a. lack of written sources
  - b. art is subject to interpretation
  - c. contemporary hunting and gathering peoples may not reflect ancient experience
  
2. Paleolithic peoples had a rich ceremonial life
  - a. led by part-time **shaman** (people especially skilled at dealing with the spirit world)
  - b. frequent use of psychoactive drugs to contact spirits



**therianthrope**— animal human hybrid

# The Realm of the Spirit – What do we know?



3. apparent variety of beliefs
  - a. monotheistic
  - b. Polytheistic
  - c. still others believed in an impersonal force running throughout the natural order - **Animism**
  - d. **Venus figurines** make some scholars think that Paleolithic religion was strongly feminine, with a Great Goddess and a focus on fertility
  - e. many peoples probably had a **cyclical view of time**

# Social Structure – I. Generalized hunter- gatherers

**Nomadic culture** precludes accumulation  
of land-based wealth

- More likely determinants of status:  
age, hunting skill, fertility,  
personality
- Possible gender equality related to  
food production
- Men: protein from hunting
- Women: plant gathering



# Social Structure –

## II. Complex Hunter Gatherers aka Affluent Foragers

- Like general hunter-gathers, complex hunter-gatherers do not practice large scale agriculture or pastoralism
- Accumulate resources
- **Semi-nomadic** or sedentary
- Can have high levels of social complexity
  - social hierarchy
  - sometimes includes free and enslaved people
- Some practice private or family ownership over resource areas





And now, for something  
completely different...







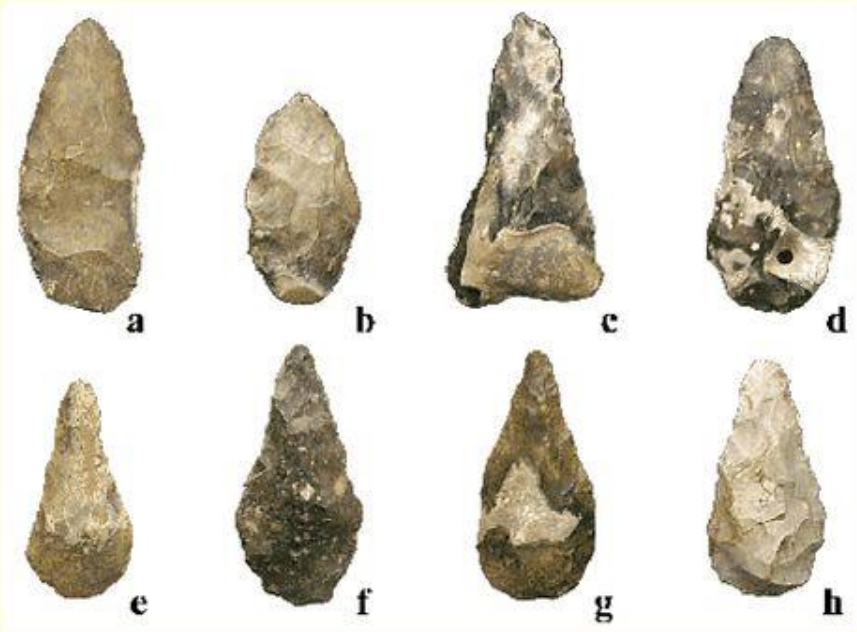
Do you recognize this image?



10,000 years ago, the Agricultural Revolution led to new complex economic & social systems

# Paleolithic v/s Neolithic

## Prehistory Timeline



**What  
about  
these??**



## Neolithic Rev. & Early Agricultural Societies

Why did people start farming?

- need for a long-term reliable source of food
- people experimented with plants
- need for political and social organization
- Accident



# Settling Down: “The Great Transition” or the Great Leap Forward

Collection of wild grains started in northeastern Africa around 16,000 years ago

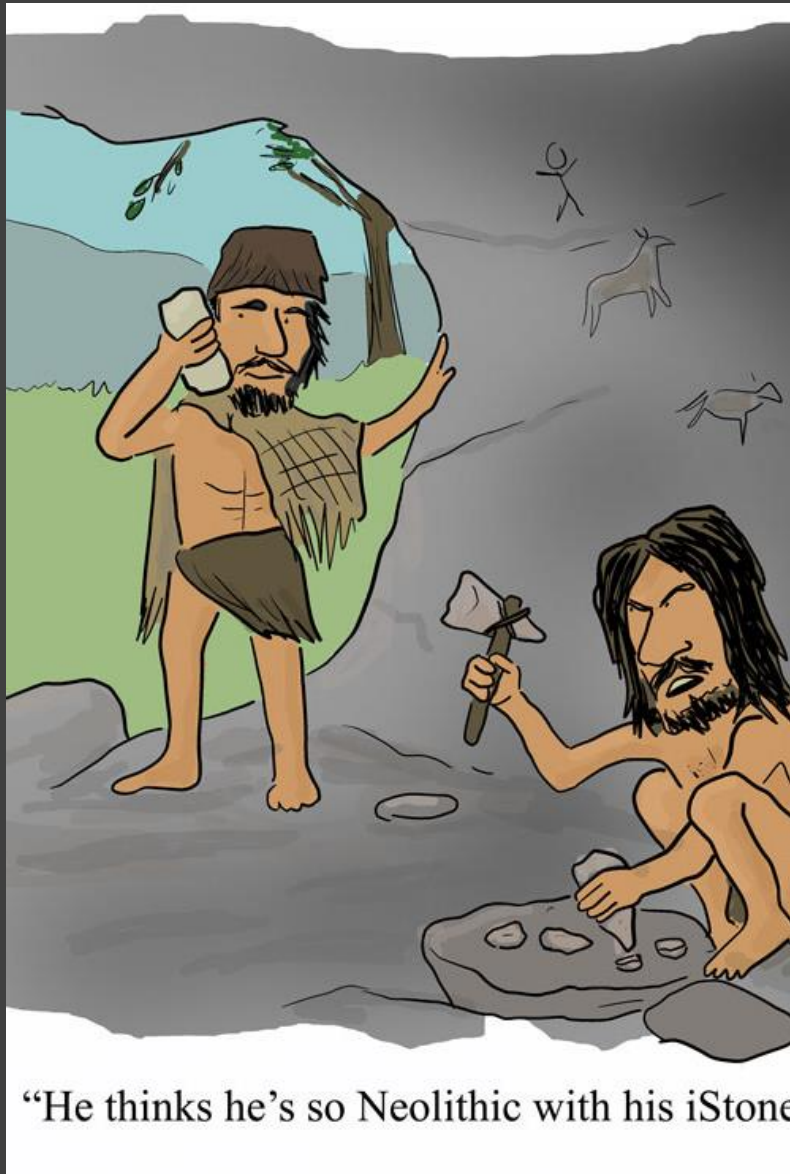
Last Ice Age ended 16,000–10,000 years ago

a. followed by a “global warming” period

b. richer and more diverse environment for human societies

c. population rise

d. beginnings of settlement



Settlement led to societal change:

- a. larger and more complex societies
- b. storage and accumulation of goods led to inequality

The process of settlement was a major turn in human history.

# Neolithic Rev. & Early Agricultural Societies

Permanent settlements arose in:

- Mesopotamia
- Nile River
- Sub-Saharan Africa
- Indus River
- Yellow/Huang He River
- Mesoamerica & Andes

**Pastoralism** developed in Afro-Eurasia

\*keeping of herd  
animals (ie. goats)



# Neolithic Rev. & Early Agricultural Societies

Different crops & animals  
domesticated

Cleared land, created  
water control systems  
(irrigation)

**Agricultural practices  
Impacted environmental  
diversity**

Transformation of human  
societies

- More reliable and abundant food supplies=  
increased pop.



# Neolithic Rev. & Early Agricultural Societies

- Specialization of labor (artisans, warriors, elites)
- Technology led to improvements in agricultural production, trade, & transport
- In both **pastoral** and **agrarian** societies, elite groups accumulated wealth, creating more hierarchical social structures and promoting patriarchal forms of social organization.

# Neolithic Rev. & Early Agricultural Societies

- **Government**
  - Military and religious leaders
  - Monarchy develops
  - Less equality among the sexes



**Neolithic  
Revolution** — Paves the way  
for permanent settlements.

**Permanent Settlement**  
Agriculture allowed  
larger groups to live in  
one place

### Catal Huyuk

A Neolithic Age town,  
founded about 7,000 B.C.E.  
in modern-day Turkey

- Population was in the thousands (a real metropolis for its time)
- Cultural life flourished, beginnings of what we might consider civilization
- Drawbacks: disease, larger scale warfare becomes more common