

Evolution of Man

Human Evolution: Palaeontological Evidences

Fossil bones of human ancestors are discovered from Africa, Germany, France, China, Java and other parts of Asia.

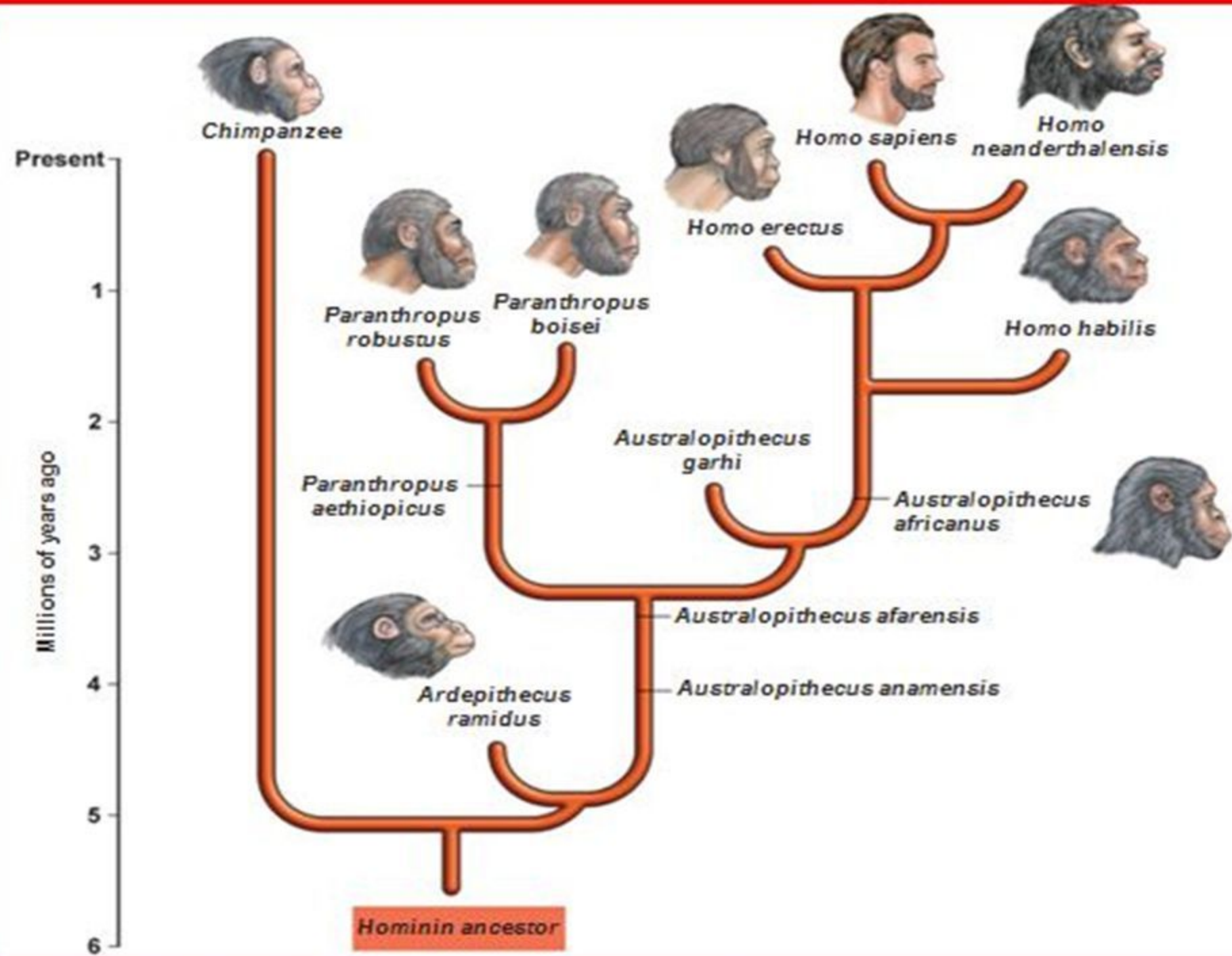
There are four main stages in the origin of man.

I. Ape-stage- *Propliopithecus*, *Dryopithecus*

II. Ape-men stage- *Ramapithecus*, *Kenyapithecus*,
Australopithecus.

III. Primitive men (prehistoric men)- *Homo habilis* (Handy man),
Homo erectus (Java man & Peking man),
Homo neanderthalensis (Neanderthal man).

IV. Modern man- *Homo sapiens fossilis* (Cro-magnon man)
Homo sapiens sapiens (The modern man of today)



Ramapithecus:



- Most Ancient ancestor.
- Very ape like in appearance.
- Stood about 3.5 feet tall.
- Was the first Hominid (member of the ape / human family). It probably stood on two feet.
- Lived in the trees between 8 - 14 million years ago.
- Very little physical evidence has survived. Mainly lower and upper jaw with some teeth.

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- First to show adaptation to diet. The canine teeth had shrunk and the molars enlarged.

This allowed *Ramapithecus* to chew by grinding. This indicated that these creatures had started to eat more fibrous and harder food as opposed to just soft fruit and vegetation.

- First discovered in India, Kenya, Turkey, Hungary
- Skull was considerably smaller than present humans.

Australopithecus:



- Was more ape like and not considered a full Hominid
- Most famous find of this species was “Lucy”. Was found by Leakeys and Johanson in the 1960s.
- Lived around 2 - 3 million years ago.
- Stood 3 - 4 feet tall.
- Probably travelled in groups of 25 - 30 members.

Believed to be the first to live in small groups.

- Brain size was half of that of a modern human.
- Walked semi erect.
- Teeth and jaw shape indicated it was most likely a herbivore.
- Had a number of physiological adaptations

Spine was not hunched but S shaped.

Hips had adjusted to increased weight placed on them

Ankles had grown thicker to absorb the extra weight.

Big toe aligned with the rest, loss of gripping ability

Walk Like a Man and cut that Hair!

- Australopithecus was the first of the apes to fully prefer to walk upright.
- Why did they prefer this is somewhat of a mystery
- Quadrupeds can travel at higher speeds
- Bipedal, however, are free to carry things in their arms such as weapons or tools.
 - They can travel longer distances without as much exertion.
 - At the same time early man began to lose their hair.
 - Believed to be a function of physiology
 - Early man hunted in the afternoon while larger predators and prey were resting.
 - Sweating prevented overheating and became the primary source of heat control.
 - Less need to keep hair
 - The drawback to this is that early man became reliant on constant source of water to rehydrate, limited range.

Homo Habilis



- Lived around 2 – 1.8 million years ago.
- Stood approximately 4 feet tall
- Larger brain size than Australopithecus but still smaller than a modern human's.
- First to stand fully erect.
- Was the first to develop stone tools. Called the “Handy man”.

• First to attempt to develop formalised communications. (grunts, gestures)

- First fossils found in Oldavai Gorge.
- First to hunt / gather as a group. Labour roles were divided by gender with men hunting and women gathering.
- Archeological evidence indicates that scavenging was more common than hunting. Homo Habilis did not have the skill to kill larger game on their own. They ate leftovers!
- First Omnivores. Used all parts of the animal.

Homo Erectus

- Lived between 1.5 million – 250,000 years ago.
- First fossils found in the 1890s. Most complete skeleton was found in 1920s in China.
- Had a thick brow. Had sweat glands. Had a larger brain size than previous species.
- Was the first hominid to walk fully upright and did not stoop when walking.
- Was the first to move into Europe.



Neanderthal:

- Was considered part of the evolution chain.
- Lived approximately 250,000 to 30,000 years ago
- DNA evidence indicates that they were a totally separate species.
- They were the first to develop communities



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- They hunted effectively in groups
 - They developed religion – Centered on the cave bear
 - Evidence of ancestor respect, through complex burial practices.
 - Spread widely into Central Asia and the Middle East.

Homo Sapiens



- Means: Man Who Thinks
- First appeared approximately 250,000 years ago.
- Around 50,000 years ago the pace of development and regional variation occurred.
 - Called the “Great Leap Forward”
- Development of abstract thinking, non-essential goods such as jewellery and art.

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- First to develop permanent settlements along previous migratory routes.
 - Began to cultivate and domesticate wild animals.
 - Developed increasingly more complex tools and weapons.