

Homo erectus behavior

- What behavioral changes are found in *Homo erectus*?
- What is the adaptive pattern?
- What sorts of tools are found with *Homo erectus*?

Archaic *Homo*

- What are "archaic *Homo sapiens*"?
- Why do we call them archaic?
- What features do they show?
- How are they distinguished from *Homo erectus*?
- What "species" are archaic *Homo* sometimes divided into?



H. erectus



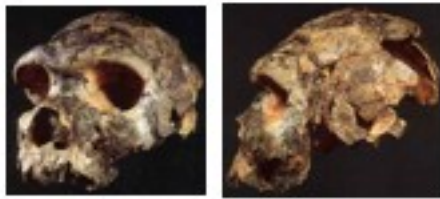
archaic *Homo*

More on archaics

- What other species names are they known by?
- Why would they be put into other species?
- What does it mean to say that they are mosaic?

Evolutionary Models

- Models of human evolution from *Homo habilis* to *Homo sapiens* can usually be divided into two paradigms - what are these?
- In each model, where do the various "species" of archaic *Homo* fall?
- What are the differences between the paradigms?
- What is the role of gene flow in these models?
 - How much gene flow is necessary to keep two populations from speciating?
- What are anagenesis and cladogenesis?



Bodo
600,000



Kabwe



Atapuerca 5





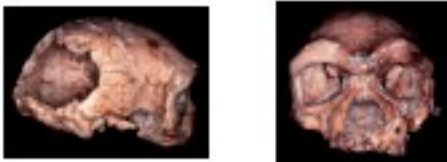
Mauer

8



Petralona

10



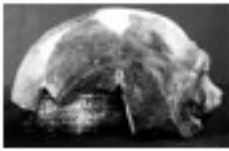
Dali

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Jinnuishan

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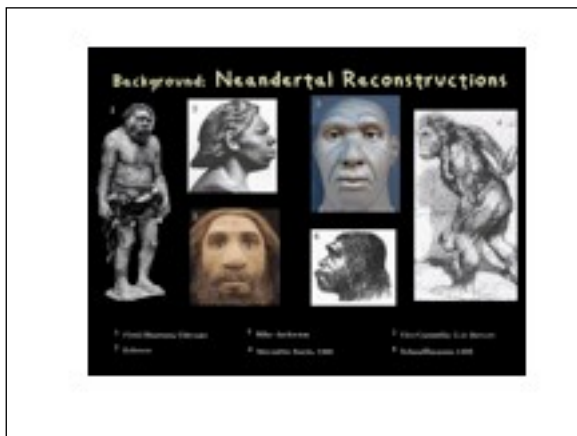
Maba

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Neandertal facts

- Special case of Archaic Homo
- First discovered 1830
- Europe and the Near and Middle East
- Date between 150,000 and 27,000 years ago
- Hundreds of individuals known
- Show robust, cold-adapted anatomy



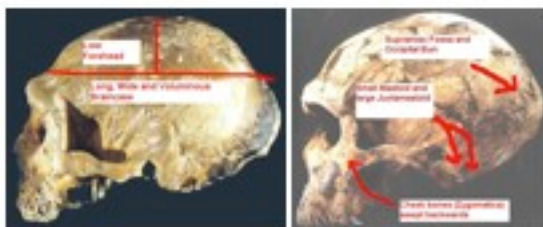
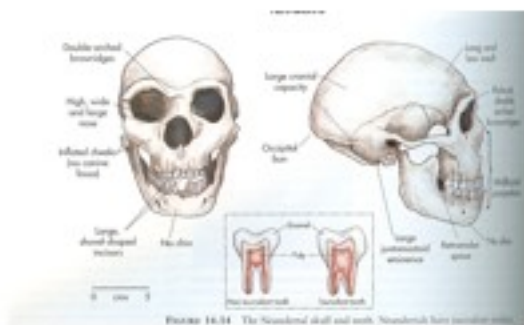


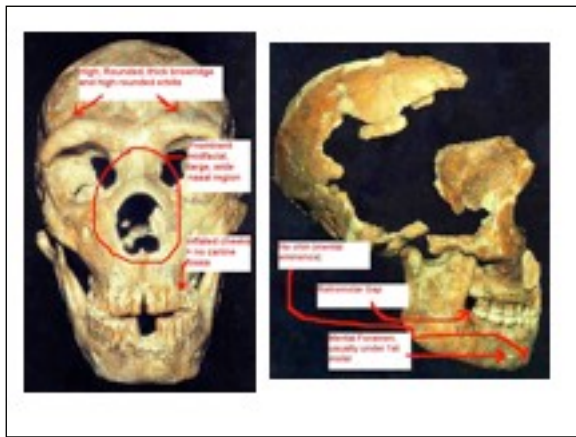


Modern reconstructions

Neandertal features

- Mean cranial capacity of 1400 cc - up to 1600
- Large projecting midfaces
- Retromolar gap
- Supraorbital torus, double arched
- Receding frontal bone
- Occipital bun





Neandertal features

- Barrel shaped chest, stockier than modern humans
- Short limbs, short stature
- Heavy musculature
- Very high traumatic fracture rate

Neanderthal and modern human skeletons



La Ferrassie
60,000 ys

Neandertal vs. other archaic



Neandertal vs. other archaic



Neandertal vs. other archaic



Neanderthal

Krapina
130 kya



Saccopastore
120,000 ya



La Ferrassie
60,000 ya

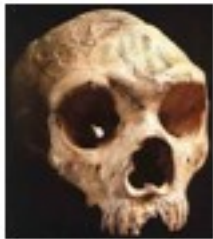




La Chapelle aux Saints
50,000



Monte Circeo
60,000 ya



Gibraltar
30 kya ?





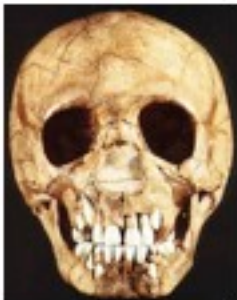
Amud



Kebara
60 kya



Shanidar



Teshik Tash

Who were the Neandertals?

- Their own species or something different?
- A regional subpopulation adapted to the cold?
- *Homo neanderthalensis* or *Homo sapiens neanderthalensis*?
- Just another form of archaic?