

Last time...

- What defines the genus *Homo*?
- When does *Homo* first appear? Where?
- How do we identify these fossils as *Homo* rather than *Australopithecus*?
- How are *Homo habilis* different from the other hominids they are contemporaneous with?

Olduwan tools

- What are Olduwan tools?
- How are they made?
- When are they first found and with which species?

Adaptive pattern

- How does the adaptive pattern of early *Homo* differ from that of the Australopithecines?
- Why was brain size selected for?
- What else changes in adaptation when brain size increases?

H. habilis v. *H. erectus*

- What makes these two species different?
- When are they found in time? space?

Possible *Homo* species

- *Homo habilis*
 - *Homo rudolfensis*
 - *Homo ergaster*
 - *Homo erectus*
- Sometimes the same
- Sometimes the same
-
- ```
graph LR; H1[● Homo habilis] --- G1[Sometimes the same]; H2[● Homo rudolfensis] --- G1; H3[● Homo ergaster] --- G2[Sometimes the same]; H4[● Homo erectus] --- G2;
```

# *Homo erectus*

- *Who is Homo erectus?*
- Where is this species found?
- In what time frame?
- What are its identifying anatomies?

# *Homo erectus* lifeways

- tool technologies that reflect advanced cognitive skills
- Dietary shift to a more heavily meat-based diet than its predecessors

Zhoukoudian  
300 kya

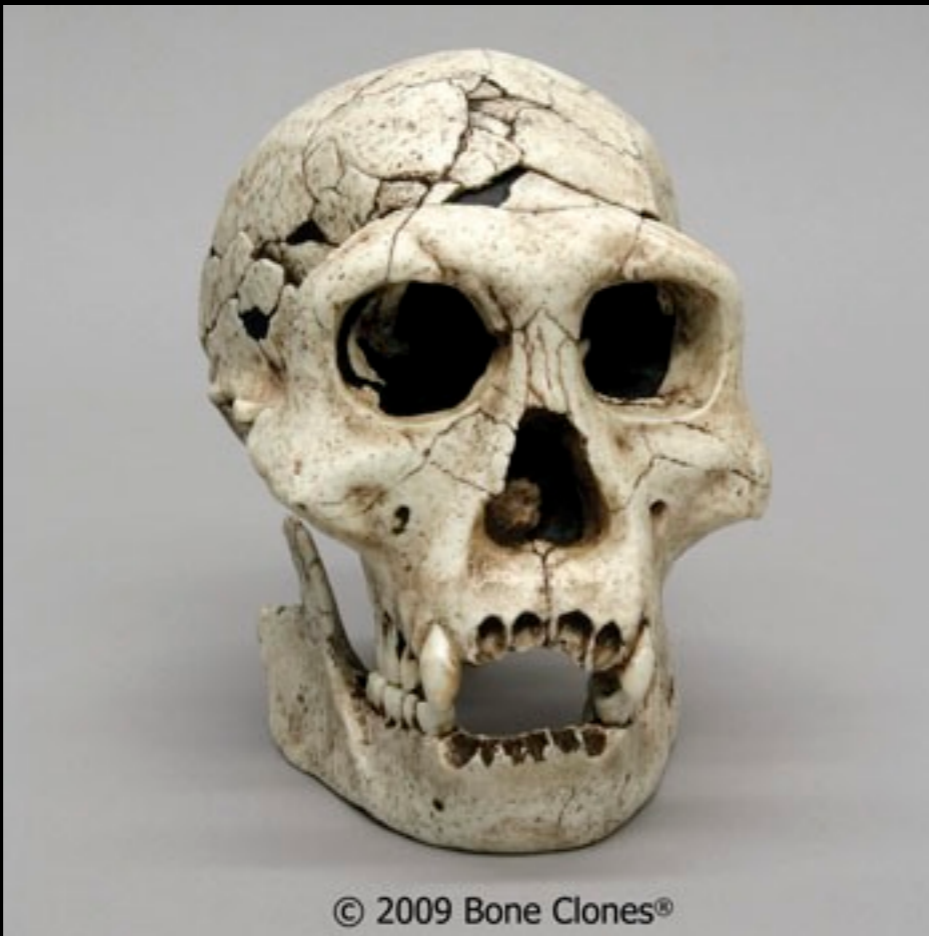




# *Homo floresiensis* 95,000-13,000







# *Homo antecessor / Homo erectus?*

Atapuerca  
1.2 mya



Atapuerca  
800,000



# Cranial capacities

|           | Cranial Capacity |
|-----------|------------------|
| Africa    | 690-1067         |
| Indonesia | 800-1250         |
| China     | 855-1225         |

# Cultural changes

- Greater home range -  
**SIGNIFICANTLY**
- More complex stone tools  
- Acheulean industry



# Acheulean handaxes



53.—Lower Acheulean implements from St. Acheul 1. A typical boucher; 2. an "amande" or ovate boucher; 3. a scraper. (After Commont, *L'Anthropologie*.  $\times \frac{1}{2}$ .)



# Cultural changes

- Control of fire (?)
- Construction of shelters (?)
- Crossing of water





# Cultural changes

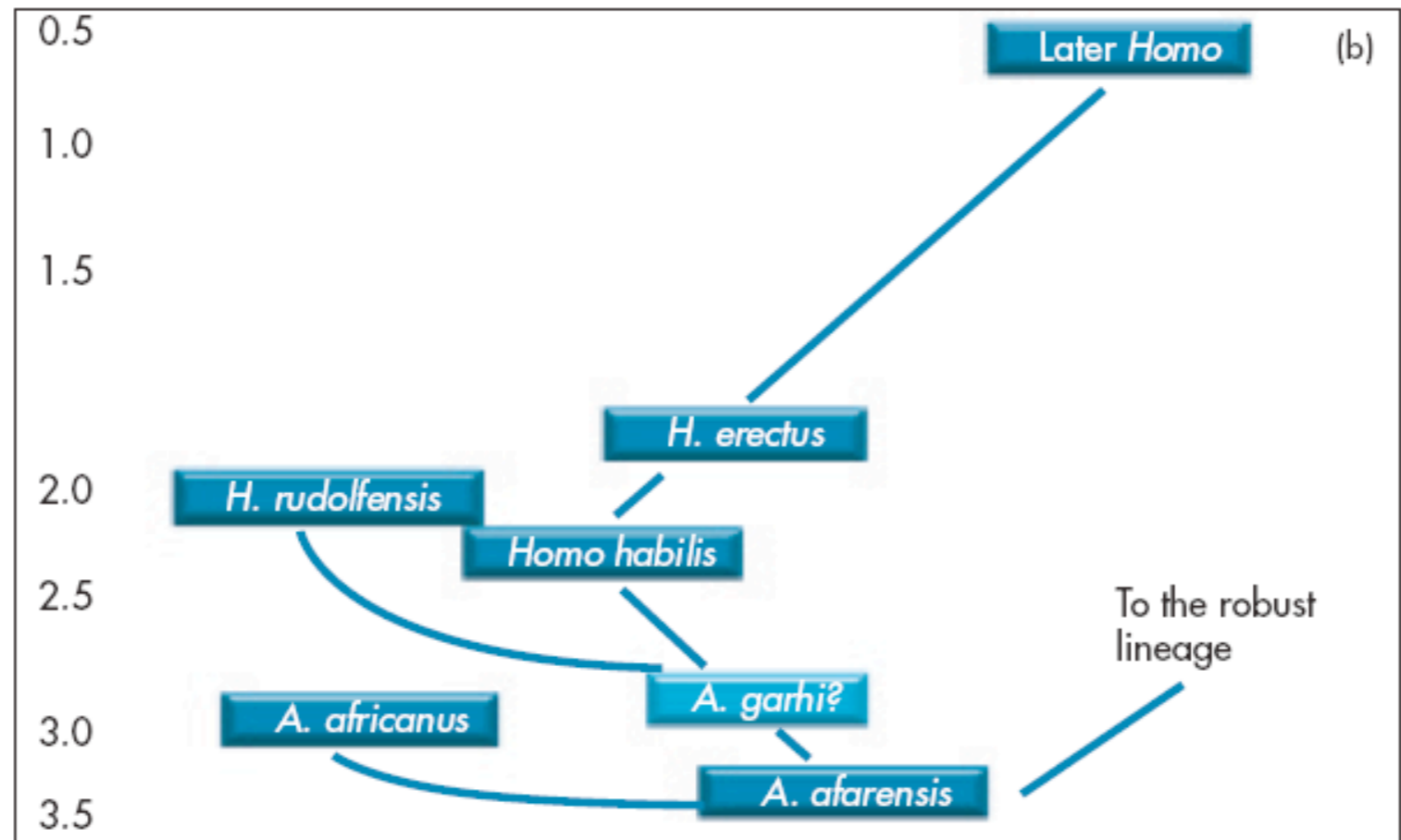
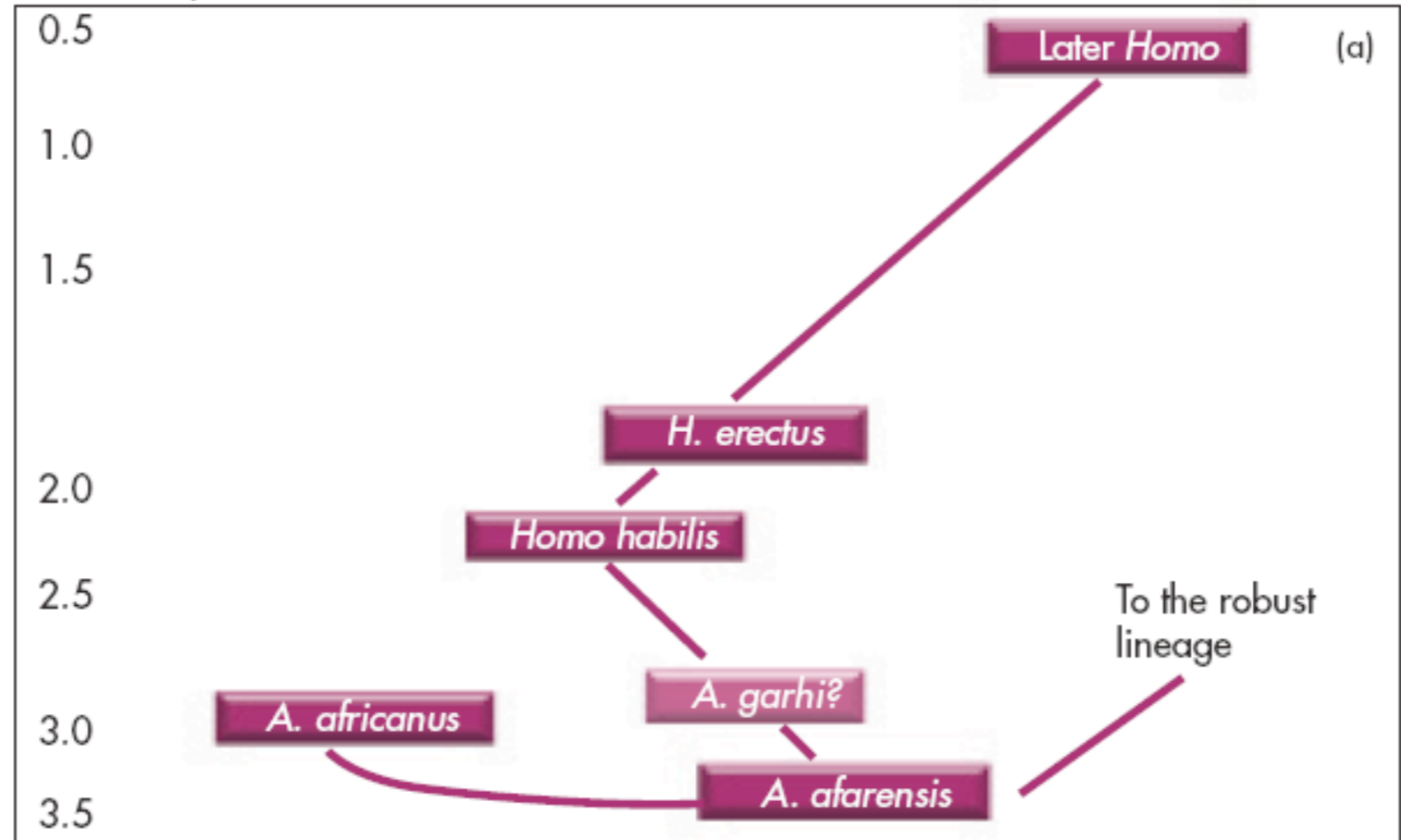
- Care of elderly (over 40!)
- More complex stone tools  
- Acheulean industry



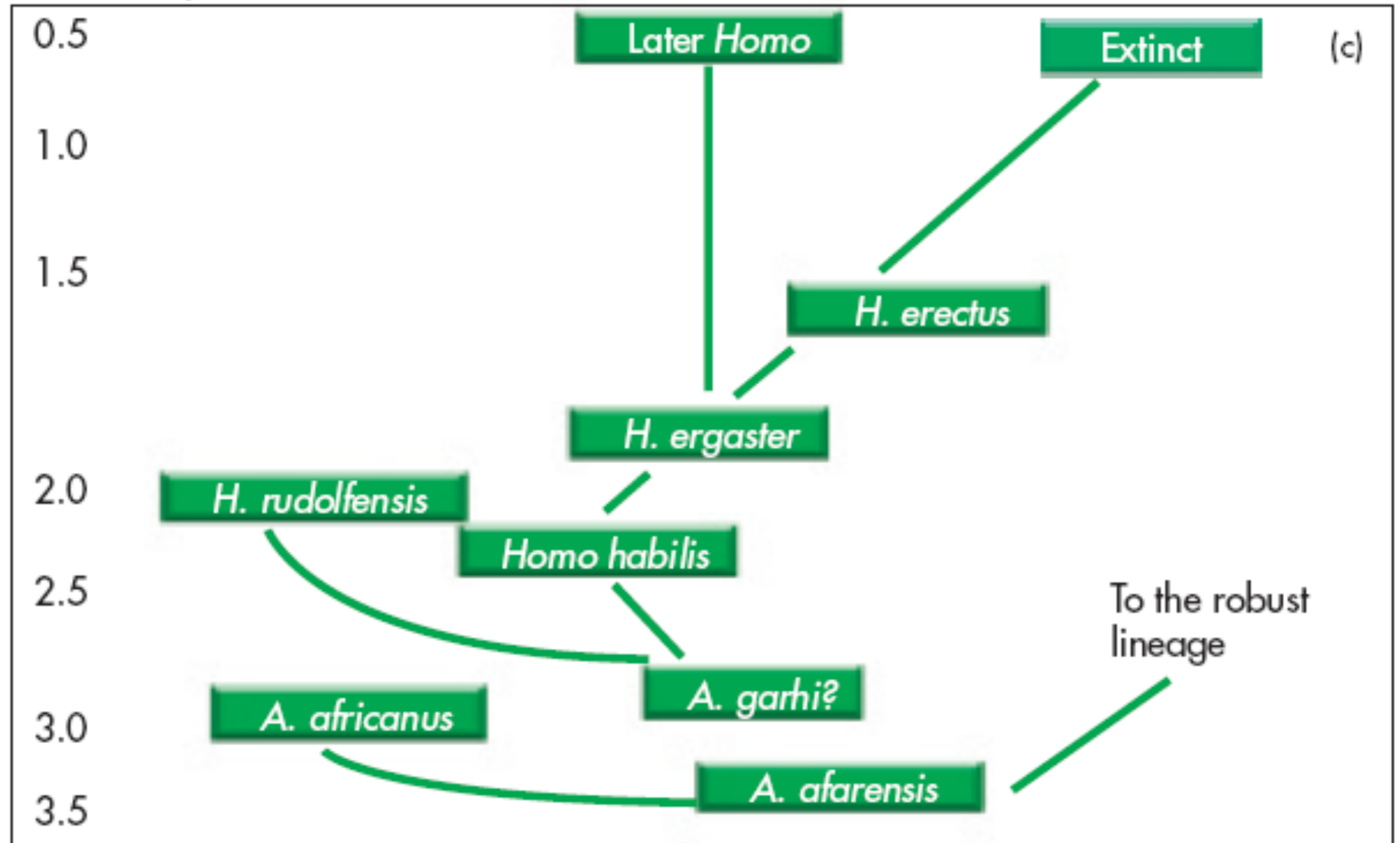
# What is special about *Homo erectus*

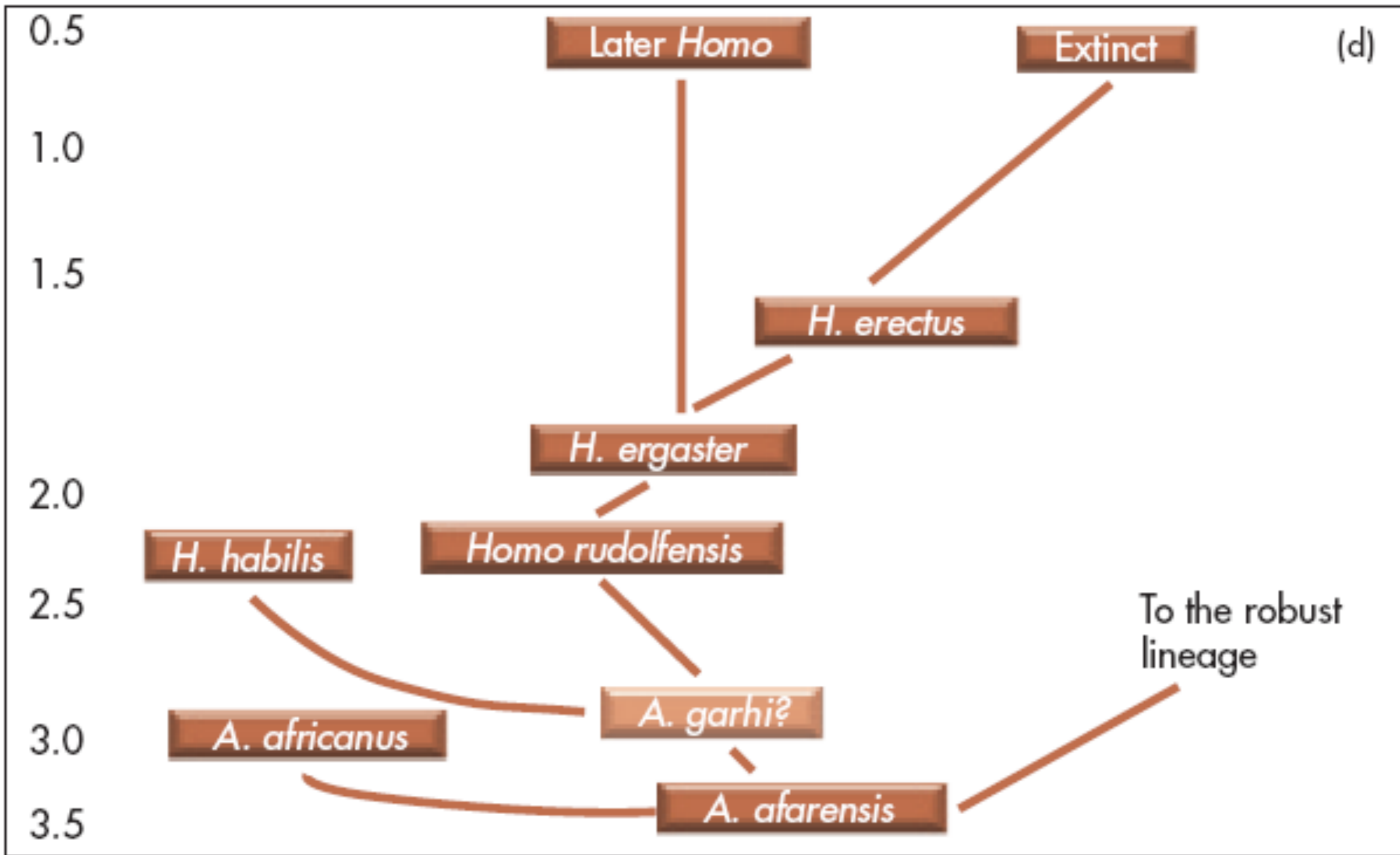
- Left Africa
- Made more complex stone tools
- Controlled fire
- Constructed shelters
- Modern human proportions and big brains

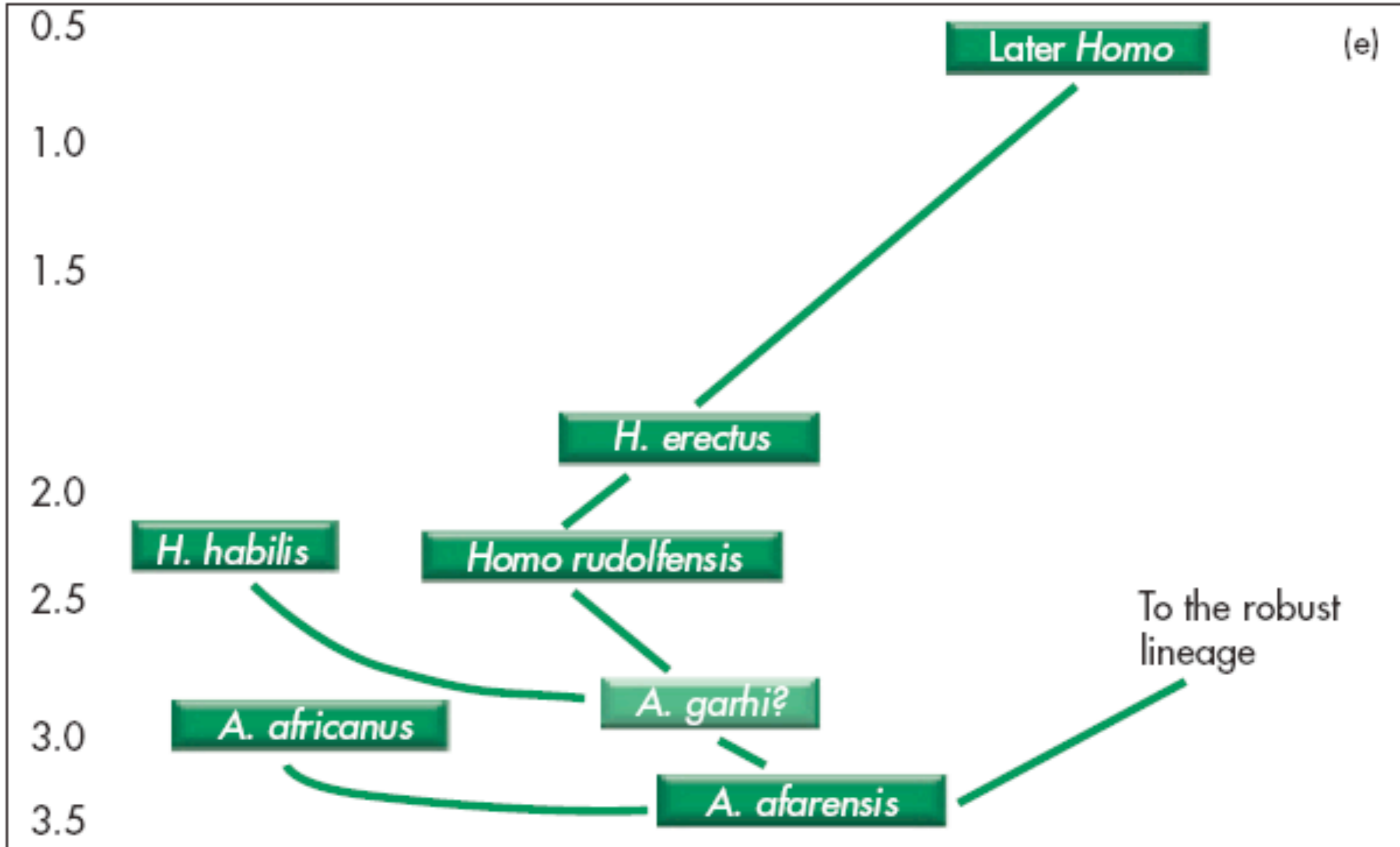
Millions of years



Millions of years









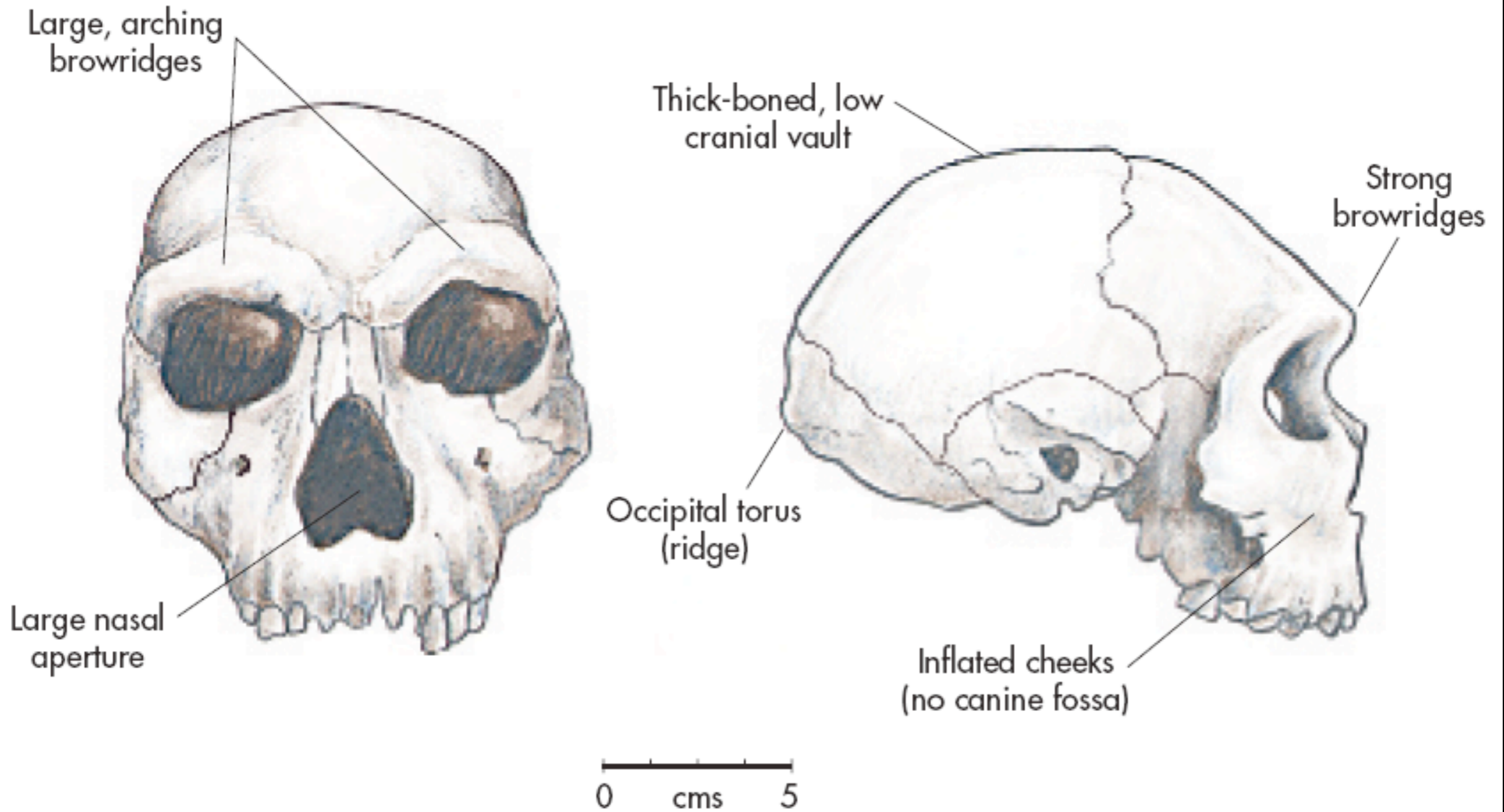
*H. erectus*



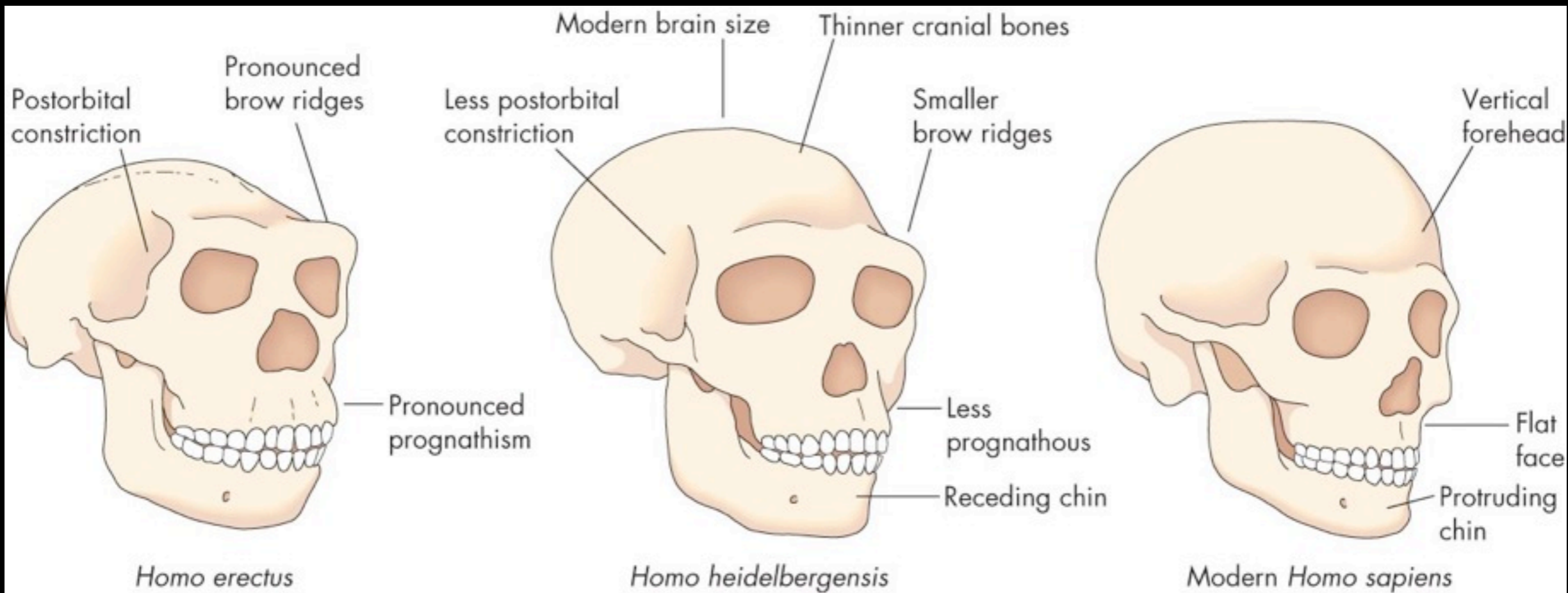
archaic *Homo*

# Archaic *Homo*

Archaic *Homo sapiens*



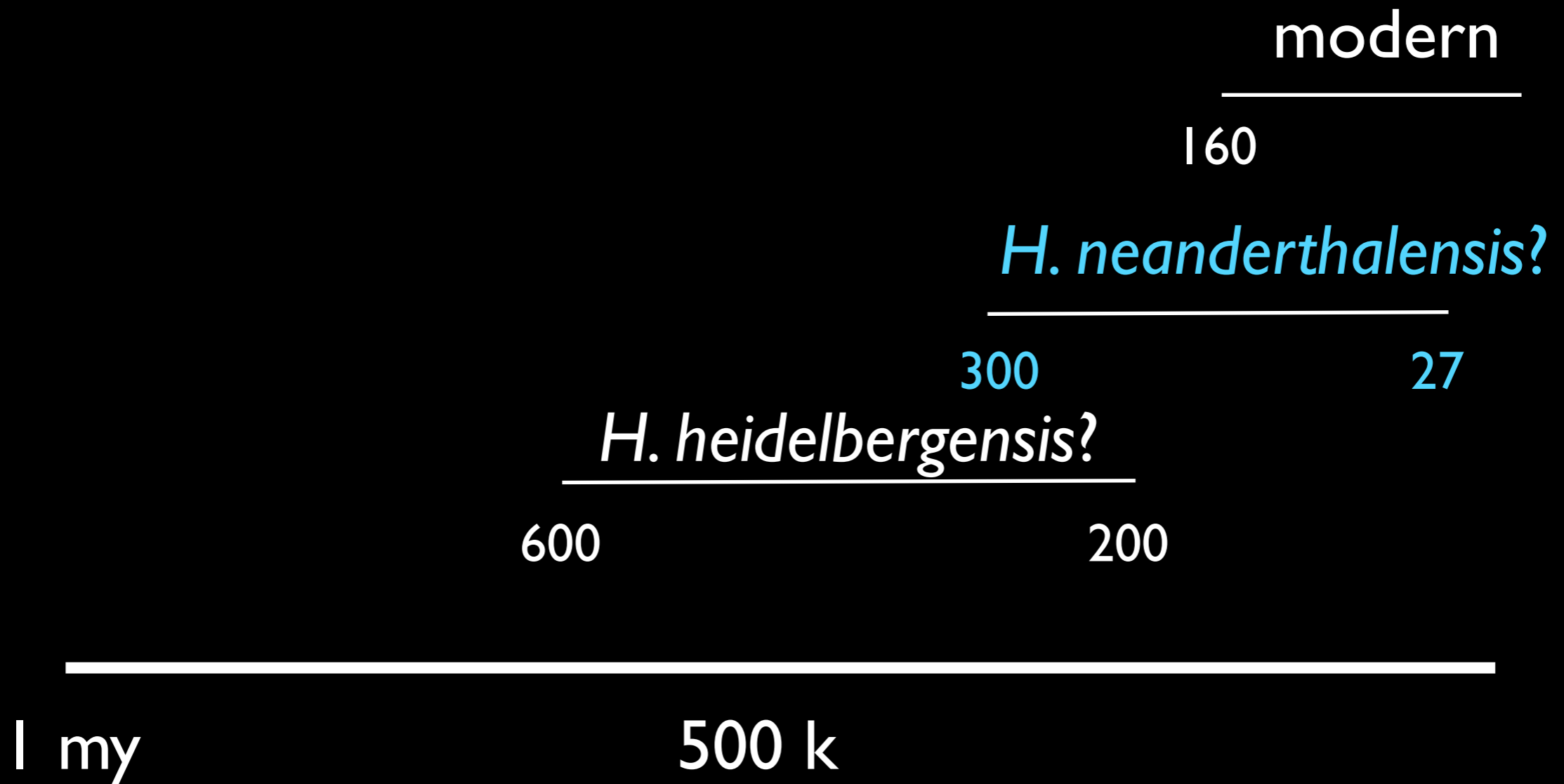




# Archaic *Homo*

- bigger brains
- higher skull
- less pronounced brow ridges
- chin?
- less prognathism

# Time frame



# “Species” of Archaic *Homo*

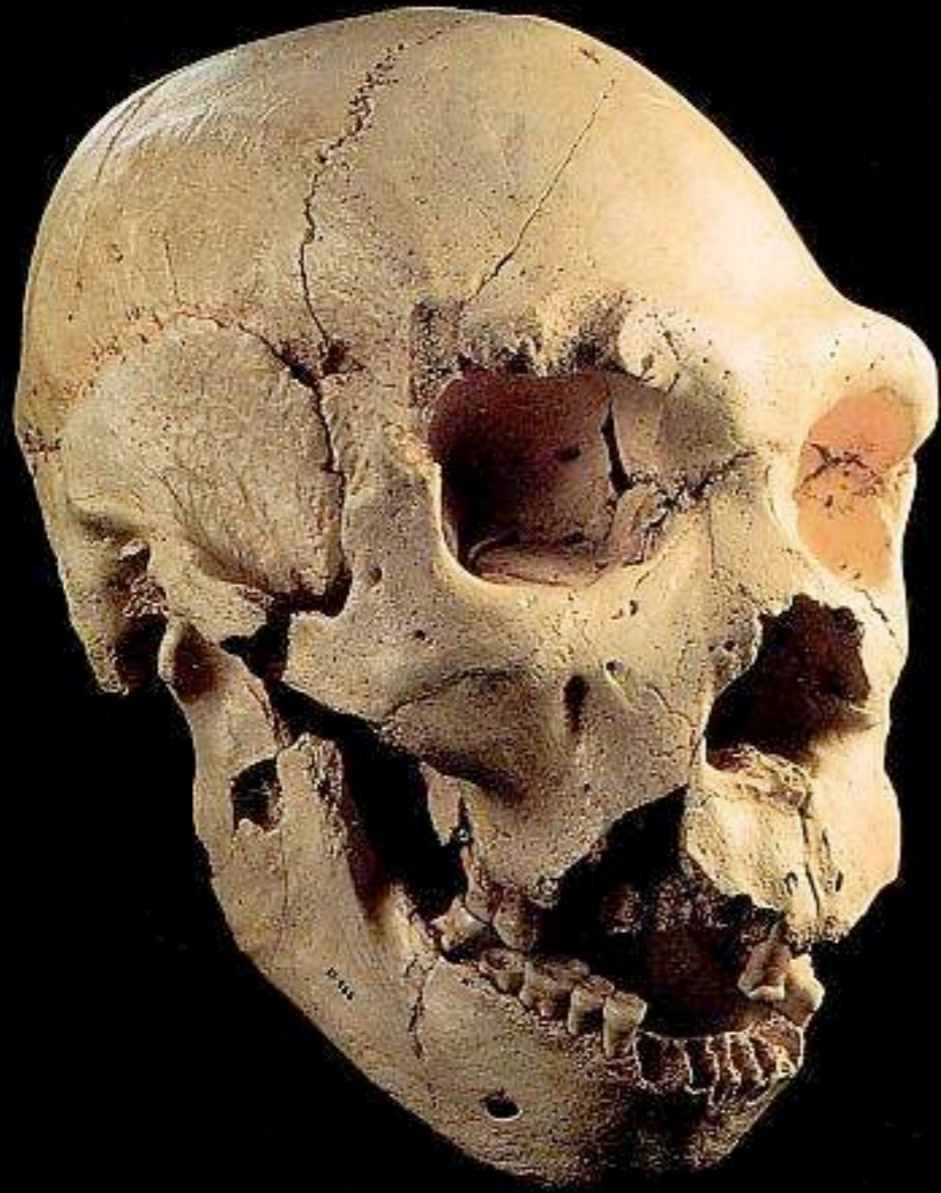
- *Homo heidelbergensis*
- *Homo rhodesiensis*
- *Homo neanderthalensis*
- + More



**Bodo**  
**600,000**



Kabwe



Atapuerca 5





Mauer





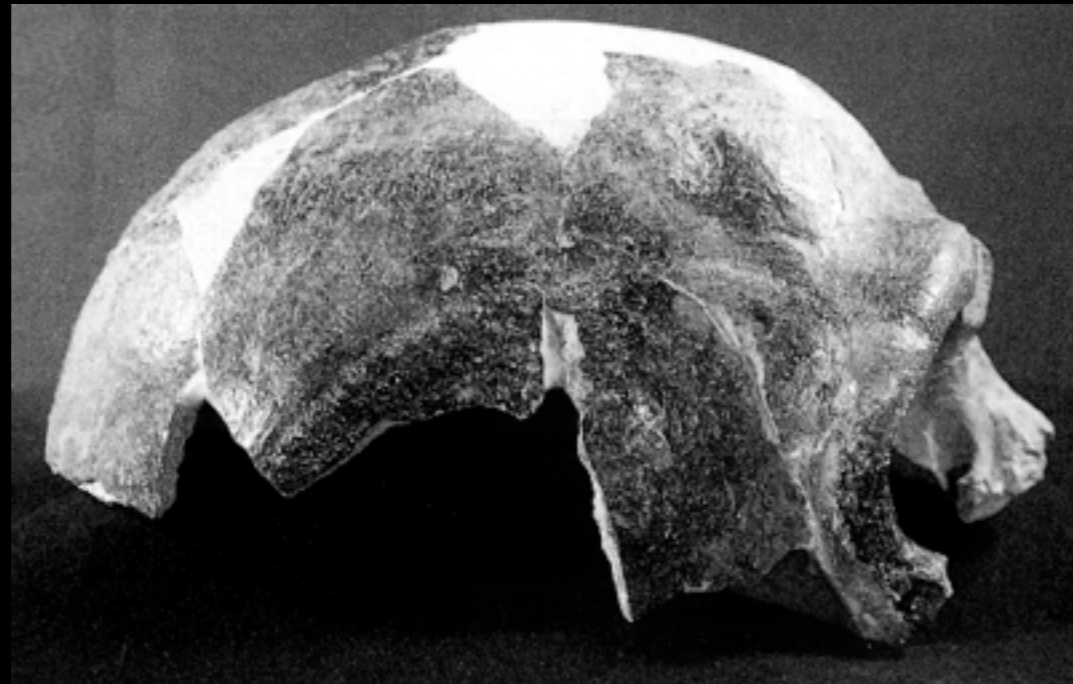
Petralona



Dali



# Jinnuishan



Maba