

Last class

- Who were the Neandertals?
- Where and when are they found?
- What are their distinctive morphologies?
- Why do we separate Neandertals from other archaic humans?

More...

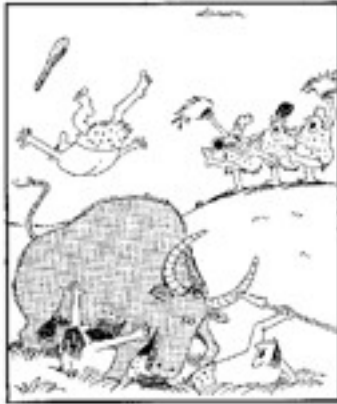
- What is the relationship of the Neandertals to the other archaic humans and to modern humans?
- Why are Neandertals often considered to be separate than the other archaic humans?

Archaic behavior

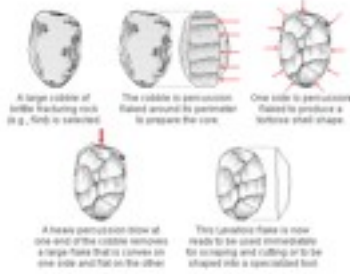
- All the archaics no matter what you call them show similarities in their behavior
- Shelter building
- New stone tool making techniques
- Organized hunting behavior - spears - big game hunting
- Burial



Wood Shelter, 300,000 years ago
Terra Amata, France



Acheulean handaxes



A large cobble of water-wearing rock (e.g., flint) is selected

The cobble is percussion flaked around its perimeter to prepare the core

One side is percussion flaked to produce a surface shell shape

A heavy percussion blow at one end of the cobble removes a large flake that is convex on one side and flat on the other

The remaining flake is now ready to be struck immediately for striking and cutting or to be shaped into a specialized tool

THE LEVALLOIS TECHNIQUE



Levallois core and flakes



Levallois point and core



By A. Rex Nadeau



Levallois Technique



Mousterian tools
a,c: scrapers, b,d: points, e: hand axe



Neanderthal Child burial from Syria



Kebara

Cultural features

- Take care of injured and elderly
- Buried their dead
- Evidence of personal adornment
- Evidence of community living
- Language gene - FOXP2



- Show mix of modern and archaic features
- Show mix of modern and archaic behaviors
- More modern behaviors than some of the "anatomically modern" Homo sapiens



Modern reconstructions



Dr. Gerschlager



“Modern” Humans

- Start to appear around 160,000 years ago in Africa
- What makes them modern?
 - Mostly more gracile than the archaics
 - No miraculous moment when it first appears

Neanderthal DNA



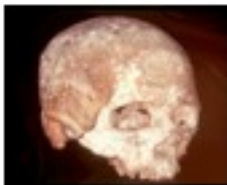
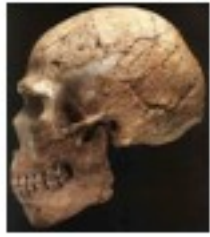
Modern features

- high, rounded cranium (greatest breadth high on the parietals)
- less suprastructure development
- tall, nearly vertical frontal bone
- face larger under the cranium



Modern features

- mean cc 1350 (range 1000-2000)
- small teeth
- CHIN
- early ones show more primitive technologies, later share technologies with Neandertals



Modern variety



Herto Bouri
Ethiopia
160,000-154,000

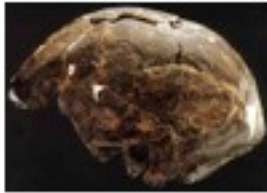
Laetoli 18
129,000-108,000





Omo
130,000 - 60,000

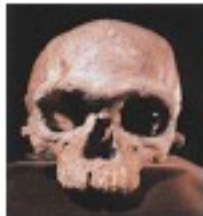
Omo 2



Klasies River Mouth
118,000-60,000



Jebel Irhoud
127,000 - 87,000





Florisbad
100,000

African Moderns

- Earlier than elsewhere in the World
- 100,000-160,000
- Mosaic of morphologies, leaning towards the modern

Western Asia

- Moderns either simultaneous with Neandertals or leapfrogging them
- Mosaic



Qafzeh



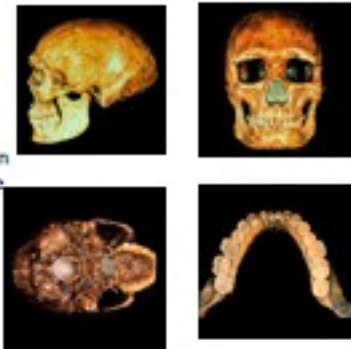
Skhul

Chinese early
Anatomically Modern
date to about 70,000



Skull 17

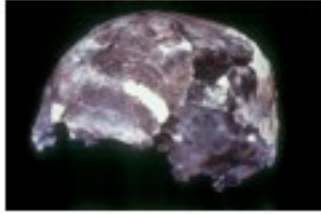
Zhokoudian
Upper Cave
30,000



Wadjack



Mungo



Willandra Lakes



Coolool Creek
14,000 ya

Asia summary

- Modern from at least 70,000
- With some very robust features
- On Australia from about 60,000



Predmost



Cro Magnon

Where and When

Africa	160,000-120,000
Near East	100,000
Asia	70,000
Europe	30,000