1 **Human Culture**

2 **Fire use**

   - Early use was probably done by lightning
   - Drill and block could be used

3

   - Warmth
   - Light
   - Keeping predators away
   - Cooking
   - Fire-hardening wood
   - Facilitating the flaking of flint

4

   - Fire found in open savanna areas 1.4 mya
   - baked clay and stone tools
   - problems with open savanna sites
   - were fires in caves brought in or created?

5 **Tools**

   - Lower Paleolithic
   - Oldowan and Acheulean

     - 2.5 mya - 120,000 ybp
     - Some evidence in Ethiopia to suggest tools of 2.5 mya - Evidence of *H. habilis*?

6 **Oldowan pebble culture**

   - 1.8 mya - 700,000 ybp - *Homo habilis*
   - Oldowan are earliest examples of tool use
   - basalt cobbles

   - Some Oldowan use in early *Homo erectus*

7 **Acheulean hand axes = bifacial axes**

   - *Homo erectus* and Archaic *Homo sapiens*
   - 700,000 - 120,000 ybp

   - not found in China
   - Zhoukoudian
   - Choppers
   - Flint points
Middle Paleolithic
- 125,000-40,000 ybp
  - Moustertian tool culture - Neandertal
  - used flakes from the core - finer detail

Chatelperronean tool culture - 35-30 kya
- Neandertal tools with anatomically modern tool techniques
- Used ochre, drilled & pierced bone, teeth

Upper Paleolithic
- 40,000-12,000 ybp - Cro-magnon
- Tools, cave art, sculpture

Atl (Magdalenian)
- spear throwers
- increase leverage for thrust and distance

Batons
- Ceremonial?
- shaft straightners?

Lunar calendar (30,000 ybp)
- Finer workmanship in material by Cro-magnon
- Neandertals used materials from area
- Cro-Magnon used materials from distant areas
- implies trade and communication
- nomadic people
- Villages at Tautavel - encampments

Awls
- three main, overlapping periods of upper paleolithic from 40,000 - 12,000 ybp
  - Perigordian - early
  - Aurignacian - early to middle
  - Magdalenian - youngest
20 Venus figurines
- fertility symbols?
- big-breasted, broad-hipped females
- symbols 27,000-20,000 ybp

23 Altimira, Spain
- Discovered 1868
- Bison paintings
- Aurignacian & Magdalenian

12,000 ybp

24 Lascaux
- - found 1940
- Closed cave site – verified antiquity
- Aurignacian & Magdalenian 18,000 ybp

26 Font du Gaume
- Cave art from Southwestern Europe occurred over a period of 10,000 years
  - Art probably arose around 40,000 ybp
  - work very common at 35,000 ybp

28 Mesolithic
- Middle stone age
- 12,000-11,000 ybp
- Small flint tools (microliths)

29 Neolithic
- - 11,000-7,000 ybp
- Starts with the advent of farming but ends
  With the use of metal tools (Copper Age)

30 Copper age
- - 7,000-5,000 ybp
- stone monuments in Brittany
31 Otzi – Copper age human

32 Bronze age

- 5,000-3,400 ybp

- Copper mixed with tin - harder metal
- Plow developed
- Stonehenge (4,400 ybp)

33 Iron age

- 3,400-2,000 ybp

- Celtic traditions