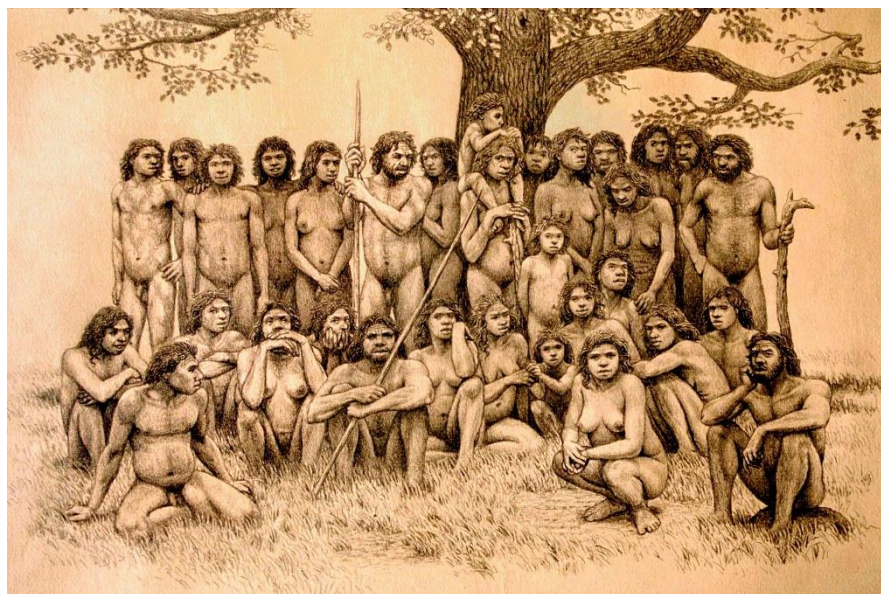


# Sociedades e Culturas Pré-Históricas



“Familia” de Atapuerca

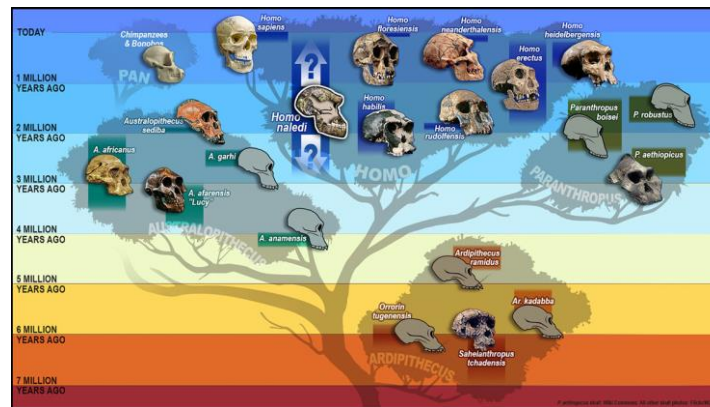
# Tabela de conteúdos

1. Evolução e Ecologia Humana
2. Padrões de Subsistência e povoamento
3. Enquadramento paleoambiental
4. **Paleolítico inferior e médio**
5. Paleolítico Superior
6. Epipaleolítico e Mesolítico inicial

# Paleolítico inferior

## Paleolítico inferior

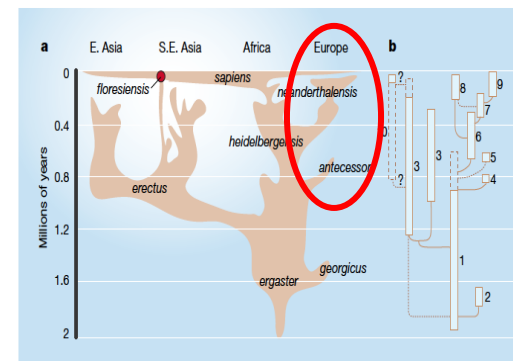
- a) Cronologia
- b) Subsistência
- c) Povoamento
- d) Tecnologia
- e) Paleolítico Inferior vs Old Stone Age



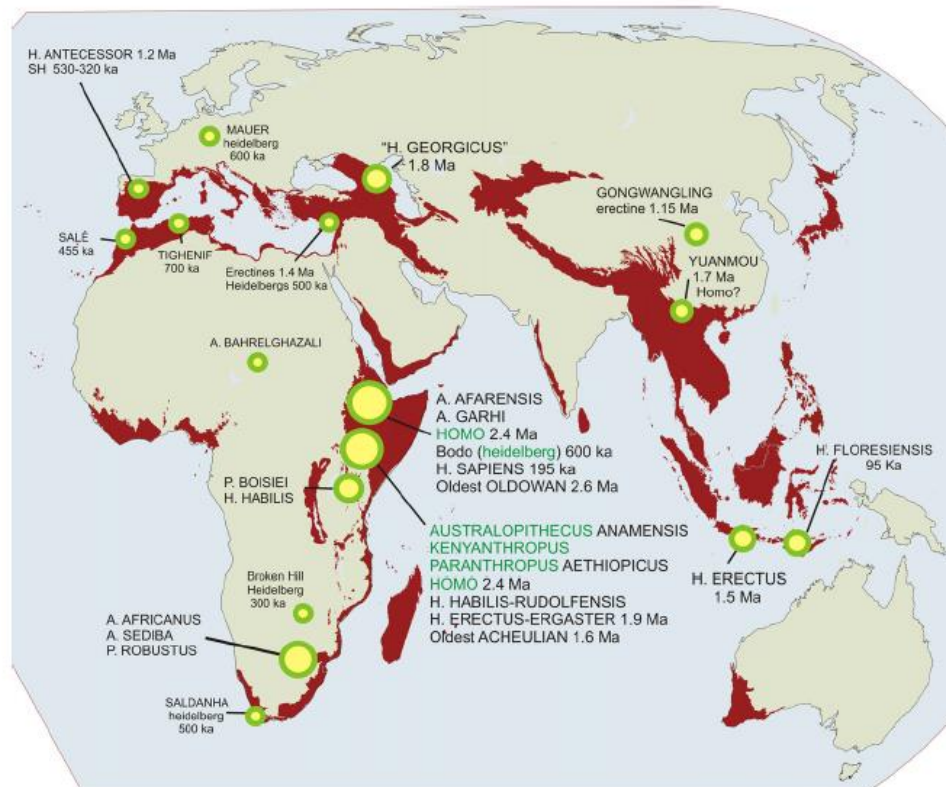
# Paleolítico inferior

## Paleolítico inferior

- Out of Africa I
  - Homo Erectus/Ergaster 1.8 M.a.
  - Homo Heidelbergensis/Antecessor 1.2 M.a.
- Homem chegou à Europa há mais de 1 milhão de anos
- Até inícios do séc. XXI
  - Menos de 1 milhão na Ásia
  - Menos de 500 mil na Europa
- Novas evidências arqueológicas (Sul da Europa)
  - Homo erectus em Java (1.8 / 1.6 Ma)
  - Mandíbula em Dmanisi (1.8 / 1.6 Ma)
  - Gran Dolina (800 ka)



# Paleolítico inferior



**Fig. 1.** Earliest occurrences of hominin fossils, Oldowan (Mode 1) and Acheulian (Mode 2) lithic technologies, and distribution of biodiversity hotspots (in red) (<http://www.biodiversityhotspot.soc.su.se/hotspots/Documents/cihotspotmap.pdf>), excluding the Americas. For further information on fossil specimens, localities, and references, see Tables 1 and 2.

# Paleolítico inferior



Fig. 1. Potential routes for Early to Middle Pleistocene human dispersal out of Africa. The map includes the trans-Saharan humid corridor marked by the megalakes (after Drake et al., 2008) and the lakes in the upper reach of the Nile River. A Western Africa trans-Saharan pathway along the Niger and Senegal valleys and the Atlantic coastal areas is also shown (after Lahr, 2010). Fossil wet areas and rivers are reported in the Arabian Peninsula from Anton (1984), Schandelmeyer and Reynolds (1997), and Petraglia et al. (2009). Lacustrine and swampy areas are in gray and paleorivers are hachured.

Subdivisions of the Quaternary System				
System/ Period	Series/ Epoch	Stage/ Age	Age	
Quaternary	Holocene	Meghalayan	0	4,200
		Northgrippian	4,200	8,200
		Greenlandian	8,200	11,700
	Pleistocene	'Upper'	11,700	129ka
		Chibanian or 'Middle'	129ka	774ka
		Calabrian	774ka	1.80Ma
		Gelasian	1.80Ma	2.58Ma
Neogene	Pliocene	Piacenzian	2.58Ma	3.60Ma
Notes and references <sup>[1][2]</sup>				[show]
V · T · E				



# Paleolítico inferior

- **Maiores mudanças climáticas**
- Mudanças climáticas na África oriental associadas ao início das glaciações
- Período anterior marcado por **um clima quente e ameno**
- Ciclos glaciares passaram de 40 000 para 100 000 anos e a massa de gelo aumentou. Calotes polares estendem-se periodicamente por todo o Norte da Europa



# Paleolítico inferior

- **Plistoceno Inicial/inferior (1.6 Ma a 600 ka)**

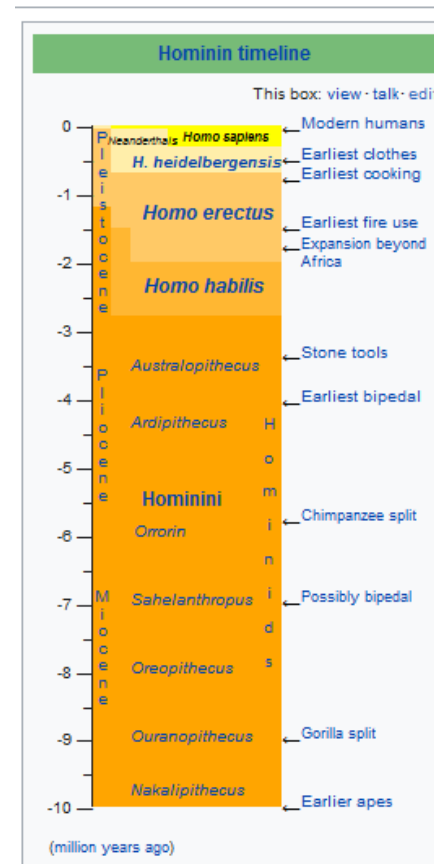
- Expansão das savanas e diminuição das áreas florestais
- Mudança ecológica na distribuição e variabilidade de recursos
- Clima quente e húmido
- Paisagem com cursos de água permanentes (ribeiras, lagoas)
- Oscilações entre bosque e floresta mediterrânica
- Alterações ecológicas e fisiológicas
- Novas espécies
  - *Homo habilis*
  - *Homo heidelbergensis*





# Paleolítico inferior

- Primeira fase do *genus Homo*
- Primeiras evidências para a produção e uso de ferramentas por **hominídeos** (Modo 1) (3.3. MA)
- Australopithecus (?)
- Homo *Habilis* (1.8 MA)
- Lomekwian
- Modo 1 → desenvolvimento por volta de 2.6 MA a 400 ma



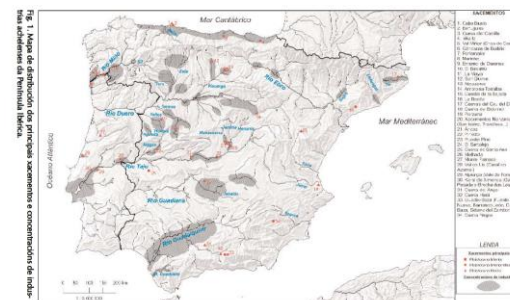
# Paleolítico inferior

- **Subsistência**
- Omnívoros/frutívoro → Carnívoros
- *Scavenging*
- Ferramentas para fragmentar ossos para processo de carcaças e extração de medula óssea
- Uso *oportunistico* (não controlado) do fogo



# Paleolítico inferior

- **Ocupação humana**
- Associada, quase exclusivamente, a depósitos fluviais das grandes bacias hidrográficas
- Preferência por ambientes lacustres, e/ou com ribeiras
- Terraços raramente superiores a 30mt
- Poucos sítios em posição estratigráfica/primária
- Reduzido número de datações
- Recolhas de superfície



# Paleolítico inferior

- Plistoceno Inicial (1.6 Ma a 600 ka)
  - Mamíferos (médio e grande porte)
    - Hipopotamo (*Hippopotamus* sp.)
    - Hiena
    - Jaguar europeu
    - Leão (P. Leo)
    - Espécies indicam clima temperado e relativamente húmido
    - Ausência de indicadores de ambientes áridos ou frios (rigorosos)
    - Existência de cursos de água permanente
    - Carnívoros indicam floresta aberta



# Paleolítico inferior

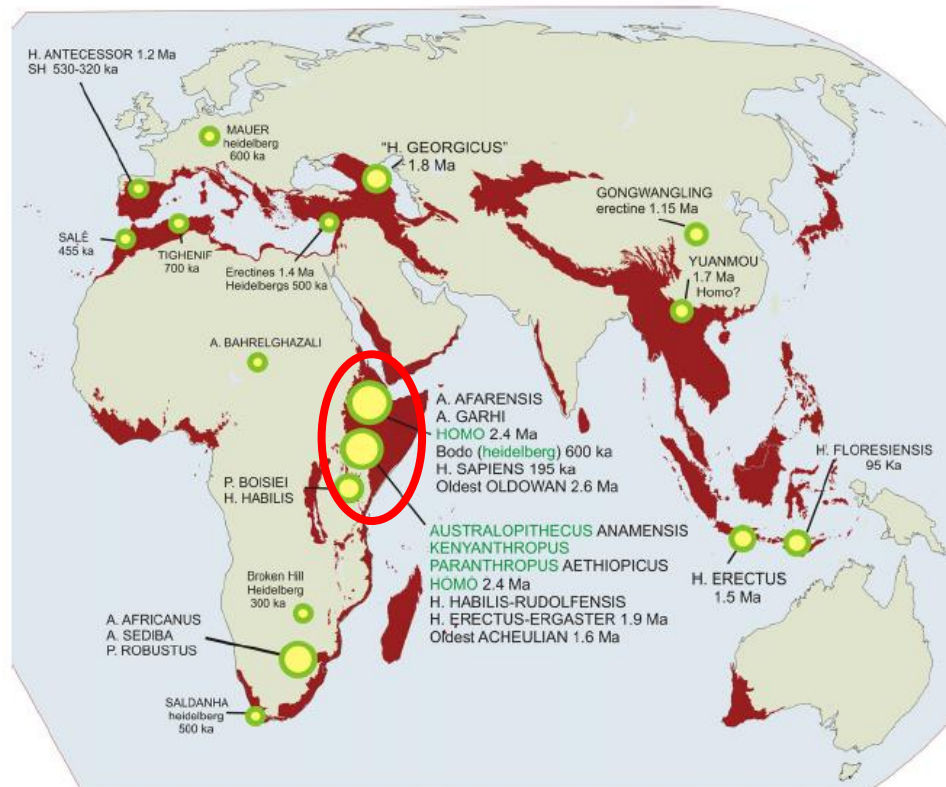
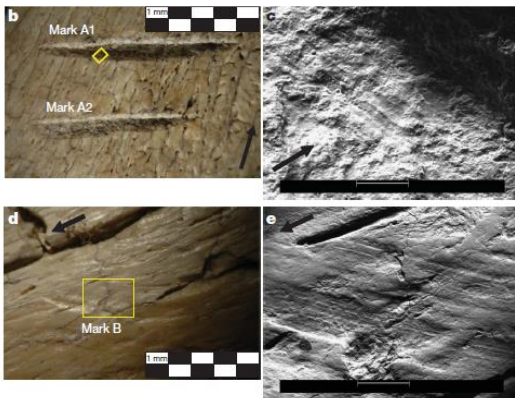
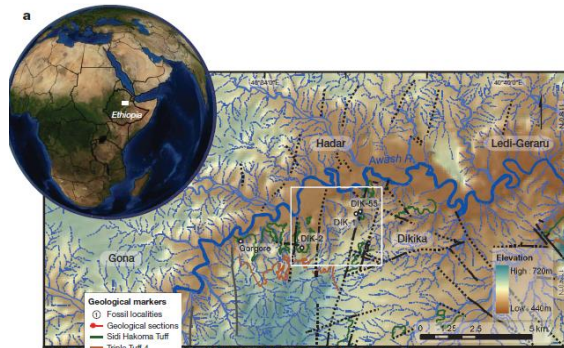


Fig. 1. Earliest occurrences of hominin fossils, Oldowan (Mode 1) and Acheulian (Mode 2) lithic technologies, and distribution of biodiversity hotspots (in red) (<http://www.biodiversityhotspots.org/xp/hotspots/Documents/chotspotmap.pdf>), excluding the Americas. For further information on fossil specimens, localities, and references, see Tables 1 and 2.



# Paleolítico inferior

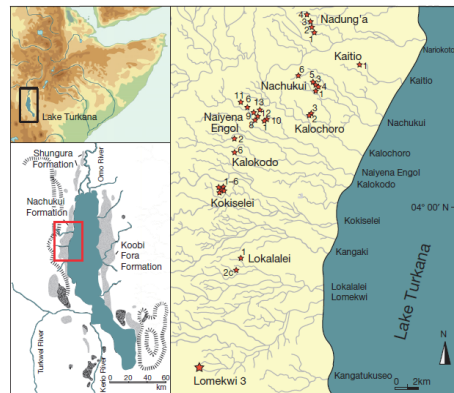
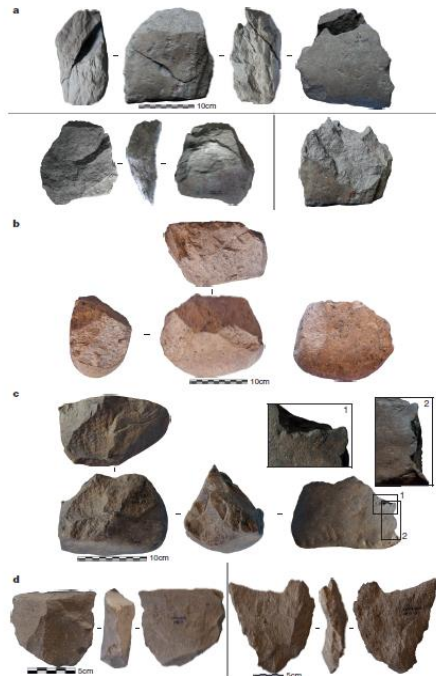
- **Dikika (Etiópia)**
- 3.3. MA



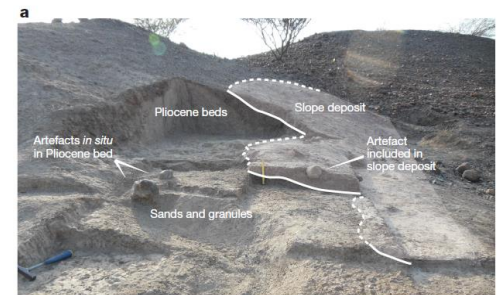
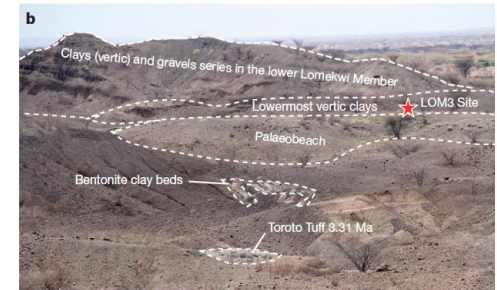
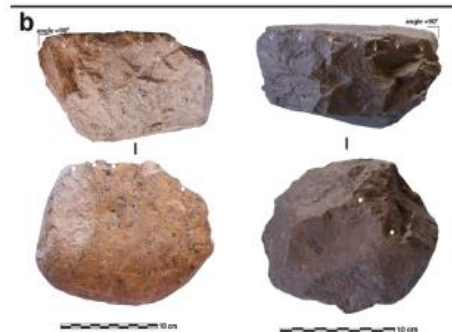


# Paleolítico inferior

- **Lomekwi**
- 3.3. MA

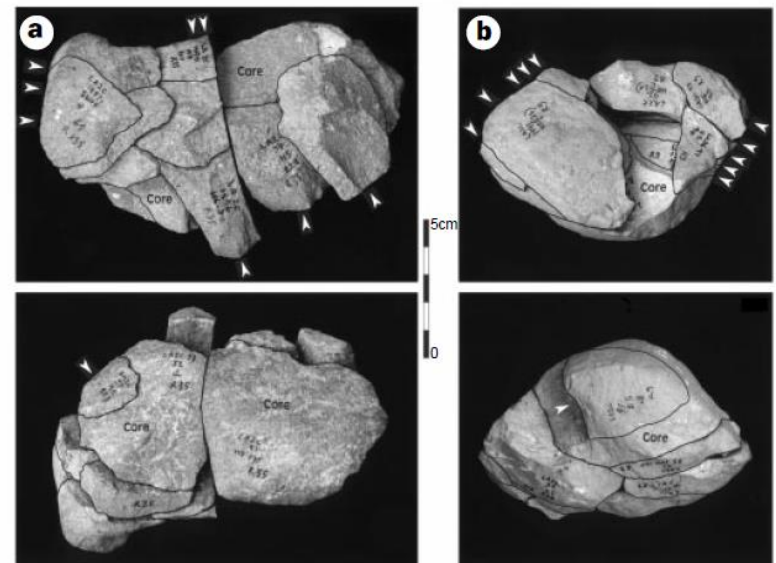


**Figure 1 | Geographic location of the LOM3 site.** Map showing relation of LOM3 to other West Turkana archaeological site complexes.



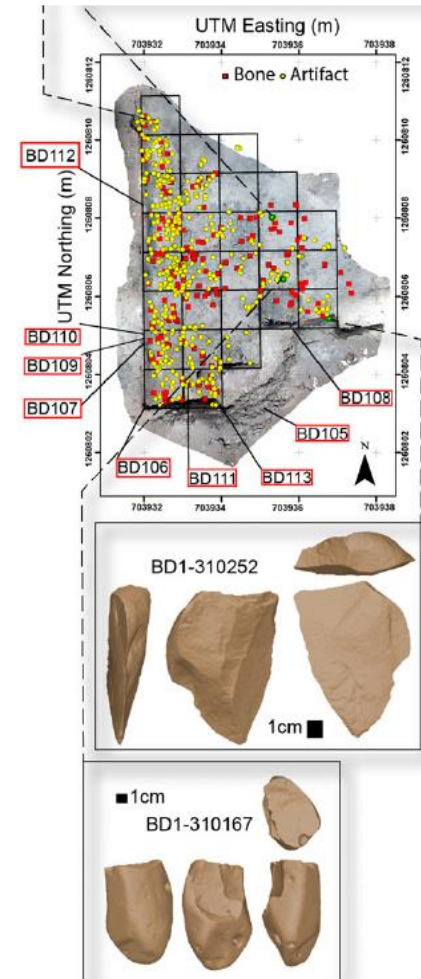
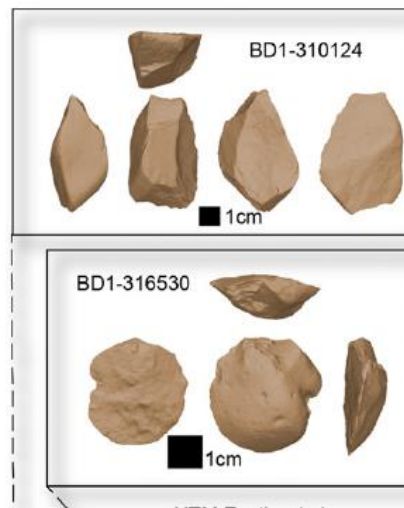
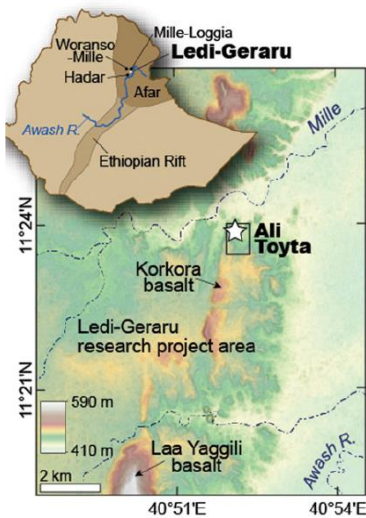
# Paleolítico inferior

- Lokakalei 2C (Quenia)
- 2.4 MA



# Paleolítico inferior

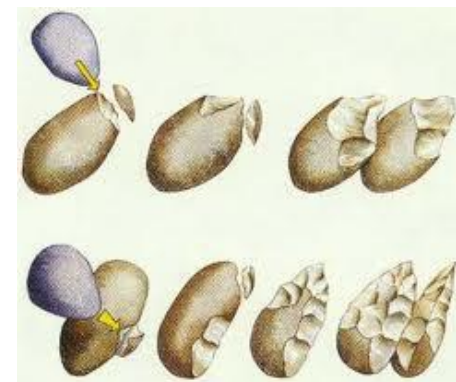
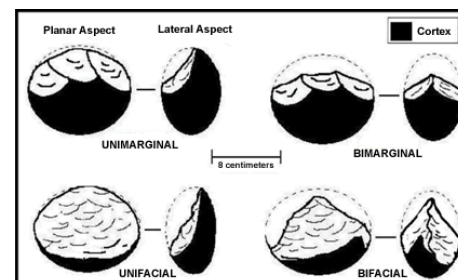
- **Ledi-Geraru, Ethiopia**
- **2.6 MA**



# Paleolítico inferior

- **Tecnologia (primeiras ferramentas)**

- Modo 1 – Olduvaiense
  - Indústria de seixos talhados
- Modo 2 - *Acheulense*
  - Utensílios grandes
  - Grandes suportes, gumes usados directamente em bruto, raramente retocados
  - Bifaces
  - Machados
  - Quartzito (algum sílex, quartzo e calcário)



# Paleolítico inferior

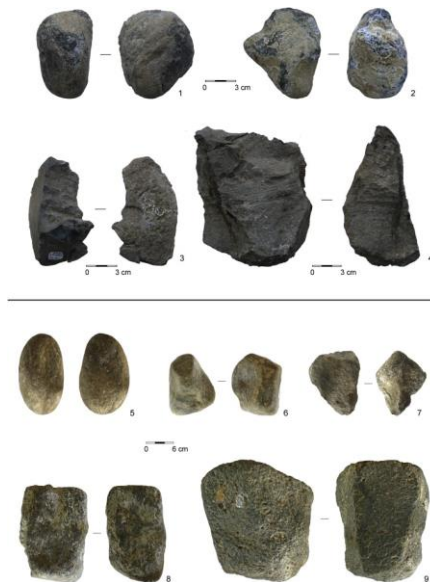
- Seixos talhados vs Bifaces
- Origem do Acheulense?
  - Evolução interna
  - Saída de África em dois momentos?
  - Grupos distintos? Contemporâneos?





# Paleolítico inferior

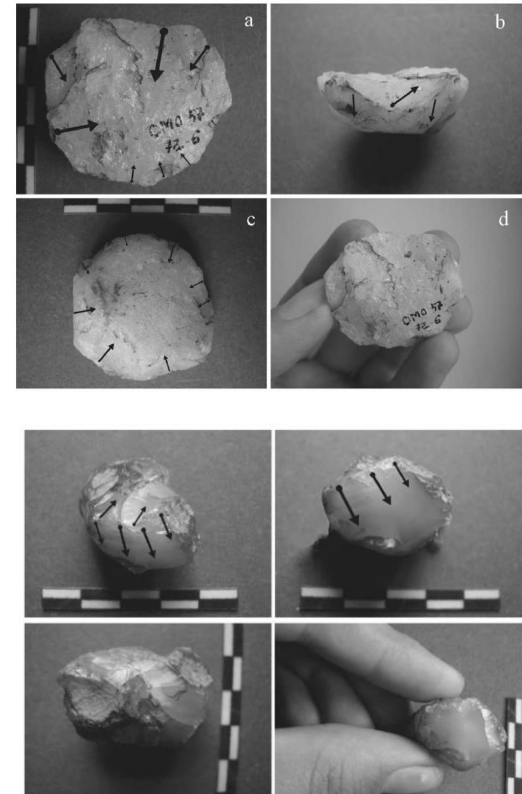
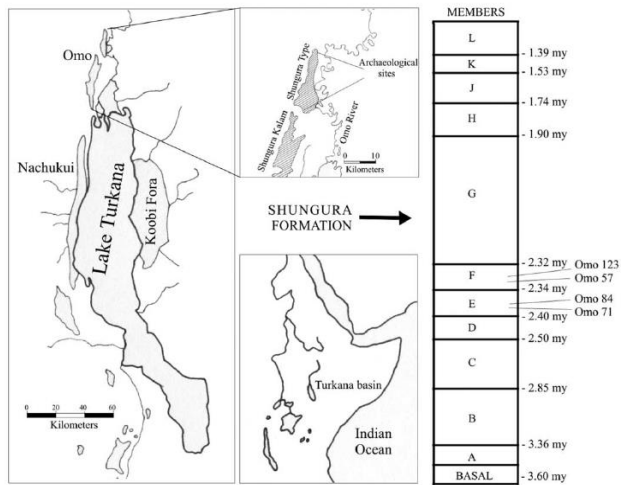
- África
  - Cultura Meka





# Paleolítico inferior

- África
  - Omo
  - 2.3 MA – 1.8 MA



# Paleolítico inferior

- África
  - Gona
  - 2.6 MA a 1.5 MA

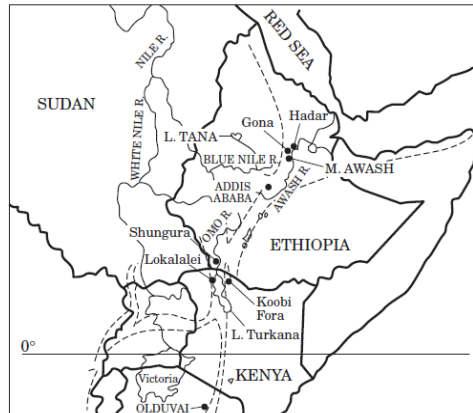


Figure 1. A map showing Gona and Late Pliocene sites dated between 2.4–2.3 Ma.

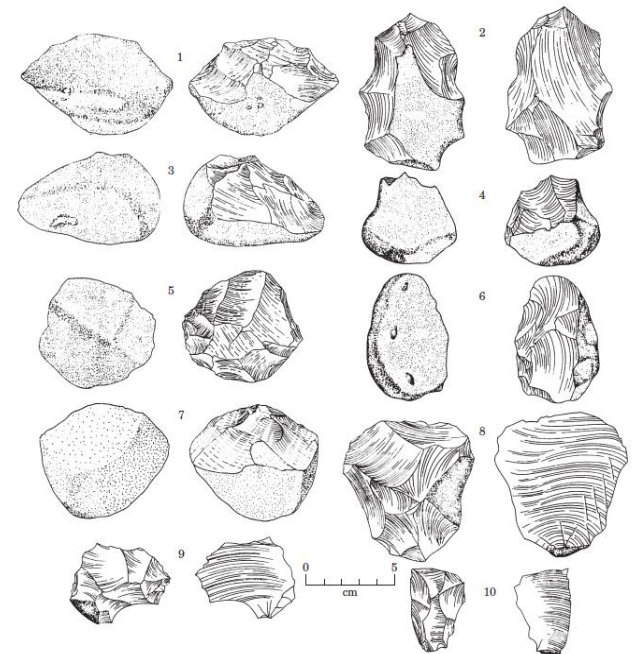


Figure 6. Drawings of artefacts (cores and whole flakes), excavated from EG10 and EG12. (1) unifacial chopper, EG10, (2) discoid, EG10, (3) unifacial side chopper, EG12, (4) unifacial end chopper, EG12, (5) partial (irregular discoid), EG12, (6) unifacial side chopper, EG10, (7) unifacial side chopper, EG12, (8–10) whole flakes, EG10.

# Paleolítico inferior

- Europa Oriental
  - Dmanisi (Georgia)
    - 1 MA
    - *Homo georgicus*
    - Acheulense

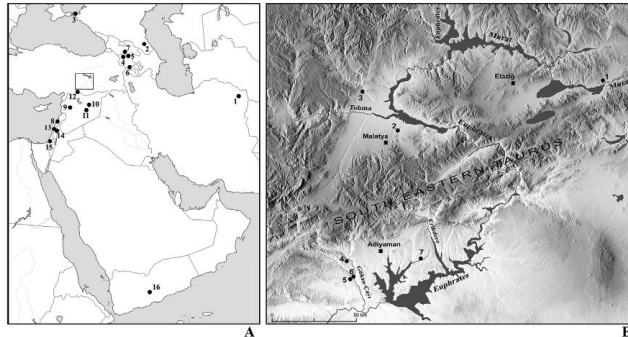


Fig. 1. A - The earliest Palaeolithic localities (Oldowan and Early Acheulean) in Western Asia and Northern Caucasus: 1- Kashkadud; 2- Muhlay I-II, Aynikab I; 3- Kermek, Sinja Balka, Bogatiry; 4-Karakhach, Muradovo; 5- Haghtanak 3; 6-Areni-1; 7- Dmanisi; 8- Borj Ginnari, Cordon Littoral; 9- Khattab; 10- Maadan, Kasra; 11- Ain al Fil; 12- Breck; 13- Yron; 14- Ubeidiya; 15- Bizat Ruhama; 16- Al Guza; B - The newly-discovered Palaeolithic localities in the South-Eastern Taurus region. Early Palaeolithic: 1. Kovancilar (N38.41952°; E39.51695°); 2. Eskimalaya (N38.24711°; E38.24141°); 3. Tahtali (N38.37959°; E38.09166°); 4. Şambayat (N37.67928°; E38.06823°); 5. Bostancik (N37.60675°; E38.08144°); 7. Kalburcu (N37.75501°; E38.52990°). Middle Palaeolithic: 6. Eskiköydere (N37.60906°; E38.09511°).



# Paleolítico inferior

- Europa Oriental

- Levante

- Ubeidiya (1.4 a 1 MA)
- Gesher Benor Ya'akov (GBY), (800 ma BP)

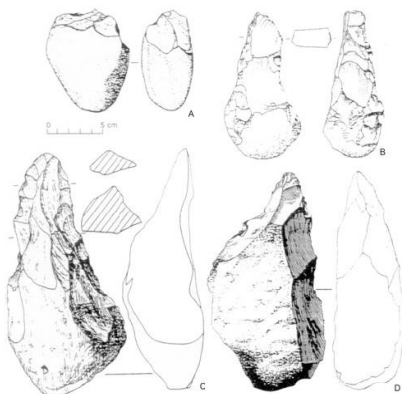


Fig. 10.3 Acheulean artifacts from 'Ubeidiya, Israel. A core chopper; B quadrihedral (flint); C biface (basalt); D biface (flint). After Bar-Yosef 1994a, b, Fig. 6

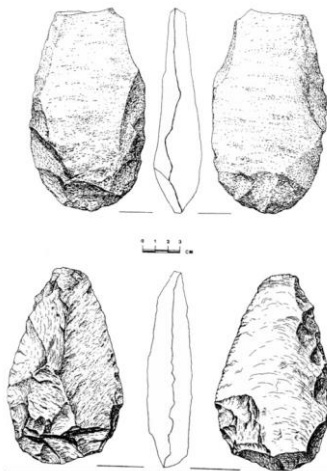


Fig. 10.4 An Acheulean cleaver and handaxe from Gesher Benot Ya'akov (GBY), Israel, Layer II-6, level 4. After Saragusti and Goren-Inbar 2001, Fig. 5

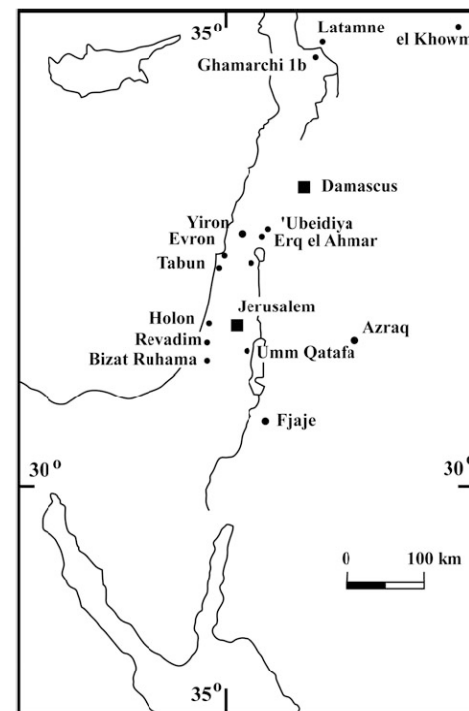


Fig. 10.2 Principal sites with Acheulean assemblages in the Levant

# Paleolítico inferior

- Ásia
  - India
  - China

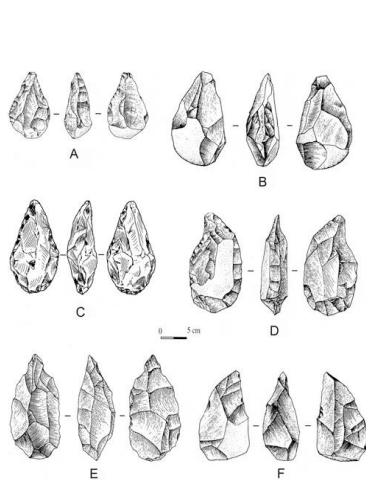


Fig. 10.10 Handaxes from open-air sites in the Luonan Basin, China. After Wang 2005, Fig. 9.2

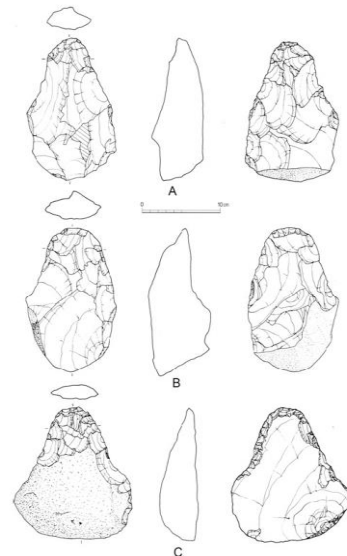


Fig. 10.9 Three bifaces from Datong, Bose Basin, China. After Huang et al. 2001, Plate 1.10

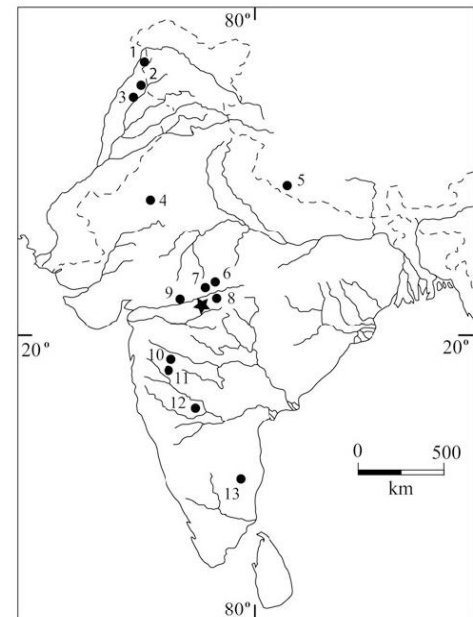
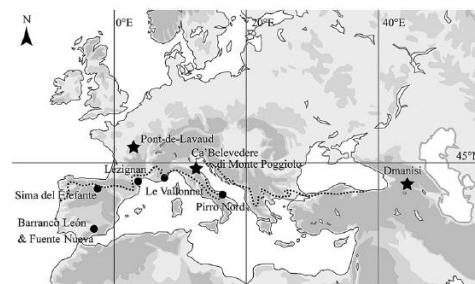


Fig. 10.6 Map of principal Acheulean sites in South Asia. Pakistan: 1, Dina; 2, Jalalpur; 3, Rohri Hills; India: 4, Singhi Talav; 5, Dang Valley (Nepal); 6, Belan Valley; 7, Paisra; 8, Bhimbetka; 9, Raisen; 10, Chirki; 11, Kukdi; 12, Hunsgi-Baichbal; 13, Attirampakkam/Kortalliyar Basin. The star represents the hominin site of Hatnora

# Paleolítico inferior

- Europa Ocidental e Península Ibérica
- Evidências do Sul da Europa
  - Península Itálica
  - Península Arábica
  - Península Ibérica
    - Atapuerca
    - Orce (Fuentenueva 3, Venta Micena, Barranco León)
    - Em 2007, em Sima del Elefante, foi descoberto o primeiro dente e mandíbula com 1.2 Ma





# Paleolítico inferior

- Europa Ocidental e Península Ibérica
- Indústrias sem bifaces
  - S. Elefante
  - Gran Dolina
  - Orce
  - Barranco León
- Indústria com bifaces
  - Atapuerca

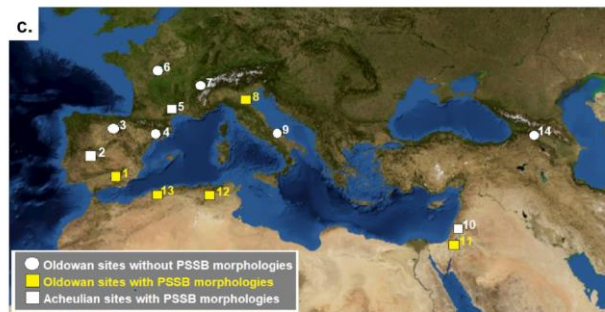


Fig 1. Geographic situation of the BL site. 1a. View of the current landscape configuration in which the BL site is located (Photo: F.L. Chmiel). The BL site (on the left) is near to the edge of the paleo-lake, and is situated today on the edge of a ravine with a N-S direction. 1b. General view of the BL site. 1c. Geographic position of some circum-Mediterranean sites in Eurasia that have yielded Oldowan lithic assemblages with (yellow dot and underlined in the text) or without PSSB morphologies indicated by bibliography. (USGS National Map Viewer).—Circum-Mediterranean Oldowan sites in Eurasia

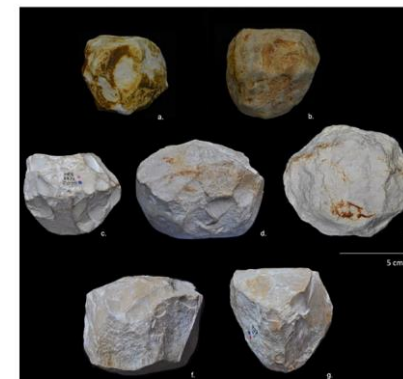
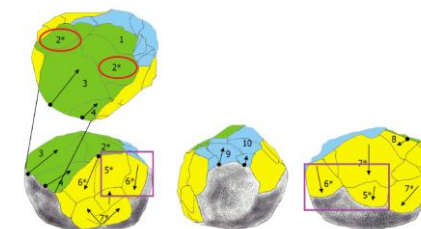
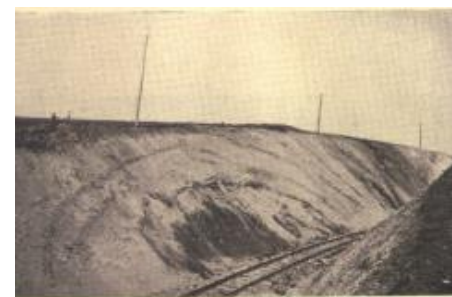


Fig 2. Polyhedral and subpolyhedral morphotypes from the BL site (a-c), and multidirectional cores selected for the diachronal analysis (d-g). Specimen: Tool a: BL\_2014.D2.G48.134; Tool b: BL\_2014.D2.M49.49; Tool c: BL\_2002.D1.N55.580; Tool d: BL\_2002.D1.M45.580; Tool e: BL\_2018.D1.144.1; Tool f: BL\_2002.D1.152.49; Tool g: BL\_2003.D1.153.27. Stored at the Archaeological and Ethnological Museum of Granada (Spain). All necessary permits were obtained for the described study, which complied with all relevant regulations. <https://doi.org/10.1371/journal.pone.0228296.g002>



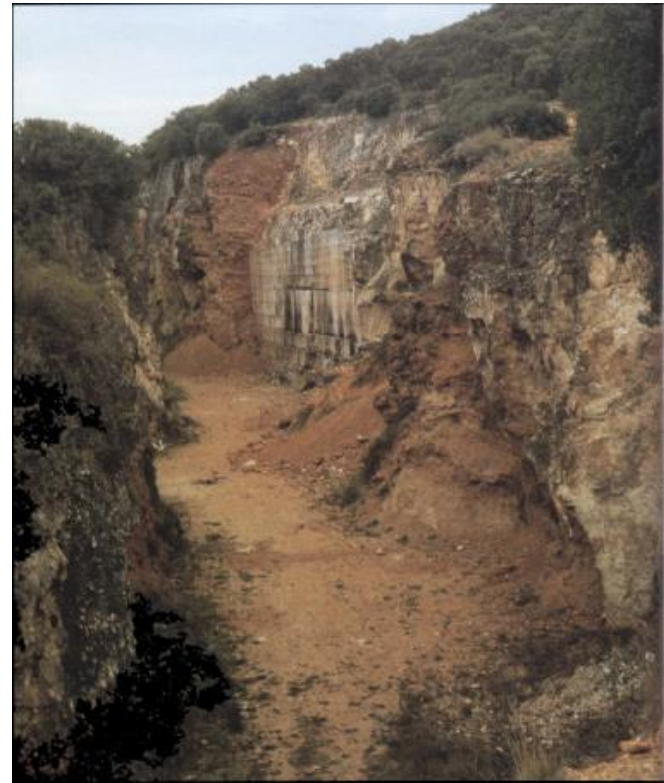
# Paleolítico inferior

- Atapuerca
  - Serra de Atapuerca (Burgos)
  - Descoberto final séc. XIX (construção de caminhos de ferro)
  - Complexo cárstico
  - Primeiras ocupação humanas no Sudoeste europeu (1.2. Ma)
  - Património Mundial pela UNESCO (2000)
  - Sítios arqueológicos
    - Sima de los huesos
    - Sima del Elefante
    - Gran Dolina



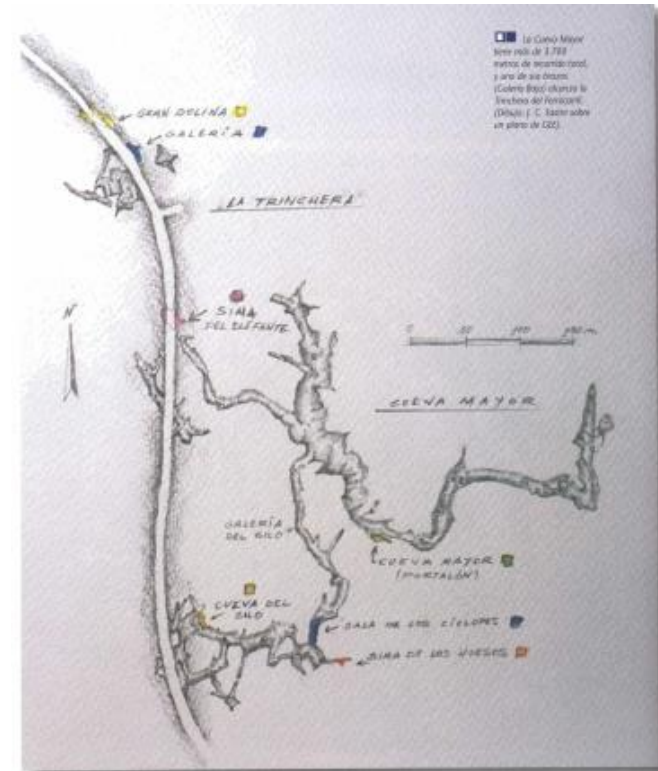
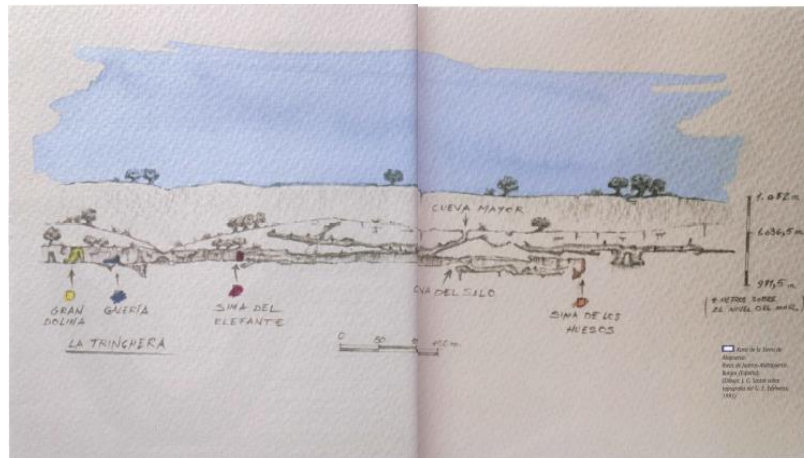
# Paleolítico inferior

- Atapuerca



# Paleolítico inferior

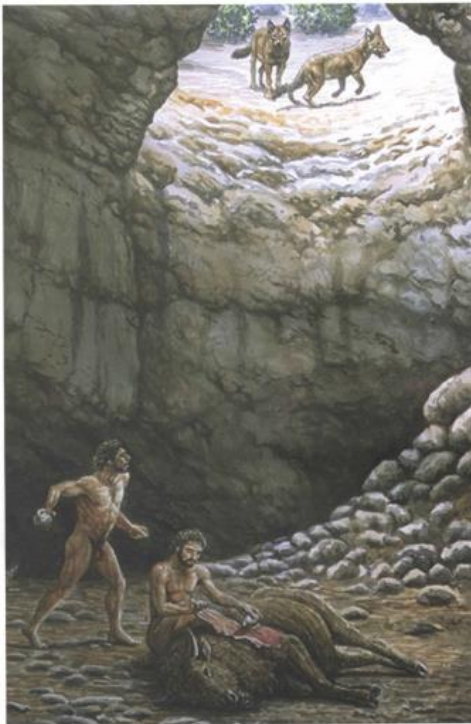
- Atapuerca





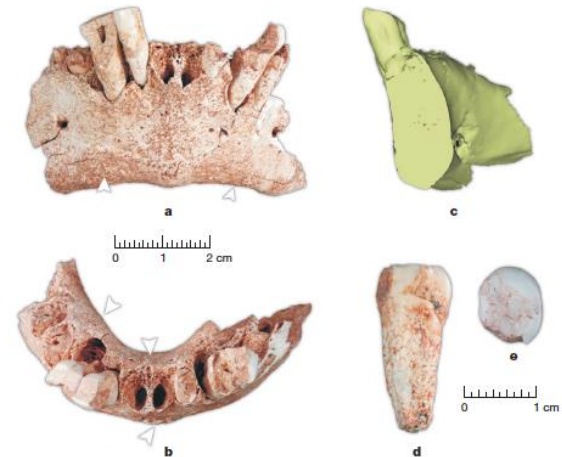
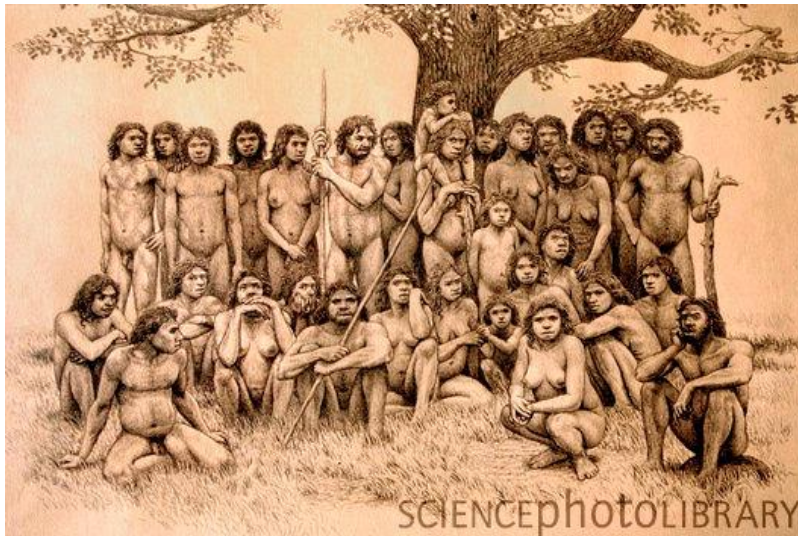
# Paleolítico inferior

- Atapuerca



# Paleolítico inferior

- Atapuerca





# Paleolítico inferior

- Acheulense em Portugal
  - Primeiras descobertas atribuídas ao Paleolítico Inferior séc. XIX por Carlos Ribeiro e Nery Delgado
  - Comissão Geológica de Portugal
  - **Sem restos antropológicos**
  - Testemunho através das indústrias líticas
  - Terraços de praias do litoral
  - **Terraços quaternários dos principais vales fluviais, curso de grandes rios e afluentes**
  - Estudos dos depósitos geológicos
    - Zbyszewski e Breuil (Alpiarça)
    - Mariano Feio e Abel Viana (Gadiana)



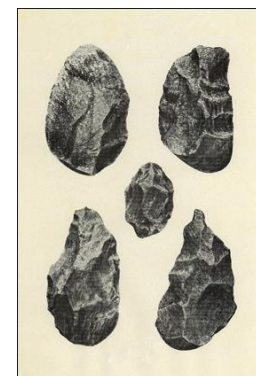
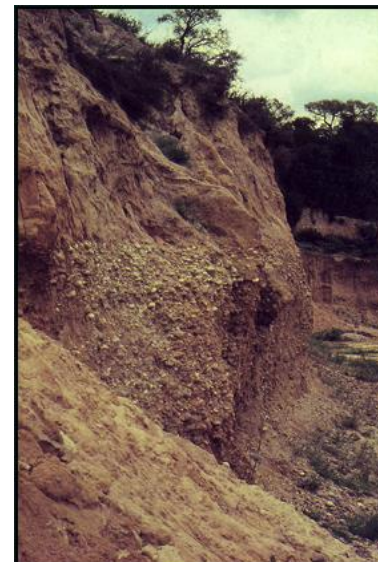
Henri Breuil  
(1877-1961)



G.  
Zbyszewski  
Geólogo  
(1909-1998)

# Paleolítico inferior

- Acheulense em Portugal
  - Artefactos talhados em quartzito e quartzo, uso do sílex essencialmente na região de Lisboa e Rio Maior
  - Divisão em três estádios
    - Acheulense inicial (730 – 300 ka)
      - Bifaces, espessos frequentemente irregulares
      - Ausência de “levallois”
    - Acheulense médio (300 – 240 ka)
      - Bifaces e machados acheulenses
      - Surgimento da técnica “levallois”, embora muito residualmente
    - Acheulense final (250 – 120 ka)
      - Industrias com bifaces, onde se encontra presente a técnica “levallois”



# Próxima aula

## Paleolítico médio

