I. Primate Order

II. Hominidae Family

III. Hominid Classification

IV. Hominid Classification

   • Order Primates
     ~ Suborder Prosimii
       • Infraorder Lemuriformes
       • Infraorder Lorisiformes
     ~ Suborder Tarsiiformes
     ~ Suborder Anthropoidea
       Infraorder Platyrrhini
       Infraorder Catarrhini
       Superfamily Cercopithecoidea
       Superfamily Hominoidea
       Family Hylobatidae
       Family Hominidae
       Subfamily Ponginae
       Subfamily Homininae
V. Australopithecines
- The big transition between *Pan* and *Australopithecus* forms was
  - so foot, hip/pelvis and leg structures were
- Multiple hypotheses for biped
  - sun
  - predator
  - walking
- However, their brain sizes, build, face structure, and tooth anatomy were
- Speciation Hypothesis: rift valley in east Africa caused

VI. Australopithecines
- *A. ramidus* = 4.4 Mya
  - Based on tooth analysis,
- *A. amamensis* = 4.2 Mya
- *A. afarensis* = 3.9 Mya
- *A. africanus* = 3 Mya

VII. Australopithecines
- *A. aethiopus* = 2.6 Mya
- *A. robustus* = 2 Mya
- *A. boisei* = 1.1 Mya
- Note: *A. afarensis* and *africanus* were

VIII. From *Australopithecus* to *Homo*
- Increased
- Increased
- Complex, forward-directed
- Refined
- Increased
- Decreased
- Decreased
- Intricate

IX. *Homo* Genus
- *H. rudolfensis* = 2.4 Mya
  - We know very little about this first *Homo*
  - note the temporal overlap between
- *H. habilis* = 1.9 Mya
  - Enormous jump in brain size:
    - Primitive
    - Evidence of
- *H. erectus* = 1.8 Mya – 300,000
  - Another jump in brain size =
X. *Homo sapiens*

- *Homo sapiens* (archaic) = 500,000
  - Brain same size
  - Because of shared characteristics

- *H. sapiens neanderthalensis*
  - Another increase in brain size = 1450 cc
  - Highly advanced tools (found in Germany)

- *H. sapiens sapiens* = 120,000 – present
  - Up to 1700 cc brain size
  - Cro-magnon man (found in France)
  - The oldest modern human

XI. Primate Tree Through Time

[Diagram showing primate evolution through time with various hominid species timelines.

Fig. 24.27, p.

XII. Out of Africa...

- Two models for human spread: multiregional and African emergence
- Multiple Origin (Thorne & Wolpoff)
  - Suggests that *H. erectus* spread throughout the world by 1 Mya
  - Each distinct population faced different selection pressures
- Single Origin or Eve Hypothesis (Stringer & Andrews)
  - Does not dispute
  - Contends that *H. sapiens*
  - The more
    - The oldest *H. sapiens* fossil
    - Genetic
XIII. Human Races
- Proposed family tree for human races that are native to different regions. Divergences are based on DNA-DNA hybridization and immunological comparisons (supports African emergence model).

XIV. Human Colonization Events

XV. Conclusions
- There were two major, complex “key adaptations” in the evolution of modern humans: