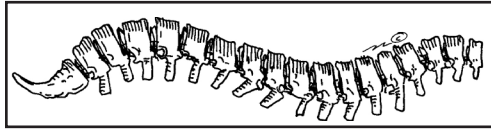


Classification of Humans.



Vertebrate.

Mammals

Milk producing glands.
 Has fur
 three separate bones in middle ear.
 Malleus (hammer) Incus (anvil) Stapes (stirrups)

Has nails.
 Ability to oppose the thumb.
 Four sets of insizors.

Primates.



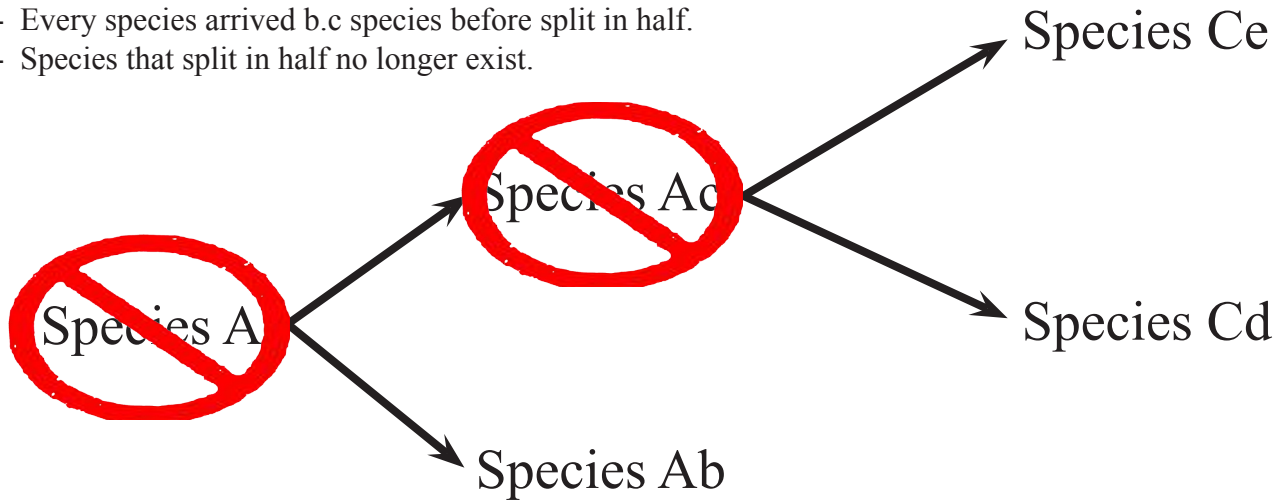
Figure 1

Apes

Y shaped pattern on molers (grinding teeth)
 Shoulder blades at the back. Not on side.
 No tail.

2 assumptions.

- Every species arrived b.c species before split in half.
- Species that split in half no longer exist.



Species Ce and Cd are more closely related than Ab is with Cd. Ce and Cd have more homologies than Ad and Cd.

Figure 3

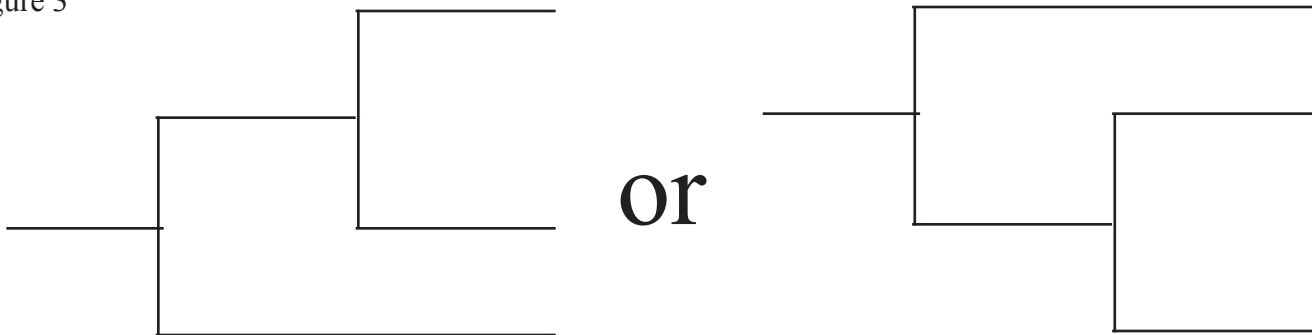


Figure 4

Homology and adaptation in bones of the left fore limb in land vertebrates. The limbs are homologous in being composed of comparable bones (humerus, carpals, etc.), which in each kind of animal are adapted for special uses by differences in the length, shape, and bulk of the various bones; 1-5, digits or "fingers."

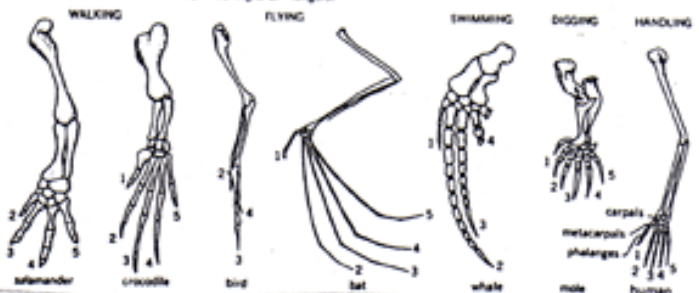


Figure 5



Figure 6.

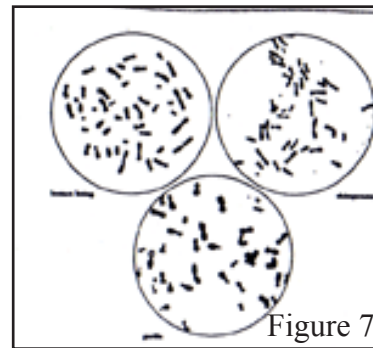


Figure 7.

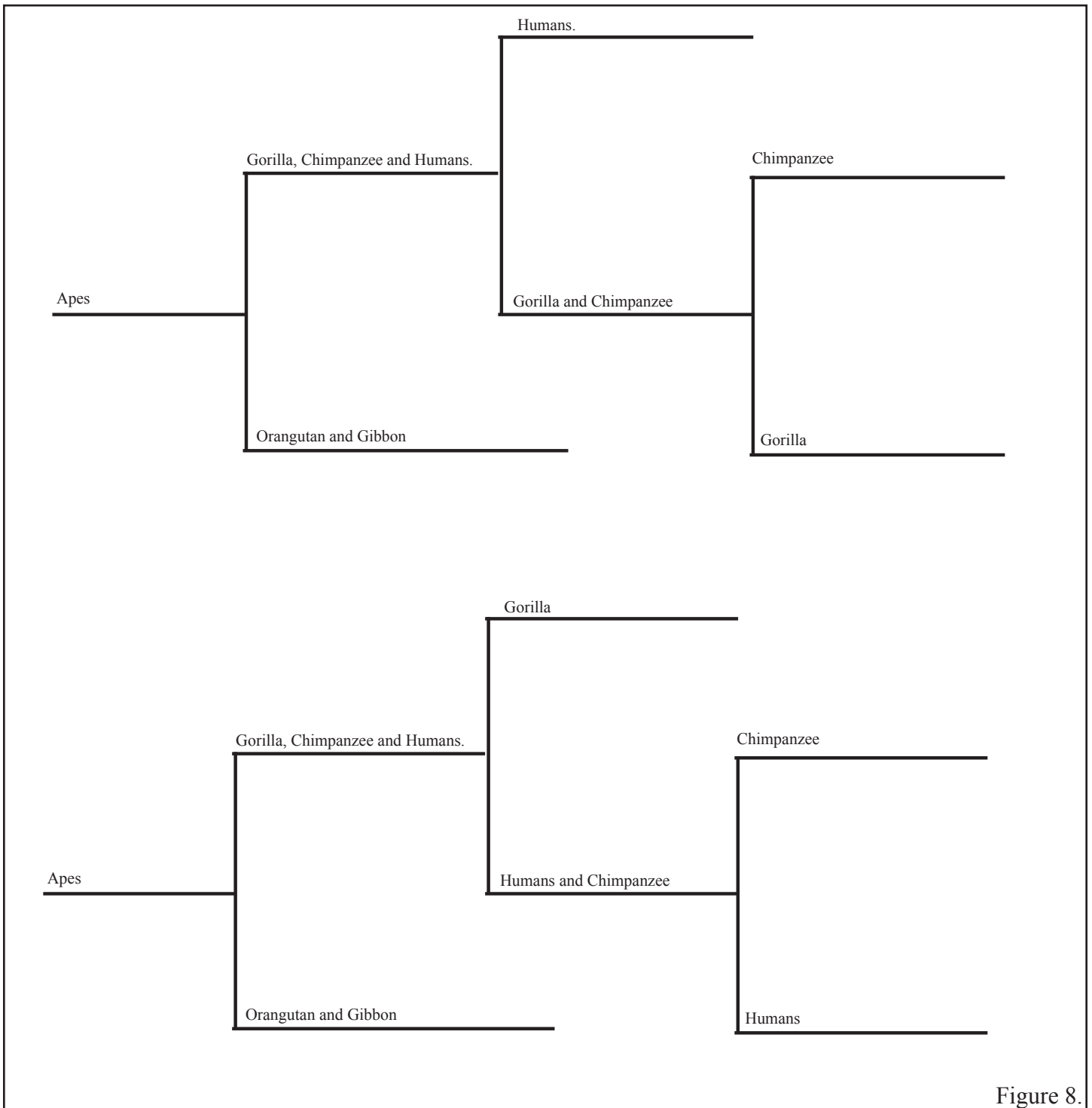


Figure 8.

Search for Our Closest Living Relatives

Name: _____

Date: _____

Shared Characteristics	Gorillas	Humans	Chimpanzees	gorillas are more closely related to humans	chimps are more closely related to humans	gorillas and chimps are equally related to humans
Bones & Teeth						
limb length						
canine teeth						
thumbs						
Soft Body Parts						
head hair						
calf muscles						
buttocks						
Chromosomes						
total number						
structure of numbers 5 & 12						
fluorescence of Y and 13						
Molecules						
hemoglobin chain						
GM factor in blood						
amino acid sequence						

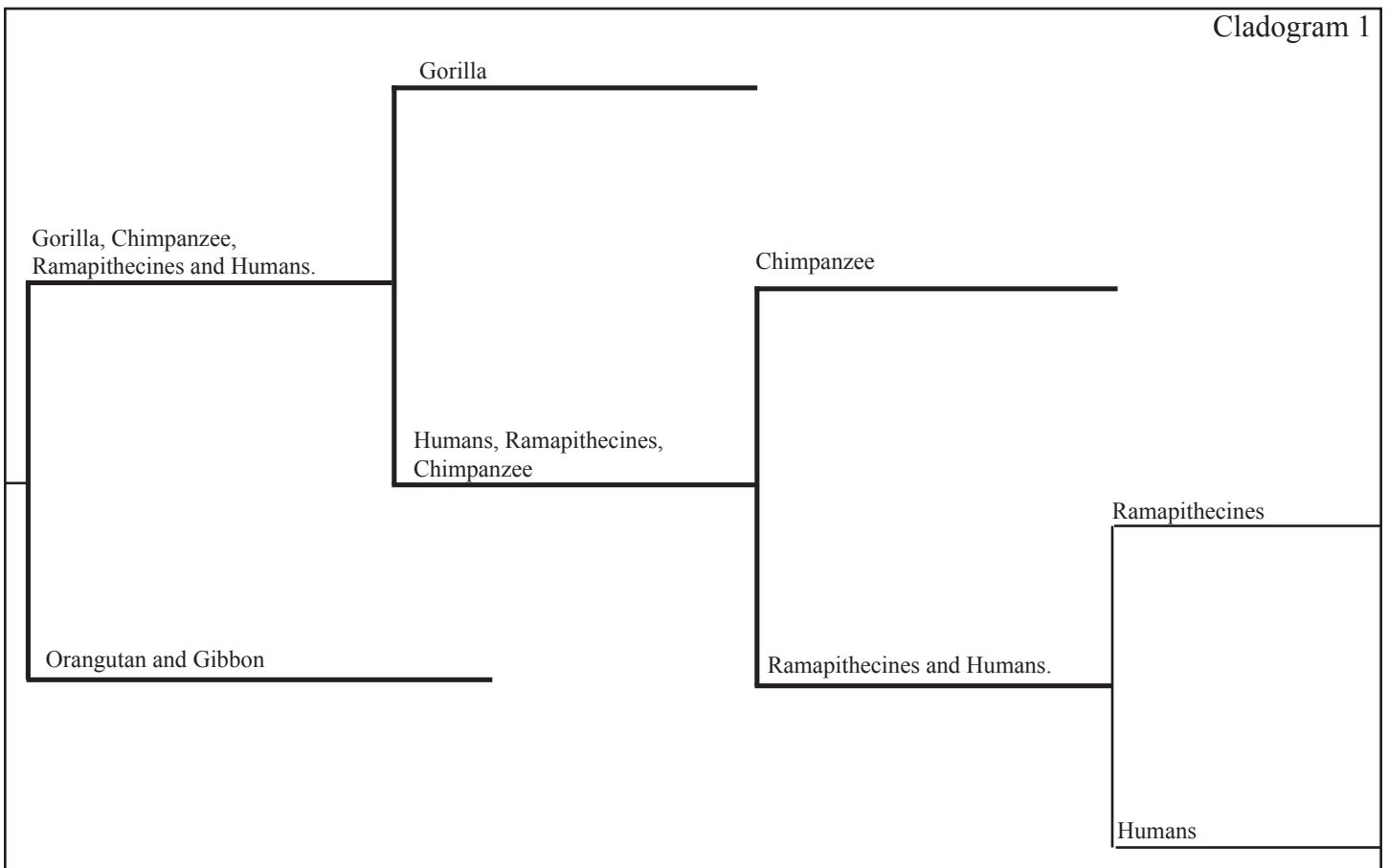
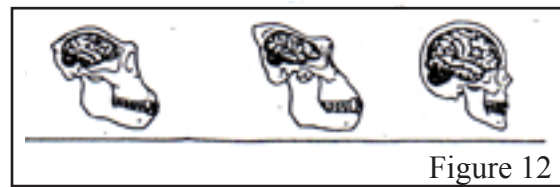
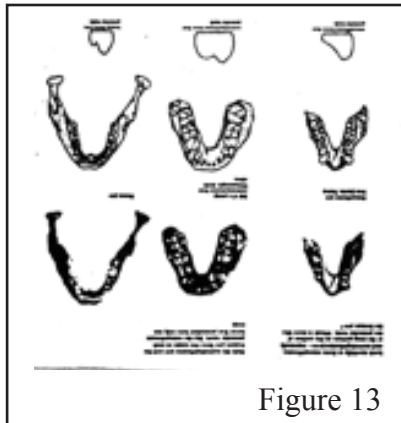
The Hand Chart:

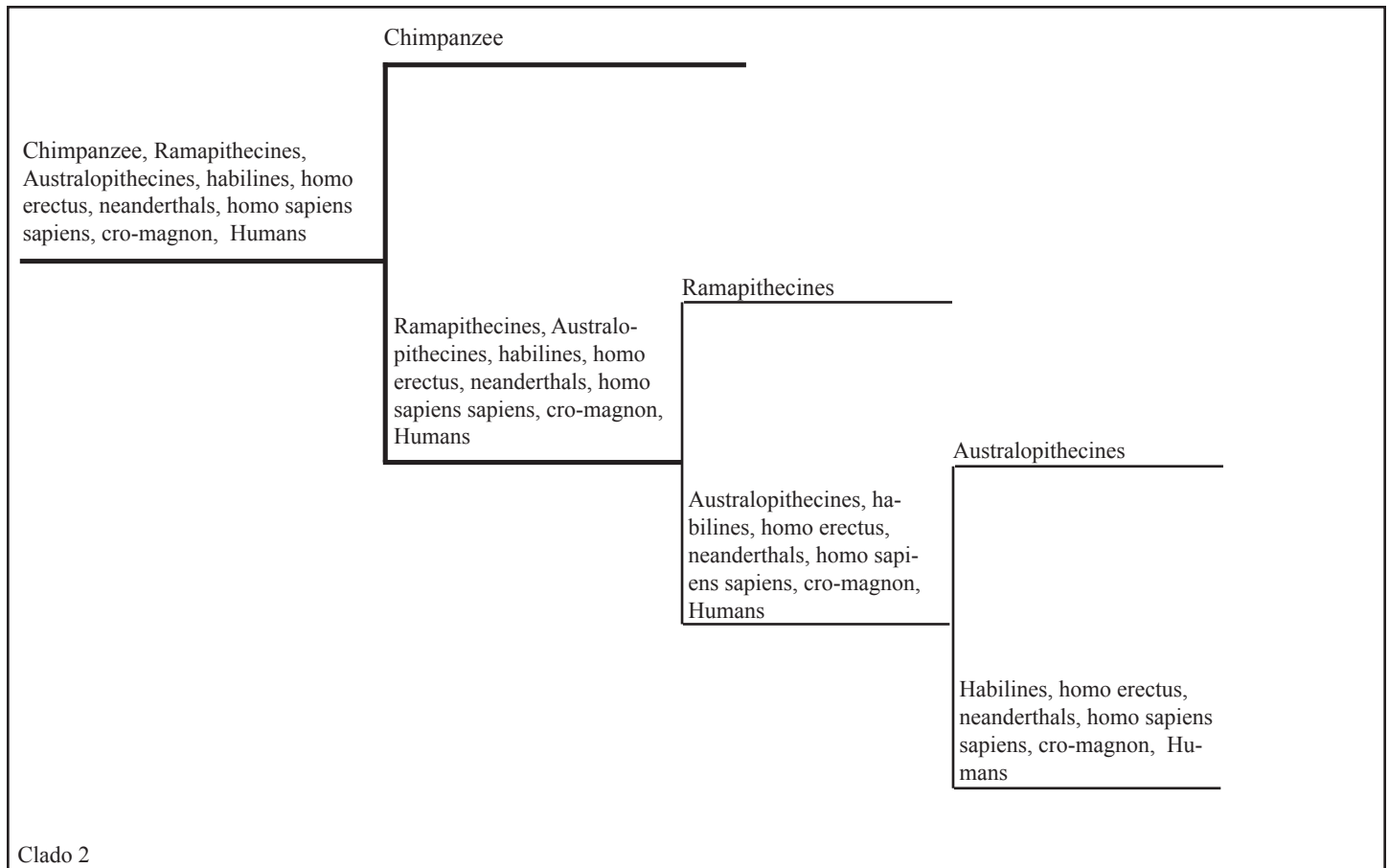
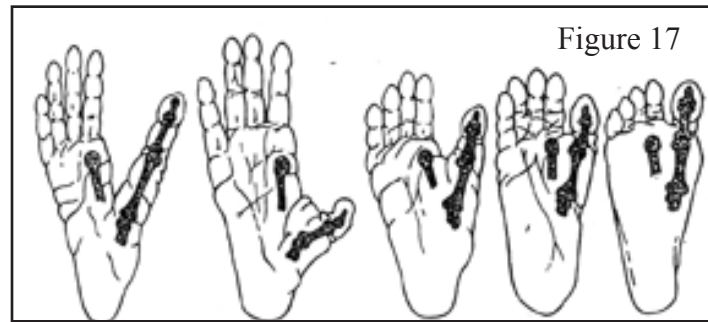
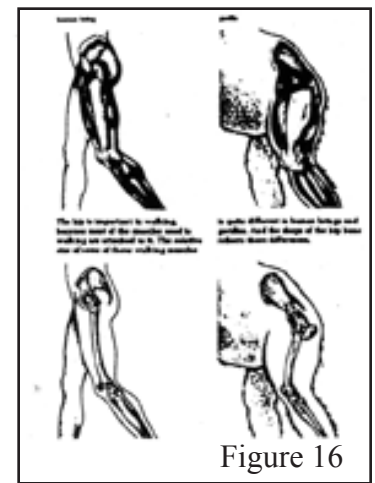
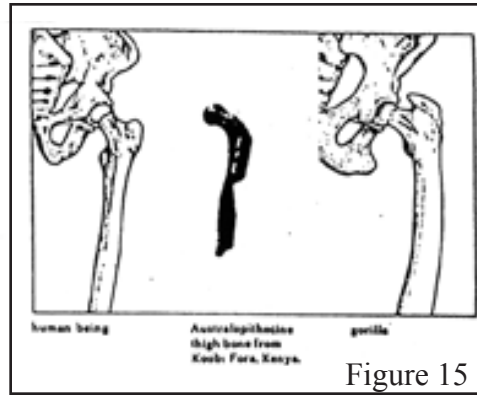
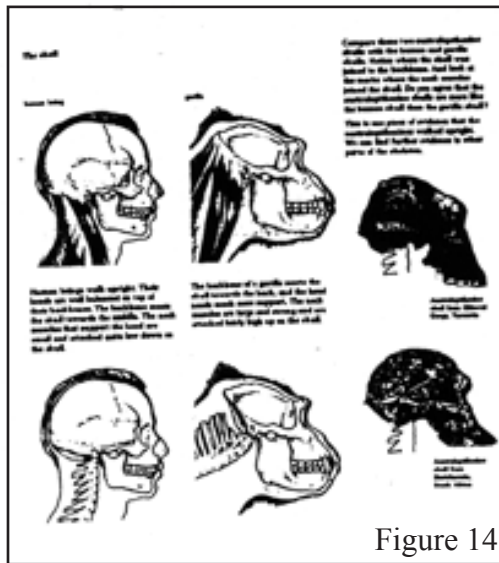


Development of humans by studying work of the hand: tools, artwork, remains of homes, burial sites.

Development of written history. Past 5,000 years.

Figure 9





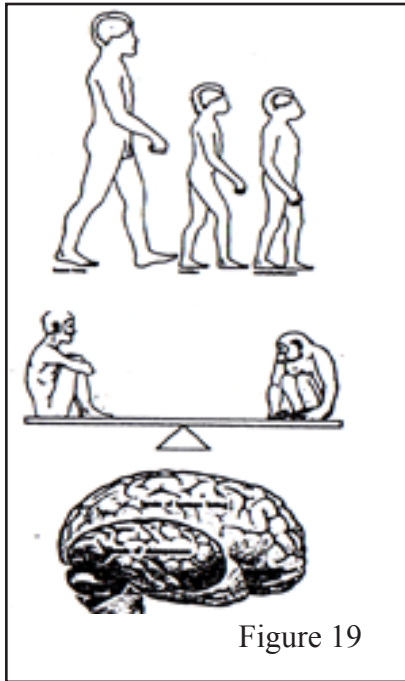


Figure 19

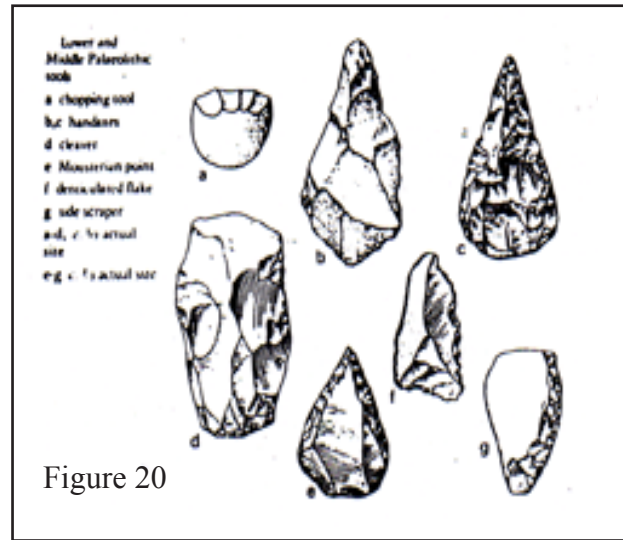
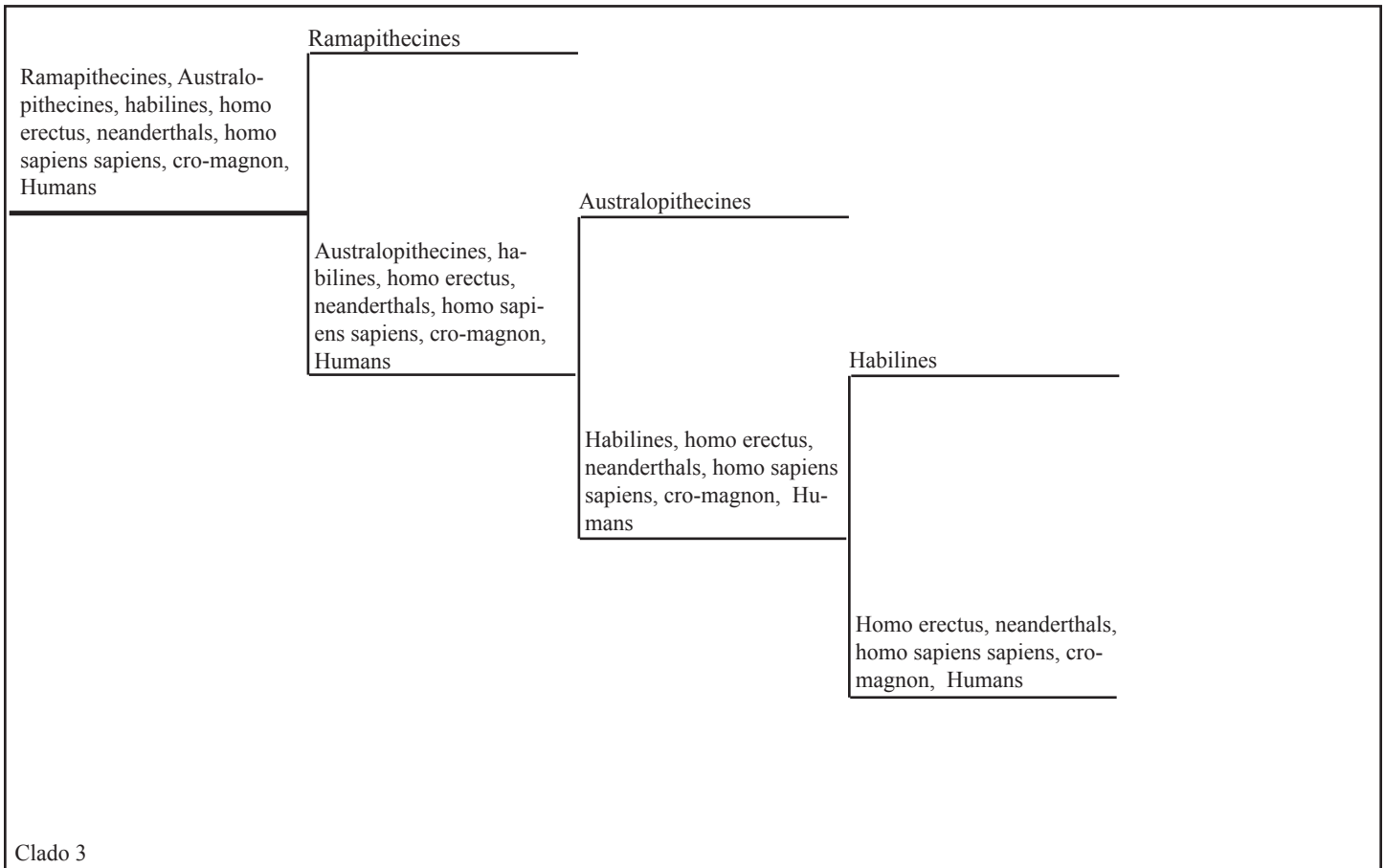


Figure 20



Clado 3

