Hominid Prehistory

Epoch	MYA	Hominid	AKA	Loca	Brain	Technol	Geog/Climate	Notes	From	To
Paleocene	fom 65	(First Primates)	Note: **EQ**= Encephalization Quotient = Brain Size / Expected Brain Size (per Mammalian norms)							
Eocene	55						Flowering plants, fruit			
Oligocene	36	(True Primates)								
Miocene	20	(? First Apes)		Africa	360cc	(?Perishable) Modern chimps	Uplift & faulting	* Grasping big toe, for tree climbing		
"	15				* EQ: 2.5	strip sticks, use hammer stone	>>East African	* Narrow lower pelvis, heavy hind-limb muscles for climbing		
"	10	Hominds/apes diverge 5-7MYA?					**Great Rift Valley**	* Broad upper pelvis for gluteus muscles, support upright walking		
Pliocene	5	(No good ape fossils in rainforest!)					Cooling, less tropical	* Bone (*os peroneum*) in foot for rigidity, for walking		
"	4.5			*Ethiopia				* Foramen Magnum more forward than apes, head atop spine		
"	***4.4***	***Ardipithecus ramidus***	**"Ardi"**	**Africa**	**360cc**	(? Perishable)	**Open woodland**	**Semi-Bipedal**, Semi-Arboreal	**4.4**	?
"	4.3				* EQ: 2.5?			* Reduced canines in males (compared to most primates)		
"	4.2	*Astralopithecus anamensis*		Kenya				* Short palm, less ridgid hand than apes - not a knucklewalker	4.2	3.4?
"	4.1	* Jaw bone only						* NOT "missing-link" - i.e. not like contemp. apes; Apes evolving too!		
"	4									
"	3.9		Note that it is best to think of this as our "Family Bush" rather than "Family Tree" since							
"	3.8	Note: "***A.***" = *Australopithecus*	one species seldom leads to the next, and many co-occur for long periods.							
"	3.7	"***Ar.***" = *Ardipithecus*								
"	3.6							**(3.6 MYA) First Footprints**, Tanzania, Africa		
"	3.5							* Energy efficient long-distance ground travel		
"	***3.4***	***Australopithecus afarensis***	**"Lucy"** (in the sky w/diamonds)	**Africa**	**400cc**	(? Perishable)	**Savanah**	**True Bipedal,** if gait not exactly like humans	**3.4**	**2.8**
"	3.3		**Dikika Baby**	*Several	460cc		* More direct sun	* Broad, flat pelvis attaches muscles, support upright weight, knees in	3.3	2.5
"	3.2			locations	* EQ:3.4		* Drier; Resources	* TRUE FOOT - All toes point foreward, no longer grasp w/feet		
"	3.1						widely distributed	* Hands still long, curved, probably some tree climbing?		
"	3	* *P. larger, more robust than A.*						* No sexual dimorphism, males = females in size >> Monogamous?		
"	2.9	*Paranthropus aethiops*	*Australopithecus aethiops*					* Teeth: Mainly vegetarian (plus bugs, lizards)	2.8	2.5
"	2.8	*Paranthropus boisei*	*Australopithecus boisei*					* ~3.5 feet tall * Uprightness helps adapts to heat? Sweat vs fur??	2.6	?
"	2.7	*Australopithecus garhi*	Name = "Surprise"	Ethiopia		(?Did Austral. make stone tools?)			2.5	?
Pleistocene	2.6	*Australopithecus africanus*	**Taung Child** (eagle prey)	S. Africa	340cc (inf)			**Falk "Radiator Theory": A.'s* network of brain veins enabled enlargement	2.5	?
" Lower	***2.5***	***Homo habilis***	**"Handy Man"**	**Africa**	**660cc**	**Oldowan**	**Climate flux**	**First Stone Tools**	**2.5**	**1.5**
" Paleolithic	2.4	*Homo rudolfensis*		*Several	775cc	* First fashioned stone tools	* Arid/ moist	* Hands and feet like humans; Could walk and run	2.4	1.8
" (Stone Tools)	2.3			locations	* EQ: 4	* Sharp Flakes & Pebbles	including Lake changes	* Teeth becoming smaller (process food in other ways - Co-evolution)		
" "	2.2					* About 4 kinds		* Taller, brain/body ratio similar to above (Tho absolute brain size matters!)		
" "	2.1					* Use tool to make tool		* Most tool fossils from Olduvai Gorge, Kenya		
" "	2	*Paranthropus robustus*	*Astralopithecus robustus*					* Oldowan tool-kit unchanged for a million years	2	?
" "	1.9									
" "	1.8	*Homo ergaster*	**Turkana Boy**	Africa	950cc				1.8	50,000
" "	1.7	* *Some classify as H. erectus*	* 12 yr old male, Kenya							
" Middle	***1.6***	***Homo erectus***	**"Erectus"**	**Eurasia**	**950cc**	**Acheulian**	**Glatiation**	**Out of Africa;** Some controlled **Fire**	**1.6**	**400,00**
" Paleolithic	1.5				* EQ: 5.6	* Bifacial Hand Axe,	* Repeated ice ages	* Larger, robust body; Adapted to cold areas; Spread thru Old World		
" (Fire)	1.4					* Cleaver, Discoid, etc.	thruout Pleistocene	* Symmetric tools appear ~ 1.4 MYA; then stable for almost a million yrs		
" "	1.3					* About 10 kinds	alt w/warmer periods	* Hunter/gathers, with basecamp for sharing?		
" "	1.2					* *Wynn*: Imposed Sym		* Most successful (longest-lasting) hominid!		
" "	1.1					but not congruent	* Glaciers isolate			
" "	1						Europe, Mideast &			
" "	0.9						African populations	* Still Acheulian tools, after big game		
" "	0.8	***Homo heidelbergensis***	Archaic *Homo sapiens*	**Eurasia**	**1200cc**	Acheulian		**Human-range Brain**, but still brow ridge, no chin, heavy boned	700,000	100,000
" "	0.7	*AKA Homo antecessor*				* Hunted big game				
" "	0.6							* Very large brain (on average > ours); includes Occipital Bun		
" "	0.5							* Hunters, eat mostly meat (per isotope ratios in bones)		
" "	0.4					* *Wynn*: 3D congruent		* Heavy bones, brow ridge, skull, jaw; Hard life, helped weaker		
" "	0.3					* ~60 kinds,spear,blades		* Cold-adapted (Stocky, Big nose to cool instead of chilling sweat)		
" "	0.25	*or *H. sapiens neanderthalensis*	* Old Man La Chapelle-aux-Saints	* MidEast	* EQ: 7.6	* Levallois (first prep core)		* Co-occurred (competed?), in places, with humans for > 50,000 yrs		
" "	***0.20***	***H. neanderthalensis***	**Neandertal**	**Europe**	**1400cc**	**Mousterian**	**Cold-adapted**	**Burial;** poss Jewelry? (Traded?) Cave Bear cult? Language???	**200,000**	**28,000**
" "	***0.15***	***Homo sapiens***	Cro-Magnon, **Eve**	**Africa?**	**1300cc**	**Late Stone Age**	**Widely varied!**	**Humans,** essentially modern; Signif basicranial flexure for **Speech**	**150,000**	**?**
" "	0.13		* or *H. sapiens sapiens*		* EQ: 7.6	*Varied materials, functions	* Adapted to ANY env	* mtDNA (from mother only) most variable in Africa = Eve was African		
" "	0.11					* Refined techniques		* So far, at most, ~600 generations		
" "	0.09									
" "	0.07									
" Upper Paleo	0.05					**Upper Paleolithic** (e.g. arrows)		Mass migrations, flexible technol, art, religion, many rapid changes	50,000	Present
" (Art)	0.03							Cave paintings	32,000	Present
Neotlithic (metal)	0.01		Found Everywhere!					Agriculture, Metal, Writing, Population boom	12,000	Present

* Indicates info is a continuation from nearby yellow line, not necessarily linked to time on its line.