**A Perspective on Human Evolution**

**and The Direction of Man**

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**“The world is like a ride at an amusement park. And when you choose to go on it, you think that it's real because that's how powerful our minds are. And the ride goes up and down and round and round. It has thrills and chills, and it's very brightly colored, and it's very loud and it's fun, for a while. Some people have been on the ride for a long time, and they begin to question - is this real, or is this just a ride? And other people have remembered, and they come back to us. They say 'Hey! Don't worry, don't be afraid, ever, because, this is just a ride.' And we...kill those people. Ha ha ha. 'Shut him up! We have a lot invested in this ride. SHUT HIM UP! Look at my furrows of worry. Look at my big bank account and family. This has to be real.' It's just a ride. But we always kill those good guys who try and tell us that, you ever notice that? And let the demons run amok. But it doesn't matter because: it's just a ride. And we can change it anytime we want. It's only a choice. No effort, no work, no job, no savings, and money. A choice, right now, between fear and love. The eyes of fear want you to put bigger locks on your doors, buy guns, close yourselves off. The eyes of love, instead, see all of us as one. Here's what you can do to change the world, right now, to a better ride. Take all that money that we spend on weapons and defense each year, and instead spend it feeding, clothing and educating the poor of the world, which it would many times over, not one human being excluded, and we could explore space, together, both inner and outer, for ever, in peace.”**

**-Bill Hicks**

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**A Perspective on Human Evolution**

I am attempting to portray our species from an objective perspective to demonstrate the fact that we are like any other life form on this planet, just another creature inhabiting the Earth. By taking a look at the species preceding us, we can see where we came from and possibly where we are going. Each species has played a key role in the process of human evolution. From Sahelanthropus tchadensis, the early hominid species known to be the first step from ape to modern human, to Ardipithecus, known for its lower intergroup aggression and early bipedalism, up to Homo erectus, the first true humanoid to show characteristics closer to that of modern humans than the common ape. The process of which we are currently experiencing has been a very long one consisting of millions of years of refining and will go on to do so.

Development is not a process that ends; we have not “arrived” at some ultimate evolutionary peak. We are, as we have always been, ever-evolving, constantly perfecting little nuances of our biology, growing into more efficient beings. We are a highly advanced hominid species, so much that we cannot biologically keep up with our progressive needs. Human beings are an evolutionary rarity. We haven’t made it this far just by some random chance.

If we are surpassing our biology then in what way are we evolving? Even our mental growth can only go so fast. We are at a point of voluntary evolution. It’s a choice between a stationary existence or a transcendental one. It’s all a choice.

Now, by taking a look at the eight most significant hominid species that played essential roles in the process as to which we are currently at the peak of, we will see where exactly we originated from and where we are and are possibly going. It is important to remember that we are beings of the Earth, always growing and always changing.

**Sahelanthropus tchadensis**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Sahelanthropus

Family: Hominidae Species: S. tchadensis

Sahelanthropus tchadensis is an extinct hominid species that dates back about seven million years ago. It is unclear whether or not it can be regarded as part of the Hominina tree due to supporting and rejecting arguments for it. Sahelanthropus tchadensis was discovered in the Djurab desert of Chad between July 2001 and March 2002 at three sites; TM 247, TM 266(Most Material), and TM 292. Five jaw pieces and some teeth were found in loose sand by a team of four led by Michel Brunet followed by three Chadians; Adoum Mahamat, Djimdoumalbaye Ahounta, and Gongdibe Fanone, and Frenchman Alain Beauvilain. Sahelanthropus tchadensis is the oldest known human ancestor.

Its small cranium was nicknamed Toumai meaning “Hope of Life” in the Dazaga language of Chad. Its braincase being only 320-380 cm3 is similar to that of extant chimpanzees yet is notably smaller than the 1350 cm3 braincase of modern humans. Its cranial features suggest a flatter face to that of modern man, a U-shaped dental arcade, small canines, heavy brow ridges, and an anterior foramen magnum (hole where spine enters skull). Its canine wear is similar to that of Miocene Apes. The anterior foramen magnum possibly suggests that Sahelanthropus tchadensis was bipedal although no postcranial remains (bones below the skull) have been found making it unclear. Sahelanthropus tchadensis is the first generation species to evolve from chimpanzee toward modern humans.

**Orrorin tugenensis**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Orrorin

Family: Hominidae Species: O. tugenensis

Orrorin tugenensis is the second oldest known human ancestor next to Sahelanthropus tchadensis. It is an extinct hominid species that dates back about six million years ago and it is possibly an early bipedal hominin. It was discovered in the Tugen Hills of Kenya in 2000 by a team led by Brigitte Senut and Martin Pickford from the Museum national d’histoire naturelle. To date twenty fossils have been found at four sitesin the Lukeino Formation. The fossils at Chebiot and Aragai date back about 6.1 Ma (million years ago), while those at Kaposomin and Kapcheberek are found in the upper levels of the formation and date back about 5.7 Ma.

The twenty fossils found include three fragments of femurs, the posterior part of a mandible in two pieces, a partial humerus, a proximal phalanx, a distal thumb phalanx, several isolated teeth, and a symphysis. Orrorin tugenensis had relatively small teeth compared to its body size with ape-like canines and heavy enamel. The femur head being spherical and rotated anteriorly with an elongated neck and a medially protruded lesser trochanter supports the possibility that it was bipedal although the rest of the postcranial remains suggest it climbed trees. Orrorin tugenensis is one morphological step closer to the modern human.

**Ardipithecus**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Ardipithecus

Family: Hominidae Species: A. kadabba and ramidus

Ardipithecus is an extinct early hominin genus dating back about 5.6 to 4.4 Ma. The toe and pelvic structure suggests that Ardipithecus walked upright. Ardipithecus had a relatively small brain size measuring between 300 to 350 cm3, roughly 20% the size of the modern human. The name Ardipithecus stems partially from the Afar language of Ethiopia; Ardi means ground or floor and the pithecus portion is from the Greek word for ape.

A research team in 1993 led by Tim White discovered the first Ardipithecus ramidus fossils; seventeen fragments including pieces of arm bones, mandible, skull, and teeth. Its distinguishing characteristics are bipedalism incorporating a thumb-like big toe, reduced canine teeth, and a comparably smaller brain size to that of a modern chimpanzee. The teeth of Ardipithecus suggest that is was generally an omnivore and frugivore (fruit eater) with a diet that did not depend heavily on fibrous plants, ripe fruit, or hard abrasive food.

Its reduced canine teeth also infer that its social behavioral characteristics show relatively little aggression between males and groups compared to common chimpanzees that demonstrate typically high intermale and intergroup aggression. This reveals another large step in the long walk of evolution toward modern man.

**Australopithecus**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Australopithecus

Family: Hominidae Species: A. africanus, garhi, and sediba

Australopithecus is an extinct hominid species that evolved in eastern Africa about 4 to 1.8 Ma. It is said that Australopithecus played a significant part in human evolution; it was one of the first species that eventually evolved into the Homo genus. This shows that Australopithecus is another huge step in evolution toward the modern human. Its brain is roughly 35% of the size of a modern human brain and it stood from 4 to 4.5 ft tall. Its intelligence is closely comparable to that of a modern ape although the bipedal characteristic is key to distinguishing Australopithecus from previous primates who were quadrupeds (walk on all four).

The advantages of bipedalism allowed the hands to be free to carry objects such as food or young and allowed the eyes to look over tall grasses for possible predators and food sources; another huge step to speed up the process of evolution. The pelvis and foot structure are very similar to that of a modern human. Australopithecus possibly used simple tools such as stones for cracking nuts, long sticks for digging termite mounds, and sometimes spears for hunting (not thrown). Its diet mainly consisted of fruits, vegetables, nuts and seeds, and occasionally meat.

Workers in a lime quarry discovered the first Australopithecus fossil in Taung, South Africa. It was later studied by Austrian anatomist Raymond Dart from the University of the Witwatersrand in Johannesburg in February 1925. Dart claimed that Australopithecus showed a number of humanoid features and came to the conclusion that it was an early ancestor of humans.

**Kenyanthropus**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Kenyanthropus

Family: Hominidae Species: K. platyops

Kenyanthropus is an extinct hominid species dating back around 3.5 to 3.2 Ma. In 1999, Justus Erus in Lake Turkana, Kenya discovered the first Kenyanthropus fossil. There is debate as to whether or not it represents an entirely new hominine genus or if it is a separate species of Australopithecus yet it’s a major step in evolution due to intermediate features between modern human and modern ape forms most notably the jaw and tooth structure. Other evolutionary characteristics include a broad flat face and a toe bone that suggests it walked upright. While the Kanyanthropus fossil shows a small ear hole similar to that of a chimpanzee and a relatively small brain it also shows significant differences such as high cheek bones and a flat section under its nose giving it a flatter and more human like face.

Anthropologist Daniel Leiberman at the George Washington University theorized that somewhere between 3.5 and 2 Million years ago, there were several human like species, each one well adapted to life in their particular environment and, like many other mammalian groups, humans evolved through a series of complex trials and errors, each one coming closer and closer to the current evolutionary standpoint of the hominid species, Homo sapiens. It is important to remember that we are beings of the Earth, always growing and always changing.

**Paranthropus**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Paranthropus

Family: Hominidae Species: P. aethiopicus, boisei, and robustus

Paranthropus is an extinct member of the hominid species that dates back about 3 to 1.2 Ma. It was first discovered in 1938 by a schoolboy in South Africa but has been further excavated since 1993 by Francis Thackeray of the Transvaal Museum. According to a dental analysis taken from the carbon of the enamel of the 24 Paranthropus teeth from East Africa, dating back about 1.4 to 1.9 Million years ago, it shows one type of carbon that is produced from tree leaves, grasses and grass-like plants, revealing that, contrary to previous theories, Paranthropus did not eat nuts like many of its predecessors but instead relied more heavily on grasses than any other human ancestor studied to date. Only an extinct species of grass-eating baboons ate more.

Paranthropus exhibits a significantly larger braincase than that of Australopithecus and hand fossils that indicate it was adapted for precision grasping and primitive stone tool use. All species of Paranthropus were bipedal. Its cranial remains show significant morphological differences compared to that of Australopithecus, suggesting it had more massively built jaw muscles, supporting the theories of its fibrous plant diet. Paranthropus is important to human evolution because of its characteristics similar to those of early Australopithecus and to that of the early Homo genus species, making it a huge morphological step in time.

**Homo habilis**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Homo

Family: Hominidae Species: H. habilis

Homo habilis is an extinct member of the hominid species that dates back about 2.3 to 1.4 Ma. It is a very important step in Human evolution because it is the first species of the Homo genus, bringing us a few million years closer to the modern human being. Donald Johnson and Tim White in the Olduvai Gorge discovered the first Homo habilis fossils in 1986. The fossils found included important upper and lower limbs, a lower jaw fragment, some teeth, and an upper mandible possibly from a female dating back about 1.7 Million years ago. The general bone structure demonstrates an Australopithecus-like body with a more human-like face and smaller teeth.

The braincase capacity of Homo habilis generally ranged from about 363 cm3 and 600 cm3 and had, on average, a 50% larger brain capacity than Australopithecus but considerably smaller than the 1350 to 1450 cm3 range of modern humans. Homo habilis on average stood no more than 4.5 ft tall. Homo habilis was short and had disproportionately long arms compared to modern humans, however, it had a less protruding face than that of Australopithecus and had more human-like facial features. It has been known that it was one of the first hominid species to master stone tool use. It is clear that Homo habilis is an important evolutionary step toward humans not only because of it being the first Homo genus but also because of its sophisticated intelligence and social organization compared to that of the typical Australopithecus or chimpanzee.

**Homo erectus**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Homo

Family: Hominidae Species: H. erectus

Homo erectus is an extinct species of hominid, dating back around 1.8 to 1.3 Ma. It originated in Africa and later spread as far as Asia and parts of Europe. Homo erectus is an extremely important stride in human evolution because it is the first true humanoid to show full anatomical characteristics closer to that of modern human beings than any other previous hominid species or the common ape. Dutch anatomist Eugene Dubois on the island of Java, Indonesia in 1891, discovered the first Homo erectus fossils. German anatomist Franz Weidenreich provided much of the detailed description of the material in several monographs published in his journal although nearly all of the specimens were lost during World War II, however, authentic casts made by Weidenreich exist at the American Museum of Natural History in New York and at the Institute of Vertebrate Paleontology and Paleoanthropology in Beijing, and are considered to be reliable evidence.

Homo erectus used more diverse and sophisticated stone tools than its predecessors, however, used comparatively primitive tools. It is possible that it was the first hominid to use rafts to travel over oceans. Homo erectus was also the first hominid species to use controlled fire, beginning around 1.5 Million years ago, and it is said that H. erectus not only controlled fire but could light them too. Homo erectus was the first human to live in a hunter-gatherer society and was socially more like modern humans than the Australopithecus-like species before it; its increased cranial capacity generally coincides with the more sophisticated tool use as well. Both its brain size and its general social behavior support the theory of its use of articulate language. Homo erectus has also been known to live in close families or band-societies similar to that of modern humans and is thought to have hunted in coordinated groups, use complex tools, and care for sick or weak companions. This hominid species is the true beginning of modern humans and structured society.

**Homo sapiens**

Kingdom: Animalia Subfamily: Homininae

Phylum: Chordata Tribe: Hominini

Class: Mammalia Subtribe: Hominina

Order: Primates Genus: Homo

Family: Hominidae Species: H. sapiens

Homo sapiens are a non-extinct species of hominid. They are the only living species in the Homo genus of bipedal primates in Hominidae, the great ape family. Homo sapiens or Human beings originated in Africa about 200 Ka (Thousand years ago) and reached full behavioral modernity about 50 Ka. Humans have highly developed brains capable of abstract reasoning, language, introspection, and problem solving. This mental capability, combined with an erect body that frees the hands for manipulating objects, has allowed humans to make far greater use of tools than any other living species on Earth.

Other higher-level thought processes of humans, such as self-awareness, rationality, and sapience (having wisdom and discernment), are considered to be defining features of what constitutes a “person.” Humans are social animals like most higher primates but they are unique in the way that they utilize systems of communication for self-expression, the exchange of ideas, and organization. Humans are known for their desire to understand and influence their environment, seeking to explain and manipulate phenomena through science, philosophy, mythology, and religion. This natural curiosity has led to the development of advanced tools and skills, which are passed down culturally; Humans are the only species known to build fires, cook their food, clothe themselves, and use numerous other technologies. Within the last century, Humans have explored Antarctica, the ocean depths, and outer space.

Happiness, or the state of being happy, is a Human emotional condition. The definition of happiness is a common philosophical topic. Some people might define it as the best condition that a Human can have; a condition of mental and physical health. Others define it as freedom from want and distress; consciousness of the good order of things; assurance of one’s place in the Universe or society. Is happiness then, just a matter of perspective and social conditioning?

If we have reached a Physical and Biological evolutionary high then where else is there to go? How can we evolve any further? We have met our survivalist needs and have manifested an entire realm of our own. We have created “our” world within “the” world. So what now? Where now?

**A Perspective on The Direction of Man**

Humans are an opportune species. We have only begun to scratch the surface of the purpose of our existence. **“Throughout human history, as our species has faced the frightening, terrorizing fact that we do not know who we are, or where we are going in this ocean of chaos, it has been the authorities — the political, the religious, the educational authorities — who attempted to comfort us by giving us order, rules, regulations, informing — forming in our minds — their view of reality. To think for yourself you must question authority and learn how to put yourself in a state of vulnerable open-mindedness, chaotic, confused vulnerability to inform yourself.”** – Timothy Leary

We are at an evolutionary high. We have grown out of physical, biological evolution and have moved into a mental, emotional, and spiritual “voluntary” evolution. If we want to take another step in the evolutionary walk then here and now we have to let go of any control we think we may have and surrender to the true nature of things. To further evolve we have to think for ourselves and question authority. We have to demolish the walls of separation, we have to liberate ourselves from our illusions. There is no “you” and “me”. There is only “I”. “You” and “me” are formations of the mind. Everyone and everything is one, continuous, inseparable, no one thing can exist alone. Everything in existence is codependent upon each other. All distinctions are created in the mind. We have to transcend our ego and forget everything that we think makes us who we are. We have to accept the fact that do not who we are or where we are going in this “ocean of chaos” and learn how to dissolve into the collective net of consciousness. When all is said and done and your breathing your last breath, as your falling out of cognitive awareness and into the overwhelmingly warm hands God, remember, its just a ride.

**References**

<http://www.onelife.com/evolve/manev.html>

<http://www.handprint.com/LS/ANC/evol.html>

<http://www.becominghuman.org/>

<http://www.newscientist.com/topic/human-evolution>

<http://www.talkorigins.org/faqs/homs/toumai.html>

<http://www.wsu.edu/gened/learn-modules/top_longfor/timeline/04_s_tchadensis.html>

<http://humanorigins.si.edu/evidence/human-fossils/species/sahelanthropus-tchadensis>

<http://www.macroevolution.net/orrorin-tugenensis.html>

<http://cogweb.ucla.edu/ep/Orrorin.html>

<http://humanorigins.si.edu/evidence/human-fossils/species/orrorin-tugenensis>

<http://news.nationalgeographic.com/news/2009/10/091001-oldest-human-skeleton-ardi-missing-link-chimps-ardipithecus-ramidus.html>

<http://dsc.discovery.com/tv/ardipithecus/handbook2/handbook2.html>

<http://www.archaeologyinfo.com/ardipithecusramidus.htm>

<http://humanorigins.si.edu/evidence/human-fossils/species/australopithecus-afarensis>

<http://www.talkorigins.org/faqs/homs/species.html>

<http://www.archaeologyinfo.com/australopithecusafarensis.htm>

<http://www.columbia.edu/itc/anthropology/v1007/2002projects/web/kenyanthropus/kenyanthro.html>

<http://news.nationalgeographic.com/news/2001/03/0320_leakeyfind.html>

<http://www.talkorigins.org/faqs/homs/wt40000.html>

<http://www.archaeologyinfo.com/paranthropus.htm>

<http://humanorigins.si.edu/evidence/human-fossils/species/paranthropus-boisei>

<http://www.maropeng.co.za/index.php/exhibition_guide/sterkfontein/paranthropus/>

<http://www.handprint.com/LS/ANC/hfs4.html>

<http://humanorigins.si.edu/evidence/human-fossils/species/homo-habilis>

<http://www.ecotao.com/holism/hu_habilis.htm>

<http://www.archaeologyinfo.com/homoerectus.htm>

<http://humanorigins.si.edu/evidence/human-fossils/species/homo-erectus>

<http://www.stanford.edu/~harryg/protected/chp22.htm>

<http://humanorigins.si.edu/evidence/human-fossils/species/homo-sapiens>

<http://www.archaeologyinfo.com/homosapiens.htm>

<http://www.ecotao.com/holism/hu_sap.htm>