

Sahelanthropus tchadensis—the ambiguous ape

Matthew Murdock

Sahelanthropus tchadensis has been the centre of much controversy since its announcement in July 2002. Some claim this genus is a common ancestor of both chimpanzees and humans, while some critics dismiss the skull as having simply belonged to that of a female gorilla. A third explanation exists, and that is that *Sahelanthropus* represents a failed subspecies of the gorilla kind that became extinct during its migration to Africa after the Flood.

The discovery: Toumaï, ‘the hope of life’

An amazing fossil cranium was discovered by a student, Ahounta Djimdoumalbaye¹ in the Djurab desert of northern Chad in Central Africa on 19 July 2001. The nearly complete cranium, labeled TM 266-01-060-1 was assigned to a new genus and species, *Sahelanthropus tchadensis*. The name ‘*Sahelanthropus*’ comes from Sahel, a region of Chad, Africa, and ‘*anthropus*’ means ‘human’ (implying it is a human ancestor).

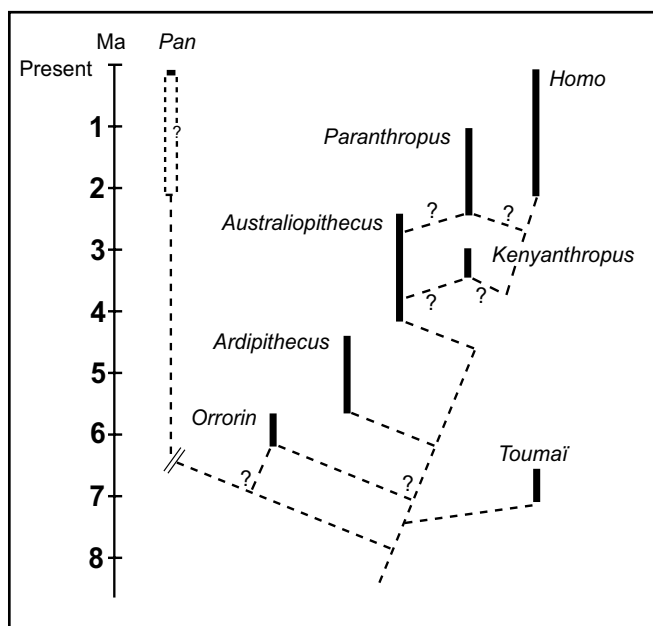


Figure 1. Proposed evolutionary family tree placing *Sahelanthropus* just after the divergence of alleged chimp/human common ancestor. Note that neither the ages or the phylogeny listed in the chart are accepted by the author.

Chad authorities have nicknamed TM 266-01-060-1 ‘Toumaï’, a name usually given to babies born before the dry season. ‘Toumaï’ means ‘hope of life’ in the Goran language.²

The hype

The front page headline of *USA Today* (11 July 2002) claimed that a new skull ‘alters notions of human origins’. The accompanying article asserted the new skull is ‘the most significant in 75 years’, and many science journals echoed these claims.

But those who have followed the field of anthropology for any time at all soon realize that these finds never live up to their hype. In fact, many have lamented that scarcely a year goes by without someone announcing ‘the find of the century’.³

‘A so-called science in which every new piece of evidence is claimed to overthrow all previous ideas must either be in a most juvenile stage of development or it can’t really be a science at all, but just a string of temporary opinions. A discipline in which such claims are made and then found to be based on faulty evidence or incorrect reporting of the facts is asking for backlash, both from scientists and from the public at large.’⁴

Alleged antiquity

Everybody wants to find the oldest hominid skull. And, sure enough, every year there is a claim to this effect. When the Toumaï skull graced the cover of *Nature* magazine,⁵ it was purported to be ‘the earliest known hominid’. However, the skull, which is said to be between six and seven million years old was not dated by radiometric means. The age of the skull was only estimated based on the alleged age of the surrounding fauna (the so-called late Miocene deposits).⁶

The area that the fossils were found in was a flat, monotonous desert that is sometimes interrupted by dunes. Satisfactory stratigraphic⁷ sections can not be found in these dunes either, so the placement of this fossil in any specific layer is dubious. In addition, the lack of volcanic ash layers (which provide argon and potassium) at Toros-Menalla prevented absolute Isotope-based dating.⁸

The antiquity of Toumaï is important to its discoverer because, if accurate, the 6–7-million-year age would precede the previous ‘oldest hominid’ claim by the fossils dubbed ‘*Orrorin tugenensis*’ (a.k.a ‘Millennium man’) by at least a half a million years² (see figure 1).

The discovery of *Sahelanthropus* has forced many anthropologists to change their ideas of when they believe the (hypothetical) split between chimps and humans occurred.²

This age would place Toumaï just after the point where human ancestors are said to have split with the ancestors of the chimpanzee. As Toumaï is currently being touted as the

‘ancestor of all later hominids’—this is an important place to be on the family tree.

In actuality, the fossil causes more problems than it solves for evolutionists. Our alleged family tree has gone from a single branch to something that more closely resembles a bush.

There are many dead ends, and every year there are even more ‘missing links’ than there were the year before. Bernard Wood (George Washington University) told *USA Today* that ‘with so many branches it is almost impossible to trace a single one from the roots to the top’⁹ and ‘if it is a direct human ancestor it completely sidelines everything else that has been found that is older than a million and half years’.⁹

We know from Scripture that these claims of shared ancestry are far from true. The Bible states that man and animals were both created instantly and not as the result of a long evolutionary process. Man and animals have been distinct from the day they were created and never shared a common ancestor, and a closer look at these fossils confirm this.

As creationists, we know that the antiquity of the earth simply does not extend back to the millions of years claimed by evolutionists, and there are many scientific papers, monographs (‘Radioisotopes and the Age of the Earth’ for example) and studies that support this.

The specimen ‘face of the deep’

The fossil remains consist of a nearly complete cranium (TM 266-01-060-1; see figure 2), two lower jaw fragments, and three isolated teeth (one upper central incisor, one lower canine and one upper third molar)—these are said to belong to at least five individuals.

The face of TM 266-01-060-1 is orthognathic (having a jaw that does not project forward) with only a small amount

of subnasal (situated under the nose; as, the subnasal point, or the middle point of the inferior border of the anterior nasal aperture) prognathism (having jaws that project forward to a marked degree). The Toumaï skull (TM 266-01-060-1) exhibits marked postorbital constriction (behind the eye orbits and on the top of the skull) giving the skull a ‘pinched in’ look when viewed from above. This feature is seen in all apes (including australopithecines, *Homo habilis*, *Homo erectus*, etc.) but not seen in modern humans.^{10,11}

In apes, the size of the brow ridge is a sexual dimorphic characteristic; males have larger brow ridges than females. Though there are no other skulls of this genus or species to compare it to, the size of the visor-like brow in Toumaï has led many to believe it is that of a male individual.¹²

The braincase is long and narrow and the cranial capacity (brain size) is small, with the preliminary estimates falling between 320 and 380 cm³. Chimpanzees have a cranial capacity of approximately 400 cm³.¹³ The small brain size of TM 266-01-060-1 is one of the factors keeping the skull from being classified in the genus *Homo*.⁵

The entire right side of the cranium is depressed and distorted⁵ and almost the entire cranium has been flattened dorsoventrally⁵ (in a dorsoventral direction; extending from a dorsal (back) to a ventral surface). The nuchal crest (a flange of bone in the occipital (posterior) region of the skull that serves as the attachment of the posterior neck (nuchal) muscles) of *Sahelanthropus* is large, flat and relatively long in this (presumed) male.

Male or female?

In apes such as the chimpanzee and gorilla, the suprorbital torus (brow ridge) of the male is larger and thicker than that in the female of the species. In both species, the males also have larger canine teeth than the female, and both are viewed as sexually dimorphic traits. The skull of *Sahelanthropus* is much smaller than that of an adult male gorilla, but the suprorbital torus (brow ridge) of *Sahelanthropus* is thicker.

Brunet suggests because *Sahelanthropus* specimen TM 266-01-060-1 had large brows but small canines, that ‘canine size was probably not strongly sexually dimorphic’ in *Sahelanthropus*.⁵

But Brunet fails to put these fossils in the proper context of God’s creation, where sexual dimorphism has always existed in many animal kinds, but the dentition and diet of these creatures changed after the Fall of man (Genesis 3). Apes may have always had sexually dimorphic canines, but not to the extent that they do today.

Dentition

The dental arch of TM 266-01-060-1 is narrow and U-shaped.⁵ The preserved teeth are (on the right) I² alveolus (alveolus is a tooth socket in the jawbone), the distal part of the canine, P³-P⁴ roots, fragmentary M¹ and M², M³; and



Figure 2. The recently discovered TM 266-01-060-1, seen here in 3/4 profile, shows the large brow ridges and relatively flat face. Note also the beginning of a small sagittal crest at the top (and back) of the skull.

(on the left)-I² alveolus, C-P⁴ roots, fragmentary M¹-M³.⁵ The molars increase in size from M¹, M³, M² (M¹ means first molar, M² is 2nd molar, etc.). Having a 3rd molar that is larger than the 1st is characteristic of apes. We know that the Toumaï skull is that of an adult because the third molar has erupted. By comparison, the cheek teeth of *Sahelanthropus* are smaller and the dental enamel thinner than those of australopithecines.

Both extant male and female apes have projecting canines, but the canine teeth of the Toumaï skull do not appear to project far past the other teeth. This fact (small canines) can be interpreted in different ways, but only one interpretation is ever given, and it has been forced into an evolutionary ‘ape to man’ framework.

The Toumaï skull has many distinctive features such as small canines with apical (the usually pointed end of an object; the tip) wear. This feature is claimed by evolutionists to ‘clearly relate him to the human lineage’.¹⁴

But in reality, the only thing that is clear is that this ape had small canines. To jump to the conclusion that this makes him a human ancestor is unfounded. Don’t let this fact (small canines) get confused with a theory (evolution). All facts are interpreted, and there may be more than one interpretation of a fact.

Female apes have smaller canines than the males. However the small canines, in and of themselves, can not be used to ‘sex’ this particular specimen as there are too many other features which seem to indicate it is that of a male (large brow ridge etc). So we must ask, why does this ape have small canines if it is a male?

A possibility is that this ape lived during a time in history when all apes, both male and female, had smaller canines than they do today. Does such a period of time exist? Yes, and it is described in the Bible. It is the period of time from Genesis 1 (the Creation, when animals are said to have eaten only vegetation) to the years shortly after the curse (when the whole earth was cursed and animals began preying on each other) and the Flood (Genesis 6–9), which preserved these animals as fossils.

In our sin-and-death-filled world, where nature is now red in tooth and claw, apes have long canines that project far past the other teeth.

They use these to defend themselves against predators (a condition that would not have existed prior to Genesis 3) and other apes. The upper canines hone/sharpen against the third lower premolars. Toumaï has a non-honing C-P³ complex, and no canine diastema. A diastema is a gap, or space, between two teeth.

Sagittal crest

There is a small sagittal crest towards the back of the Toumaï skull. It is much smaller than one would see in a male gorilla (the female gorilla lacks a pronounced sagittal

crest) and comes closer to that seen in the male chimpanzee. The orientation of this crest in *Sahelanthropus* suggests a relatively large posterior temporalis muscle.¹⁵

To stand or not to stand?

There has been much discussion as to whether *Sahelanthropus* stood or walked upright. It is not surprising that Brunet *et al.* claim that *Sahelanthropus* was bipedal. Those who embrace evolution need bipedalism to appear in the fossil record as evidence that these apes are becoming more ‘human’-like.

From a creationist viewpoint, there is no real problem with any ape walking upright. Bonobos (*Pan paniscus*) walk upright quite frequently. I have personally observed both the Bonobo and the common chimp (*Pan troglodytes*) do so on many occasions, though not completely upright or habitually as in *Homo sapiens*. Having studied firsthand three (two documented, and one unpublished) australopithecine skeletons, in addition to dozens of australopithecine skulls (some nearly complete, others fragmentary), and remains of *Homo habilis* (both cranial and post cranial) and *Homo erectus* (nearly 100 skulls and three skeletons), I can say that this seems to be the original posture of many (though not all 16) apes.

This trait of bipedal locomotion would be viewed as a design feature (it was created that way), not an acquired characteristic (evolved from a quadrupedal creature).

But in the case of Toumaï, those who have studied the skull seem to disagree on whether *Sahelanthropus* could walk upright at all, habitually or not. Brunet *et al.* admit that ‘There is not yet sufficient information to infer reliably whether *Sahelanthropus* was a habitual biped’, but go on to state that ‘such an inference would not be unreasonable’ based on similarities in the basicranium and face of Toumaï and those of other hominids known to have been bipedal.⁵

There were no postcranial remains associated with either the skull (TM 266-01-060-1) or the separate jaw fragments of the five (or more) individuals. But as I pointed out previously,¹⁷ the shape and orientation of the foramen magnum (hole at the base of the cranium through which the spinal cord connects to the brain)¹⁸ is diagnostic of locomotor behaviour. In the Toumaï skull (TM 266-01-060-1) there is some damage to the basicranium (‘basi’ means ‘base’ or lower part of) and to the foramen magnum. Currently, the foramen magnum appears to be longer than it is wide. This is similar to the shape seen in gorillas and not circular as in chimpanzees. The foramen magnum is also positioned towards, the back of the skull suggesting a spinal cord that angled backward (as in quadrupeds), not downward as in bipeds (creatures that walk upright).

Looking at the back of the skull at the nuchal plane (the area where the neck muscles attach), Wolpoff (University of Michigan) states that the plate is at a steep angle and



Figure 3. Michel Brunet and Likius Andossa study casts of TM 266-01-060-1 (left in Andossa's hand, and middle in Brunet's hand) and compare them with those of a female chimp (right).

that the muscles would have pointed toward the back as in animals that walked on all fours.

Michel Brunet in his reply (published in *Nature*),¹⁹ says that this is only because the skull is 'warped' and that if it were undistorted the nuchal plane would be more horizontal and the muscles attached to them would go down the spine (below the skull, rather than back away from it) as they do in bipeds.

Only examination of the original specimen can determine how much the orientation of the plane has actually been distorted during the process of fossilization, tough examination of the inner ear canal would also help determine Toumai's organ balance, and consequently its posture and locomotor ability.

Unfortunately, Brunet will keep this specimen closely guarded and it is unlikely that anyone will be allowed to study it anytime soon. When I spoke with him recently (May 2004) he promised an exhaustive monograph would be published on the skull in the years to come but that it would be at least three years or more before even casts will be available for other researchers to study. By that time, *Sahelanthropus* will have disappeared from the headlines, but will have become dogma in the textbooks.

Bernard Wood said:

'It's likely that this is a human ancestor. If you ask whether it's absolutely certain that this is a human ancestor my answer would have to be no we are not [sure].'²

Wood admits that he can not prove *Sahelanthropus* is a human ancestor, but he *believes* that it is. Unfortunately, when this information gets passed down to the college or high school level, the statement is magically more certain and proclaimed by teachers: 'This *is* a human ancestor'.

No longer an east side story

Sahelanthropus tchadensis (found in Chad) were the first hominid fossils from the Pliocene (5.3–1.6 Ma) and late Upper Miocene (7.5–5.3 Ma) found outside south and east Africa. Part of the reason most fossils have been found in these areas is simply that this is the area that most people have looked for hominids. The presupposition that humans evolved in the east kept many from even looking in other places, ultimately slowing the progress of science.

The migration pattern these apes followed post-Flood could also explain why so few fossils have been found there.

It is my hope that the discovery of *Sahelanthropus* in Central Africa will encourage excavations in other areas—perhaps centering on Turkey and following a path south toward Africa, as this would be the migration pattern of many apes in the years following the Flood described in Genesis 6–9.

The counter arguments

Claiming a fossil is more important than it actually is

Paleontologist (and evolutionist) Martin Pickford has written frequently on the subject of anthropology, having worked firsthand with Leakey and some of the world's top anthropologists. In his book, *Louis S. B. Leakey: Beyond the Evidence*, Pickford states:

'The motivation for publicity and its travelling mate, power, heavily influenced the way that some people presented their fossil discoveries to the world. The propensity to exaggerate the scientific value of a discovery was commonly present, even if it wasn't really worth all the media attention. How often have we heard that such and such a fossil find completely overturns all previously cherished theories? How often has a fossil been announced as being older than it really was? Or more complete, or bigger, or better, or more significant?'²⁰

Just a gorilla?

Michel Brunet *et al.* (see figure 3) claim that *Sahelanthropus* is a human ancestor, while others, such as Brigitte Senut (of the Natural History Museum, Paris (and one of the discoverers of *Orrorin tugenensis*), has suggested that in reality the remains of *Sahelanthropus* may be those of an early gorilla and not a hominid at all.

Dr Senut has said:

'The characteristics taken to conclude that this

new skull is a hominid are sexual characteristics. Moreover, other characteristics such as the occipital crest [the back of the skull where the neck muscles attach] ... remind me much more of the gorilla.²¹

She is more commonly quoted as saying, 'I tend towards thinking this is the skull of a female gorilla.'²¹

In defense of the skull, Brunet has said that 'one cannot confuse this with a gorilla',²² and he is right, in part. This is not the skull of a gorilla that you would see in the zoo today. It more closely resembles what we would expect a gorilla ancestor to look like from a biblical perspective. It is less prognathic and has smaller canines and larger molars than their living relatives.

Evolutionists have tried so hard to find a missing link between apes and man that they interpret every little scrap of bone as belonging to an apeman (hominid). Not only have they misled the public and deceived themselves, but because they have tried to make every fossil a human ancestor they have left the apes with no ancestors at all. Looking again at the graph (figure 1), for evolutionists there are no fossils leading up to the chimps (or gorillas); they seem to appear from nowhere.

If both apes and humans have been around for millions of years as evolutionists claim, then why are there no fossil apes anywhere on any continent?

I asked Dr Wolpoff if he believed Toumaï was 'just a gorilla,' as some have quoted him as saying. His response is that 'There is no fossil record for gorillas or chimpanzees. There is no way to tell if Toumaï is a fossil gorilla for this reason alone.'²³

Part of the problem is that no-one gets famous finding a fossil gorilla or chimpanzee or other animals. You get famous finding 'human ancestors'.

Matt Cartmill admits:

'Fossil hominids have always been the number one glamour stock on the palaeontological bourse, bringing their discoverers fame and fortune of a sort forever denied to those who study extinct clams.'²⁴

If they studied these hominid fossils more objectively, they would see that they are just more complex versions, and various species, of living apes. There seem to be more similarities between *Sahelanthropus* and gorillas than there are differences. And these features certainly fit a biblical model of degeneration.

From the description I give here, you can see that *Sahelanthropus* is different to some degree from extant gorillas in features of the dentition (smaller canines),⁵ and also in having a less prognathic face.

The possibility is strong that this is a gorilla ancestor not in the evolutionary sense of the word, but related in the sense that *Sahelanthropus* and gorillas are both members of the same biblical 'kind' (Genesis 1:24). This greater gorilla kind probably also includes the robust australopithecines: *Australopithecus robustus*, sometimes called *Paranthropus*

robustus, and *Australopithecus boisei*, sometimes called *Zinjanthropus*, or *Paranthropus boisei*.

Sahelanthropus should not be viewed as having given rise to *Kenyanthropus*, australopithecines, *Paranthropus*, and the genus *Homo*. But instead, *Sahelanthropus* and *Paranthropus* may all share a common, created ancestor with gorillas, all being extinct species of the once-more-complex gorilla 'kind'.

I will cover the anatomy of *Paranthropus* in a future article, but it seems possible that the members of the original gorilla kind migrated from Turkey (post-Flood), and speciated (speciation is not an evolutionary concept²⁵) in the continent of Africa giving rise to *P. robustus*, *P. boisei* and *Sahelanthropus*.

If the greater gorilla kind separated in Egypt (post-Flood), then some members could have migrated west to Chad becoming isolated and speciating (*Sahelanthropus*) while others traveled south to Olduvai Gorge and speciated (*P. boisei*) and yet others even further south to Kromdraai and speciated (*Australopithecus/P. robustus*). Closer examination of these fossils along with future genetic studies can help confirm this.

Is the face too modern too soon?

Some paleontologists, including Bernard Wood, Ian Tattersall (American Museum of Natural History, New York) and Chris Stringer (London's Natural History Museum) believe the face of *Sahelanthropus*, is more modern—flat, as in humans—looking than that seen in *Australopithecus afarensis*, which is claimed to be nearly four million years younger, and thus, following an evolutionary paradigm, should be more human-looking (flat-faced) than the much older Toumaï skull.²⁶

This is a problem, because to go from prognathic (in *Aegyptopithecus* and the Proplipithecidae) to relatively flat-faced (in *Sahelanthropus*) to more prognathic (*A. afarensis*), is an evolutionary reversal. But to keep going and then go back to flat-faced (such as *Homo rudolfensis*) is more than any evolutionist should be willing to accept. Need I mention that they would then go back to prognathic in *Homo erectus*, and then flat once again in *Homo sapiens*? What a mess!

The reversal problem can be easily solved once these fossils are viewed not as ancestral to each other, and subsequently to humans, but as completely separate created kinds. With some species or subspecies becoming extinct, and others being more complex versions of extant (living) apes.

'We've got it all wrong'

Ian Tattersall, curator of anthropology at the American Museum of Natural History in New York was seen outside a museum in Africa by Rick Potts, head of paleontology at the Smithsonian's National Museum of Natural History. Tattersall was sitting on a bench with his head in his hands. 'We've got it all wrong', he said in distress.

USA Today reports that 'Tattersall had arrived at the

conclusion, based on the more careful observation of their structures, that many of the fossils presumed to be directly related to each other were, in fact, from different groups.’ He then mused, ‘And there is [*sic*] a lot more species out there than we have had the courage to recognize.’⁹

I feel we have the right to ask, what else these anthropologists have been doing if not studying the structure of these fossils which they have held in their hands for so many years, denying anyone else the right to examine them? They often seem too preoccupied with obtaining book and TV deals, and keeping their names in the headlines for funding than they do studying these fossils (read Martin Pickford’s book for hundreds of examples of this).

What other facts do they lack the courage to recognize?

Ego vs truth

Sometimes emotions can cloud judgment and our research.

Brunet told *Nature*, ‘It’s a lot of emotion to have in my hand the beginning of the human lineage,’ and ‘I have been looking for this for so long. I knew I would one day find it, so it is a large part of my life, too.’²

It is easy to see how a man who has spent much of his life searching for something to help prove evolution would eventually find something that he could force into his preconceived ideas of what he wanted to find.

Conclusion

We have seen, and will continue to see, many claims by fossil hunters of our alleged ape heritage. But we can stand confident that these, too, will be only the fossils of apes, some living and some now extinct. Looking at the scriptural account, we already know that our ‘oldest ancestor’ was human, and his name was Adam (Genesis 1:26 and Genesis 2:19). No humanistic theory can ever provide true and everlasting life. The Toumaï skull is not the ‘hope of life’ as its name claims, but Jesus is the true living hope for eternal life.

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