# Aegyptopithecus the 'Egyptian ape'

# **Matthew Murdock**

Aegyptopithecus was a small quadrupedal ape whose fragmentary remains were found during a number of field seasons in Egypt. Aegyptopithecus was a small quadrupedal ape whose fragmentary remains were found during a number of field seasons in Egypt. Examination of its anatomy, based on this fossil evidence and fossils from other species claimed to be related to it, brings into question its ancestral status.

# The dawning of Aegyptopithecus

In the early 1960s the fossils of an extinct ape called *Aegyptopithecus* were discovered in the Jebel Qatrani Formation of the Fayum, Egypt (Egyptian Fayum Depression).<sup>1</sup> This part of Egypt is now a vast desert, but at the time when *Aegyptopithecus* lived there the entire area was a tropical forest\*. The name *Aegyptopithecus* was given to these fossils because *Aegypto* is derived from the word Egypt (where the fossils were found) and *pithecus* is the Greek word for ape. Some authors<sup>2</sup> have also used the name *Propliopithecus zeuxis* for these fossils.

E. L. Simons *et al.* began digging for fossils in Egypt in 1963.<sup>3</sup> In 1965 his team discovered what would become the type specimen;\* in this case a lower jaw with 3 teeth along with two other jaw fragments of *Aegyptopithecus*.<sup>3</sup> The quarry in which the fossils lay was 'unconsolidated' (loose and unstratified) and much of the matrix was easily removed. During the excavation a severe windstorm came during the night, and exposed many of the fossils in just a few short hours. Afterward Simons and his team were able to remove the fossils simply by sweeping away the surrounding sand with paintbrushes,

The war between Egypt and Israel in June of 1967 kept researchers from further excavations in Egypt for many years.<sup>4</sup> Because of this, nothing more was found of *Aegyptopithecus* until the 1980s.

### The fossils

### 1) CGM 40237 (YPM 23975) 'Grant'

CGM 40237\* (sometimes labeled YPM 23975\*) is the

skull of an adult male. It was the first skull,<sup>5</sup> but not the first specimen, of *Aegyptopithecus* found. CGM 40237 was found in 1966 at quarry M by Grant E. Meyer<sup>6</sup> and the skull has been nicknamed 'Grant' in his honor. Meyer found the skull when he noticed the orbits and brow ridges protruding out of the sand.

The skull is fairly complete, but heavily reconstructed (see figure 1). The face was shattered, and the frontal bone was 'displaced several centimeters' posteriorly. The right parietal is extensively reconstructed. Both zygomas\* are present, but the skull lacks the left and right zygomatic arches.

There is some reconstruction of the nasal bones and face, but without x-rays of the original fossil (see below) it is difficult to determine how much of the reconstructed skull is actually bone and how much is comprised of other material used in the reconstruction (clay, wax etc.). Determining this is critical in order to ascertain whether this specimen was truly as prognathic as it appears.

CGM 40237 is a sub adult. The canine teeth and third molars though present have not yet erupted. The upper incisors were isolated and not found with the skull. The mandible commonly shown with this skull is actually from a separate specimen of comparable size. It is a composite from two different individuals; AMNH 13389\* and YPM 21032. The skulls of these two individuals were never found. The reconstructed mandible is wider than the one this individual would have had and does not properly articulate with the skull. When the left condyle is placed in the temporomandibular joint (TMJ) the right condyle\* does not contact the TMJ, nor do any of the teeth articulate on that side of the skull. Both central and lateral incisors of the composite mandible are reconstructed and were not



Figure 1. Three-quarter view of CGM 40237 (YPM 23975) 'Grant' showing reconstruction of occipital, parietal, nasal, bones, and zygomatic arch. Mandible shown is heavily reconstructed and is a combination of two additional individuals.

<sup>\*</sup> Items with an asterix, the first time they are mentioned, are defined in a glossary at the end of the article.

preserved as fossils. The two right premolars and first right molar were also not found.

Sometimes when a fossil changes hands it is renamed or renumbered by the museum.<sup>9</sup> In this case CGM 40237 is sometimes labeled YPM 23975.<sup>8</sup> For many years CGM 40237 was the best available specimen of *Aegyptopithecus*. But subsequent finds helped change the way we look at this genus and species.

### More recent finds: a comparison

In his 1981 article, Simons described ten new cranial fragments found in the Fayum that are believed to be from *Aegyptopithecus*.<sup>1</sup> These fragments come from an unknown number of individuals. In a more recent (1985) article<sup>10</sup> Simons describes three new faces of *Aegyptopithecus* that had been found in the seven field seasons following 1977 (in addition to these, numerous isolated post cranial fragments had been found).<sup>11</sup> Each of the 3 new skulls are less prognathic\* and have a broader face than seen in CGM 40237.<sup>1,12</sup>

### CGM 42842

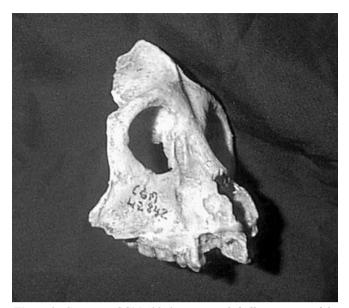
Specimen CGM 42842 was found in 1982.<sup>13</sup> It is a partial skull consisting of the frontal and facial bones (see figure 2). A strong sagital keel\* is present along the midline for anchoring the muscles of mastication. This feature is more than double the size seen in the less mature CGM 40237 (see figure 3). While these muscles will certainly grow with age, they may also signal the beginning of a new diet in the years following the Flood. 40237 may have lived immediately after the Flood, with 42842 living many years later. Such changes would be seen not only in the skull but also in the teeth.

It is likely that the original *Aegyptopithecus* skull was made (reconstructed to be) more prognathic than it actually was in order to make the fossil fit into an evolutionary paridygm which includes a reduction in facial size (as apes allegedly evolved into humans). If *Aegyptopithecus* truly was as prognathic as the CGM 40237 skull appears, and prognathism increased with an individuals age, then a similar amount of age related changes would need to appear in the sagital keel. However, comparing CGM 40237 to the older CGM 40237 we see a disproportionate amount of prognathism in a younger (less mature) skull which also has a discrepantly smaller sagital keel.

The dentition of CGM 42842 consists of three molars and two premolars on both the left and right of sides the maxilla. The central and lateral incisors of CGM 42842 were not preserved and no mandible for this individual was found (see below: the teeth of *Aegyptopithecus*).

# DPC 3161

DPC 3161\*, nicknamed 'Harry' was found in 1982.<sup>12</sup> It is the face of a juvenile male with the nasal bones and both



**Figure 2.** Specimen CGM 42842 is a partial skull consisting of the frontal and facial bones.

left and right orbits intact. The beginning of a small sagittal keel is present, though only the face and the frontals\* are preserved. Although the olfactory lobes are smaller than those seen in lemurs or tarsiers<sup>14</sup> there still seems to have been an emphasis on olfaction\* in this species.

### **DPC 2803**

Specimen DPC 2803, nicknamed 'Dick', is the skull of an adult male found in the Fayum Depression. DPC 2803 preserves most of the face, nasal bones and complete left orbit. Preserved dentition begins with second premolar and ends with the third molar. Both the enamel and the cusps are absent due to wear. 15 Because of this DPC 2803 is believed to be the oldest, most mature of all the individuals.

### **Cranial features**

### The eyes have it

In *Aegyptopithecus* we see that the eyes are fully enclosed (protected) in bone and positioned forwardly. This orientation would have given this species binocular vision with good depth perception. The orbits were relatively small, indicating that these creatures were not nocturnal. Markings on the inside of the skull reveal much about the brain and occipital lobe. An examination of the skull reveals that *Aegyptopithecus* had a larger visual cortex\* than either lemurs or tarsiers. <sup>16</sup>

# Cranial capacity: does size matter?

Aegyptopithecus had a brain larger than any lemur or tarsier (past or present). In a devolution model\*, we can

speculate that the brain of apes in the past may have been more complex in structure and function than in the apes living today (this is not to say we have different apes, only degenerate versions of these once more complex apes. All ape kinds that are alive today would have also been in Eden, but some have gone extinct and today have no living relatives). The size of the brain itself is meaningless except to those forcing the brain size (cranial capacity) into an evolutionary framework. *Aegyptopithecus* had a small brain (compared to extant catarrhines\*) not because it was less evolved, but simply because it was a small creature. Even estimates of brain size in comparison to body size are not particularly meaningful. For it is not the size of the brain, but how it is organized ('wired') that truly matters.

From an evolutionary standpoint there is a tremendous gap in cranial capacity from *Aegyptopithecus* to *Proconsul africanus*<sup>9</sup>, one of its alleged evolutionary ancestors. Where are the transitional fossils that are necessary to fill this gap? They simply do not exist.

# Sagittal crest

In *Aegyptopithecus* there is marked constriction between the face and the braincase (postorbital constriction), giving the skull a 'pinched in' look when viewed from above. Anterodorsal\* expansion of the temporalis muscle\* forms temporal ridges on the skull. <sup>15</sup> These arise from the back of the brow ridges and join together into a pronounced sagittal crest along the midline\*. As the temporalis muscle grows (with age and use), this crest will become more pronounced. A comparison between CGM 40237 and the more mature CGM 42842 (see Figure 3) illustrates the difference the age of an individual has on the growth and development of the sagittal crest.



Figure 3. Front views of CGM 40237 (left) and CGM 42842 (right) illustrate the marked difference in the size of the sagital keel.

# The teeth of Aegyptopithecus

The dental formula of *Aegyptopithecus* is 2.1.2.3/2.1.2.3, compared to 2.1.3.3./2.1.3.3 of New World monkeys. The upper canine teeth and the lower first premolars form a shearing mechanism (also found in apes). Aegyptopithecus was a sexually dimorphic species. The males were larger and had larger jaws and canine teeth than the females. Compared to the supposedly related *Propliopithecus* (see below), the canines of both males and females were large. The molar size of *Aegyptopithecus* increases from M1 to M3. There are five cusps in the lower molars. This is an ape-like configuration. If

Markings on the skull indicating strong jaw muscles (necessary to crush hard foods) were not present.<sup>2</sup> It appears that *Propliopithecus* (including *Aegyptopithecus*) lived on soft foods. Research done by Kay and Simons (1980) on the dentition of propliopithecids\* indicates they lived primarily on a diet of fruit,<sup>2</sup> and reveal that they may have fed on the fruits of the rich Oligocene *Epipremnum*\*.<sup>17</sup>

Aegyptopithecus appears to have gone extinct shortly after the Flood (about 4,400 years ago) for they do not appear to have existed in great numbers. Its vegetarian diet is consistent with that of all animals in Eden at the time of creation (Genesis 1:31). This species seems to have retained this diet after the Flood while migrating to Egypt. Many animals remain vegetarian to this day, and others became carnivorous (at various times after the Curse in Genesis 3). It is this author's belief that all creatures (still alive at that time) will be changed back to their original vegetarian diet in the future. Such a change would require changes not only in the teeth but also in the masticatory system of these animals.

Isaiah 65:17 'For, behold, I create new heavens and a new earth: and the former shall not be remembered, nor

come into mind.'

Isaiah 65:25 'The wolf and the lamb shall feed together, and the lion shall eat straw like the bullock: and dust [shall be] the serpent 's meat They shall not hurt nor destroy in all my holy mountain, saith the LORD.'

# The foramen magnum and posture

The foramen magnum is the large hole at the base of the cranium through which the spinal cord connects to the brain. The angle and position of the foramen magnum is one of the best indicators of a

creature's posture. In bipeds (creatures that walk upright on two legs) the foramen magnum is placed at the bottom of the cranium, indicating the spine connected directly below in an upright position. In quadrupeds (creatures that move on four legs) the foramen magnum is placed more posteriorly, and angles down, and backward indicating a stance that was not upright. The foramen magnum of *Aegyptopithecus* is located in this position (see figure 4). The post cranial remains also confirm that *Aegyptopithecus* was most likely a robust arboreal (living in trees) quadruped,<sup>2</sup> with adaptations similar to those seen in the howler monkey. Like *Proconsul africanus*, *Aegyptopithecus* was a great climber and leaper. Its small size (4.5 kg)<sup>18</sup> would have allowed *Aegyptopithecus* to easily run on the tops of branches while looking for food.

## Postcranial remains of Aegyptopithecus

Unlike many of the so-called Miocene anthropoids\*, most of the limb bones of *Aegyptopithecus* are represented by fossils.<sup>19</sup> Unfortunately these consist of individuals of both sexes at varying degrees of maturation.

In comparison, the post-cranial skeleton of Apidium\* (the most common primate found in the Miocene Fayum deposits) is more complete (most completely represented by fossils) than that of *Aegyptopithecus*, but the skull of *Aegyptopithecus* is more complete. <sup>19</sup>

Figure 5 illustrates the limb bones presently known for *Aegyptopithecus*. The white areas (apart from the skull)



**Figure 4.** Basal view of CGM 40237 (YPM 23975), showing palatal shape and a quadrepedal orientation of the foramen magnum.

are those that are *not* represented by fossils and have been reconstructed. The bones coloured in black represent the fossils actually found, <sup>19</sup> though they are combined from several individuals.

### Arms

The arms of *Aegyptopithecus* are fairly well represented. There have been more than 18 partial or complete humeri discovered. <sup>19,20</sup> Combined with the radius and ulna we see that *Aegyptopithecus* had limb proportions similar to those seen in living platyrrhine\* monkeys and would likely have shared a similar means of locomotion. <sup>16</sup> The limbs are of almost equal lengths, and the arm bones 'are relatively stoutly built'. <sup>2</sup> Full extension of the arm was not possible so *Aegyptopithecus* would have only moved with its elbows partially flexed. <sup>21</sup> Both the fingers and the toes seem to have been designed for strong grasping. <sup>2</sup>

### Pelvis and femur

The pelvis and femoral anatomy of *Aegyptopithecus* is poorly known. Of the pelvis, only one partial innominate bone exists.<sup>19</sup> There are also only 3 partial femurs (found in Quarries I and M)<sup>22</sup> attributed to this species. None of these femora were discovered in association with any skulls. Therefore their attribution to *Aegyptopithecus* is based primarily on size-estimates.<sup>22</sup>

Aegyptopithecus had a short robust femur in relation to its body mass.<sup>22</sup> Because the femora are incomplete, the femoral neck angle can only be estimated. From the figures obtained the femur appears to resemble arboreal quadrupeds rather than leaping or suspensory primates.<sup>22</sup>

The tibia of *Aegyptopithecus* is not represented by any fossils at all. There is only one tibia of a propliopithecid and this belongs to *Propliopithecus chirobates*. <sup>19</sup>

### Tail

As noted in my previous article<sup>9</sup> *Proconsul africanus* (with an alleged age of 18 Ma) did not have a tail. But *Aegyptopithecus* (allegedly 28 million years old)<sup>18</sup> had a fully formed, fully functional tail. There are no transitional fossils leading up to *Aegyptopithecus* of any ape or other mammal acquiring a tail through evolution. And there are no transitional fossils in between *Aegyptopithecus* and *Proconsul africanus* of any ape losing its tail through natural selection.

Why would evolution or natural selection select against something so beneficial and fully adapted to the organism possessing it anyway? Why lose this appendage in lieu of something less sufficient (an awkward form of bipedalism for instance)? In addition, in order to become bipeds, this and subsequent species would have had to leave the safety of the trees and face new dangers from predators on the ground.

## Post-Flood migration

Egypt appears to have been founded in 2188 BC by men migrating from the dispersion at Babel.23 Animals would not wait for such an event however, and would have begun migrating from Turkey immediately after the Flood. East Africa is particularly rich in the fossils of apes.16 It may be that they sought out an environment with a climate similar to the one they were familiar with prior to the Flood, and found this in East Africa. This is part of the reason why there are more ape fossils than there are humans in these areas. It is not that they lived at different times and are ancestral to each other, it is simply that they followed different migration patterns.

# Where are the originals?

The original fossils are housed in the Egyptian geological Museum, Cairo,

Egypt.<sup>24</sup> Three of the skulls (in addition to 2 humeri and an ulna) were exhibited briefly in the United States during the 'Ancestors' exhibit in New York City, in 1984. This is one of the few times in history when the public has been allowed to see actual fossils on display. What is typically seen on display in museums are not real fossils, but plaster or resin copies painted to look like the originals. It is primarily on these copies (if and when they are available) that scientists do their research.

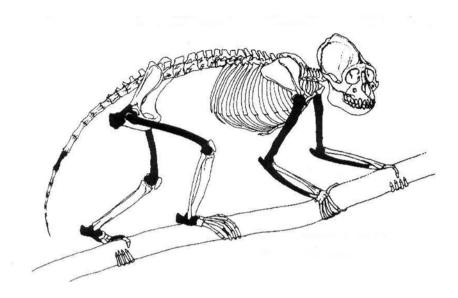
Anthropology is peculiar in that it is one of the few fields of science where the majority of researchers are separated from their very object of study. Even among anthropologists, very few people are ever permitted to view the actual fossil remains of humans and our alleged ape like ancestors. Those that are, must agree with the interpretations of the discoverer *prior* to examining the fossil.<sup>25</sup>

How can we ever hope to get alternate interpretations of a fossil if no one with a differing viewpoint is ever permitted to study the original?<sup>26</sup> Isn't one of the main goals of science to challenge existing ideas to weed out poor or weak data, and reinforce those with firm foundations?

In the case of Aegyptopithecus, an examination (x-rays etc) of the original fossils would help determine if this species was truly as prognathic as the first (reconstructed) skull appears.

# **Family Propliopithecidae**

Aegyptopithecus zeuxis belongs to the family group Propliopithecidae. This family exists only in the Fayum Oligocene deposits of Egypt. There are only two valid gen-



**Figure 5.** Limb bones presently known for Aegyptopithecus. White areas (apart from the skull) are not represented by fossils and have been reconstructed. Bones coloured in black represent fossils actually found, 19 though they are combined from several individuals.

era within this family; *Propliopithecus*, with three species *P. haeckeli*, *P. markgrafi*, and *P. chirobates* (some references only acknowledge 2 of these species<sup>5</sup>), and *Aegyptopithecus*, with only one species *A. zeuxis*. <sup>11</sup>

Two of the three species of *Propliopithecus* (*P. haeckeli* and *P. markgrafi*) are so poorly known that their entire species is only represented by one fossil each (their type specimens\*). Simons<sup>6</sup> states that *P. haeckeli* is so incomplete that it should not have been used as a type specimen at all. He also notes that its stratigraphic location is uncertain, making it even less valuable.

Some authors have attempted to lump *Aegyptopithecus* into the genus *Propliopithecus*. According to Simons, this was done 'without careful study'.<sup>27</sup> He states that *Propliopithecus* and *Aegyptopithecus* are as distinct from one another as the modern chimpanzee and gorilla are from each other.<sup>3</sup> Simons also states that the two (*Aegyptopithecus* and *Propliopithecus*) should remain separate genera<sup>28</sup> in the family Propliopithecidae, and that *Oligopithecus* may also be a member of this family.<sup>10</sup>

# Alleged ancestral status

Some have claimed that *Propliopithecus* and *Aegypto-pithecus* were ancestral to the genus *Dryopithecus* (Dryopithecids).<sup>29</sup> Many authors exude an unwarranted amount of confidence when speaking of our so-called ancestors. In his book, C. Loring Brace states that *Aegyptopithecus*:

'... may be *the best candidate* for the common ancestor of the Dryopithecines, and, hence, of modern apes and man' [emphasis mine].8

However, many others who espouse evolution admit that the fossils leading up to such a transition are non-existent. Wm. R. Fix, a non-creationist and strong proponent of evolution has said that the fossils documenting the transition from *Aegyptopithecus* (and other Propliopithecids) to today's (extant) apes are 'without secure connecting links' and this alleged transition 'is no more than a guess'.<sup>29</sup> The so-called Miocene deposits are said to be rich in fossils, yet no real evidence for mans evolution exists in fossils found in these layers. Diane France admits it is not possible to 'draw direct ancestral descendant relationships' between *Aegyptopithecus* and any of the living (extant) primates.<sup>30</sup> If no relationships can be established, and such phylogenies truly are 'no more than a guess', then why are they taught as dogma to children in public schools?

# Great apes or great age?

It is not known how long it took for this ape (or any animal) to mature in relation to animals living today. In the same way that humans may once have matured at a slower rate than they do today, (especially prior to the Flood), apes and other animals may have as well. We no longer see the great-age related changes in humans that we once did<sup>31</sup> because of our shorter lifespans, and also genetic deterioration (devolution), as a result of the curse in Genesis 3. Because the whole creation was affected by sin (Romans 8:20–22) we also no longer see the effects of great age on the animals.

For instance, the location of the anterior temporal ridges of *Aegyptopithecus* appear to change with age.<sup>3</sup> These converged just above the brow ridges in the old 1981 skull. All age related changes in extant apes must be extrapolated from longitudinal studies to determine how they might have looked in the pre-Flood world. What would today's apes look like if they lived for hundreds of years?

More study is needed to determine if *Aegyptopithecus* represents an aged and genetically superior version of an extant ape (subspecies or otherwise), or if it simply represents one of the many complex apes that have gone extinct since the time of the Flood (due to harsh post-Flood living conditions).

Those who espouse evolution are unsure if *Aegyptopithecus* was ancestral to the hominoids or Old World monkeys (or both). There is another possibility they have not considered, and that is that *Aegyptopithecus* is a genetically distinct 'kind' having no relation to either group or to man. From the fossil evidence it appears as if *Aegyptopithecus* was an ape beautifully designed and created by God on Day 6 to live with man (Adam). Its existence and that of other creatures like it should be used to bring glory to God, not lead people away from Him.

# Glossary

AMNH 13389 — American Museum of Natural History

specimen number 1338.

Animal extinction — The idea of animal extinction is not contrary to the Bible. God promised only to preserve mankind until he returned. Though he cares for all the animals (not a sparrow shall fall from the sky without God knowing and caring) many species and kinds have gone extinct due to various effects of the Curse placed on the earth when Adam sinned in Genesis 3.

Anterodorsal — Antero a combination of antero — front, dorsal — near the back or upper surface.

Anthropoids — Belonging to the group of great apes of the family Pongidae, which includes the gorilla, chimpanzee, and orangutan.

Apidium — Was one of the most common primates found in the Fayum deposits of Egypt. The first fossil remains of Apidium were mistakenly thought to belong to a cow or pig.

Catarrhines — Of or being a group of primates including the Old World monkeys, apes, and humans, characterized by nostrils that are close together and directed frontward or downward.

CGM 40237 — Cairo Geological Museum specimen number 40237.

*Condyle* — A round bump on a bone where it forms a joint with another bone.

Devolution mode — A theory of origins based on Scripture which begins with the ultimate complexity of all living things at the time of creation. This was followed by degeneration and the break down of all living things on the genetic level beginning at the Curse (Genesis 3) and continuing to this day with increased momentum.

DPC 3161 — Duke Primate Center specimen number 3161.

*Epipremnum* — A small genus of evergreen lianas (woody vines) of southeastern Asia to western Pacific areas.

Frontals — Of or relating to the forehead or frontal bone.

Midline — Line running along the top and center of the skull.

*Olfaction* — The act or process of smelling.

Platyrrhine — Of or designating the New World monkeys, distinguished from the Old World monkeys by widely separated nostrils that generally open to the side. Having a broad flat nose.

*Prognathic* — Having jaws that project forward to a marked degree.

Sagittal keel — A bone that resembles a ship's keel in shape and runs along the suture uniting the two parietal bones of the skull.

*Temporalis muscle* — The muscle extending from the temporal fossa to the coronoid process of the mandible; it acts to raise the mandible and close the jaws.

Tropical forest — Such changes in climate can happen over a short period of time. Many such changes in local topography and climate have occurred in the years following the Flood (Genesis 6–9).

Type specimen — When a new species is named a repre-

sentative fossil for that species must be chosen. This specimen, referred to, as a type specimen is then the fossil to which subsequent discoveries are compared. Using the type specimen it can be determined whether new fossil finds are similar to (belonging to the same species) or different from (belonging to a new genus or species) the original find. The type specimen is not always the first fossil found of this species but ideally it should be the most complete found at the time of the naming.

Visual cortex — The visual cortex is the part of the cerebral cortex that is responsible for processing visual stimuli. It is located at the back of the brain in the occipital lobe. It is highly specialized for processing information about static and moving objects and is excellent in pattern recognition.

*YPM 23975* — Yale University Peabody Museum specimen number 23975.

Zygomas — The jugal, malar, or cheek bone.

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- 27. Simons, ref. 3, p. 231.
- 28. Simons, ref. 4, p. 37, indicates that though *Aegyptopithecus* zeuxis and *Propliopithecus are 'dentally quite distinct'* he believes the two genera are separate but closely related.
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