

## Re: What were the habitats of early hominids?

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- *From:* Lee Olsen <[paleocity@xxxxxxxxxxx](mailto:paleocity@xxxxxxxxxxx)>
  - *Date:* Sun, 22 Jul 2007 19:48:35 –0700
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On Jul 22, 3:21 pm, Marc Verhaegen <[m\\_verhae...@xxxxxxxxxxx](mailto:m_verhae...@xxxxxxxxxxx)> wrote:

Same old rubbish.

Now for some facts:

Aquatic Ape (non)Theory: Comments on a Recent Guest Lecture  
by

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If you were among the unfortunate crowd who spent a good amount of time listening to visiting lecturer Elaine Morgan recently, regarding the 'Aquatic Ape Theory', be advised of the following points.

1. Aquatic Ape Theory has been scientifically reviewed, and, despite what was presented at this lecture, it has been found to be severely wanting. AAT is not a 'credible alternative theory'; it is what is known as a post–hoc accommodative argument. Strictly speaking AAT does not really have a coherent body of theory, only a few disassociated (non)explanations for a few biological characteristics of the genus Homo. People should be aware that AAT is NOT 'mainstream' or 'a viable alternative' as claimed at the lecture.
2. AAT is poorly regarded because it is a poor explanatory device. It is poorly regarded because it has been examined and found to be invalid. It is not poorly regarded because of some scientific cover–up or paranoia. It is not poorly regarded because scientists cannot accept change. Scientific knowledge does change, all the time, and it has been pointed out that science is the worst place to try to hide anything because fraud will be exposed through experiment. AAT is simply a theory that has been evaluated (and ditched) by most serious anthropologists.
3. The presentation on 14 October is an embarrassment to Simon Fraser University, and the sponsoring hosts. How this pop/crypto/science 'theory' was given equal billing with real research efforts is beyond me. The fact that the 'theory' was included in a series of lectures dealing with darwinian processes (The Institute of Humanities' 'Old Minds and Bodies in New Worlds: A Darwinian Perspective on Our Past, Present and Future' lectures) is a travesty, as AAT crumbles when examined for internal darwinian logic. Unfortunately, having the

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speaker lecture on AAT was akin to having SFU sponsor Erich von Daniken to speak about spaceship depictions in Maya tombs.

Here's a point to consider when evaluating AAT. I did not learn this point from some academic overlord with an anti-AAT agenda; I learned it while trying to avoid becoming crocodile food in Africa. When I spent several months with a team at Lake Turkana, Kenya, investigating some of the most important early hominid sites in the world, one of our overriding concerns — while swimming, bathing, or catching fish with a net — was to watch out for crocodiles in the shallows. A croc can be on you, crush your legs in its jaws, and drag you under to drown before you have time to screech for help.

The fact that crocodiles co-existed in time and space with early hominids is a colossal blow to AAT, which does not explain what advantages early humans would have gained by spending time in crocodile-populated waters; an environment where they could not make fires, throw stones or sticks, use other tools, or have any hope whatever of escaping the most common predator. A troop of early hominids wading in a lakeshore or swampy forest would best be described as a crocodile banquet. The cute, feel-good images of babies swimming freely in a pool, shown in the AAT video, have nothing to do with the real situation of predator avoidance in Africa. Ask the Dasenich or Turkana people who live around Lake Turkana: only visiting maniacs swim in that lake.

There's much else to say, but I have a 650-word limit. Please keep in mind, the 'savanna hypothesis' has indeed been largely abandoned, but that does NOT validate AAT a priori. Neither is AAT validated because of the common sentiment that 'it is someone's opinion, and everyone is entitled to an opinion'. Opinion is not the same thing as scientific theory.

The damage of this lecture was to those who came to the lecture expecting, and possibly believing, that AAT was a viable body of theory. It is not, and it does not deserve that label.

Cheers,

Cameron M. Smith

Op 22-07-2007 20:08, in artikel

j2Noi.29561\$C96.1...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx, claudiusd...@xxxxxxxxxxxxxxxxx  
<claudiusd...@xxxxxxxxxxxxxxxxx> schreef:

Early hominid evolution took place at  
localities that are treed within  
a greater habitat characterized by  
treelessness, a severe dry season,

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migrational herbivores, and larger predators.

Ridiculous:

Uh, . . . er. What? Be specific.

+– everything in it: most early hominids (Samburupith, Sahelanthr, Orrorin, apiths) are found in/near forest swamps: curved phalanges + bipedal features suggest wading–climbing. Probably, later hominids (robusts apiths) lived in more open milieus, but they didn't follow migratory herbivores, of course. Other later hominids (Homo) apparently were waterside & even show adaptations for slow diving (= very open, no trees at all...).

Nature 325:305–306, 1987

Origin of hominid bipedalism

Sinclair et al. (1) believe that human bipedalism arose in scavenging

hominid ancestors that had to carry their children while following

migrating

savanna ungulates but this seems highly improbable.

There was no empty niche of migrating scavengers to be occupied by hominid ancestors.

Yes. I'm the one that informed you of this.

Ah?? You?? And you are...?? Claudius??

I thought I wrote it 20 years ago... :-D

Not only vultures, but also canid, felid and hyaenid carnivores were much better preadapted for such a niche. They possessed sharp beaks

or

long canine teeth and did not need to carry stones for cutting carcasses.

Agreed. There is nothing about hominids that can be explained by scavenging. It's an inane notion.

Yes, but later Homo populations probably scavenged now & then: M.Gutierrez et al. 2001 "Exploitation d'un grand cétacé au Paléolithique ancien: le site de Dungo V à Baia Farta (Benguela, Angola)" CRAS 332:357–362: ... almost complete skeleton of a large whale Balaenoptera sp was found closely associated with 57 Paleolithic artefacts near Baia Farta ...

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Moreover, the bipedal way of locomotion – whether fast or slow – is inefficient and costly (2,3).

Uh . . . no. It is efficient in comparison to the ape quadrupedalism.

In that case, all apes or even primates would have run on 2 legs. I don't think bipedalism in se is less efficient than quadrupedalism (ostrich, kangaroo...), but beginning bipedal cursorialism as in humans of course is (max.speed over short distances only 36 km/hr).

And

I agree that it is relatively inefficient in comparison to other quadrupedal species. So only an idiot (Lee Olson and Jason Eshleman) would argue that this was a migrational adaptation. The resulting diminutive and slight-shouldered apiths would have been completely vulnerable to the large predators in treeless habitat. (They, undoubtedly, used [needed] trees to escape the frequent visits from these predators.)

Another argument against the migrating hypothesis in particular and the savannah theory of human evolution in general is that it is highly unlikely that hominid ancestors ever lived in the savannas. Man is the opposite of a savanna inhabitant. Humans lack sun-reflecting fur (4) but have thermo-insulative subcutaneous fat layers, which are never seen in savanna mammals. We have a water- and sodium-wasting cooling system of abundant sweat glands, totally unfit for a dry environment (5).

No duh. This is so obvious it isn't even worth discussing.

Our maximal urine concentration is much too low for a savanna-dwelling mammal (6). We need much more water than other primates, and have to drink more often than savanna inhabitants, yet we cannot drink large quantities at a time (7-8). The fossils of our hominid ancestors or relatives are always

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found in  
water-rich environments.

Again, all of this is so obvious it's hardly worth mentioning. Obviously hominids resided at locations at which they had proximity to fresh water year round—most notably during the dry season.

We must make the distinction between apiths & Homo.  
AFAIK, apiths lived always near freshwater.  
For Homo, "always" is less certain (more indications of salt water once, at least parttime).

It is difficult to understand why most anthropologists keep believing in the savanna theory (possibly because it goes back to Darwin), or why so many anthropologists keep trying to seek the most improbable reasons for bipedalism, while they should know there are much better explanations (9–11).

Well, they say they don't believe in the savanna theory any more.

Some do, some don't.

Beyond that they seem to have no theory at all. Just like yourself.

Never heard of it? It's called evolutionary theory: inheritance, recombinations, mutations, selection, opportunistic adaptations, parallelisms & convergences, gradualism etc. Humans are animals like all other animals. No exceptions: simply analyse our behaviour, anatomy, physiology into elementary details (recombination) & compare these to other animals. Not difficult: eg, human locomotion (striding not hopping, bi- not quadrupedal, broad-bodied, long-legged, stretched-legged not BHBK, plantigrade not digitigrade, ortho- rather than pronograde, aligned, etc.), although now walking-running, clearly shows rudiments of vertical climbing, of swimming, & probably of wading. Same can be done with our speech elements, eg, my paper with S.Munro 2004 "Possible preadaptations to speech – a preliminary comparative approach" Hum.Evol.19:53–70 suggests we had/have singing-, breath-hold-, airway-closure- & suction-adaptations. Same can be done with our food gathering system system: hard-object-feeding, omnivory, dependence on sodium, iodine & poly-unsat.fatty acids, tool use & handiness... Etc.

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Marc, eventually you will have to come to grips with the fact that you don't have a hypothesis. You seem to have gotten the habitat kind of right. But you don't have any selective factors in your hypothesis that explains any of the adaptations that are so plainly apparent in our species.

Selective factors = the milieus where our ancestors lived after the H/P split c.5 Ma: littoral forest, seaside/deltas, riversides, dry land...