Ebo Gogo - the Little People of Flores

Remains of a three-feet-tall hominid (Homo floresiensis), which is believed to have survived until 12,000 years ago, have been discovered on Flores, Indonesia. The find prompts further investigation and interpretation of the Ebu Gogo legends, known among the inhabitants in that region. The legends tell of a little people, Ebu Gogo, who existed at the time of the arrival of Dutch trading ships about 300 years ago. These small-size humans are no longer seen today, but were known to have been sighted 100 years ago.

Sketch by Pattanapong Varanyanon

In the Liang Bua limestone cave (in the western part) of the Flores islands, Australian and Indonesian researchers found evidence of an extraordinary human species dated at around 18,000 years old. Due to their small size, these humans are dubbed "the Hobbit".

The sophistication of stone tools found with the "hobbit" has surprised some scientists, given the human's small brain size of 380cc (around the same size as a chimpanzee), and a skull the size of a grapefruit. The report of the finds was first published in the international scientific journal, *Nature*, whose editor, Dr Henry Gee, revealed that the remains were discovered at a depth of 5.9m, and the features of the pelvis identify it as a female. The length of arms suggest that the species may have been arboreal – adapted to living life in the trees – but a leg bone verifies that it walked upright as humans do.

Legends of the Flores tell of a people called "Ebu Gogo", who were very small in size and lived on other islands too. In the mythology of the island, Ebu Gogo is a human-like creature with a mythological form that is similar to the leprechaun or elf. These mythical creatures were described as being about three-feet tall, covered in hair, pot-bellied, and with stand-out ears. They are said to have walked awkwardly, and "murmured" to each other in their own language, being able also

to repeat parrot-like what islanders said to them. The legends are reminiscent of those about dwarfs, the menehunes of Hawaii, and tomtar of Scandinavia. In Central Flores language, Ebu Gogo means "grandmother who eats anything" (or "grandmother glutton") from the words ebu = grandmother and gogo = who eats anything.

Flores is famous for being the home of the Komodo dragon, a remnant of the time when giant lizards were top predators in the food chain. Apart from the Komodo dragon (which can kill adult humans, and has toxic saliva), Flores also had a species of pygmy Elephants, called Stegodonts, large rats the size of dogs, huge tortoises and great apes called Orang-Utangs. Stone tools in the Flores show that the islands have been occupied for thousands of years.

Gee said that such species as Ebu Gogo *(Homo floresiensis)* might still exist in the tropical forests of Indonesia, parts of which are

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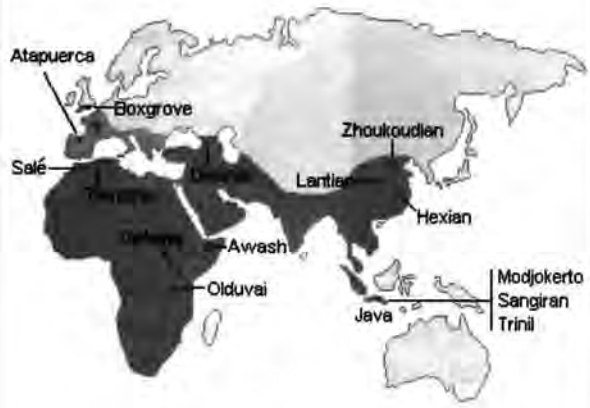
yet to be explored. The last legend featuring the little inhabitants dates to a hundred years ago, and the last evidence of this human at Liang Bua dates to just before 12,000 years ago, when a volcanic eruption decimated most of the wildlife in Flores. It is plausible that they might have survived the local eruption at Liang Bua, and continued to live in other parts of the island. Villagers claimed that the last Ebu Gogo was spotted not long before the Dutch colonists settled in that part of central Flores, in the 19th century.

The skeletal material show that these humans were *Homo erectus*, but smaller than anything seen before. In 1984, an intact *erectus* skeleton, dated to 1.6 million years, was recovered from the western side of Lake Turkana, in the Rift Valley, East Africa. The find was dubbed "Turkana boy" since the skeleton was found to be that of a 12-year-old boy. He was 5 feet 3 inches, and had he grown to adulthood, he would have been 6 feet. So *erectus* had a tall, robust build in general.

What was going on in the Flores? Let's look at the anthropology of our early ancestors. The predominant theory states that more than a million years ago, our immediate ancestors *Homo erectus* moved out of Africa and colonised Asia, stopping at the margins of the oceans. Or this is what scientists would have us believe, as there are no records of *Homo erectus* travelling across water.

The great ice caps in the northern hemisphere were still in place about 180,000 years ago, draining the oceans of the world, and exposing continental shelves. This was the time of *Homo sapiens* ascendance on our planet, shown by current evidence. From their origins in tropical Africa, more than 150,000 years ago, bands of *Homo sapiens* lived with Neanderthal humans for about 50,000 years. Eventually displacing them, by 45,000 years ago, they moved into colder landscapes, living for 10,000 years in the river valleys of Western Europe, with diminishing Neanderthal populations. *Homo sapiens* had the technology and social organisation to survive in the open plains in

Important *Homo erectus* Sites



	Date Fossil (years ago)	Cranial Capacity (in cm.^{3})
Africa:		
East Turkana	1,800,000+	850-900
Olduvai Gorge	1,400,000-1,250,000	1067
Middle Awash	1,000,000	
Ternifine	700,000-500,000	—
Salé	400,000	900
Java:		
Modjokerto	1,800,000	—
Sangiran	1,600,000	813-1059
Trinil	700,000-500,000	—
China:		
Lantian	1,150,000-650,000	780
Zhoukoudian	460,000-230,000	850-1250
Hexian	250,000	1025
Europe:		
Dmanisi	1,700,000	—
Atapuerca	780,000+	—
Boxgrove	524,000-478,000	—

winter. By about 30,000 years ago, they were the dominant human species.

But the colonisation of the world from Africa had begun long before. *Homo erectus* preceded *Homo sapiens* out of Africa, and colonised Asia. According to orthodox thinking, the limits of this colonisation have been ocean margins. If, however, they did cross the oceans, how did they manage to cross the extents of open water? And why? If they had no knowledge of what lay beyond sea horizons, why would they take that plunge? Or, there is the possibility that an erectus group were swept out to sea in a mat of floating vegetation, after some sort of natural disaster.

Whatever the cause, *erectus* got to the Flores, and seems to have flourished, giving rise to all the legends associated with the little people.

The earth's climate, locked into huge ice caps in the northern hemisphere during the ice ages, was the pump which regulated species. Climatic variations triggered species' proliferations and demise. About 18,000 years ago, climatic shifts became abrupt, as shown in the Vostok ice core, taken from the Antarctic ice sheet, which shows earth's climate up to 420,000 years ago. The ice sheets allowed easy passage between continental shelves until the great warming began, around 10,000 years ago, the beginning of the Holocene period. Then sea levels rose, and continental shelves began to go under water, and the oceans began to expand.

The chart on previous page is a global spread of currently known *Homo erectus* sites. As can be seen, *Homo erectus* has been found in Java, in Southeast Asia. Eugene Dubois, a Dutch anatomist and doctor, found the first *erectus* remains in the 1890s. He called it *"Pithecanthropus erectus"* and claimed it as a separate species.

Homo erectus


modern human

The sites in Java were located at Modjokerto, Sangiran and Trinil and *erectus* material from Java has been dated in 1994 to 1.6-1.8 million years of age. These are very early dates indeed, implying an early departure for *erectus* from Africa.

To island-hop to the Flores from Java, across much-reduced seas would not have demanded too much effort on humans. Questions relating to the behaviour of *erectus* are, however, open to conjecture.

One of the great current debates in anthropology is about the nature of the drivers of human/hominid intelligence. For a long time, it has been held that there is a minimum brain size required for intelligence.

So why did they then shrink in size, and how does this shrinkage tally with current theories of brain size? If they were stranded in the Flores after sea levels began to rise, then evolutionary forces would have taken over in the long millennia stretching ahead.

Brain size of *erectus* ranges from 750 - 1250 cm (3) with an average of nearly 1000 cm(3).

Trapped in their new home, *erectus* began to shrink. "Island dwarfing is well-known," says Professor Adrian Lister of University College London. "With limited resources and lack of predators on islands, large mammals get smaller and little ones get bigger over succeeding generations. They tend to gravitate to the dimensions of a large rabbit, the most energy efficient size for a mammal."

The Flores people had the brain capacity of a small chimp, yet they made stone tools, which is a major paradox. This may be a pointer to show that there may be more than just one way to be human, that brain capacity is not the driver for intelligence.

But there were other species in the Flores, including the most deadly predator of them, the Komodo Dragon, and *erectus* would have been a direct competitor with them. The Komodo today can kill humans, and would have hunted these newcomers. Getting smaller, they had little choice but to go upward, to survive. So *erectus* took to the trees to escape the Komodo's attentions, hence their elongated limbs. But more evidence needs to be found to firm up this hypothesis. An aboreal race of hominds would have co-existed with modern humans, with both species perhaps not in competition for resources.

Richard Roberts, discoverer of the Hobbit, said that one of the village elders told his team that the Ebu Gogo "ate everything raw, including vegetables, fruits, meat and, if they got the

chance, even human meat", and that the women had "extremely pendulous breasts, so long that they would throw them over their shoulders". From what the villagers told him, he said that the Ebu Gogo "raided their crops, which they tolerated, but decided to chase them away when the Ebu Gogo stole – and ate – one of their babies. They ran away with the baby to their cave which was at the foot of the local volcano, some tens of metres up a cliff face. The villagers offered them bales of dry grass as fodder, which they gratefully accepted. A few days later, the villagers went back with a burning bale of grass which they tossed into the cave. Out ran the Ebu Gogo, singed but not fried, and were last seen heading west, in the direction of Liang Bua, where we found the Hobbit, as it happens."

Folktales about little humans (giants or strange people) emerge from diverse parts of the world. Villagers in Sumatra spoke of an ape in the jungle that walks like a man, sedapa or orang pendek ("short man"); a similar creature, batutut, lived in the jungles of Borneo. There are legends of pygmy hominids in Sri Lanka as well. A small, fierce people, known as the Nittaewo (the name given by the aboriginal Vedda who were the first inhabitants in Sri Lanka), were supposed to have been wiped out by the Vedda, back in presumably Paleolithic times. It seems that both were in competition for resources in the Sri Lankan jungles, with the Vedda winning out.

What can the legends about the little people in the Flores tell us? There may be better clues as to their behaviour, social organisation, and lifestyle. Opportunism, flexibility, and mobility – these are the fundamental criteria of successful hunter-gatherer *Homo sapiens* groups in the Paleolothic. Did *erectus* have these qualities? We can make educated guesses, that if they got as far as the Flores, they must have been groups imbued with a fair degree of sophistication.

It is difficult, at the moment, to ascertain if the Ebu Gogo tales describe the real hominids or are merely "little people" stories found among almost all peoples throughout the world. As Java Man was found in Java 1.7 million years ago, the Flores finds may verify that *Homo erectus* were widely travelled within the Indonesian archipelago. Could this be the last home of the various species of pre-modern hominids?

Roberts, who is a professor at the University of Wollongong, is interested in searching the last pockets of rainforest on the island, because remains of hair only a few hundred years old would survive (snagged on the lava cave walls or incorporated in deposits), and would be ideal for ancient DNA analysis.

Further archaeological and anthropological research is now essential. More excavations at Flores by archaeologists will provide a clearer picture. If there are more legends in the other islands of Southeast Asia, then these too should be given attention. However, on a paradoxical note, if by some miracle, there are relict populations of pygmy *Homo erectus* still living, a dilemma will present itself in the starkest of terms: chances for them to survive are better if they were left undiscovered.

Prasanna Weerawardane

References

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