Article Analysis: The Hobbits

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Course

Professor

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In 2003, a team of Australian and Indonesian Scientists discovered “Homo floresiensis” which is a recent addition to the evolutionary human tree. The announcement of the discovery of a “new human” generated many questions regarding the origins and their settlement in Flores. The fossils of Homo floresiensis were found along with stone artefacts and the remains of extinct animals in the cold caves of Flores[[1]](#footnote-1).

The splendid isolation of the Homo floresiensis astonished the scientific world because Flores did not have any connection with the western islands. This shows that ancestors of Homo floresiensis had reached the island via open waters.

They evolved about more than 10,000 years ago but less than 15,000 years, which makes them the most recent of the surviving primitive humans. They shared the earth with modern humans. Stone tools that are around million years old were also found on Flores which serves as a clue to their origins. These stone tools were most probably made by the first inhabitants of Flores. The astonishingly small brain of LB1 of hobbits became a bone of contention for the scientific community. They had a cranial capacity of 400 cm3 which is very small as compared to Homo sapiens, pygmies and other species of Homos which are now extinct (Jungers and Baab, 2009). A few scientists assume that such an abnormally small sized head has resulted from some pathological disease. The multivariate statistical analysis shows that it does not resemble the human microcephalics. The architecture of the brain and aspects of its functions are not limited by the small size of the brain. If we only consider the brain size, we may underestimate the cognitive capabilities of the Hobbits. Usage of core and flake technology clearly shows their high level of intelligence.

Small headed Homo erectus and Earliest African Homo species (e.g., Homo habilis) are supposed to be the ancestors of hobbits. The statistical analyses of the shapes of skulls found in modern humans are in one group, microcephalic humans in another and the hobbit was found together in a third group with humans and microcephalic humans. The reconstruction of the body design of hobbits resulted in a different body design than that of modern humans. The thighs and chin bones of the hobbits were smaller than humans. However, the arms are not much shorter in size. This shows that an ancient retention or evolutionary reversal could be the possible biomechanical reasons. The stature of the hobbits cannot be matched among the small bodied hominoids but the body mass of hobbits can be matched. This body mass is distributed over a small frame of skeleton[[2]](#footnote-2). The hobbit is far stockier as compared to modern humans. The body shape of hobbits has a very different display than those of modern human pygmies who have the same body masses. There is no evident systemic pathology of humans which could reduce the modern humans to the body size and body shape of hobbits and hence transform them into ancient phenotype of our ancestors.

Hobbits cannot be considered as pathological people because the differential medical diagnosis of different microcephaly and dwarfing syndromes have nothing similar with the unique anatomy of hobbits. There exist, no sick humans who could resemble Homo floresiensis because an illness alone cannot reverse the changes in the evolution of a species. Therefore, hobbits cannot have the possibility of being a sub-population of humans that is diseased.

There are two scientific hypotheses that account for the existence of the Homo floresiensis. The process of “Island Dwarfing” is one of the famously known processes of evolution but it only happened among the rodents and carnivores, most frequently. The assumption of “Island Dwarfing” requires a decreased body size and brain size. The hobbits cannot even be evidence of an “Out-of-Africa” event which may have predated the emergence and dispersing of the Homo erectus. There is no evident resemblance between the shape of skull and size of body of the Asian Homo erectus and the Homo floresiensis. The wrist bones of Homo floresiensis are also too primitive and have resemblance to the apes, Homo habilis and australopithecines. The shoulder configuration of the hobbits also resembles with the different ancient hominids. The relatively long feet of hobbits also do not resemble the foot prints of Homo erectus. We need more fossils to verify any of the two hypothesis i.e., migration from Africa or the Island dwarfing of Homo erectus.

# Relevance to the Course

The article relates to the field of physical anthropology because it analyzes the hobbits in a holistic manner. It discusses the archeological, biological, cognitive and cultural aspects of the hobbits. The main focus of the article is upon the physical features of hobbits. The difference in the body size and shape of the hobbits and other hominoids is thoroughly discussed. The difference between the size and shape of the brain of hobbits and modern humans is also discussed. The article suggests two possible hypotheses about the origins of hobbits which relate to the discussion of evolution in physical anthropology. The artefacts used by the hobbits were also a subject of the discussion in articles which depicted the high level of cranial capacity and intelligence of hobbits. The physical anatomy and archeological facts are discussed in a correlation which make this article relevant to the course of physical anthropology. Since physical anthropology studies the human biology in correlation to its respective human culture, this article also does the same.

# Bibliography

Jungers, William, and Karen Baab. 2009. "The geometry of hobbits: Homo floresiensis and human evolution." *Significance* 6 (4): 159-164.

1. Jungers, William, and Karen Baab. 2009. "The geometry of hobbits: Homo floresiensis and human evolution." *Significance* 6 (4): 159-164. [↑](#footnote-ref-1)
2. Jungers, William, and Karen Baab. 2009. "The geometry of hobbits: Homo floresiensis and human evolution." *Significance* 6 (4): 159-164. [↑](#footnote-ref-2)