



From *Homo erectus* To *Homo sapiens* In Southeast Asia In Late Pleistocene, Replacement Or Local Evolution?

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Southeast Asia --islands and mainland-- plays an important role for the hominin discovery during the Quaternary. *Homo erectus* fossils were very early unearth in this region, since the first specimen was discovered by Eugene Dubois in Trinil, Java, in 1890's. Recently, the discovery's map of this species shows that they spread out almost the whole of Java island, living during the Pleistocene, from 1.8 million years to some 150,000 years ago.

Entering late Pleistocene, the hominins discovery of this period varied in significant ways. The anatomical modern humans appeared from various places: Song Terus and Wadjak (Java), Lida Ayer (Sumatra), Niah (Malaysia), Tabon (Philippines), Moh Khiew (Thailand), and Tam Pà Ling (Laos). Then, later, the very small body size hominins were found in Southeast Asia islands, *Homo floresiensis* (Flores, Indonesia) and *Homo luzonensis* (Luzon, Philippines). These last two mentioned hominins are different significantly from *Homo erectus* and anatomically modern humans in size and anatomical aspects, making the evolution line of the region more complex.

During the late Pleistocene, Southeast Asia environment was dynamic, characterized by lower sea level exposing the Sunda Shelf and creating land bridges, and also shifting vegetation from rainforest to drier savannas and woodlands. These mosaic forests and grasslands give the impact on human diversity, creating diverse habitats crucial for the evolution and movement of humans and animals. Some important questions may be raised: do they experience a replacement or local evolution? Or, does this diversity is an implication of life related to ecological adaptations?

This paper will discuss the hominin diversity in Southeast Asia during the late Pleistocene, related to environmental mechanisms and the evolution process.