Finlayson, C. 2004. Neanderthals and modern humans. An ecological and evolutionary perspective. -Cambridge, Cambridge University Press



Book review by P. Storm

Two main theories have competed the last two decades to explain modern human origins. The 'Out of Africa model' emphasises replacement as the dominant mechanism responsible for the disappearance of archaic hominin populations and the spread of modern humans. The opposing idea, known as the 'Multiregional Evolution model', proposes that modern humans evolved over a long period of time from several archaic populations in various regions of the Old World. For many years, Neanderthals have played an important role in debates concerning our ancestry. Were Neanderthals our ancestors, or did we, modern humans, replace them? Did they become extinct, and if so, why? So many words have been devoted to this topic that the thought forces itself to the surface: is this book an interesting contribution?

The answer is yes. Finlayson (p. 89) remarks: "A central problem today is the absence of a coherent interdisciplinary approach and a unified theory of human evolution is urgently required". I agree. An interdisciplinary approach is still much needed. Furthermore, investigation in this field needs an ecological framework, given the fact that humans, like all other organisms, do not evolve in a vacuum but within an environmental context. Finlayson provides such an ecological framework, which makes his contribution particularly valuable. In his book he explains his ideas and theory systematically, first providing the basis and guiding the reader to its culmination in the contradictory titled chapter 8 'The survival of the weakest'. The book is illustrated with tables, diagrams and maps.

The cover of the book states that Finlayson's proposal is "that Neanderthals became extinct because their world changed faster than they could cope with, and that their relationship with the arriving Modern Humans, where they met, was subtle". As far as the changing world is concerned, there is an interesting parallel with the situation in Indonesia. I think that Java Man (*Homo erectus*) became extinct in Indonesia because of drastic environmental changes. During the Late Pleistocene an open woodland (within it *Homo erectus*) was replaced by a tropical rainforest. As in the case of other archaic Indonesian mammal species, *Homo erectus* failed to adapt to this modification and was doomed to extinction. But here the parallel stops. The coexistence of hominin species is another matter. Finlayson remarks (p. 79): "It would be very informative to have ecological data from Southeast Asia where late *H. erectus* and *H. sapiens* must have been sympatric for at least 25 kyr." The idea that *H. erectus* and *H. sapiens* have been contemporaries in Indonesia is based on the young dates for Ngandong and Sambungmacan. However, next to the fact that the technical accuracy of these dates has been questioned, it is difficult to reconcile the reconstructed ecological history of Java with the young dates suggested. At present there is no evidence that *H. erectus* and *H. sapiens* became sympatric for a significant period of time in this region, and probably they never met.

With so many ideas in the book, it is difficult to find oneself in agreement with the whole content. This certainly does not remove the fact that Finlayson has managed to write an interesting and stimulating volume. I recommend this book for those interested in human evolution.

Finlayson, C. 2004. Neanderthals and modern humans. An ecological and evolutionary perspective. - Cambridge, Cambridge University Press. 255 pp. ISBN 0-521-82087-1. Price £ 60.00/US\$ 85.00 (hardback).