

## BOOK REVIEW

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### **God-Apes and Fossil Men: Paleoanthropology in South Asia**

Kenneth AR Kennedy

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Kenneth AR Kennedy, a well-known bioanthropologist who has a publication record spanning more than 35 years, has done a great service to the anthropological and archaeological community by writing an authoritative and accessible book on the paleoanthropology of south Asia. After highlighting the geology and geography of south Asia in an introductory chapter, he dedicates the following seventeen chapters to the paleoanthropological and prehistoric evidence found across a vast geographic area encompassed by Pakistan, India, and Sri Lanka. Like many regional publications, this book blends historical and modern investigations, providing a rich context to examine intellectual developments and discoveries spanning over the eighteenth through twentieth centuries. At the same time, however, because historical and modern studies are tightly interwoven in places, an occasional detraction is the difficulty of discerning how current investigations have contributed something new in south Asian studies.

The term 'paleoanthropology' as used in the text and the book's subtitle, is employed in its broadest sense, transcending usage typically confined to the study of early fossils and Palaeolithic assemblages. Instead, Kennedy's palaeoanthropology includes assessment of south Asia's populations up to the Iron Age, including biological analyses that extend to present peoples. The strength of the book is its emphasis on

integrated results drawn from a plethora of disciplines (archaeology, biological anthropology, geology, genetics, ecology, ethnography, paleontology, chronometrics, linguistics, etc).

The employment of the term 'God-Apes' is an appealing opening regarding the exploration, discovery, and taxonomic classification of hominoids in the Indian subcontinent. Throughout the book, Kennedy lucidly reveals how palaeoanthropological investigations are rooted in the conceptual interplay of Eastern philosophical traditions and Western science, even affecting the way in which the earliest fossil evidence is treated. As examples, taxonomic names from the Hindu epics were given to hominoid fossils, *Sivapithecus*, in deference to the Lord Siva, and *Ramapithecus* derived from a manifestation of the god Vishnu. Kennedy details a critical period in the history of hominoid evolution, the 'coronation' and eventual 'dethronement' of *Ramapithecus* as a hominid ancestor. This is followed by a 'postmortem and resurrection', which covers the on-going and central significance played by the range of genera and species identified from the Siwalik fossil assemblages. Kennedy notes that while no direct hominid ancestor is yet found in south Asia, 'it is obvious that among the Miocene hominoids were forms ancestral to *Australopithecus* and *Homo*' (page 115). Kennedy examines how hominoids of south Asia potentially fit into the evolutionary story,

wondering about some currently elusive questions about the movement of hominoid lineages between Asia and Africa over the last 20 million years. One of the most exciting challenges to emerge from this book is the continuing need to explore the numerous and rich fossil bearing contexts and to conduct on-going research as to the placement of these hominoids in phylogenetic, ecological and evolutionary frameworks.

A chapter entirely devoted to the earliest evidence of hominid settlement cogently reviews the currently known evidence, an important topic if one wishes to know how the Indian subcontinent fits into African and Asian colonisation processes. Unfortunately, however, as Kennedy makes clear, one of the problems that continue to plague the south Asian record is the lack of sound, chronometric dating of deposits. While the date of 2 myr for hominid occupation reported by the British Archaeological Mission in Pakistan is considered 'exciting', and plausible given current global frameworks for an out of Africa scenario, Kennedy also reminds his readers that the context and validity of the lithic industries remains challenged. And, while the reported dates of 670,000 years of age for the Bori occupations are accepted uncritically in this book, they are by no means roundly accepted by other investigators. While most radiometric dates definitively place occupation in south Asia to 350,000 years and later, Kennedy rightly points out that the young age estimates are not necessarily a product of the length of human habitation, but rather the product of limitations of the dating techniques used.

Kennedy nicely summarises what is known about the Lower to Upper Palaeolithic record of south Asia, detailing the stratigraphic, palaeontological, and archaeological contexts of numerous areas and localities. What emerges from this sweeping review is the interesting conclusion that south Asia contains a record which shows that palaeolithic populations made many biological and cultural adjustments in adapting to the myriad of ecological settings. Furthering this point, Kennedy states, 'the diversity of habitats of paleolithic communities and their contrasts in population density, migratory patterns, and survival strategies are dramatically

represented by a record that transcends their lithic technology' (page 171). This is a significant statement, for it indicates that if progress is to be made in the palaeoanthropology of south Asia, more attention needs to be given to the context of stone tool industries, addressing how the results relate to current issues in hominid adaptation and evolution.

In a chapter devoted to hominid fossil remains, Kennedy shows how the regional evidence is of central importance to an understanding of global population variations. Regarding the well-known, but lone Narmada skullcap, Kennedy opines that the specimen, 'is a late middle Pleistocene representative of early *Homo sapiens* with an impressive suite of anatomical characteristics shared with other early *sapiens* populations from Eurasia and Africa but possessing certain unique features of cranial morphology that may have evolved in India' (page 180). The more extensive skeletal collections of 34,000 year old specimens from Sri Lankan caves are treated in some detail, reviewing cranial, dental, and postcranial anatomy, as well as pathological conditions. Given the general paucity of hominid finds in the region, a major question for future fossil discoveries will be whether increased palaeontological surveys will continue to find fossils, or in a more pessimistic view, whether taphonomic conditions such as weathering have produced a generally poorer fossil record compared to other regions. Kennedy comes down on the more optimistic side when he states that, 'there was a period in the evolution of paleontological investigation when Europe, Africa, and Asia seemed equally meager in their catalog of fossil hominids: now south Asia has entered the arena of world paleoanthropology' (page 188).

The relative wealth of the environmental, archaeological, and skeletal record of the Indian subcontinent is well illustrated in several chapters devoted to post-Pleistocene societies. It is here that many modern questions can be addressed concerning the consequences of climate change on local populations, the socio-economic effects of increased sedentism and the relationship between dietary change, biological adaptations,

and anatomical changes. Kennedy shows the range and diversity that may be found in south Asian communities, ranging from highly mobile to sedentary groups, even within particular time periods. He shows the variation in economies and the fluid interactions between different communities, including hunter-gatherers, farmers, and pastoralists. From this reading, most researchers will see the enormity and diversity of the regional record and the potential role it can play in explaining relationships between ecology, biology, and behavioural change.

Perhaps one of the most interesting topics to be covered by Kennedy surrounds phenotypic patterns for ancient and living populations and questions of race. The large body of biological and cultural evidence is marshalled to address the validity of long-debated arguments about the derivation of Indo-European languages and their affiliation with the so-called fair-skinned Aryans migrating into the subcontinent. Despite the long-term fascination that anthropologists and historians have with the Aryans, Kennedy argues that theories on a demographic or biological migration cannot be demonstrated and that human skeletal remains do not support the introduction of such races, concluding with the firm statement, 'the quest for Aryans falls outside the agenda of modern paleoanthropologists [*sic*] who acknowledge the fall of the race concept in biological systematics

and anthropology' (page 377). Kennedy acknowledges the potential of genetic analyses and promotes the importance of conducting ancient DNA studies for understanding affinities of south Asians. Significantly, he does see certain convergences between modern genetic population studies and morphological variations drawn from the skeletal and dental record. However, the author also promotes caution considering that, 'many interpretations of genetic studies carried out in south Asia reflect traditional concepts of races, castes, languages, and culture history' (page 378).

In the final paragraphs of the 'Conspectus' chapter, Kennedy raises some key points about the requirements for a vibrant future in south Asian palaeoanthropology. The author indicates the need for governmental support and funding to assist native scholars who 'must labor under economically stressful conditions' (page 386) and the need for south Asian students to gain advanced training in centres around the world. Additionally, in passages of the book, Kennedy points to the requirement for proper laboratory facilities and conservation measures, particularly for human skeletal remains, and the need for multidisciplinary teams in tackling various palaeoanthropological issues and problems. When such recommendations are roundly employed in south Asia, the regional record will certainly gain increasing attention in global palaeoanthropology.