

Asian Paleoanthropology. From Africa to China and Beyond

Christopher J. Norton and David R. Braun (eds.)

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This title in the Springer Vertebrate Paleobiology and Paleoanthropology series arises from a 2007 AAPA session devoted to Asian Paleoanthropology. Overall it gives the reader a good taste of peoples' thinking on pertinent issues surrounding this area. It introduces readers to less well known regions such as Korea, and discusses lesser known fossils such as the Narmada partial cranial remains.

The papers or chapters (I will use the terms interchangeably throughout) can be divided into four broad themes—environmental analyses, lithic analyses, site reviews, and hominid fossil studies, and it is pleasing to see a good balance between each of these here. I shall deal with the papers grouped according to the themes outlined above. Some obviously will straddle the boundaries between these themes.

ENVIRONMENTAL ANALYSES

These include papers by Dennell on his "Savannahstan" hypothesis (Ch. 2); Belmaker discussing early Pleistocene Western Eurasia (Ch. 3); and Norton et al. (Ch. 7) discussing biogeographic boundaries in China. Dennell's paper makes a well-researched, and at times provocative account, of the weakness in 'Out of Africa 1.' He makes the salient point that much more research is required on Pliocene and early Pleistocene localities in order to disprove the occurrence of hominins at this time in this 'Black hole of Paleoanthropology.' He concludes with a challenge to test two competing hypotheses—to disprove either the presence of Australopithecines in South West Asia c. 3.0–3.5 Ma or to prove the early dispersal of *Homo* from Africa at c. 2.6 Ma. Belmaker, however, disputes the "Savannahstan" hypothesis by pointing to palynological evidence that South West Asia (specifically a stratum at 'Ubeidiya') was more of a temperate or Mediterranean climate with little evidence for the climate Dennell proposes. These chapters are consecutive in the volume, and it is pleasing to see the editors including differing points of view from specialists, acknowledging that the field is complicated and not one homogenous dataset. Norton et al.'s paper examines the evidence (and finds it lacking) for biogeographic boundaries. A call is made for more detailed and careful studies of sites and regional stratigraphies in order to come up with colonization models for China.

HOMINID FOSSIL STUDIES

The chapter by Baab (Ch. 6) on cranial shape in Asian *Homo*

erectus uses the by now well-established technique of geometric morphometrics to visualize variation in the shape of the neurocranium. She establishes an interesting possibility of population structures within the South Eastern Asian variant of the species, although as the sample increases, this may however change. The paper on the Narmada cranium by Athreya (Ch. 10) is interesting for introducing a statistical technique other than linear discriminant functions, which are overwhelmingly popular. The main problem with this paper is that it is virtually identical to the one by the same author in Petraglia and Allchin's 2010 volume. Glantz's study (Ch. 8) examines the enigmatic Teshik Tash cranial remains in the context of Mid-Asian population models, and proposes the possibility of admixture between Neanderthals and other archaic hominids in this region. This is intriguing given the current paradigms in the light of the Neanderthal and Denisovan genomes, and only further research may tell if this model has legs. The paper by Kaifu et al. (Ch. 11) re-examines the Sangiran hominid remains and proposes that the idea that the crania of these individuals become more gracile over time is not borne out by careful examination of the chronostratigraphy of the sites. They instead propose that the early sample is highly similar to contemporaneous fossils from east Africa.

LITHIC ANALYSES

Braun et al.'s paper (Ch. 4) discusses the similarities and differences between African Oldowan technologies and the earliest archaeological assemblages in the Nihewan basin. They highlight the importance of accounting for quality of local raw material when assessing the industries, as the early Nihewan industries are probably simple due to the poor quality of material available to the tool making hominids. This means that the developed Oldowan seen in contemporary African sites was simply not possible. Shipton and Petraglia's paper (Ch. 5) on Asian bifaces follows this, and demonstrates metrically that bifaces in Asia do not necessarily have to be Acheulian. This is part of a general trend in recent years to acknowledge that the regional variation in lower Paleolithic industries is greater than the simple dichotomy proposed by Hallam Movius (1948). It would, however, have been nice to see that all the collections used for the African assemblages were from well-defined localities, which would give a more refined picture with better chronometric constraints. The authors do however acknowledge that Olduvai Bed II assemblages are so much

older than other material that they do appear more as outliers, which may distort the picture slightly. More detailed work is anticipated, so we hopefully should have more fine grained data on regional variation in bifaces soon.

SITE BASED PAPERS

The paper by Norton et al. (Ch. 12) re-examines diversity of hominid behavior patterns in Central Eastern China, using evidence from well-known sites (to the reviewer at least) such as Hexian, Longgupo, and Gongwangling, and lesser known ones. They try to establish whether the paucity of Early and Middle Pleistocene sites from this area is down to an absence of hominids, or simply a lack of research, and come down in favor of the latter. Indeed, they feel that the Korean record should serve as an illustration of the potential of the region, given that today it occupies one third of the landmass of China itself. The paper by Bae (Ch. 14) serves as a good survey of the Korean evidence, with potential sites as early as 400 ka, and it is nice to have it so close in the volume, when one's mind is still fresh with the ideas proposed by Norton et al in Chapter 12. Chapter 13 by Shen et al. reviews the evidence from the well-known area of the Nihewan basin in China, and although a site review, could almost fit into the 'lithic analysis' section of this review. Finally, the first colonization of Japan is tackled in a paper by Matsufuji (Ch. 15). The evidence is treated carefully with an emphasis on absolute dating for the sites in question, and a careful summary of key sites. A site known as Kanedori IV is proposed as the earliest genuine site in Japan, with it being thought to be older than Kanedori III, which is dated through tephrochronology at 35–50 ka. The author is cautious in his pronouncements about the sites, and makes the point that much careful research will be needed to firmly establish the dates and routes for colonization of Japan.

GENERAL IMPRESSIONS

Overall, this volume was a very interesting read with plenty for people working within different subdisciplines of paleoanthropology to find interest in. The publication of this conference makes a nice addition to our growing knowledge of the Asian record. Particularly pleasing was the evidence of multinational collaborations (as seen by the authoring of the papers) which serves to bring the work being done in this region to a more global audience. There is a theme of careful research leading individuals to make tentative conclusions and propose new models according to their area of study. Overwhelmingly, the authors call for more interdisciplinary research into this area of the world during the Pleistocene, as it is an incredibly large and ecologically and geographically diverse area that has not yet realized its potential in paleoanthropology.

As with all of the books in this series, this volume is very well presented, and very clearly set out with excellent illustrations. There has been careful editing which is helpful as the majority of the authors are not from English speaking institutions, and language errors are few and far between. Although the main market for this series is libraries who will buy the whole set, it is an excellent book for people working within this area to have as a reference. However, the price (\$139) for such a slim volume is very high for what are essentially conference proceedings, and is likely to deter individuals, especially students, from buying their own copies.

REFERENCES

- Movius, H.I. 1948. The Lower Paleolithic cultures of southern and eastern Asia. *Transactions of the American Philosophical Society* 38: 329–420
- Petraglia, M.D. and Allchin, B. (eds.). 2010. *The evolution and history of human populations in South Asia* Vertebrate Paleobiology and Paleoanthropology Series. Dordrecht: Springer.