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Re-visiting the Bellan-bandi Palassa Human Remains of the Mesolithic period, Sri Lanka

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Abstract

The Mesolithic site of Bellan-bandi Palassa in Sabaragamuwa Province, Sri Lanka, was occupied around $10,000~\rm BP$ years ago. Analysis of the skeletal remains, excavated between 1953 and 1970, provides an opportunity to understand the anatomy of these Mesolithic people. Based on partial and complete mandibles, there are a minimum of fifteen individuals in the collection. The calculated mean stature, using fragmented long bones, is $140.05 \pm 4.21~\rm cm$. The cusp and groove patterns of the teeth of adult mandibles were not observable, indicating high incidence of attrition, possibly due to a high sand content in the diet. The size, weight and thickness of the mandibles, and the form and projection of the chin, indicate that the remains belonged to both sexes, while the eruption pattern of teeth and the position of the mental foramen reveal that they belonged to the sub-adults and older adults category. The well-developed enlarged supra-orbital ridges, wide face-to-head breadth ratio, large palate, and mental foramen are suggestive of dolichocephalic skull type. The presence of similar morphological traits in both the Mesolithic Balangoda people examined here and documented for the contemporary indigenous Veddas/Vaddas people of Sri Lanka does suggest close genetic affinities.

Introduction

Sri Lanka has strong evidence of prehistoric settlement by about 130,000 BP, probably by 300,000 BP and possibly even as early as 500,000 BP (Deraniyagala 1998). The records of Mesolithic prehistoric occupations, dating from prior to c. 37 ka through to c. 3-5 ka, are interpreted as representing the presence of anatomically-modern humans practicing a hunter-gatherer life-style (Deraniyagala 1992). The earliest reliably dated skeletal evidence of such humans in the South Asian region comes from Sri Lanka (Kennedy *et*

Received: 27-03-2012 Revised: 16-07-2012 Accepted: 13-08-2012 al. 1987; Kourampas et al. 2009). Excavations at the pre-Mesolithic cave ("Lena") site of Fa-Hien Lena, for example, have yielded fragmentary human osseous and dental remains that have been dated by the radiocarbon method to 37,000 years cal BP (Deraniyagala 1992), while the remains of seven adults and one child discovered at Batadomba Lena give evidence of radiocarbon date of 31,000 BP (Kennedy and Deraniyagala 1989). Other sites, such as Batathota Lena, have yielded archaeological evidence for human presence around 28-25ka (Kennedy and Deraniyagala 1989), while the caves at Beli Lena and Alu Lena have yielded skeletons dated to 31ka old (Kourampas et al. 2009) and 10.5 ka (Deraniyagala 1998), respectively (Fig. 1).