Morphometric and morphological analysis of prehistoric skeletal remains excavated from Pothana, Sigiriya, Sri Lanka

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Pothana-Sigiriya, a prehistoric Mesolithic heritage site in Sri Lanka has yielded three human skeletons dating back to 4500-5000 BC according to radiocarbon (C¹⁴) dating. The detailed morphometric and morphological analysis was performed on human skeletons excavated from Pothana, Sigiriya and presently displayed at National Museum Sri Lanka, Sigiriya Museum and at Osteology laboratory, Postgraduate Institute of Archaeology (PGIAR), University of Kelaniya. The skeleton at National Museum with less prominent superciliary arches, the medium sized mastoid process, less prominent muscle attachment sites over the cranium and wide sciatic notch of the pelvic bone was comparable with that of females. The estimated age was around 25–35 years considering the complete eruption of all 3 molars and the wearing pattern. The skeleton presently at the Sigiriya museum with prominent morphological features of highly robust, heavy, prominent muscle attachment sites, the large mastoid process, highly marked superciliary arches, prominent external occipital protuberance and narrow sciatic notch of the pelvic bone was comparable with that of males. Since all three molars were fully erupted and showed no signs of wearing on their occlusal surfaces, the estimated age was around 25–30 years. The cranium displayed at PGIAR is probably female according to observed small size of the mastoid processes. The age and stature estimation was not possible as the available teeth were mineralized and limb bones were not available. Using the measured lengths of restored long bones and applying regression formulae of Trotter & Gleser (1952) and Krogman (1962), the reconstructed height of the extinct female and male is 170 cm and 173.61 cm respectively. This estimated height is more than the mean height of the present day population (164.6 cm and 151.3 cm for males and females reported in Priyanga et al. 2010). The current study confirms reports by Kennedy (1965) that with the male being 164.70 cm and the female 164 cm, Balangoda man was taller than the mean height of the modern Sri Lankan population. This contrasts with the reconstructed mean height of males 140.05 cm of Bellan bandi pallassa skeletal remains as reported by Kanthilatha 2008.

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