

Are the Mid to Late Holocene Paleo Shell Deposits in Southern Sri Lanka Natural or Kitchen Middens?

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Abstract

Paleo Inland shell deposits located in Southern Sri Lanka identified as a results of sea level fluctuations in the Mid to Late Holocene are also considered as kitchen middens in some instances. But it will need a scientific and logical explanation to establish the origin of the shell deposits either as naturally or manmade. Hence, this study mainly focused to study the cause of the paleo inland shell deposits with a geological and a zoological approach. The sediment samples with shells were collected from selected five locations from Godawaya to Miniethiliya of the southern Sri Lanka. The present study examined the textural characterisation of sediments, stratigraphic correlations, morphological variations of the locations and the spatial distribution as well as taxonomic diversity of the shells in each deposit. As per the results extracted from geological analysis, it is found that the sediments are well sorted (well-rounded and fine) marine sands indicating coastal origin. The thickness of the shell layers shows a varying depth from 20 cm to 6 m. As per the zoological identifications, 15 species of shells of mollusc were recorded and out of them, 12 were marine species and the rest was lagoonal species. Among them, *Meretrix meretrix* and *Anadara nodifera* were recorded with high number of individuals with varying sizes indicating varying maturities. Hence the result of the present study indicates that the shell deposits are naturally originated rather than prehistoric kitchen middens where mostly matured shells must be reported. But it can be suggested that those marine environments might have been used to fulfil their day today requirements by the ancient people during the mid to late Holocene, as per the recorded archaeological evidences.

Keywords: Holocene, Coastal Sediments, Middens, Varying sizes, Varying maturities

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