

## PALEOGEOGRAPHIC RECONSTRUCTION OF THE DELTA OF RIVER MAHAWELI, SRI LANKA

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The study of the tonal variations in the aerial photographs covering the large delta of River Mahaweli indicates that there are several scars of ancient river courses and other ancient morphological units. This geomorphic study was initially undertaken on aerial photographs now available for the whole area and on a scale of 1 : 40,000. The contrasting tonal variations of the vegetation found in emerging lands of different ages can be used effectively in the delineation of lands in a chronological sequence and the evolution of the Mahaweli delta can be traced. Once a new land emerges from the sea it is subjected to all natural environmental factors including biological activity, with the progressive appearance of different types of mangroves, shrubs, some types of higher plants, etc. As the new land becomes older the type of vegetation also changes in diversity resulting in the darkening of the tone of vegetation in the aerial photograph. If the emergence and the development of the land is gradual, the tonal variation towards the sea will also be gradual. If the land, however, emerges from the sea at alternative periods of time a sharp contrast in the time will appear.

In the delta region of River Mahaweli, it is evident from the palaeo-scars that a 4-5 mile shift of the ancient river course had taken place, eg., at Kathiraveli. The patterns of tidal channels have been identified along with the strand line nearly 2 miles inland from the present shore. The ancient sand dunes, meander belts, tidal channels, spit bars, etc., have been identified and the ancient shore lines mapped.