

A STUDY OF THE ORIGIN OF VILLAGE TANKS THAT LED TO THE EMERGENCE OF CASCADE TANK SYSTEMS; AN INQUIRY FROM AN ARCHAEOLOGICAL POINT OF VIEW

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Abstract: Among the many ingenious innovations of ancient Sri Lanka, the cascade tank system stands as an exemplary feat of hydrological management. In the study of the socio-archaeological space that influenced the development of this genius irrigation system, it should not be investigated as an isolated industry, but as a process that was born and gradually evolved based on the needs of the people. This research provides an overview from an irrigation archaeological point of view about the origin of village tanks that were fundamental to the emergence of cascade or vertical networked tank systems, mainly based on field research, other archaeological data, and historical sources. The irrigation-based ancient Sri Lankan civilization considered the ‘Village Tank’ as the main development venture which was supposed to be a basic investment in the society. To understand the socio-archaeological space that influenced the development of networked village water systems, it is a prerequisite to study the settlement distribution during the proto-historic period. The oldest settlements are distributed in areas where the need of the people was fulfilled. Instead of the monotonous subsistence system that existed until then, a diverse economic system had emerged. During this period the people have developed the natural water retaining places called Pathas (Waterholes) in arid regions into small tanks by building small dams, to obtain water during the dry season. It was observed in the study that the natural Waterhole formed during the Holocene period were mostly used for the construction of small village tanks. Early Iron Age knowledge and metal tools would have been used for these constructions. Their intrinsic knowledge of topography and the pattern of water usage by the people in the proto-historic and early historic periods resulted in vertical systems, which integrated into the cascade tank systems.

Keywords: Archaeology; Irrigation; Proto-historic; Village tanks; Vertical networked tanks