The Use 3D Photogrammetric Techniques for Visualizing Shipwreck Sites in Sri Lanka

Gamini Ranasinghe
University of Sri Jayewardenepura

Photography is a very common tool which use every archaeological activities in the world. The most of archaeological works, specially excavation can't be reconstruct again once it destroy even having new high technology. Therefore, photographs are only visual evidence for the excavated site for the future. The technique of the underwater photographing was started at least from 1899 then gradually developed up to remote sensing camera. Comparatively with the world, the technique of underwater photography has been used over the last few decades. The technique widely used with opening of Maritime Archaeology Unit (MAU) at Galle under Central Cultural Fund. There were recorded numbers of shipwreck sites around the island trough thousands of photographs. However, there was not recorded about use of 3D photogrammetric technology (PT) in Sri Lanka for the shipwreck sites. As the first time, the researcher experimented 3D PT in Sri Lankan shipwreck sites in Galle harbor in 2018 with having assistance from MAU and university of Sri Jayewardenepura. There are limitation for a photograph even in the land and then very difficult in the underwater. As usual it is impossible to capture a shipwreck site in to one photograph because environmental situation. Somehow, the 3D PT is the solution to capture whole shipwreck site with details as well as chance to see whole site by 3D way. There was completed five shipwreck sites by 3D PT in the last three months and this is the first publication for the public.

Keywords: photogrammetric;photograph; 3D; shipwreck; inderwater