



## Science Diver in the Blue Economy Era - International Conference

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### **An interdisciplinary underwater research project: The case of Early Neolithic settlement of Agios Petros.**

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#### **ABSTRACT**

This paper presents the planning, the on-site operations and the results of a 3D survey conducted during a recent interdisciplinary expedition to the prehistoric settlement on Agios Petros islet, located in a gulf off the island of Kyra Panagia in the Northern Aegean. Led by Professor N. Efstratiou and the Ephorate of UW Antiquities, the expedition aimed to gain new insights into the settlement's history and evolution through three distinct scientific domains. Archaeologists surveyed the site for new data on land and underwater, while geologists evaluated the islet's geomorphology and gathered seabed cores to estimate past conditions. Surveyor engineers implemented a georeferenced underwater grid and conducted an aerial LiDAR and photogrammetric survey of the islet and the surrounding shoreline of Kyra Panagia. The logistics and safety concerns of the mission were very critical, since more than 15 persons with their respective scuba and scientific equipment involved.

The result of the expedition is a detailed 3D reconstruction of the area, including the underwater site, and a masterplan of the settlement and surrounding area. This includes georeferenced ortho-rectified images of the shoreline and islet, ground contour lines, and ortho-rectified images of the underwater area where the grid has been implemented and a future excavation might take place. These resources not only provided a valuable foundation for future expeditions to the area and offer new insights into the settlement's history and relationship to its environment, but also yielded solid experiences on how to plan, co-operate and conduct interdisciplinary scientific diving research, with safety and minimum cost.