



Fig. 92. Underwater archaeological surveying at Ayla in progress

The Royal Marine Conservation Society of Jordan (JREDS) has established the first underwater archaeological survey in Jordan, at the Islamic City of Ayla at the Gulf of Aqaba. The full name of the project is "Discover the Depth of Aqaba Marine Heritage Project." This pioneering effort will support the government of Jordan to fulfil their obligations according to the Convention on the Protection of the Underwater Cultural Heritage which was ratified by Jordan in 2001. The survey was part of USAID SCHEP, and was achieved with the assistance of two experts in underwater archaeology, Sawsan Al Fakhri from Jordan and Islam Sleim from Egypt.

Methods included a desktop survey where all available literature, images and resources were collected and analyzed. The field survey started in July 2017 with a preliminary visit where the team used snorkeling to identify the study area, in order to understand its characteristics and plan for the actual field working days. The site was divided into two zones (east and west) and the Jackstay method was applied where two divers laid two heavy jackstays parallel to each other across the bottom of the search area. The divers started at opposite ends of the movable jackstay and swam along it, each diver holding the line while searching the bottom visually or by touch on their side of the line until passing the other diver and reaching the other fixed jackstay (Fig. 92).

Results showed the presence of the port of the city of Ayla, which dates back to the Umayyad and Fatimid periods, based on the reading of pottery found during the survey. This port was

AQABA MARINE HERITAGE PROJECT

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the first Islamic maritime building in the history of Jordan. It revealed a structural system that characterizes this port in terms of diversity in raw material. In addition, an 8 m wide wave barrier extended in an arm-like form from the northwest to the southeast, running parallel to the coast for about 45 m then bending perpendicular to the beach, forming another "arm" 17 m (l) x 8 m (w) (see reconstruction, Fig. 93). This additional barrier was discovered and mapped using a hand-held GPS.

Moreover, a medium-sized limestone anchor, its dimensions around 0.60 x 0.45 x 0.30 m, was found, as well as pieces of iron of varying dimensions, covered with rust and sand deposits. Some types of iron knives and sheaths were found, along with a precision needle-like device, perhaps used for sewing sails. Iron nails of different sizes and small pieces decorated with gold, part of a costume piece, were retrieved. A gold coin from the Fatimid period, with Arabic inscriptions in three circular frames, was found above a mud layer. Bronze coins of different sizes and periods were also found in the water. Pottery fragments included samples of flasks, plates, and large pots dating from the Byzantine period to the end of the Fatimid period.

More research is needed, and conservation efforts have to be established.



Fig. 93. Virtual Reconstruction of Islamic Ayla, including the Sea Pier and Sea Gate (image courtesy of JREDS)