BYZANTIUM BENEATH THE BLACK SEA DEEPWATER INVESTIGATIONS OF TWO BYZANTINE SHIPRECKS, 2007

The August 2007 Black Sea Expedition of the Institute for Archaeological Oceanography at the University of Rhode Island (IAO) and the Institute for Exploration (IFE) investigated two Byzantine shipwrecks lying just outside the territorial waters of Ukraine and Turkey. Our goal was the environmental characterization of both sites, and the implementation of long-term site monitoring, decay rate testing, and environmental assessment. In addition to archaeological recovery and conservation, we also participated in the operation of a remotely operated vehicle (ROV) Hercules. We conclude with a preliminary assessment of our underwater archaeology, preservation, and conservation techniques and tools and technology.

The Black Sea is a twilight zone between the Mediterranean and the Easters of Europe and Asia. In contrast to the Mediterranean, however, the Black Sea has a particularly protracted period of marine oxygenation. Between 100 and 150 meters lies the suboxic zone, which has relatively low levels of oxygen and hydrogen sulfide. Below that, the anoxic zone, which is essentially devoid of oxygen. The lack of organisms that feed on organic material in these oxygen-starved depths provides a unique preservation environment for archeological material. The Black Sea is a biodiversity hotspot with unique marine life.

The 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage (CUPCH) challenges archaeologists to consider site preservation as the first option. The cost and technical challenges of deepwater investigations necessitate a particularly approach. We chose to concentrate our海底深水调查 on two Byzantine shipwrecks in the Black Sea.

Two Byzantine Shipwrecks

The 2007 field season was the sixth conducted by the Institute for Exploration (IFE) and marked the first year of data collection on the only well-preserved Byzantine shipwreck. More than 250 artifacts were recovered from a second well-preserved site, most of which were handled by IFE's remote-operated vehicle, Hercules. Between 100 and 150 meters lies the suboxic zone, which has relatively low levels of oxygen and hydrogen sulfide. Below that, the anoxic zone, which is essentially devoid of oxygen. The lack of organisms that feed on organic material in these oxygen-starved depths provides a unique preservation environment for archeological material. The Black Sea is a biodiversity hotspot with unique marine life.

Environmental Analysis

The recovery of deepwater sites helps us to understand the long-term process of shipwreck preservation in the Mediterranean and to better understand the conditions and environments that allow for the preservation of deepwater artifacts. The recovery of these sites is critical for understanding the cultural and historical context of these artifacts and for understanding the long-term preservation of deepwater artifacts.

Sampling/Participating organizations, and Acknowledgements

Sponsors, Participating organizations, and Acknowledgements

and maps are courtesy of the Institute for Exploration.