

3D Printing for Maritime Cultural Heritage: A Design for All Approach to Public Interpretation

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Abstract : This study examines issues in accessibility to maritime cultural heritage. Using the Pillar Dollar Wreck in Biscayne National Park, Florida, this study presents an approach to public outreach based on the concept of Design for All. Design for All advocates creating products that are accessible and functional for all users, including those with visual, hearing, learning, mobility, or economic impairments. As a part of this study, a small exhibit was created that uses 3D products as a way to bring maritime cultural heritage to the public. It was presented to the public at East Carolina University's Joyner Library. Additionally, this study presents a methodology for 3D printing scaled photogrammetry models of archaeological sites in full color. This methodology can be used to present a realistic depiction of underwater archaeological sites to those who are incapable of accessing them in the water. Additionally, this methodology can be used to present underwater archaeological sites that are inaccessible to the public due to conditions such as visibility, depth, or protected status. This study presents a practical use for 3D photogrammetry models, as well as an accessibility strategy to expand the outreach potential for maritime archaeology.

Keywords : Underwater Archaeology, 3D Printing, Photogrammetry, Design for All

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