Test Sites

• Baiae Marine Protected Area-Underwater Park (Roman Imperial Age), depth 1-15m. The site is open for diving visits and underwater tablets with Augmented reality are going to be used to enhance the diving experience

- Mazotos shipwreck (4th century BC), depth 44m
- Xlendi shipwreck (700BC), depth 94m
- Thalassa museum, "Kyrenia II" life size exact replica of a 400BC ship. Thalassa museum will host an exhibition with Holographic screens, which visitors will use for dry visits to the project's test sites.

Technologies

Several alternative ways for immersion into the virtual underwater environment will be used and accessed, such as Head Mound Displays, VR caves, and Holographic screens.

In addition, Augmented Reality will be implemented in underwater tablets.



Left: Villa con ingresso a protiro. A Particular of the suspensure after restoration. Right: Villa con ingresso a protiro. Laser scanner relief of the black and white mosaic floor after restoration. Copyright ISCR



Left: Aerial photo of Portus Iulius. Right: Villa con ingresso a protiro. Mosaic floor n. 14 after restoration. Copyright ISCR





Underwater visualisation of Mazotos shipwreck in immersive VR



The pre-disturbance orthophotomosaic of the wreck (© University of Cyprus, Cyprus University of Technology,



The life size exact replica of the ancient ship of Kyrenia II and the reconstruction of the old shipwreck, as seen in Thalassa museum.



Xlendi wreck images taken by the ROV Super-Achille deployed during the photogrammetric survey carried out from



Xlendi 3D model with artefacts, and detail of 3D model with some amphorae (CNRS - AMU in the framework of the GRO-PLAN project)





The AR underwater tablet developed in the VISAS project, by 3DResearch slr.



CAVE (CAVE Automatic Virtual Environment) consisted of multiple projected stereoscopic screens, that surrounded the use r.

Project's aim & scope

Project's iMARECulture scope is to raise public awareness of European identity by focusing in maritime cultural heritage, which by default bridges different civilizations. In particular, iMA-RECulture aims in bringing inherently unreachable underwater cultural heritage within digital reach of the wide public by implementing virtual visits, serious games with immersive technologies and underwater augmented reality. Scope of the project is to design, analyze, develop and validate pioneer applications and systems in the context of Virtual Museums through collaborative and innovative research from a diverse group of scientists, researchers, archaeologists, experts and museums.

The project i-MareCulture is unique, innovative and promising, contributing fully to the H2020 framework and the digital agenda for Europe, for new skills and jobs. In addition, this project abides by the EU's strategy to become a smart, sustainable and inclusive economy by implementing the knowledge triangle by connecting the Education, Research and Industry by supporting and boosting innovative enterprise to develop their technological breakthroughs into viable products in the area of Virtual Museums and Digital Heritage, with real commercial potential.

Partners



Contact info:

Coordinator, Dr. D. Skarlatos





Advanced VR, **iM**mersive serious games and **A**ugmented **RE**ality as tools to raise awareness and access to European underwater **CULTUR**al heritag**E**

www.imareculture.eu



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