

## **Archaeological Investigation from a 3-Dimensional Perspective**

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The Maltese Islands, located in the Mediterranean Sea, are home to a variety of historic and prehistoric archaeological sites. Ggantija Temple, a prehistoric site located in Xagħra, Gozo, Malta, is surrounded by a boundary wall made of coralline limestone, a durable mineral that assists with site preservation and longevity. Regardless of durability, there are still incidents where the boundary wall has suffered damage or outright collapsed sections. GIS and photogrammetry are valuable tools for archaeological investigations in general because archaeology is a destructive discipline. More specifically, structure from motion and 3-dimensional modelling are of great use when recreating a site. Utilization of Agisoft Photoscan software to create a 3-dimensional model allows investigators to revisit sites, such as Ggantija Temple. Digitally revisiting archaeological sites could prove useful for future research endeavors, or if visiting the physical site is not possible. When a model is generated, the investigator is able to re-examine the site with great detail. Using a digital model may provide more information than conventional means of site documentation, such as traditional still imagery and field notes, because the model would not have as many problems with lighting, poor angles, and the potential of poor documentation via field notes. Archaeological site documentation in the form of 3D modelling also enables investigators to release a given site to be repaired as well as allowing artifacts to be removed.

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