

Abstract

This project addresses how engineering techniques are being used with archaeological conservation methods to preserve the world's history and heritage. The method was to compare, contrast, and evaluate different methods used on different sides of the globe in person. The topic both impacts and affects everyone, and the responsible conservation of this history is something that should be prioritized. The project is interdisciplinary. History impacts how we live our lives each day, determining how we live and see the world and how the world both sees and affects us. Current engineering and archeological conservation methods help preserve our understanding of the past. The particular focus was a comparative analysis of conservation methods at the Alamo, Herculaneum and Pompeii, as well as Venice.

Areas of Focus

- The history of each site conservationally and historically
- On going conservation efforts at each site
- Current and past issues harming each site

Know Definitions, Look Smart

- **Architectural Conservation-** the process by which individuals or groups attempt to protect and preserve valued buildings through carefully formulated and planned interventions
- **Conservation-** the act of working directly with an object to preserve its current condition through invasive or noninvasive methods.
- **Preservation-** the act of minimizing the deterioration and preventing further damage of an object or place
- **Preventative conservation-** is the mitigation of deterioration and damage to cultural property through policies and procedures

Site 1- The San Antonio Missions

Currently two conservation projects are underway at the San Antonio Missions and the Alamo. The Black Paper Project is underway at the Alamo, starting in 2016 and continuing for the next few years. This project aims to quantitate the deterioration of the Alamo and its limestone walls. While at the Missions a method of preventive conservation is underway.



Site 3- Venice, Italy

In Venice the main conservation project aims to protect the whole city. This project known as MOSE aims to protect the city of Venice from the destruction caused by increasingly high tides that plague the city each winter and sometimes throughout the year.



Site 2- Herculaneum and Pompeii

Spending almost two thousand years buried underground with a lack of air and moisture, the two cities suffered little to no deterioration. Once excavations began, both cities were and are being subjected to both natural and man-made forces causing the rapid deterioration of structures and artifacts. Forces such as weathering, erosion, vandalism, water damage, theft, poor excavation and preservation methods, as well as plants and animals have caused irreparable damage to each site. Due to these issues the majority of resources allocated go towards the continued preservation of each site instead of continuing excavation efforts. Therefore more than 4/5ths of Herculaneum and 1/3rd Pompeii remain buried.



Conclusions / Future Opportunities

In conclusion each of these sites still require constant care and supervision. Cultural heritage sites around the world are faced with both realized dangers and potential dangers such as the deterioration of the structure, erosion, and damage of ornamental features. Due to invasive preservation methods, some sites have lost their historical authenticity as well as cultural significance.