

Restoring the fascinating city of Pompeii

'Works when you do' success story

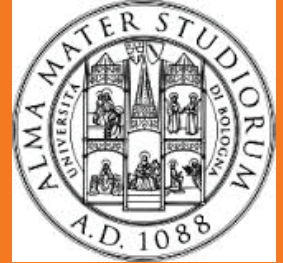


Pompeii, a truly fascinating archaeological site. History was instantly captured in grim detail on the end of a thriving Roman city over 2000 years ago. The city has lain undisturbed, sealed off from air or moisture the entire time until being discovered 1500 year later in 1599, and again, more intensely in 1748. Since then, its popularity has grown as its excavations and their surrounding stories increase.

Needless to say, the poor methods of the first excavations at Pompeii in the mid 1800's and the resulting exposure to the elements over the last 250 years, as well as its enormous popularity as a tourist attraction, have caused severe

damage to the building structures of Pompeii. In 2013, UNESCO declared if restoration and preservation fail to deliver substantial progress in the next years, Pompeii could be placed on the World Heritage Endangered List.

The University of Bologna's Department of History, Culture and Civilization (DisCi) is very active in the effort to recover Pompeii and have been given the task of creating an overall mapping of the city for the Great Project of Pompeii - Plan of Knowledge. This is a plan developed by the Italian Ministry of Heritage and Culture and Tourism and supported by European Union funding, who special goal is the preservation,



ORGANISATION

Bologna University
Department of History,
Culture and Civilization

CHALLENGE

To restore the ancient city of Pompeii, Italy, a historical UNESCO World Heritage Site

OBJECTIVE

To identify areas for maintenance, protection and restoration.

KEY TASKS

A comprehensive map of the city, layout of the site and aiding in the creation of a 3D model

LOCATION

Pompeii, Italy

GEOMAX PRODUCT

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maintenance and restoration of Pompeii. The Archaeological Section of DisCi won the right to carry out its work on Lot 3, which can be found in the northern zone of the Pompeii complex and boasts such interesting monuments as the House of the Silver Wedding, the Central Baths and the famous House of the Gladiators.

An overall map of the city, which has been divided into six lots, will be carried out using a GeoMax Zoom35 total station to detect the current condition of all structures. A floor plan will be created from the entire city on a scale of 1:50. Also, an analysis of each individual structure will be made in order to support the create of 3D models of all structural elevations, thereby registering, point for point, the exact state of degradation from each.

This data not only provides a map of the complex's main buildings, the information is also transferred to a

central computer base aimed at helping with future maintenance of the city. This project began with data collection in March, 2015. Operators from DisCi were organised into teams of specialists that worked daily in-the-field collecting various data, according to schedule. A GeoMax Zoom35 Pro total station was used during the topographic surveying because of its long range measurement, which enables wider operational capability and delivers the required results in accuracy and performance. The GeoMax Zoom35 Pro offers users time savings during setup switches and can also meet the demands of such a large project.

The data collected using the GeoMax Zoom35 Pro will certainly play its part in maintaining and restoring the fascinating city of Pompeii. It is not only useful today but will also have an impact on the future archival knowledge for many years to come.