

## Digital Bomarzo Underground

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**Instrument**

Collaborative research project

**Description**

The aim of our proposed Monash-Padua joint research initiative, titled 'Digital Bomarzo Underground,' is to survey the subterranean water infrastructure of the Sacro Bosco (Sacred Wood) in Bomarzo, Lazio, with advanced digital scanning techniques for the first time. Laid out between 1552 and 1585 by Pierfrancesco 'Vicino' Orsini, the Sacro Bosco is one of the most unusual designed landscapes of the Renaissance. 'Digital Bomarzo Underground' is part of a larger already-established collaborative project between Monash University, the University of Padua, Clark University (USA), and the University of Brescia, titled 'Digital Bomarzo,' which aims to rectify this problem. 'Digital Bomarzo' employs LiDAR laser scanning, photogrammetry, and drones to create the first measured survey and digital 3-D model of the landscape and monuments of the Sacro Bosco. Its aim is to provide vital information about the topography, planting and ornamentation of the site. This application to the Monash-Padua joint initiative scheme is for funding to significantly expand and deepen our current research into the Sacro Bosco through an innovative exploration of the subsoil of the site using ground-penetrating radar.

**Expected  
results**

The Sacro Bosco is one of the most discussed and debated Italian Renaissance gardens in landscape history. Yet, there is no consensus on the meaning of the wood and interpretations have varied dramatically from 'alchemical,' hermetic and Epicurean readings of the site to studies focussed on Orsini's biography that emphasise his unproven interest in Aztec art and the unlikely hypothesis that it amounts to anti-papal propaganda, among numerous other possibilities. This wide range of contradictory interpretations is in large part the result of the lack of fundamental information about the Sacro Bosco, which this project will provide. We will develop and publish the first measured survey of the site, an accurate census of the statuary and monuments, and the first analysis of the waterworks and infrastructure that were once a major feature of the Sacro Bosco. This will provide a firm factual basis for further research. Our use of LiDAR, photogrammetry and ground penetrating radar also pioneers new techniques and methods in landscape history that will be readily applicable to other sites.