# Changing Interpretations: Impact of new research and technology

Pompeii and Herculaneum

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# **Pompeian Forum Project**

#### Reason for establishment (1988)

• A commonality of inaccurate and incomplete architectural plans, deteriorating artefacts and plans

#### Project's main objectives

• Produce more accurate plans and elevations of the surviving remains and transfer this via computer models to a database

#### New technologies implemented:

- Large-format black and white photographs of archival quality
- Computer models and mapping
- Electronic surveying devices that interfaces with AutoCad

### A key figure - John Dobbins

• Found evidence for the theory of "urban renewal" following the earthquake

#### Change in interpretations

- Disproved the idea that the site was a former builders yard after the earthquake and instead proved theory of urban renewal
- Disproved the pre-existing theory as proposed by ancient historian Maiuri

# **Herculaneum Conservation Project**

### Reason for establishment

• In 2000, Packard Humanities Institute made a long term commitment to Herculaneum, providing \$10million for 10 years to excavate and preserve Herculaneum (halt serious decay and sustain site)

## **Project's main tasks**

• Replacing roofing, safeguarding walls, restoring 20th Century reinforced concrete lintels, consolidating paintings and bubbling mosaics, identifying suitable methodologies to conserve site

# Technology Implemented

• Scientists tested non-invasive techniques including a weather station to monitor environmental conditions

# Change in interpretations

- The restoration of ancient drainage systems revealed carbonised roofs and and extra story of the 'House of Telephus'
- The ancient network of sewers also revealed organic kitchen waste which revealed human waste, food scraps and discarded objects

# New technologies

## **Lady of Oplontis**

- A cast for the Lady of Oplontis was constructed and made from epoxy resin (instead of plaster) and allowed bones and jewellery to be viewed
- In 1994, the body had an MRI scan which were studied by Estelle Lazer and medical specialists revealing information about her; height, health and associated artefacts (money purse and jewellery)
- Changed perception of women and their roles/wealth and presentation within society

## **Philodemus Project**

- The carbonised papyrus scrolls found in 'Villa dei Papyri' at Herculaneum contain the work of an ancient philosopher, Philodemus. Since the scrolls are charred, they are extremely difficult to decipher
- However, through using a multi-spectral imaging machine, the writing is able to be deciphered

## The use of CAD and 3-dimensional imaging and model making

- The use of CAD and 3-dimensional imaging diagrams allows models to be made to better understand archaeological sites and buildings
- Some of the models made include; 'House of the Beautiful Impluvium' and 'House of the Orchard'

# Practice HSC Questions

1. Explain the contribution that new research and technologies have made to reconstructing the past in Pompeii and Herculaneum, with reference to additional sources and your own knowledge - 10 marks

1. With reference to additional sources and your own knowledge, explain how new research and technologies since the 1980s, have changed previous interpretations of human remains within Pompeii and Herculaneum - 10 marks

1. To what extent has research since the end of the 1960s changed our understanding of the evidence from the sites of Pompeii and Herculaneum? Make reference to additional sources and your own knowledge - 10 marks

1. With reference to additional sources and your own knowledge, explain how new research methods and technologies have contributed to our understanding of everyday life in Pompeii and Herculaneum - 10 marks