ANCIENT HISTORY: *POMPEII/HERCULANEUM*

Pompeii and Herculaneum

New research and technologies dramatically alter and extend the understanding of Pompeii and Herculaneum. These modern discoveries either provide new information or challenge previous theories and assumptions. Equipped with new technology, archaeologists and historians approach these two sites with fresh perspectives. Research conducted by respected specialists such as Estelle Lazer help form today's interpretations of human remains at Pompeii. Wilhelmina Jashemski's pioneering research regarding plant remains influences our limited knowledge regarding plants, agriculture and possible links with diet, trade and the economy of Pompeii and Herculaneum. Yet, these contributions only reveal a small fragment of these two towns and there is still more to be uncovered.

New technology is utilised to decipher papyri scrolls located in the Villa of the Papyri in Herculaneum and this significantly enhances the knowledge of ancient texts. Since the study of papyri started in the 1980's, applied technology and research techniques have evolved. Those who work at the Villa of Papyri attempt to open the carbonised scrolls by coating the outer layer with a gelatine and acetic acid solution. Dr. Steven Booras is the current Papyri Project Manager and he uses NASA technology to decipher ancient texts. The multi-spectral camera photographs and digitalises the text and then utilises different wavelengths to determine when the ink is visible since the burnt papyrus has a different reflective wavelength to the ink. Almost all of the scrolls deciphered so far are written in Greek and some of these scrolls contain writings of Greek philosopher Philodemos. This means that the owner of this library was possibly interested in Greek philosophical writings and was learned. It also indicates the possible influence of the Greeks at that time. Without the aid of new research techniques and technology, knowledge of Villa of the Papyri and its scrolls would be very limited.

Studies conducted at Pompeii by Estelle Lazer and at Herculaneum by Sara Bisel supplements existing knowledge of human remains as well as challenge previous research. At Pompeii, Lazer utilised techniques of forensic medicine and anthropology to determine sex, age at death, height, signs of disease as well as physical similarities and differences between the victims of Mt. Vesuvius. This additional study of skeletal remains at Pompeii attracted much needed attention since it clarifies information regarding residents of Pompeii. Lazer's examinations of the 'looter's skeletons' at the House of Menander revealed that they have been incorrectly reconstructed. However, this was proven to be unintentionally executed because of the recognised lack of training and competence of those who originally excavated the site.

Wilhelmina Jashemski's work on agricultural production at Pompeii and Herculaneum and ornamental gardens at Pompeii was successfully since she identified species of plants and vineyards. She effectively combined the study of artistic representations and literary references and adopted Giuseppe Fiorelli's plaster cast method. Through scientific analysis of environmental data, Jashemski was able to demonstrate what crops, fruits and plants were grown at Pompeii. Her research offers a considerable amount of new information which benefits any individual interested in Pompeii and Herculaneum. Jashemski made plaster casts of the roots of plants in the same way that casts were made of the bodies of people who died during the 79 A.D. disaster. Once the casts were made, she then identified individual plants by the shape of their roots and establishing possible links to plant roots of today. Wilhelmina Jashemski's research on plants at these two historical towns has contributed much needed knowledge and interpretation since not much is known about this aspect of Pompeii and Herculaneum.

The growing sophistication and proficiency of modern technology has allowed archaeologists and historians to uncover information which is relevant to the study of Pompeii and Herculaneum. The professionalism of those who are involved matches the equipment which aids them.

Thus, the confluence of skilled professionals and academics and developing technology has radically extended our knowledge of these two historical sites. However, the recovered information only represents a minor aspect of life of those who lived at Pompeii and Herculaneum during the time of the eruption.