

## **Multispectral imaging to unveil the drawings and colours of a burnt Minoan wall painting showing a “Female figure in sanctuary/shrine”**

Kostas Hatzigiannakis<sup>1\*</sup>, Kristalia Melessanaki<sup>1</sup>, Athanasia Papanikolaou<sup>1</sup>, Michalis Andrianakis<sup>1</sup>, Eleni Papadaki<sup>2</sup>, Efthimia Tsitsa<sup>2</sup>, Stella Mandalaki<sup>2</sup>

<sup>1</sup>*Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas (IESL-FORTH), P.O. Box 1385, 711 10 Heraklion, Greece*

<sup>2</sup>*Archaeological Museum of Heraklion, Xanthoudidou 2 & Hatzidaki Str, 71202, Heraklion, Greece*

\*[Kostas@iesl.forth.gr](mailto:Kostas@iesl.forth.gr)

The “Female figure in sanctuary/shrine” is a unique Minoan wall painting which was revealed during excavations at the site of Haghia Triada, Crete, in the early 1900’s. The wall painting depicts the lower part of a barefoot female (from the waist and down) and in particular her skirt bearing an exquisite decorative pattern. On the wall painting’s background a shrine is illustrated and parts of flower decoration can be barely observed.

The site of Haghia Triada, possibly a royal villa, dated in the Middle Minoan (2200–1500 BC, by Evans) period was destroyed by an extended fire at the end of the Late Minoan IB (1500–1450 BC) period. Due to this incident the majority of the wall painting has been burned and the painted layers of the wall painting have been severely damaged.

The wall painting has been examined using non-destructive imaging techniques in order to determine the extent of damage and investigate the presence of draft-drawings and/or inscribed designs underneath the painting surface. Multispectral Imaging and post-processing of the recorded data using advanced software protocols have allowed the enhancement of drawings and motives hidden beneath the burnt layer, the identification of pigments and thus enabled archeologists, conservators and researchers to get further and important information on the historic era of this unique Minoan masterpiece.

---