The techniques of creation of the colorful wall-paintings have long been a central issue in studies of Minoan art. Artists created masterpieces from lime plaster and a limited range of pigments. These unique artworks can be classified in three main categories: Flat wall-paintings, Relief and moveable three dimensional works of art.

The main subject of the paper is the study and the identification of pigments. The fragments that were examined are relief wall-paintings from Knossos. While such studies from the past have contributed to our understanding of the pigments and the methods of painting, some details remain elusive.

Analytic techniques were used in order to examine the fragments. The use of microscope is crucial in order to understand the technical details of their creation. During the examination photographs were taken with a portable microscope that helped to decide the exact point in which the analysis would take place.

Raman spectroscopy was the chosen analytical technique that was applied on the fragments from the Archaeological museum of Heraklion. Raman is a non destructive technique that can identify the chemical type of the pigment. After the measurements were taken the second phase was the study and the interpretation of the spectrums.

New evidence came to light revealing the complex way that Minoans used the pigments that had at their disposal. In one color more than two pigments were identified some of them never traced before in Minoan art.