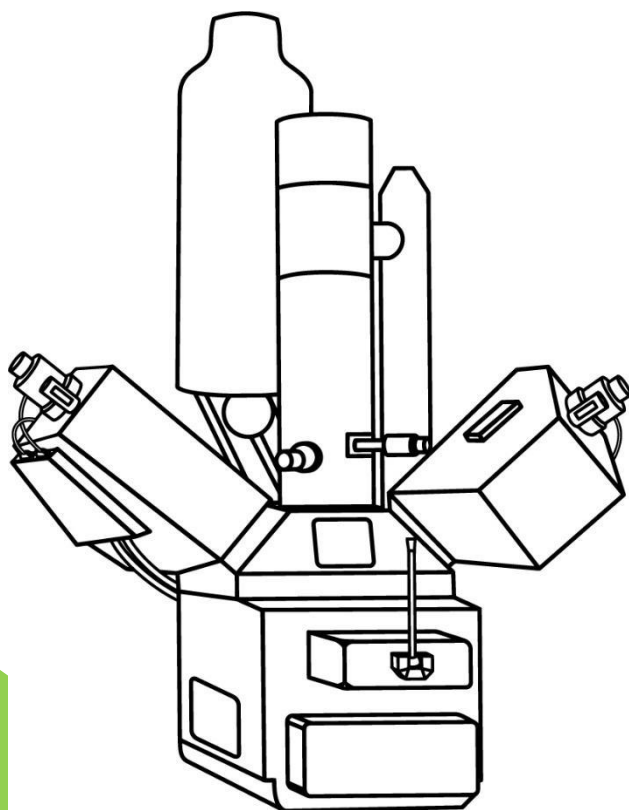


# Elemental Analysis Results (EDS)



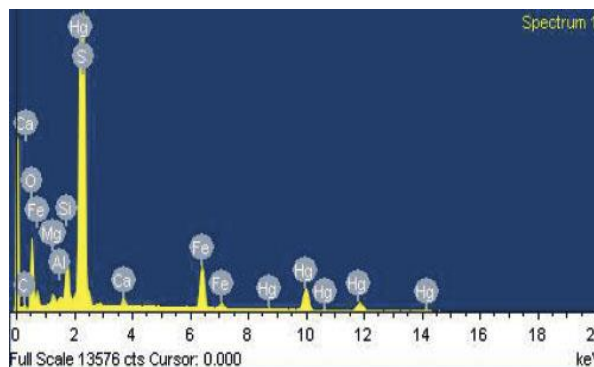
**Panagia (Virgin Mary)  
Hodegetria**

The SciArt Project  
2024

## Results Report

### Point of Interest 1: Red painting layer, from the elbow of Virgin Mary




This is the EDS spectrum from the elemental analysis that was performed to the cross section of Spot 1.



|              |     |
|--------------|-----|
| Mercury (Hg) | 31% |
| Sulfur (S)   | 33% |

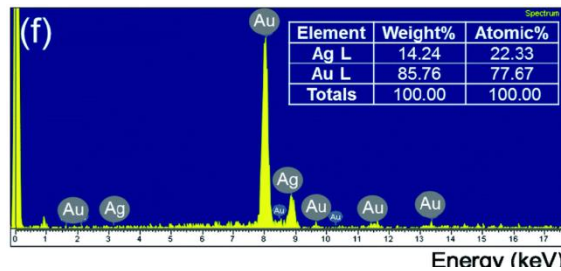
We observe that the red paint layer consists mainly of mercury (Hg) and sulfur (S). However, other elements also appear in smaller concentrations, among which iron (Fe) shows the highest, with 5%.

Based on these results, possible candidates for the red color of the layer are cinnabar (HgS), corderoite (Hg<sub>3</sub>S<sub>2</sub>Cl<sub>2</sub>), and hematite (Fe<sub>2</sub>O<sub>3</sub>).

| Name       | Chemical type                                  | Image   |
|------------|--|---|
| Cinnabar   | HgS  |  |
| Corderoite | Hg <sub>3</sub> S <sub>2</sub> Cl <sub>2</sub> |  |
| Hematite   | Fe <sub>2</sub> O <sub>3</sub>                 |  |

### Point of Interest 2: Golden campus of the icon

This is the elemental analysis conducted on the gold layer of the cross-section of the sample collected from Point of Interest 2. It is a gold-silver alloy, consisting of 80% gold and 20% silver.



|               |            |
|---------------|------------|
| <b>Gold</b>   | <b>80%</b> |
| <b>Silver</b> | <b>20%</b> |

### Point of Interest 3: Textile sample from the left edge of the icon

This is the EDS spectrum of the fiber collected from Area of Interest 3. The elemental analysis shows that it consists of carbon and oxygen. These elements are characteristic of organic materials, such as plant-based fibers.

