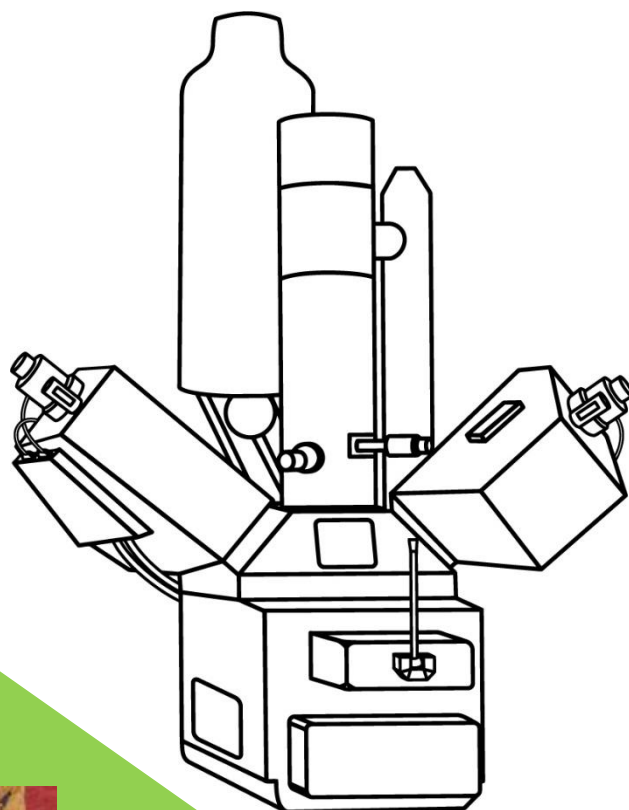


Elemental Analysis (EDS) Results



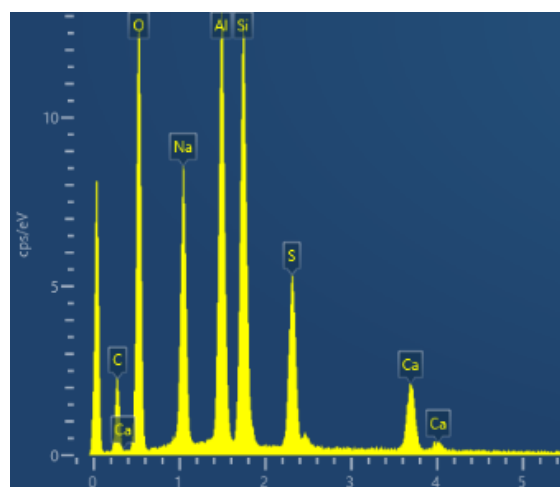
The bird of Mesarka

The SciArt Project
2024

Results Report

Point of Interest 1: Blue painting layer

This is the EDS spectrum of the analysis performed on the blue painting layer of Point of Interest 1.



We observe that it consists mainly of oxygen, silicon and aluminum.

Aluminum (Al)	5%
Silicon (Si)	15%
Oxygen (O)	60%

Based on these elements, possible pigments used for the blue painting layer are smalt, and natural or artificial ultramarine.

Name	Chemical Formula	Image
Smalt	$\text{SiO}_2 + \text{K}_2\text{O} + \text{Al}_2\text{O}_3$	
Synthetic Ultramarine	$3\text{Na}_2\text{O} \cdot 3\text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2 \cdot 2\text{Na}_2\text{S}$	
Natural Ultramarine or Lapis Lazuli	$(\text{Na}, \text{Ca})_8(\text{AlSiO}_4)_2(\text{S}, \text{SO}_4, \text{Cl})_{1-2}$	

Point of Interest 2: Potato sac

This is the EDS spectrum of the fiber collected from Point of Interest 2. The elemental analysis shows that it is composed of carbon and oxygen. These elements are characteristic of organic materials, such as the fibers of plant origin.

