Fayum portraits: a comparative study from the Egyptian Collection of the National Archaeological Museum of Athens and the British Museum

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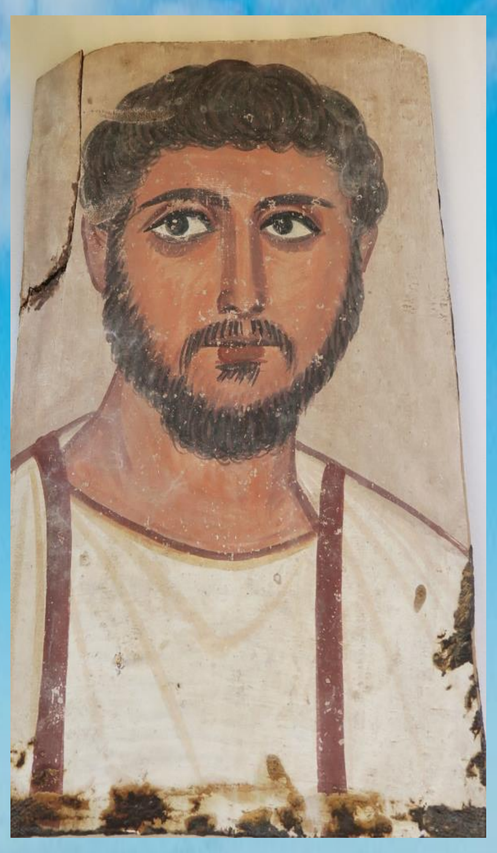
Buried beneath tons of Egyptian dust, Fayum portraits provide testimony for the residents of the tombs, as well as the artists who painted these objects. Chronologically, placed between two eras, the late Classical and the early Byzantine times, they reflect the artistic blend of different traditional cultures, the Greek- Roman and the Egyptian. Although their artistic value was initially questioned due to the inability to study 67 and analyze them from a single perspective, however today their value is non-negotiable. The Egyptian collection of the National Archaeological Museum of Athens accommodates Egyptian collection treasures of five specimens of so-called Fayum portraits, till today unknown to the public. It consists of the burial portraits of two female figures and three men (the one of a child), all created with the caustic technique and some by tempera. In our research, the use of modern spectroscopic methods facilitated the identification of ancient pigments from Fayum portraits exhibited in the Egyptian museum collection. Our study confirmed and highlighted the pigments (coloring matter) which further identified resemblance with other patterns of the time. Widespread pigments (gypsum, calcite, carbon) that were introduced during the Greek-Roman period (lead white, lead red) were confirmed leading to the conclusion that local laboratories were operating, mixing materials to produce specific colors (like green or purple). The origin of Pigments may have come from local resources of Fayum city –rich in materials like gypsum. Similar studies like that took place in the British Museums' portraits have revealed the same manufacturing laboratories thus acknowledging the existence of the same pigments.



(National Archaeological Museum 1627: Funeral portrait of a young man, Dating 138-161 AD) (Source: Photo National Archaeological Museum)

(National Archaeological Museum 628: Funeral portrait of a female figure. Dated 138-161 AD) (Source: Photo National Archaeological Museum)

NuScope Inspector Raman combination with optional XYZ accessory

For the present study and analysis of ancient dyes in Fayoum portraits, the RockHound 785 DeltaNu portable spectrometer was used with an attached microscope, a resolution of 10cm-1 and a very low signal-to-noise ratio. Due to the use of a 785 nm laser source

For the quantitative analysis of the dyes used in Fayoum portraits, the portable XRF 5i Bruker was used, which provides the possibility for high elemental resolution.

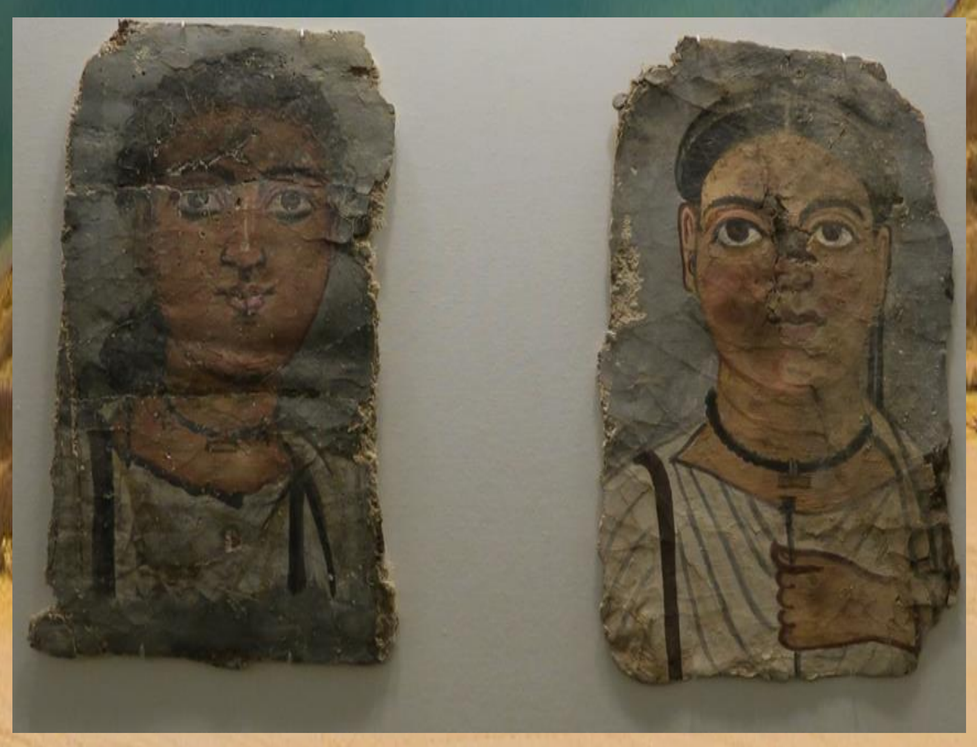
Color	This study 's results	British Museum 2008 [1]	H. Afifi 2011 M.A.A. [2]	S. Abdelaal et al 2014 J.C.S. [3]
Black	Carbon black	Carbon	Carbon black	Carbon black
White	Lead white and gypsum	Lead white and gypsum	-	-
Pink	Red lead	Madder and eg. Blue	Red lead	-
Dark Red	Red ochre	ochre	-	-
Yellow	Goethite	-	goethite	-
Blue	Egyptian blue	Egyptian blue	Egyptian blue	Egyptian blue
Green	Egyptian blue & orpiment	-	-	Eg. Blue and orpiment (Egyptian green)

Lead white

Red Ochre

Egyptian Green
Orpiment &
Egyptian Blue

Egyptian Blue



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