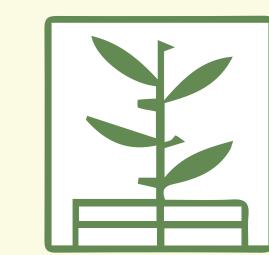


# THE PAINTING MATERIALS AND TECHNIQUES OF ARTIST FEYHAMAN DURAN



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### **INTRODUCTION**

Feyhaman Duran lived in Istanbul between 1886-1975. He graduated from Mekteb-i Sultani, which is known today as Galatasaray High School, in 1908. It is clear from the charcoal portraits of his friends he painted and the caricatures he drew during those years that he was fond of art. Talented in calligraphy as well as art, Duran became a calligraphy teacher at Galatasaray High School, from which he had graduated. He was among the founding members of the Ottoman artists community established in 1908. Later in 1912, he helped with the reorganization and coordination of the Turkish Artists Association, and in 1926, the Fine Arts Association. Prince Abbas Halim Pasha, whom he met by coincidence in 1910, helped him go to Paris, compensating the artist's educational expenses. Feyhaman Duran studied art at the then famous schools Academia Julian and Ecole Des Beaux Arts, and continued his studies in the Cormon workshops of Jean Paul Laurens, who was among the famous artists of that period. As World War I began, Duran returned to Istanbul. Following his return, he started working as a teacher at Sanayi Nefisiye School. He was among the artists who characterized the 1914 Generation.

Feyhaman Duran is one of the first names which come to mind when the subject of contemporary Turkish art is raised. As an artist of many styles, Duran was influenced by impressionism. He is especially well known as one of the pioneering artists of Turkish portrait art. In portrait painting, which does not always comply with the rules of impressionism, the artist might be said to have somewhat benefited from impressionism using light and shadow forming and free brush strokes. While the dominance of warm colours can be felt in his paintings, the colours and light are in harmony.

#### **MATERIALS AND METHODS**

Paintings were examined using SEM-EDX and HPLC respectively, and pigment and binding analyses were made. The aim was to carry out studies in order to form a database related to Feyhaman Duran.

# 1. ANALYSES

### **1.1.SEM**

The Scanning Electron Microscope (SEM) used was a Carl Zeiss branded, Evols 10 model. Energy Dispersive X-Ray Spectrophotometry (EDX), another device used as well as SEM, a Bruker branded Quantax 200 model. It was used along with helium gas. Besides the microscopic analysis done with SEM, a chemical analysis with EDX was made and the system works as a combined instrumental analysis method. The samples and standards were measured using the powder technique.

In order to carry out the element analysis of the sample, SEM can be combined with EDX (Darchuk, vd., 2010;1399). In this way, it can be used to define the inorganic pigments in oil paintings. In addition, the surface texture in the SEM sample, (Zeng, vd. :2010;331), fine cracks, (Townsend, v.d., 2006;57), and deterioration on the surface (Burnstock,1997: 48) provides us with information related to varnishes and the pores on the surface (White, v.d., 1998;170). Further, very small samples can be examined with SEM-EDX combination.

## 1.2. HPLC

A High Performance-Pressure Liquid Chromatography (HPLC) device was Thermo Finnigan Surveyor model, and the DDA Plus detector was used. Organic compounds found in the materials (particulary paint, primer, binder, plaster, binder, mortar, fixer etc.) could be analysed both qualitatively and quantitatively. Thus, the simple and complex organic compounds in the materials are carefully analysed in terms of type and amount and significant data is obtained.

In this chromatographic method, liquid or solved materials injected into the fixed phase are dragged by the solvent sent by the pressure and disintegrate (Rouessac, 2007; 63). The materials found at the permanent gas control are generally detected in terms of quality and quantity by UV-VIS spectrophotometry.

With HPLC, usually the varnishes used in oil paintings, bindings, and especially drying oils and wearing due to aging can be defined.

## **RESULTS AND DISCUSSION**

In these examinations, it was detected that white chalk, titanium white, zinc white, and litopone were used the white color; cadminium, orpiment and zinc yellow were used for yellow; ferrous oxide and vermillion red were used for red; ultra marine was used for blue; ivory black was used for black; and finally, chromium oxide, malachite, earth green was used for green. Gum arabic, gum tracanth, linoleic acid, linseed oil, and glue bead were detected as binding materials. No signs of drafting/sketching were encountered in the paintings examined. Another determination is that the artist mixed 66% titanium white with 33% Litopon and prepared white paint, and then used this mixture either to lighten other colours or paint white areas. This reflects a characteristic of the artist. Although this characteristic of Feyhaman Duran does not give a result alone, it can be a feature that one should investigate in the artist's painting about forgery.

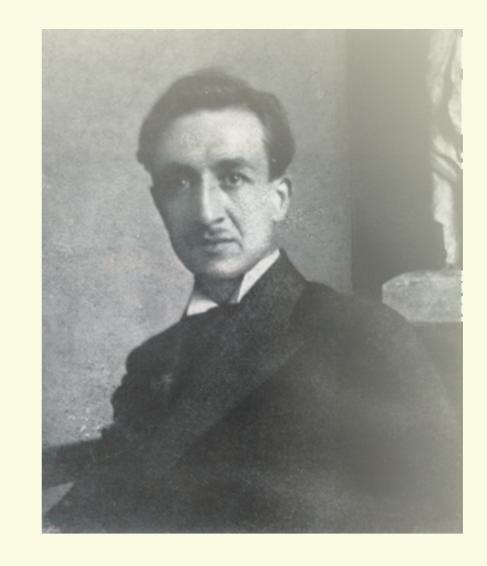


Figure 1: Artist Feyhaman Duran









Figure 2: Feyhaman Duran's House



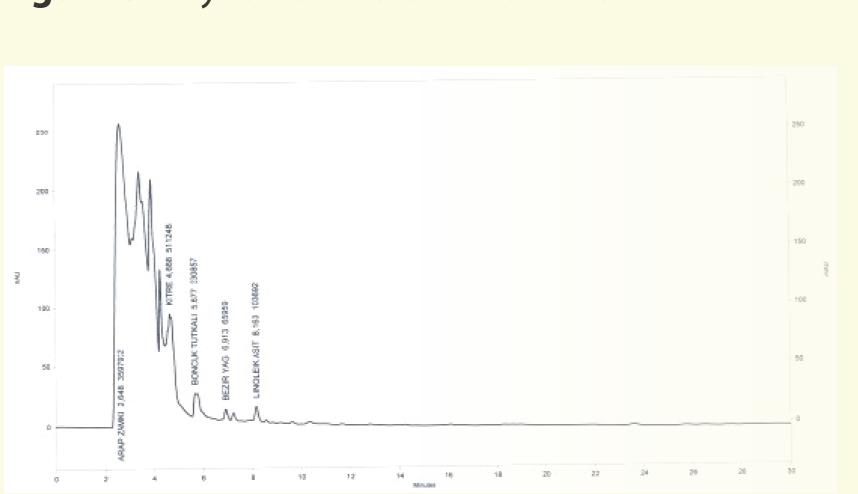
(a) (b) **Figure 3:** 2 a) Feyhaman Duran's painting of Mehmed II b) Gentile Bellini's painting of Mehmed II



Figure 4: " THE PASHA" Feyhaman Duran's painting



Figure 5: Feyhaman Duran's Paint Pallete



**Graphic 1:** EDX spectrum of the sample

**Graphic 2:** HPLC spectrums of the samples No (1), (2), (3), (4), (5) The binding materials of the paint samples 1F, 2F, 3F, 4F1, and 4F2 were detected to be gum arabic, gum tracanth, traces of linoleic acid and gum bead.

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