

Sadra Zekrgoo

Tradition and Science of Persian Ink Making

Ingredients and Recipes

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Chapter 1

Script, Calligraphy, and Poetry



1.1 Introduction

The advent of ink has had a profound impact on language, culture, religion, and civilization. Ink with a delivery mechanism, such as quill or pen made possible for speech to be transferred onto supports such as paper, parchment, or papyrus. Carbon ink and iron-gall ink have been extensively researched as historically prevalent writing inks (Phillip 1596, p. 79; Mitchell and Hepworth 1904; Carvalho 1904; Neevel 1995; Thompson and Lindblad 1996; Krekel 1999; Swider et al. 2003; Hahn et al. 2008; Colbourne 2000; da Costa et al. 2013).

However, there are exceptions where the primary writing matter used in certain regions or periods were different than the aforementioned inks such as the formulations used by ancient Persian master calligraphers, where the preferred black writing matter was a carbon-tannate based ink prepared by mixing the two above-stated inks in an appropriate ratio or measurements, and the addition of other secondary ingredients to change the characteristic of the ink based on the calligrapher's preference. These secondary ingredients can affect shade, glossiness, viscosity, fluidity, strength, and longevity of the writing matter.

Despite the considerable research on carbon ink and iron-gall ink, the knowledge of Persian inks is limited, and available information is predominantly in the Persian language (Farsi), thus restricting its international dissemination. Lack of such information, confines the preservation and conservation treatment of manuscripts, works of art on paper, and cultural material where such inks were used on. Understanding the constituents, physical and chemical structures of these inks, as well as the tools and materials employed in their construction, can provide valuable insights to conservators regarding their potential impact on manuscripts' longevity, preservation, storage, and treatment options.

Moreover, investigating the ingredients of Persian inks, whether plant based, animal based, or mineral based, can shed light on the natural resources available in

Persia at a particular time period, the prevalence of trade within the region, sourcing of materials from other nations, and the regions known for their high-quality materials (such as Indian indigo, Aleppo gallnuts, Cyprus vitriol).

Paper-based objects, such as books, manuscripts, and watercolours, are susceptible to various forms of damage, including physical, chemical, and biological. The ability to identify different inks without intrusive methods can significantly benefit conservators, curators, librarians, historians, and the public with an interest in accessing such artifacts.

This book consolidates over a decade of research on traditional manuscript inks used in Persia and covers the following key aspects:

- Discovering primary sources related to the preparation of Persian inks.
- Translating and categorising ink recipes from classic Persian to modern English.
- Identifying and procuring ingredients required to reconstruct the inks.
- Reconstructing inks using recipes as guidelines.

The process of reconstructing inks helps researchers determine the availability and use of historical ink-making materials and tools. It also provides valuable insights into the intentions of the original ink-makers. Practical experience in ink construction reveals crucial details and gaps in knowledge that might not be evident merely from reading the written recipes.

To facilitate these investigations, the book introduces the history of Arabic script, Islamic calligraphy, and their transformations within the Persian empire and beyond.

There will be a complementary book in the future where a guide to the use of non-destructive and non-invasive analytical techniques to identify and differentiate traditional and reconstructed inks will be covered.

1.2 Islamic Calligraphy and Persia

Before delving into detailed ink investigations, it is essential to grasp the significance of scripture and calligraphy, both aesthetically and sentimentally. Throughout history, religion and art have been means of communication to future generations among living religions worldwide.

1.2.1 Script, Religion and Beauty

Divine words scripted in various languages have symbolized the respective religions in which they were used (Shahi 2015, p. 9). Considerable effort has been put into making script beautiful and elegant, since text is the visual representation

of the words of the Supreme Being. As illustrated by this famous Hadith by Muhammad, the prophet of Islam: “God is beautiful, and he loves beauty” (Muslim 2018).

(Shahi 2015) explains that art is creation and artists would consciously or subconsciously have a spiritual connection with The Creator, and the utmost form of creative construction throughout history has been religious. Script and religion have always been closely connected with each other. Within Islam, there is the following verse in the Quran: ‘Read (Proclaim!) In the Name of your Lord who created. Created man, out of a clot (of congealed blood). Read (Proclaim), and your Lord is the Most Generous, who taught by the Pen. Taught man that which he knew not’ (*Qur’an*).

The term “Islamic art” indeed carries a dual connotation, contributing to occasional confusion. The term encompasses both sacred and non-sacred forms of artistic expression (Zekrgoo 2007).

- Sacred Islamic Art: This category refers to art that emerges as a result of expressions of devotion, reverence, and love for the divine, specifically towards God. It includes works inspired by religious themes, such as calligraphy, mosque architecture, Quranic manuscript illumination, and other forms of art created to honor and express the sublime nature of the divine.
- Non-sacred Islamic Art: On the other hand, non-sacred Islamic art may have originated from a sacred source but does not necessarily maintain a sacred or religious status. These artworks might have had religious themes at their inception but have evolved over time to encompass a broader range of subjects, including daily life, nature, or abstract forms.

The term “Islamic art” is thus inclusive of both sacred and non-sacred forms, highlighting the diverse and rich artistic traditions that have developed within the Islamic world. This distinction is crucial for understanding the breadth and depth of artistic expression within Islamic cultures and civilizations.

For example, A verse from the Holy Quran is inherently sacred due to its religious and holy nature. The reverence for the Quranic verses goes beyond the script itself, encompassing the divine content and significance of the words. On the other hand, a couplet of poetry, despite being in the same style and language, may not inherently carry the sacredness associated with Quranic verses. However, the utilization of the Arabic script in presenting the couplet links it to the broader category of Islamic art, highlighting the significance of the script itself.

The recognition that the Arabic script, irrespective of the content it conveys, is considered Islamic underscores the cultural and religious importance attached to the script. This perception aligns with the view, emerging from the fourteenth century onwards, that writing itself became regarded as a sacred and religious practice. (Soucek 1979, p. 7). According to Safwat, Fehérvári and Zakariya (1997, p. 14), ‘The sacredness of the Arabic language played a central role in the development of Arabic script and writing came to be considered as possessing divine power’.