



Manuscript writing through India ink

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Abstract: India ink was in use in India since 4th century BC it was called as masi it was a mixture of several chemical substances In Xingjian province of china Indian documents written in kharoshti with this masi have been discovered Even in south India several documents have been unearthed which were written in masi ink several Jaina & Buddhist scripts were compiled in manuscripts using this ink. Substances used included bone burning remains tar, pitch etc. This carbon powder was used for making masi.

Key words: monochrome, isopropyl alcohol, Zoological museum

Introduction

Ink is a liquid that contains pigments or dyes which is used to color a surface to produce an image text or design. Ink is used to write with the support of a pen, brush, quill. (C E Bosworth, A Mediaeval Islamic Prototype of the Fountain Pen? Journal of Semitic Studies, 2010). The solid or thickest form of ink made in paste form is used in letter pressing litho graphic printing. It was dark, nontoxic, permanent & supported sooth writing on birch leaves & other manuscripts. (Cuppers, Christophe -On the Manufacture of Ink." Ancient Nepal - Journal of the Department of Archaeology 1989).

The initial references -Ink appeared in China. Often using animal glue as a binder, the pigment was dried into small sticks or little saucers which needed to be rubbed with water to create a liquid ink. Traditionally black inks were favoured by Chinese artists who excelled in producing monochrome paintings, where the gift lay in creating texture and emotions through strokes and varying shades of black and grey. (Cuppers, Christophe -On the Manufacture of Ink Ancient Nepal - Journal of the Department of Archaeology 1989). In India, scribes have

used needle and pen since antiquity to write many of their Buddhist and Jain scripts. Black ink was known as 'masi' in India, a mixture of different ashes, water and animal glue. (C E Bosworth, A Mediaeval Islamic Prototype of the Fountain Pen? Journal of Semitic Studies, 2010). It was only in the mid-17th century, when Europe began importing ink from India, that it became known as 'Indian Ink'. (Cuppers, Christophe -On the Manufacture of Ink." Ancient Nepal - Journal of the Department of Archaeology 1989).

Present uses of India ink – Indian Ink which for centuries has been formulated is now being used in diverse modifications & procedures.

1. This formulated ink is used in several scientific processing works.
2. Microbiologists use India ink to stain a slide containing micro-organisms. The background is stained while the organisms remain clear. (Mark D.G. The Painter's Handbook: A Complete Reference to inks 2006).
3. In pathology laboratories, India ink is applied to surgically removed tissue specimens to



- maintain orientation and indicate tumor.
- Amateur tattoo artists will sometimes use India ink for tattooing the skin.
 - Medical researchers use India ink to visualize blood vessels (Mark D.G. The Painter's Handbook: A Complete Reference to inks 2006).
 - Model railroaders use a mixture of India ink and isopropyl alcohol as a wood stain, graying wood to appear aged and to bring out detail.
 - India ink is used diluted as an ultra-fine polishing medium for making precise optical surfaces on metals.
 - Once dry, its conductive properties make it useful for electrical connections to difficult substrates, such as glass. Although relatively low in conductivity, surfaces can be made suitable for electroplating, low-frequency shielding, or for creating large conductive geometries for high voltage apparatuses. (Mark D.G. The Painter's Handbook: A Complete Reference to inks 2006).
 - A piece of paper impregnated with India ink serves as a grid leak resistor in some tube radio circuits. (Mark D.G. The Painter's Handbook: A Complete Reference to inks 2006).
 - Zoological museum specimens were often tagged in India ink, either directly or on a piece of tracing paper stored along the specimen, because of its

durability even when submerged in preservative fluids. (Mark D.G. The Painter's Handbook: A Complete Reference to inks 2006).

Conclusion: Thus ink was developed centuries ago & evolved in a gradual process encompassing technical up gradation from time to time The importance of ink lies in the fact that there would be no books, no printing press, no scripts available without inks. The truest fact is that Indian ink was purely depended on natural resources it was not chemical based as in modern days. The key issue sin even though manuscripts are several centuries old their writing is still visible.

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