MEENAKARI JEWELLERY

Kundun necklace, Meenakari work: about 10x1.5 inches, left: front side kundun work, right: reverse side meena work, artisan: Deepak Sankit, year: unknown

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1. Introduction

Meenakari, also called enamelling, is the art of decorating a metal surface by fusing mineral substances to it. *Meenakari* was introduced to India by the Mughals. The process is often applied to *kundan* - articles of jewellery studded with gem stones set with a layer of gold foil between the stone and the mount on one side while the reverse is lavishly enamelled using the *meena* technique. The lustre of the *meena*, the enamelled reverse side, increases over time due to contact with the wearer's body and clothes. The brilliance of the diamonds and other stones is effectively complemented by the multihued enamel of the meena.

2. Global Presence

Enameling is an old and widely-adopted technology. The ancient Egyptians applied enamels to pottery and stone objects. The ancient Greeks, Celts, Russians, and Chinese also used enamel on metal objects. Enamel was also sometimes used to decorate glass vessels during the Roman period. Enamel was at its most important in European art history in the Middle Ages, beginning with the Late Romans and then the Byzantines who began to use cloisonné enamel in imitation of cloisonné inlays of precious stones. From Byzantium or the Islamic world the cloisonné technique reached China in the 13-14th centuries;

The bright, jewel-like colours have made enamel a favoured choice for designers of jewellery and bibelots, such as the fantastic eggs of Peter Carl Fabergé, enamelled copper boxes of Battersea enamellers, and artists such as George Stubbs and other painters of portrait miniatures. Enamelling was a favourite technique of the Art Nouveau jewellers.

Enamel was first applied commercially to sheet iron and steel in Austria and Germany in about 1850. Industrialization increased as the purity of raw materials increased and costs decreased. The wet application process started with the discovery of the use of clay to suspend frit in water. Developments that followed during the twentieth century include enamelling-grade steel, cleaned-only surface preparation, automation, and ongoing improvements in efficiency, performance, and quality. (Wikipedia, "Vitreous enamel")

3. Region

Raja Man Singh of Amber brought master enamellers from Lahore to Jaipur, Rajasthan in the 16th century. Jaipur is now the center of traditional *Meenakari* production. Intricate *Meenakari* executed on a base of gold and *kundan* has long been practiced at Bikaner and Jaipur. Nathdwara, Bikaner and Udaipur are famous for their silver *Meenakari*. Delhi and Banares are also important centers for *Meenakari*, while Pratapgarh is known for glass enameling. *Meenakari* from Varanasi is characterized by

a pink hue on white enamel and often employs a lotus motif. This style was brought from Persian craftsmen who visited the court of Avadh at Lucknow in the 17th century.

4. Community

The *Meenakari* artisan often works with a team of craftsmen. As *Meenakari* is generally done on the reverse side of *kundan* jewellery, the *Meenakari* has to work with the goldsmith, *ghaaria* (engraver), the *chitteria* (designer) and *jadiya* who applies the gems on the gold. The finished product is an exquisite sample of the expertise of these different craftsmen and their techniques. The intensive labour, skill and time, as well as the costs of the precious raw materials ensure that the items are purchased for very special occasions.

5. Materials

Both Silver and Gold can be used as a base for *Meenakari*. There are a limited number of colours, including gold, blue, green and yellow that stick to silver. All available colours can be applied to gold, making it the preferred medium of enamellers. Gems, stones, gold and silver foil are also used.

6. Tools

1. *Salai* (etching tool)
2. mortar and pestle
3. kiln
4. metal palette
5. *Kalam/Taqva* (tool used to apply enamel)
6. Forceps
7. small scrubbing brush
8. *Takala* (needle like tool used for applying colours)
9. Agate stone for smoothing/sanding
10. Brass dye

7. Process

1. The design is prepared and given to the *sonar* (goldsmith) who forms the article.
    a. In the past it was only done on gold, but artisans now use silver, copper and other metals.
2. The piece of metal on which *Meenakari* is to be done is fixed on a lac stick.
3. It passes on to the *chhatera* who engraves the *salai* (pattern) onto the gold object using steel; the surfaces of the depressed patterns are serrated to secure the enamel and to increase the play of light and shade in the finished product. Delicate

designs of flowers, birds, fish, etc. are etched or engraved onto the surface. This leads to the creation of walls or grooves, to hold colour.

4. The *meenakar* (enameller) applies colours, beginning with those most capable of resisting fire. White is normally applied first, followed by green, red and blue. The colour is applied onto the grooves in the form of enamel dust, stored in water.
5. Each colour is fired individually. The heat of the furnace, set between 750 and 850 °C (1380 and 1560 °F), melts the colour and the coloured liquid gets spread equally into the groove. As each colour is individually fired, colours which are most heat resistant are applied first, and they are re-fired with each additional colour. As a rule, white is the first colour applied and red the last.
    a. Traditional Mughal colours like red, green and white, dominate the art of enamelling from Jaipur. The rich, ruby red colour used here is highly sought after.
    b. *Meenakari* from Varanasi is characterized by pink brush strokes on white enamel. Unlike the vibrant enamelling in reds, greens and blues of Jaipur and Delhi, where the white enamel is left stark, the Varanasi craftsmen delicately add pink to the predominant white enamel. Some traditional motifs are lotus blooms and buds.
    c. Chased and engraved areas are filled in with enamel, which is composed of chemicals similar to those contained in glass and its base is vitreous with a small percentage of metallic oxide that is used as a colourant. Hollow silver forms are filled in with lac to give them weight. For enamelling, the *meena* is finely ground and mixed with water. A little itra-rose oil is added to help fuse the enamel. The water is soaked up by a cotton wick and the piece is fired in a small electric kiln.
    d. Today there exist two types of *meena* –
        i. the *desi* or Indian *meena* that melts at an extremely high temperature achieved only with a furnace and is exceptionally delicate and hence fired only twice.
        ii. *Vilayati meena*, or enamel sourced from Europe, which has a much lower melting point that can be achieved with a heater and has greater flexibility in terms of firings it takes.
6. This process is repeated with each colour.
7. After the last colour has been fired, the object is cooled and burnished, or polished, with agate. The depth of the grooves filled with different colours determines the play of light.
    a. Some artisans use a strong tamarind solution for cleaning and polishing
8. In items that are to be ornamented using *kundan* and *meena*, the *meena* is done first and the piece then passes from the *meenakar* to the *jadiya*
(the artisan who undertakes the *kundan* work - the laying of diamonds over layers of gold foil set within gold or silver framework).
9. Finishing

a. Finally the jewellery item goes to the *patua* who strings the separate pieces of the necklace or armlet together and adds pearls, beads and tassels.
b. Decorative animals and statues are finished when they are attached to their wooden base or other necessary steps are taken.

8. Motifs

The motifs most often seen in the jewellery of the region are *phool-patti* (flowers and foliage), peacocks, parrots and elephants.

9. Products

Kundan and *meena* jewellery, decorative animals

10. Innovations

Artisans are experimenting with more modern and simplified designs that often demand lower prices. The *desi*, or Indian *meena, m*elts at an extremely high temperature achieved only with a furnace and is exceptionally delicate and hence fired only twice, whereas the *vilayati meena*, or enamel sourced from Europe, has a much lower melting point that can be achieved with a heater and has greater flexibility in terms of the number of firings it can take. The *vilayati meena* is substantially cheaper than the *desi* version, thus allowing *meena* worked jewellery to be worn by a wider section of society.

11. Challenges

The cost of precious metals and stones impose a high price on *Meenakari* work, making it a luxury item. Consumers usually buy fewer luxury items and consider their purchase for a longer period of time before committing to the item. Traditional *Meenkari* designs demand the highest prices and, today, are usually bought for brides and worn by relatives at weddings

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