



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Real Enamel Needs Categorization Against Synthetic Enamel

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Abstract: This study has been done due to the overwhelming presence of cold meena or synthetic enamel on imitation jewelry at a fraction of the cost of actual enamel. Real enamel, pursued in India for over six hundred years is done on gold and silver and imitation on any metal. The reasons for the dismal state of actual enamel and the popularity of synthetic enamel are basically loss of patronage to real enamel and the pocket friendly and easy-to-do nature of synthetic enamel. This ancient art form requires a distinct identity to avoid confusing it with imitation enamel much like the Bureau of Indian Standards hallmark for gold jewelry which ensures protection for both consumer and gold. The research revealed that real, and synthetic enamel serve different markets, while the overlapping use of the two is a threat to real enamel.

Key Words: Mina, Minakari, Meenakar, Enamel, Enamelled, Synthetic, Imitation, Artificial, Jewellery.

I. INTRODUCTION

Enamel or meenakari as it is known in India was introduced by the Mughals in the sixteenth century and reached a high level of perfection under them. The origins of enamel art are obscure as the first enameled rings were discovered in 1300 BCE in Cyprus proving its antiquity [4]. India produced artefacts, ornaments, animal harnesses, jewelry and objects of gold and silver used by the royalty, contributing to their opulent lifestyle.

The workshops organized by Emperor Akbar enabled the training of artisans, the transfer of skills and the continuity of knowledge unhindered through generations. Abul Fazal in his 'Ain-i-Akbari' leaves detailed accounts of the organization of these 'Karkhana', the hierarchy, process, cost, and other details [2]. Fine enamels from India find a place of pride in international Museums. The demand for enameled metalware by the court and lesser nobles provided the incentive for this art to develop and flourish. Jaipur emerged as a frontrunner, known for its enameling skills as the 'karkhana model' initiated by Emperor Akbar was replicated, a museum established with a craft school and training provided [8]. Even today after so many centuries Jaipur continues to reign supreme for its enamel, though now it is predominantly used as a backing for 'Kundan' jewellery [1].

With the collapse of the Mughal empire, the smaller states became independent, and the artisans moved to the areas where they found patronage for their art and gave rise to local styles incorporating regional cultural demands as against following the royal court. By the end of the eighteenth century and the arrival of the Europeans establishing their trading bases, enamel was further impacted in terms of design and execution. Now the enamel artisan, besides catering to the states' desires, was also producing enamel with western sensibilities and cheaper variations for trade with the East India Company officials [10]. By the time India became independent the quality of enamel as well as the number of practitioners was decreasing. The former royal states merged with the new union and the royalty lost their former glory and resources. The 'meenakar' and his family were faced with dwindling demand and many skilled artisans were forced to move to menial jobs to eke out an existence.

II. LITERATURE REVIEW

The discovery of the six gold rings in a grave in Kouklia, Cyprus with fused glass pieces is the first cloisonne enamels dated to the thirteenth century BCE [4]. In India, enamel from Persia travelled with Humayun when he returned after his exile. The development under the Mughal rulers and the details of working and refining are well documented. The Jaipur craft school provided training to artisans of different crafts including enamel [11]. The entries for the exhibition in Delhi in 1903, and its catalogue document the different styles of enamel from all over India [7].

III. STATUS TODAY

The new buyers of real enamel are now the bureaucrats, professionals, industrialists, and politicians, most of them preferring to buy off the shelf readymade enamels from established showrooms. However, some still commission work and are involved in the process from the designing stage and provide funds as the work progresses. Such commission works are few and mostly the artisan must invest in the gold and enamel material, besides spending hours in labour till it is sold. In most cases, he supplies his work to a jeweler and receives remuneration only after a sale has been made. Often his work is returned when not sold and he must live with

no returns on his labour and investment, leaving him at the mercy of economic forces. Therefore, there are few meenakars who can sustain their craft and skills inherited from their forefathers, as the time and resources required are not possible. The lifestyle has changed and so has the social structure.

Most fashion and jewelry trends are dependent on the period movies and TV serials being made, reflected in weddings and family celebrations. The requirement of heavy matching jewelry worn on screen with dresses has spilled into the public sphere. Imitation jewelry is the order of the day, where gold-coloured chromium plated cheaper metal studded with artificial gems, painted with a chemical solution, mimicking enamel at a nominal cost is preferred. The same design on gold with real enamel and gems will cost a fortune and will have to reside in a bank locker given the uncertain and insecure social environment. The use of heavy imitation jewelry matching every outfit is very pocket friendly and even families who would not be seen wearing imitations have been lured by this trend.

A decade earlier a relative arrived to shop for her daughter's wedding finery from America and bought a very ornate set to be worn on the wedding day from a local Delhi market costing three thousand rupees. She was very happy as this would be a one-time wear providing great visuals for the wedding photographs. Although the daughter had been given solitaires worth lacs of rupees, this made sense as solitaires would not create the visuals of traditional wedding attire. This trend is widely accepted as can be seen in the social space.

IV. PROCESS OF ENAMEL

Enamel is coloured glass powders applied on metal and high-fired to eight hundred degrees centigrade. The glass melts and adheres to the metal surface and shines like gems. The enamel is applied in layers with firing in between till the desired depth of colour is achieved. The Indian meenakar is adept at his craft, his experienced eyes can determine the right temperatures for fixing the enamel. The gold is prepared by various metalworking methods to receive the colour. The minakar painstakingly applies the enamel colours, one at a time heating it with a handheld torch, and layering it till perfection. On repeated heating, the gold loses its luster and once the enamel process is complete, the enamel is polished and so is the gold.

In western countries, the enameled piece is set in a bezel whereas in India it is mostly applied directly on the piece. If an accident occurs, then the entire piece is made again. The process of creating an enameled piece of jewelry is time-consuming requiring firing at different temperatures according to the melting point of colours used. Actual enamel is possible only on metals with a higher melting point than that of the enamel used. Most enamels melt at temperatures between six hundred and fifty to eight hundred degrees centigrade depending on their hardness and softness. Gold and silver do not tarnish on heating as do copper or bronze and as such are easier to work with leaving no chance of contaminating the enamel colours.

Image 1: Front and back image of a real enamel turban ornament in the collection of the Victoria and Albert Museum, from Jaipur ca. 1750.



Image 1a: Reverse side of turban ornament

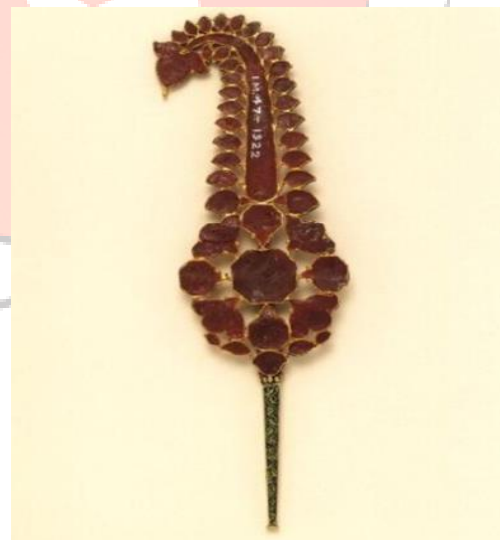


Image 1b: Front side of the turban ornament

The above images (Images 1a and 1b) are of a turban ornament in the kundan/polki style for which Jaipur is famous [3]. There are several steps in an elaborate process before reaching the final stage. The detailed floral patterns in enamel are executed on the reverse side of the ornament as it requires high firing of the metal and then the front is set with precious and semi-precious stones.

The synthetic meena is very easy to apply as no firing is required, any metal can be used. Low-value metal like gilt is used to create embossed or depressed pieces with designs. These are then colored with gold or chromium plating. The artificial gems and the synthetic meena or enamel are applied. The colour dries up in a couple of hours and the pieces are strung together with imitation pearls and rubies. In real enamel stones are set after the enameling process is complete, whereas in synthetic enamel the process can easily be reversed as there are no restrictions. These imitation pieces will take only a day to make as compared to days of dedicated work on an original enamel ornament. Image 2 illustrates the finished bangle piece done with artificial meena. It took a couple of hours to paint. The ease of applying synthetic enamel which is in liquid form requires no skills. Anybody with a steady hand can apply the colours as the space where the colours are to be applied on the metal has the sides of the design slightly raised. The cells thus created are filled with the synthetic solution and left to dry. The designed metal pieces are made with machines in bulk of different shapes and sizes. Depending on the final ornament to be made they are joined together or simply strung with beads separated with more metal pieces in between. Once the ornament is complete then the stones and synthetic enamel are applied according to the desired colour scheme.



Image 2: Artificial Meena

V. MARKET RESEARCH

Documenting the work of generational meenakars I visited Varanasi, to study the 'Gulabi Meena' style practiced there, some meenakars in Delhi and Jaipur, to observe their style of work. Already aware of the popularity of imitation jewelry, I was surprised to observe that the real enamel workers were also touching up the flaws in their finished pieces with synthetic enamel. This is difficult to discern for the unaware user. An ornament with actual enamel that had cracked was easily touched up with synthetic colours in a matter of seconds. If actual meena had to be used then all the stones, pearls and add-ons would have to be removed, the pendant refired at the correct temperature, polished and then the gems set again. Obviously, synthetic meena saved labour, time, and cost. Imitation jewelry is available at different price range depending on the metal used, workmanship, design, and the quality of gems and pearls. The gold polish can be actual gold or chromium affecting the cost. The range can vary from hundreds to thousands and still be very affordable.

VI. FINDINGS:

Synthetic meena has a dominant presence in the market today, be it jewelry or other artifacts.

It is easy and convenient to apply and does not require much training. Imitation jewelry is available to suit all pockets. If well executed, it is difficult to tell the difference between real and synthetic enamel, which is also being used to repair real enamel. Some generational meenakars are also using synthetic enamel and selling it as real. The presence of real and synthetic enamel together in the market is confusing as identification is difficult and almost impossible at times.

Traditional artisans belonging to meenakar families and perusing the craft for generations are few and can trace their lineage back to six hundred years. Many are now going back to enamelling and reclaiming their family name, and generational experience. This is mainly because of the One District One Product (ODOP) ambitious scheme of the Indian government, where traditional arts and crafts are being promoted. So now we see a tendency of these 'traditional' meenakar also creating jewelry by copying old Mughal designs and colours.

VII. SUGGESTIONS:

1. There is a need for the proper documentation of traditional meenakars and their lineage to record the number of generations in enamel. Demarcate real enamel from synthetic enamel to protect this ancient art form. Just like gold has a hallmark system of certification, real enamel should also be certified.
2. Market demand and survival are pushing the traditional artisan towards the synthetic option.
3. Realizing that synthetic enamel is here to stay and may soon be exclusively used unless the real technique is provided protection.
4. With the current practitioners gone, we will also be deprived of their knowledge bank which needs to be preserved.
5. Teaching this medium in art and design colleges will give it an impetus and increase the number of enamellers.
6. Enamel in its modern avatar can be cost-effective and made on cheaper metals like copper.
7. Moreover, providing contemporary design inputs to the traditional artisan will further raise the enamel out of its dismal state by bringing it into the current era in terms of design, colour and usage.

VIII. RESULTS:

When viewing the images of enamel from the Mughal times and comparing them to the images of the work done today, we can see the difference in the workmanship. The easy and pocket-friendly availability of synthetic meena will and is providing a death blow to an already marginalized art technique. On comparing the enamel of current meenakars and their western counterparts it is apparent that their sense of colour is loud and not in keeping with the times. Image 2 is the work of jewelry artists Sandra mc Ewen [5] and image 3 was taken when I visited Varanasi, and both show real enamel. The traditional meenakars are still living in a bygone era, banking on a heritage which cannot provide them with a contemporary market for sustainable living. Making replicas of the old designs in synthetic enamel will also have a limited life. The artificial market is catering to all economic strata from the lowest

to the super-rich. Conferring the status of an ancient technique and providing certification of authenticity will provide an atmosphere of growth and development as well as consumer protection.



Image 2: Jewelry by Sandra Mc Ewen

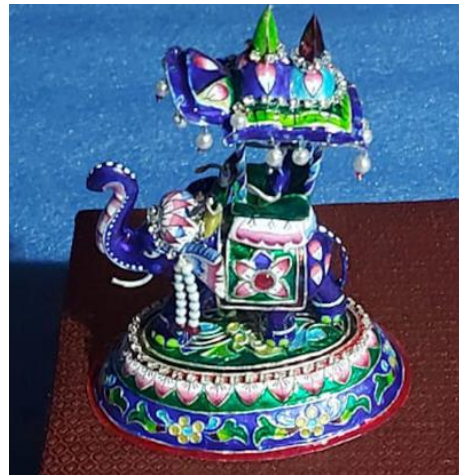


Image 3: Varanasi Pink Meena

IX. CONCLUSION:

Enamel/meena has come a long way as it has travelled through centuries and geographical locations all over the world. Its presence in India for the last six hundred years and the patronage and love it received under royalty and nobles made it a much-coveted art form. The fall from grace due to political, social, and economic reasons has led to its dismal state today. The inventions and innovations after the industrial revolution and the growth of the chemical industry gave rise to synthetic colours mimicking real melted glass on metal. This easy medium is here to stay, and it is in our interest to demarcate the differences and preserve enamel in all its glory.

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