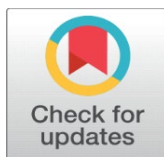
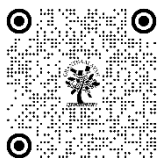


HISTORIC INDIAN TEXTILES OF GOLD AND SILVER

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ABSTRACT

Precious metals have held a status of their own ever since their discovery. Their use has not only been an indication of power, status, and luxury, but also an example of intricate craft skills exhibited by artisans worldwide. Gold and silver, perhaps the oldest precious metals and also the most popular have had a diverse use in various fields, including textiles. The incorporation of these metals in textiles led to the production of a plethora of textile crafts, each demonstrating a unique feature, skill, and technique. Due to the unique qualities exhibited by the crafts; each textile holds an importance of their own. The terms of many of these textiles are often used interchangeably, however, important minute differences distinguish these textiles from one another, which is often times overlooked. Over the years, these various forms of crafts gained popularity, flourished and were even favourites among the Indian rulers and royalties of the yesteryears. However, with the loss of royal patronage and the decline in investment in the handicraft sector, most of these art forms are either languishing or are not produced anymore. To retain the culturally rich arts of India, the significance associated with them, and most importantly the techniques employed to create such masterpieces, it thus becomes important to document these artforms. This article explores the various textiles that incorporate gold and silver with respect to the technique used to produce exquisite fabrics which depict the dexterity of Indian craftsmanship.

Keywords: Woven Textiles of India, Embroidered Textiles of India, Printed Painted Textiles, Danka Work, Tilla Work, Mukke-Ka-Kaam, Kaamdani Work, Fardi-Ka-Kaam, Tinsel Printing, Warak Printing, Kodalikarrapur, Sarees of India, Gold and Silver Embroidery, Gold Lace

1. INTRODUCTION

Metals have been a part of the earth since its creation. Birthed from the planet itself, each element has its own properties. Upon contact of these metals with humans, and the subsequent discovery of their properties, metals became a useful component in the human existence. Certain metals are classified as base metals, forming an important group containing elements such as copper, tin, iron, lead, mercury etc. as important as they are, they present limited use, either due to their nature of being extremely brittle, soft, or hard, or are adversely affected by contact with acids and alkalis. Then there are the precious metals, including gold and silver, metals which are not only rare to find, but their superior qualities combined with

resistance to degradations such as corrosion, and high malleability have resulted in their use in a vast majority of fields (Coombs (1981), 14-17).

From the first contact that humans had with gold from around 5000 BC, this precious metal seeped into all realms of human existence such as political, scientific, economic, artistic, and even spiritual (Venable (2011), xvii). Second to gold is silver, its only limitation being the formation of tarnish, however upon polishing the tarnished layer can be removed to reveal the original metal. Else, silver too shares the properties of malleability and ductility and the versatility that arises with these properties, with gold (Coombs (1981), 110).

1.1. GOLD, SILVER, AND AYURVEDA

Upon the exploration and experimentation with the properties of gold and silver it was found that these precious metals possess medicinal value as well. These metals have not only been used extensively by alchemists around the world, but also in Indian alternative medicine system of Ayurveda. This medicine system dating back to at least 5000 BC, works with drugs derived from plant, animal, metal, and mineral sources (Galib et al. (2011), 55). Of the metals used, gold and silver too are a part of this medicine system.

Gold, referred to as 'Swarna' is known to be one of the most valuable elements in Ayurveda, identified to cure nearly all diseases and for the general wellbeing of the human body by increasing memory and energy levels. Silver, referred to as 'Rajata' is also used for therapeutics, known to lengthen life and has applications in various chronic diseases (Wise (1989), 88-89).

With significance of healing associated with these metals accompanied with their intrinsic physical properties and rarity, gold and silver created a niche of their own.

1.2. PRECIOUS METALS IN ARTS

The malleability, ductility and sheen of these metals found their place in artistic ventures as well. The high value of these metals, especially gold, were used for reinforcement of power, prestige, social standing, exclusivity, luxury and most importantly royalty. With the flourishing of art and culture the use of these precious metals in decorative arts was a natural progression. The use of gold jewelry by the Egyptians is a popular example, displaying not only the exquisite craftsmanship achieved but also the love for precious metals. Gradually, with the increased explorations and experimentation with gold and silver, these metals were molded into various forms such as beads, pellets, sheets, leaf etc. which added to the variety of their uses.

1.3. GOLD AND SILVER IN INDIAN TEXTILES

Clothing may have been borne out of necessity for the human race, however with the passing years, experimentation with styles of fabric production has led to the development of a variety of techniques, leading to the manufacturing of unique and exquisite textiles.

Decorations and embellishments of fabric soon became a sign of celebration and a means to showcase one's prosperity. The ductility of specifically gold and silver along with their royal look, made them the most sort after metals to be incorporated in textiles.

While the use of metal fibres in textiles predates recorded history, it was during the Mughal Era in India that textile production as a meticulously practiced craft flourished immensely. The detailed records of Ain-i-Akbari displayed the extravagant use of gold and silver embellished textiles for the court, nobility, and commercial elite (Dey (2015)).

2. CLASSIFICATION OF INDIAN TEXTILES CONTAINING GOLD AND SILVER

The following classification is based on the technique used to incorporate precious metals in textiles. Most of the Indian textiles gained their nomenclature because of the region that they belong to, however if classified with respect to technique, more than one form would fall in the same category. At the same time, due to the variations introduced by regional adaptations, minor technical differences will also put certain similar textiles in separate categories. Simply put, the primary basis for classification is the technique employed in producing a complete fabric.

There are four categories based on which the use of gold and silver in Indian textiles have been classified i.e., Woven, Embroidered, Printed and Painted. An important point needs to make here regarding painted textiles. There are no painted Indian textiles which are made entirely of gold and silver; rather they are utilized to accentuate and enhance the textile, thus, the textiles mentioned in that category do not exclusively use gold and silver for their production.

Plate 1

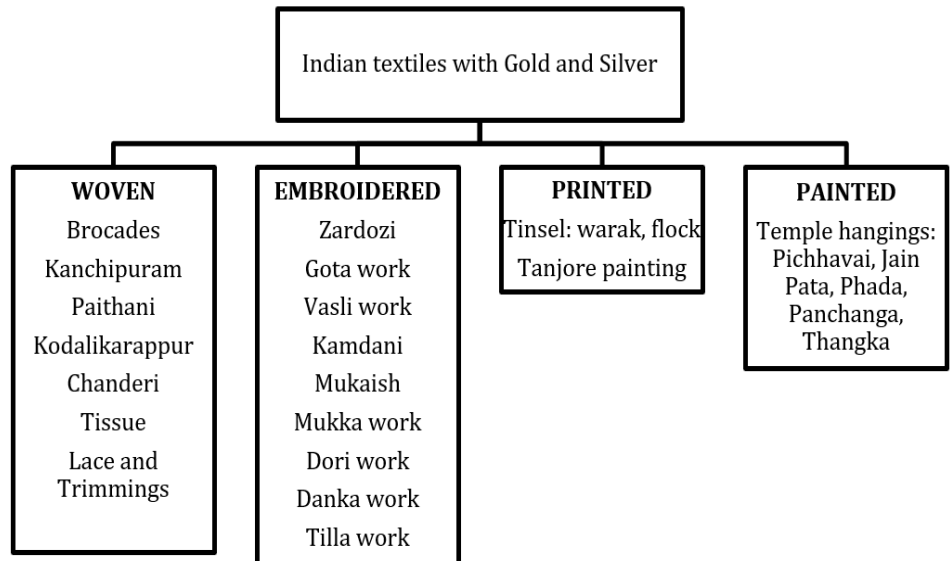


Plate 1 Indian Textiles of Gold and Silver

Figure 1



Figure 1 Brocade: *Kinkhab*. From Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O77028/brocade-unknown/>

Figure 2



Figure 2 Brocade: *Bafta* or *Pot-than*. From Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O477407/cover-unknown/>

Figure 3



Figure 3 Brocade: *Abrawan*. From Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O1258594/scarf-unknown/>

Figure 4



Figure 4 Kanchipuram Saree. Chhatrapati Shivaji Maharaj Vastu Sangrahalaya.

Source <https://www.csmvs.in/collection/galleries/textiles/221-sari>

Figure 5



Figure 5 Paithani Saree. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O477758/wrapped-garment-unknown/>

Figure 6



Figure 6 Kodalikarappur Saree. Department of Handloom and Textiles, Government of Tamil Nadu.

Source <http://www.izhai.tn.gov.in/karuppur2.html>

Figure 7



Figure 7 Chanderi Saree. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O455196/wrapped-garment-unknown/>

Figure 8



Figure 8 Tissue Fabric. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O480512/gold-cloth-unknown/>

Figure 9



Figure 9 Gota Trimming. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O481332/tinsel-ribbon-unknown/>

Figure 10



Figure 10 Zardozi. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O475844/textile-unknown/>

Figure 11



Figure 11 Gota Kinari Work. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O1297766/jama/>

Figure 12



Figure 12 Raised Vasli Work. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O475865/textile-unknown/>

Figure 13



Figure 13 Kamdani Work. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O471561/muslin-unknown/>

Figure 14



Figure 14 Mukaish Work. Victoria and Albert Museum.

Source <https://www.dsource.in/gallery/mukaish-work-lucknow#116674>

Figure 15



Figure 15 Mukka Work. [Ojha and Kashyap \(2013\)](#). A Documentation and Exploration of Mukke-Ka-Kaam: The Metal Embroidery of Rajasthan.

Figure 16



Figure 16 Dori Work. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O453571/childs-dress-unknown/>

Figure 17



Figure 17 Tilla Work. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O480327/boys-coat/>

Figure 18



Figure 18 Danka Work. Asia InCH.

Source <https://asiainch.org/craft/danke-ka-kaam-embroidery-with-metal-pieces-and-zardozi-of-udaipur-rajasthan/>

Figure 19



Figure 19 Tinsel Printed Tent Panel. Victoria and Albert Museum.

Source <https://collections.vam.ac.uk/item/O73931/tent-hanging-unknown/>

Figure 20

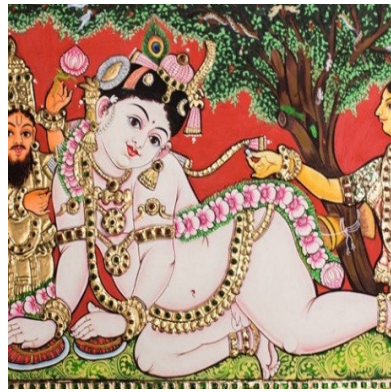


Figure 20 Tanjore Painting. Baral B., K.H. Manasa. Tanjore Painting-Tanjore, Tamil Nadu.

Source <http://www.dsource.in/resource/tanjore-painting-tanjore-tamil-nadu>

Figure 21



Figure 21 Pichhvai. Museum of Art and Photography.

Source

https://map.cumulus.co.in/client/map/collection#/search/7765?src=srh&q=pichwai&oq=12&qt_p=_flt&department=12&view=grid&searchField=Department&perPage=20&pageNumber=1&sortBy=UserNumber3&sortOrder=ASC

2.1. WOVEN TEXTILES

In woven textiles, the gold and silver are incorporated into the textile by means of interlacement with the fibre used. The form in which gold and/or silver is incorporated may differ, however the use of metal is during the process of weaving on the loom.

The main forms in which these metals are used in the weaving process are:

- 1) Flat wire – also known as *Badla*, flat metallic wires are flattened metal strips of either gold or silver. For woven textiles, they are either used as is, or wound on a core of yarns of silk or cotton to create *zari* threads.
- 2) Gilded metal thread- indigenously known as *zari* threads, these were traditionally gilded silver flat wires wrapped around a core of yarns (Singhal and Bhagat (2017), 20).

2.1.1. BROCADES

Brocade weaving refers to the development of a pattern, independent of the foundation weave. It is specific to the use of silk with gold and/or silver *zari* threads. The term brocade is a derivative of the Latin word *brocare* which means to prick, suggesting needle work. This has earned the brocaded fabric the phrase loom embroidery (Agrawal (2003), 55). Another root of word brocade is considered to be “broach”, meaning to stab or transfix, referring to the supplementary weft threads used to create the design (Watt (1903), 319).

Brocades do not traditionally refer to fabrics only containing gold and silver along with silk, however, over the years, the word has become synonymous with fabrics containing *zari* threads. Sir George Watt described the brocades containing metal threads along with silk as *kinkhabs*. He further provided a classification of *kinkhabs* as follows:

Pure cloth of gold and silver- this refers to the maximum amount of the fabric being covered with metal threads

- 1) *Kinkhabs* proper- as seen in Plate 1 Figure 1, greater portion of the fabric is covered with gold or silver, whereby silk is visible only in minute areas.
- 2) *Baftas* or *pot-thans*- closely woven silk with only certain sections of the design in metal thread as visible in Plate 1 Figure 2.
- 3) *Abrawans*: these include either silk gauze or muslins with certain portions of the design or borders of metal threads (Watt (1903), 321, 297-299). Plate 1 Figure 3 depicts this characteristic feature of *Abrawans*.

2.1.2. KANCHIPURAM

Many textiles across India are named after the region in which they originated or were most commonly practiced in, and Kanchipuram is no exception. Mainly woven as a saree, this fabric belongs to the town of Kanchipuram near Chennai in the state of Tamil Nadu. Woven from pure mulberry silk and *zari* threads, Kanchipuram too is a fabric woven with supplementary weft threads, just like Brocades (Plate 1 Figure 4). While the technique may be similar, the main difference between Brocades and Kanchipuram is that in Kanchipuram the border is woven separately and later interlocked with the body of the fabric (Mahapatra (2016), 86-92).

2.1.3. PAITHANI

Paithani refers to the saree woven in the region of Paithan, Aurangabad. While *Paithani* weaving too employs *zari* threads, as seen in [Plate 1 Figure 5](#), the difference lies in the fact that there is no use of supplementary weft threads. The fabric consists of a plain weave where the weft is responsible for creating the design, following the principle of tapestry. Traditionally, metal threads were used with a cotton base, however over the years the fabric now employs a silk base ([Mahapatra \(2016\), 123-130](#)).

2.1.4. KODALIKARAPPUR

Now a lost art of Tanjore, the Kodalikarappur was a technique whereby rather than the motifs, the background of the fabric was woven in gold threads ([Plate 1 Figure 6](#)). The designs were made using wax. The empty spaces were coloured either by block printing, resist printing or a combination of both the techniques. The fabric was then dyed, revealing a coloured motif and a gold woven background, reflecting a tint of the colour of the dye used ([Watt \(1903\), 266](#)).

2.1.5. CHANDERI

Owing its name to the town of Chanderi in Madhya Pradesh, these silk gauze textiles woven in the form of sarees are sheer fabrics with borders, particularly motifs, woven in metal threads of gold or silver ([Dongerkerly \(1950\), 61](#)).

The base of the fabric is plain woven. Either a dobby or a jacquard loom is used, with the motifs woven using the supplementary weft technique of weaving. The fibres used for weaving chanderi may be silk, and more recently cotton, with the fabric being one of the more contemporary ones, with its production dating back to second half of 20th century ([Mahapatra \(2016\), 38-43](#)). [Plate 1 Figure 7](#) shows a woven Chanderi saree.

2.1.6. TISSUE

The tissue fabric, also referred to as *Taash* fabric, is a plain-woven fabric, either in cotton or silk whereby the warp or weft, depending upon the ease, is of gold/silver flat wires known as *badla* as seen in [Plate 1 Figure 8](#). Unlike brocaded fabrics which use *zari*, tissue fabric uses flat strips of metal.

It is also referred to as cloth of gold and silver ([Watson \(1866\), 113](#)). If the tissue fabric is made from gold it is called *soniri*, and if made using silver metal strips, it is called *ruperi* ([Darwin \(1895\), 2840](#)). The old city of Pactun near the Godavery river had been a popular center for manufacturing such fabric. Turbans, dupattas, and long shawls were common garments made from this tissue. It is important to note that the gold used is silver flat wire coated with gold metal ([Anonymous. \(1855\), 556](#)).

2.1.7. LACE AND TRIMMINGS

Lace as is understood in the European context, differs from its connotation in the Indian aspect. With the adaptation of the term lace to *Lais*, lace uses silk threads in the warp direction, and gold or silver wire for the weft or vice versa ([Mukhopādhyāya \(1888\), 363](#)).

Kalabattun may also be used in place of, or along with the metal wire for the construction of lace (Watt (1903), 422).

The most common form of trimming made is *Gota* (Plate 1 Figure 9). It is considered as a narrow border made by using *badla* in the warp direction and silk threads in the weft direction. Other local names are used to describe trimmings of various widths and patterns; however, the technique of manufacturing remains the same. With *dhanak* being the narrowest trimming and *anchal* being the widest trimming, intermediate width trimmings include *lachka*, *patri*, *bankri*, *kiran* etc. (Mukhopādhyāya (1888), 363).

2.2. EMBROIDERED TEXTILES

This category includes textiles in which gold and silver are not a part of process of weaving, but in fact once the fabric has been woven, surface application in the form of embellishments comprise this category. Gold and silver are used in various other forms and applied on the textile using a plethora of stitching techniques.

2.2.1. ZARDOZI

Zardozi refers to the embroideries of gold and silver on a textile. It is derived from the Persian words *zar*, meaning gold and *dozi* meaning embroidery, with its first usage being in the 14th century. Some of the popular centers across India included Lucknow, Agra, and Delhi where this art flourished. Using a *Karchob*, a wooden frame on which the fabric is stretched, and an *aari* needle, the metal components were sewn onto the fabric (Bhandari (2015), 45). Plate 1 Figure 10 shows a zari embroidered fabric using various metal components.

Zardozi employed the maximum variety of gold and silver decorations which includes:

- *Badla* - This is a simple flat metallic wire
- *Zari* thread - *Zari* thread refers to a set of core yarns wound with a flat metallic wire. Depending upon the thickness and shine, *zari* threads can be of the types *kasab* (thinner *zari*), *kalabattu* (thicker *zari*) and *chikna* (shinier *zari*).
- *Chakri* - a round metal with a hole in the center is called *chakri*
- *Sitara* - Circular shaped spangles which look like stars and have a hole in the center
- *Katori* - A spangle with a curved surface, like a tiny cup is referred to as *katori*
- *Salma* - When a fine, soft unflattened wire is wound spirally, with no thread running through the center. It can be of the following forms:
- *Dabka* - A form of coiled wire with the surface being flattened, making it shinier than *kora*
- *Kora* - A heavier form of *dabka* which looks 'something like gold vermicelli'
- *Nakshi/Chalak/Chaupahal* - similar to *dabka*, *nakshi* is a coiled flat metallic wire, however in an angular manner
- *Gijai/Kangni* - a circular wire of metal which is thicker and thus stiffer than the previously coiled wires
- *Gokhru* - two flat metallic wires are twisted together and then bent at regular intervals

2.2.2. GOTA WORK

Flat metallic wires known as *badla* are used to weave borders in either plain, satin or twill weave. The metal wire runs in the warp direction, and traditionally cotton was used in the weft. These woven ribbons are known as *gota* (Bhandari (2015)). Plate 1 Figure 11 depicts a *gota* trimming.

When *gota* is cut into shapes are sewn onto the fabric in various designs, it is known as *gota kinari*.

When only cut *gota* pieces are sewn onto the fabric, it is known as the folk style of *gota* work, and when additional metal components such as *sitaras*, *salmas* etc. are used along with the *gota* pieces, it is known as the classic style of *gota* work (Naik, (1996), 122, 144).

This form of applique work had Rajasthan, Punjab, Haryana, and Andhra Pradesh as popular centers. These ribbons are locally known as *lappa* (broad *gota*) or *lappi* (thinner *gota*) thus this work is also known as *lappe-ka-kaam* (Bhandari (2015)).

2.2.3. VASLI WORK

Vasli work refers use of the application of a backing onto the fabric, upon which the metal components are embroidered, as seen in Plate 1 Figure 12. It may be flat or raised, based on the type of material used for backing. In case of flat embroidery, thin calligraphy paper is applied. In the case of raised *vasli* work, the backing may be of wads of cotton, woolen threads, foam of *buckram* upon which metal components are couched. This form is known as *dhok-ka-kaam* or *bharat kaam* (Bhandari (2015), 69-76). The embroidery is performed on a *karchob*, and the metal components couched on the backing vary from the use of *zari* threads to other forms of metal wires such as *salmas* and *sitaras*.

2.2.4. KAMDANI WORK

While *zardozi* incorporates heavier embroideries, *kamdani* refers to lighter embroideries on muslin using metal wires done on a *karchob* (Watt (1903), 370). Plate 1 Figure 13 displays this lighter *kamdani* embroidery.

Most popular in Rajasthan, the metal wire is thread into the needle and worked into the cotton fabric (Bhandari (2015)). *Badla* is treated as a thread, using a needle the wire goes in and out of the fabric, while using satin stitches to fill the design spaces (Saiqa and Kale (2012), 34).

Evidences of *kamdani* work trace back to at least as far back as the 1885 exhibition held at Lucknow (Anonymous (1885)), with historic literature tracing its roots to the time of Noor Jahan, wife of the Mughal Emperor Jahangir (Saiqa and Kale (2012), 33).

2.2.5. MUKAISH

A form of embroidery work also popular in the regions Awadh, just like *kamdani*, *mukaish* work too employs flat metallic wire *badla*. However, the difference is the technique in which the wire is incorporated into the fabric as seen in Plate 1 Figure 14. Short lengths of wire are wrapped around a few warps and wefts of the fabric, creating dotted pattern. This work is also known as *fardi-ka-*

kaam. *Fard* translates to 'length of the fabric' and since this embroidery was done on the entire length of the fabric, *Mukaish* work is also known as *Fardi-ka-kaam* (Saiqa and Kale (2012), 35).

2.2.6. MUKKA WORK

Widely practiced in regions of Barmer and Jaisalmer of Rajasthan, also known as *Mukke-ka-kaam*, *Mukka* work involves couching gold and silver *zari* threads with a cotton core, usually on double layered bright coloured cotton fabrics. *Mukka* is the local term given to the metal threads used. This kind of an embroidery does not use a frame for laying the threads on the fabric. For embroidering the metal threads on the fabric, double layered *zari* threads are couched using cotton threads, for filling as well as outlining the pattern, seen from Plate 1 Figure 15 (Ojha and Kashyap (2013), 2).

2.2.7. DORI WORK

In *Dori* work, gold, or silver braids, known as *dori*, are couched on the fabric. The embroiderer loosely lays the braid on the fabric, and secured in place with a thread looping on the braid in the form of a couching stitch. Plate 1 Figure 16 portrays how the braid is turned at angles and, couched in place. The process continues till the required pattern is achieved (Watt (1903), 412).

Known to have existed from at least the 1850s, this work is more commonly found on shawls, pashminas, chogas etc., with Kashmir being a popular center of production. However, this art was practiced in other regions of India as well such as Amritsar and Ludhiana (Watt (1903), 412). This form of embroidery does not necessarily involve the use of a *karchob* (Walker (1884), 159).

2.2.8. TILLA WORK

Also known as *Marori* work (Chattopadhyaya (1977), 62), this type of embroidery involves the use of either the flat metallic wire *badla*, or gold and silver threads which are twisted and then couched on the fabric (Bhandari (2015)). The twisted threads are stitched according to the design, covering the maximum surface of the fabric (Naik (1996), 136).

A traditional craft of Kashmir, it is practiced in other parts of western India (Bhandari (2015)).

2.2.9. DANKA WORK

A form of embroidery practiced exclusively in Udaipur, Rajasthan, *Danka* work is a form of embroidery whereby the fabric is stretched on a frame, i.e., a *karchob* and embroidered with *danka*. Locally known as *Danke-ka-kaam*, this embroidery involves affixing *Danka*, small hand beaten square plates made of either pure gold-, or gold-plated silver with size not exceeding 1.5 cm, on the fabric, with *zardozi* work around it (Kashyap et al. (2012), 49).

Oral history dates back this art form to the 16th century and continues to be practiced in Udaipur by the Bohra Muslim Community (Anonymous. (2016)).

2.3. PRINTED TEXTILES

With respect to the use of gold and silver, printed textiles refer to the application of these precious metals on the surface of a constructed fabric, adhering it to the textile with the use of a binding medium.

2.3.1. TINSEL PRINTING

The official catalogue of the 1903 Delhi Art Exhibition describes tinsel printing as a process whereby the fabric is first block printed with an adhesive substance, over which gold and silver in various forms is pressed against the adhesive printed pattern. The adhesive may be lime based, *roghan* paste, lac or any other gum (Watt (1903), 268). A popular art form of Rajasthan, particularly Udaipur and Jaipur, based on the form of gold and/or silver used, tinsel printing can be of these types:

1) *Warak* printing

Warak printing is a process whereby the fabric is block printed with a printing paste, and thin metal leaf known as *warak* is applied on the printing paste once it has semi-dried. (Watt (1903), 268). Once the printing paste dries, the metal leaf is burnished with an agate stone to smoothen the surface (Mathur (1994), 52).

2) Flock printing

Locally known as *chamki* printing, flock printing involves printing the fabric with *roghan* paste and sprinkling crushed pieces of gold and silver leaf (Mathur (1994), 52). This printing is also locally called *khari* printing, whereby the more modern version uses fine crushed mica (Bhandari (2015)).

2.3.2. TANJORE PAINTING

Belonging to Tanjore, a city in the southern Indian state of Tamil Nadu, Tanjore painting dates back to 1600 AD. Tanjore paintings are mainly “panel paintings done on solid wood planks” however, cotton fabric is used as a layer on the wood, thus technically making it a painting done on textile.

After preparing the wooden and cardboard base, cotton fabric is stretched and held in place with an indigenous gum. Upon application of the fabric with a paste of tamarind seed powder and chalk powder, and smoothened with emery paper, the design is painted on the textile.

While gold paint is used for outlining of designs, it is gold leaf which gives these paintings its significant feature. A molding paste made from various materials including gold paint is used to create relief work. Gold foil is then backed with glue and applied on this embossed area and pressed down using a pointed edge (Baral and H (n.d.)).

2.4. PAINTED TEXTILES

Most common examples of painted textiles include various temple hangings such as *Pichhavai*, *Jain Pata*, *Phadas*, *Panchangas* and *Thangkas*. While the paintings are made for different purposes and used by different religions, their technique of paintings remains mostly similar. Unbleached cloth is primed with natural materials such as clay and starch, pores filled, and the fabric prepared for painting of the design. Traditional pigments for various colours were adopted, and as previously

mentioned, in addition to coloured pigments, powdered gold and silver were used to accentuate the design (Talwar and Krishna (1979)).

3. CONCLUSION

Precious metals have gained a reputation of being superior to other metals. This can be attributed to not only their intrinsic properties of being beneficial to the human body, but also due to their physical properties of high ductility, malleability, and unmatched sheen. The unique properties of especially gold and silver has forever intrigued mankind, and this curiosity has led to the adaption of these metals in various forms to be used and adorned by humans. One such area which saw extensive use of these metals in various forms was textiles. The experimentation to convert gold and silver into various forms for their application in fabrics led to the invention of numerous techniques of fabric production involving the incorporation of these metals. The method in they can used applied or involved in fabric making process can majorly be either during the process of construction such as in woven textiles, or after fabric production as surface application, as in the case of embroidered, printed, and painted textiles. whatever the method adopted, each technique produced out of these methods has created exquisite textiles, visually and technically unique. A testament to the quality, rarity, and dexterity of the artisans is the objects that exist in museum collections all over India, and even the world, with some textile forms now even considered as languishing crafts of India.

CONFLICT OF INTERESTS

None.

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None.

REFERENCES

- Agrawal, Y. (2003). *Silk Brocades*. Roli Books.
- Anonymous. (1855). *The Illustrated London News*. William Little, United Kingdom, 27.
- Anonymous. (1885). *Lucknow Exhibition, 1885 : Catalogue of Departments A & B. Held in Canning College, Kaisar Bagh*. London printing Press.
- Anonymous. (2016). *Danke Ka Kaam Udaipur, Rajasthan*. Craft Revival Trust.
- Baral, B., and H, M. K. (n.d.). *Tanjore Painting- Tanjore, Tamil Nadu*. D'Source.
- Bhandari, V. (2015). *Jewelled Textiles : Gold and Silver Embellished Cloth of India*. Om Books International.
- Charles, A. P. (1905). *A Monograph on Gold and Silver Ware Produced in the United Provinces*. F. Luker.
- Chattopadhyaya, K. (1977). *Indian Embroidery*. Wiley Eastern.
- Coombs, C. I. (1981). *Gold and Other Precious Metals*. William Morrow and Co.
- Darwin, C. (1895). *The Encyclopaedia Britannica A Dictionary of Arts, Sciences, and General Literature*. The Werner Company, New York, X, 60.
- Dey, G. (2015). *Fashion and Designing Under the Mughals Akbar to Aurangzeb*. singhal.
- Dongerkerly, K. S. K. (1950). *The Indian Sari*. All India Handicrafts Board, Ministry of Commerce and Industry, Government of India.

- Galib, Barve, M., Mashru, M., Jagtap, C., Patgiri, B. J., & Prajapati, P. K. (2011). Therapeutic Potentials of Metals in Ancient India : A Review Through Charaka Samhita. *Journal of Ayurveda and Integrative Medicine*, 2(2), 55–63. <https://doi.org/10.4103/0975-9476.82523>.
- Gupta, C. S. (1996). *Zardozi : Glittering Gold Embroidery*. Abhinav Publications.
- Indian Zari Embroidery. (2017, May 24). Textile Research Centre.
- Kashyap, R., Ojha, S., & Soni, J. (2012). Exploration and Documentation of Traditional Danke-ka-kaam of Udaipur. *Textile Trends*, November, 49–52.
- Mahapatra, N. N. (2016). *Sarees of India*. Woodhead Publishing India PVT. Limited.
- Mathur, P. R. (1994). *Costumes of the Rulers of Mewar : With Patterns and Construction Techniques*. Abhinav Publications.
- Mukhopādhyāya, T. (1888). *Art-manufactures of India : Specially Compiled for the Glasgow International Exhibition, 1888*. Superintendent of Government Printing.
- Naik, S. D. (1996). *Traditional Embroideries of India*. A.P.H. Publishing Corporation.
- Ojha, M. S., & Kashyap, R. (2013). A Documentation and Exploration of Mukke-Ka-Kaam : The Metal Embroidery of Rajasthan (p. 8). The IIS University.
- Saiqa, and Kale, N. (2012). *Kaamdani and Fardi ka Kaam : Shimmering Embroidery*. National Institute of Design.
- Singhal, D., & Bhagat, S. (2017). Types of Zari used for Brocade Weaving. *Textiles and Clothing Research Centre E-Journal*, 1(2), 18–21.
- Talwar, K., & Krishna, K. (1979). *Indian pigment paintings on cloth / Kay Talwar and Kalyan Krishna (K. Krishna & A. Calico Museum (Eds.))*. Calico Museum of Textiles.
- Venable, S. L. (2011). *Gold : A Cultural Encyclopedia*. ABC-CLIO, LLC.
- Walker, T. G. (1884). *Final Report on the Revision of Settlement, 1878-83, of the Ludhiána District in the Panjáb*. Calcutta Central Press CO. LD.
- Watson, J. F. (1866). *The Textile Manufactures and the Costumes of the People of India*. India Office.
- Watt, G. (1903). *Official Catalogue of the Indian Art Exhibition, Delhi*. Superintendent of Government Printing, India.
- Wise, T. (1989). *Ayurveda or Hindu System of Medical Science*. Sri Satguru Publications.