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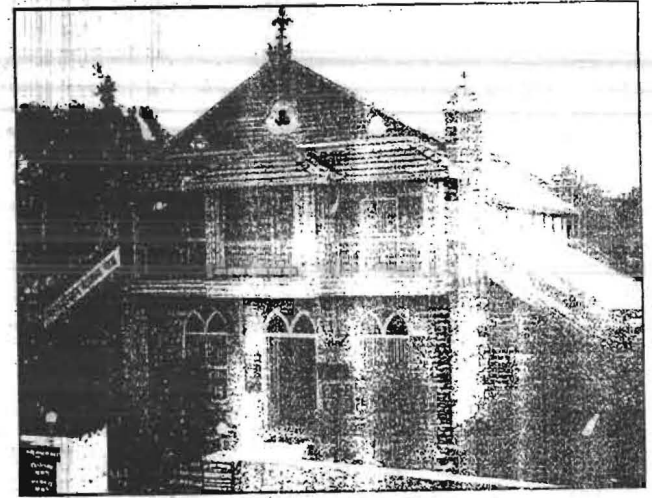
भारत इतिहास संशोधक मंडळ, पुणे

## त्रैमासिक

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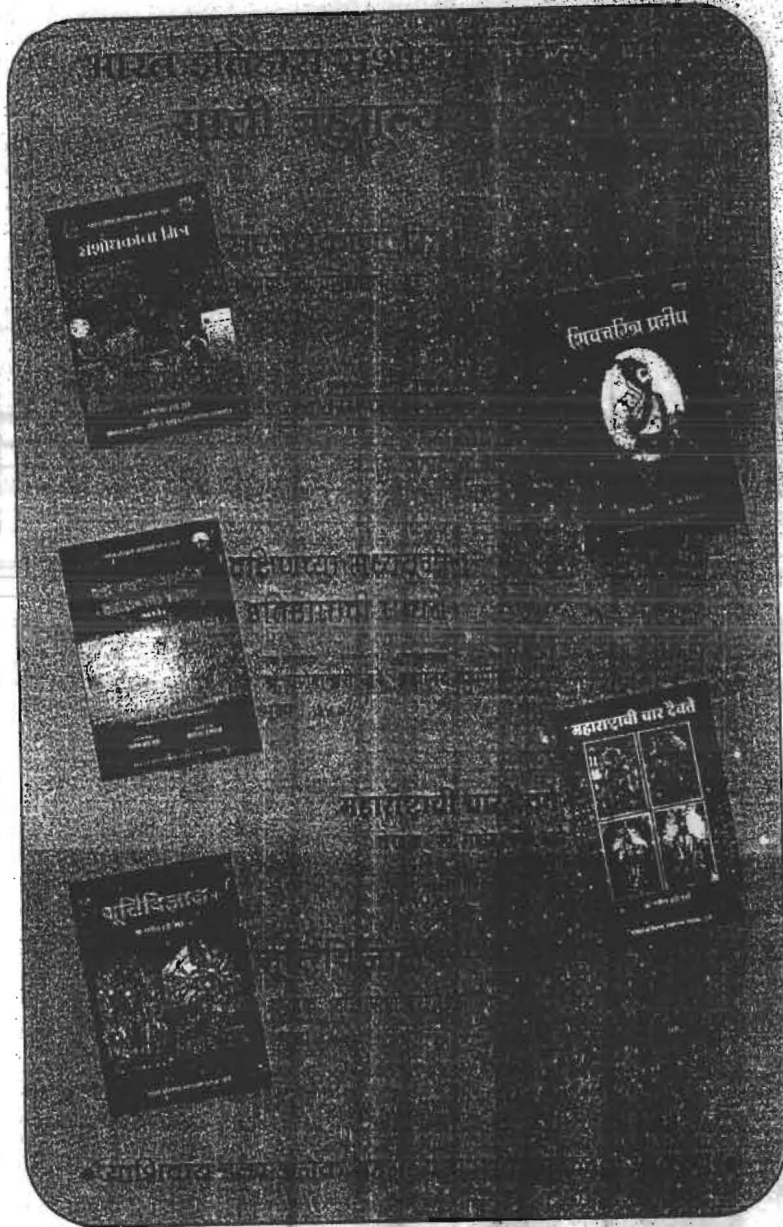
BHARAT ITIHAS SAMSHODHAK MANDAL, PUNE

## QUARTERLY

Vol. 90

No. 1-4

July 2013 - April 2014



## Techniques of Ornamentation of Bidriware and its Uses

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**Introduction:** In pre-modern India several traditions of artworks based on metals, alloys, gems and stones flourished and became internationally famous. Many of these traditions started in ancient India and continue vigorously in modern India. Basically an artistic metal ware, Bidri found a time-honoured place among the Indian handicrafts and industrial arts on account of its elegant and exotic forms, its instant aesthetic appeal and its sparkling silver decorations pleasantly contrasted to the black metal-base. The ware draws its name from Bidar, one time capital of the Bahmani and Barid Shahi dynasty.<sup>1</sup>

A group of damascene craftsmen moved from Syria or Iraq to India. Some of them were at Ajmer in Rajasthan and hit upon the idea that damascening could be done on the base of high zinc-low-copper alloy. Zawar in Rajasthan was the major zinc-producing centre in the medieval world. The said craftsmen moved down from south during the fifteenth century AD and settled at Bidar near Hyderabad. When the art flourished in that place for centuries, it became known as Bidriware craft.<sup>2</sup> While Bidar remained the principal centre of the Bidri industry, it subsequently spread to other places, viz., Lucknow and Benaras in Uttar Pradesh, Purnea in Bihar, Murshidabad in West Bengal and, to a small extent, to Kashmir.

The basic materials required in Bidri industry are zinc, copper, silver and a particle type of earth. The process of production may be divided into four main stages viz. casting, engraving, inlaying and oxidizing.<sup>3</sup>

**Techniques of Ornamentation:** There are many types of inlay for ornamenting Bidriware objects. According to the process used for the inlay, the work is known as Tarkashi (if only wire is inlaid), Tehnishan (if the inlay looks flush with the surface of the object); Mahtabi or Aftabi (if the design look black against the

overlaid metal sheet); Zarnishan (if the inlaid pieces are in low relief), Zarbuland (if the inlaid pieces are in high relief)<sup>4</sup> and Koftagari (it is done by first drawing out the pattern on the steel surface with a hard-steel needle or silai).<sup>5</sup>

- 1. Tarkashi:** Tarkashi or inlay of wire is rarely used alone. Generally, it is combined with aftabi, tehnishan or zarnishan. In this technique a fine wire of silver is drawn and the design is made from that single wire. It is a very time-consuming and intricate process, demanding precision and great patience.
- 2. Tehnishan:** This has been variously spelt as tehnishan, tahnishan, the-nishan, tah-nishan or even tah-tila or true incrustation. In it the pattern is cut in fairly deep grooves, round bottomed for wire, and flat with straight sides for any other shaped pieces. The depth of the grooves should be about two-third of the diameter of the wires. The pure gold or silver metal is pressed into the grooves and is hammered down flat. The inlay should be of the softest metal procurable, usually pure metal, if gold or silver, and carefully annealed in any case. The manufactures often take great pride and pains to inscribe, by a skilful inlay of wire, verses from the Holy Quran, spells, and poetical passages, names of the owners and makers and prayers for good fortune. This technique is not confined to Bidriware but is used for any kind of inlaying.
- 3. Zarnishan<sup>6</sup>:** The outline of the pattern is engraved on the object, and a thin sheet of silver, gold or copper is held over the outlines of the engraved area and rubbed with a finger until a thin sheet of silver, gold or copper is held over the outlines of the engraved area and rubbed with a finger until a tracing of the design is imparted on the metal sheet. This traced design on the sheet is cut into pieces of the desired shapes, each a little larger than the space it is intended to cover. The margin or rim of each piece is gently bent over, and the cavity thus formed in the metal sheet is filled with lead or some other composition.

Next, each such piece is inverted over the space to be decorated, the margin of the structure is then pressed into the engraved outline on the object, and is carefully hammered or punched all round so that the surface metal embraces and fixes the applied piece. The object is then finished by punching or chasing the desired design on the applied silver, gold or copper sheet.<sup>7</sup>

4. **Zarbuland:** The exact form and ornamentation of the pieces to be applied are practically finished, either by moulding, repousse (embossing), or chasing. The job requires great care, and the shapes need to be measured constantly with a caliper and gauges for accuracy before they are attached into the excavated area. When the piece is finally shaped satisfactory, it is skillfully polished. If the applied piece is in low, it is *Zarnishan* work, and in case it is in high relief, it is *Zarbuland*-work. In both types, the applied decoration shows in relief against the surface of the object. There was no hard and fast rule of adhering to one variety of workmanship in decorating may be found together in a *Bidri* object.
5. **Aftabi:** In the *aftabi* technique, the silver sheet is cut into the exact sizes of the designs which are traced on it with pencil from a prepared design on paper. Instead of fixing the silver sheet into engraved pattern, the designs are cut out in the silver sheet.

#### Techniques and Designs:

1. **Munabatkari:** In this method of ornamentation the patterns of flowers, etc., are wrought on slightly raised levels over the surface of the article (i.e., one can feel with hand the designs overlaid on the article. For this purpose, lead is first laid on articles in the shape of lead and silver is fixed in *tarkashi* or *tehnishan* technique. These required a lot of labour and very intricate workmanship hence they become very costly, and are, therefore rarely produced. The gold is also inlaid occasionally but owing to its scarcity and high cost such articles are not much in demand and are, therefore,

manufactured only to order.<sup>8</sup>

2. **Koftgari:** The type of metal work known as *Koftgari* is produced in India, Persia, Europe and Japan. In Europe, it is known as *Damascening*, which means decorating a metal object by inlaying on another metal. In Japan, it is generally known *Non Zogan*. Whereas an alloy chiefly of Zinc and Copper is used in *Bidri*-work, iron or steel is used for *Koftgari*-work. The operation for *Koftgari*-work is as follows: the iron or steel object to be decorated is first heated to a blue colour; then using a sharp knife its surface is covered by cuts and hatches in various directions, and the burrs are attached. Now the design is drawn upon the hatching with a sharp-pointed steel stylus. This done, pure gold or silver wire is conducted into the grooves, according to the pattern, and carefully sunk by pressing it into the metal with a copper tool. In inferior type *Koftgari*, known as 'false damascening,' the inlay work is so light that it soon wears off.

The *Koftgari* craftsmen use the same five terms for the type of their decoration, as are used by the *Bidri* artisans. The old centres for *Koftgari*-work were *Sialkot* and *Gujarat* (Pakistan); *Jaipur*, *Alwar*, *Jodhpur* and *Sirohi* (Rajasthan); *Datia* (Madhya Pradesh); and *Hyderabad* and *Kalyani* in the *Deccan* (i.e. *Bidar*) until the end of the 19<sup>th</sup> century, these places were known for manufacturing and decorating with *Koftgari*, sword handles, scabbards, body armour, shields, boxes, trays and buttons. With the decline in the use of the traditional arms during the last century, craftsmen started producing trays, boxes, picture-frames and a variety of decorative objects embellished with *Koftgari*. Now it is almost an extinct craft.<sup>10</sup>

3. **Ganga-Jamuna:** Kashmir is famous for its parcel gilt silver ware. The patterns consists of small springs of leaves hammered out in relief all over the vessel. Sometimes the ground is silver and springs are parcel gilt: it is then known as the *Ganga-Jamuna* pattern. This *Ganga-Jamuna* is a

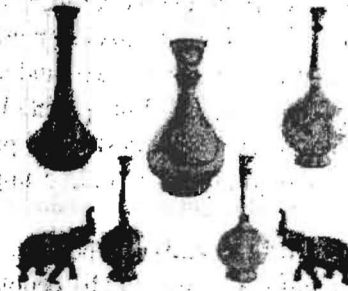
favourite pattern with Indian artists, which they love to introduce into all sorts of manufactures. It got its name from the two rivers Ganga and Jamuna, which between them enclose a tract of land in upper India known by the name of Doab or "Two Waters". The colour of the waters that the Ganges carries down to the sea is described in the books white, while those of its tributary the Jamuna deep blue. Hence when on the same article patterns of two colours meet or run side by side, the vessel is described to be of Ganga-Jamuna pattern. " This is like the above gold and silver wires are used in the same design the gold often alloyed with a little copper to give it a pinkish tinge.<sup>12</sup>

4. **Diwali Work:** The degree of hammering applied to Koftgari causes the gold or silver to spread over the rest of the work. In Rajputana, Dewali work is subsequently scratched to remove portions of the gold and produce a closer similarity to wire inlaying.<sup>13</sup>
5. **Asrafi-ki-booti or teenpatiki-booti<sup>14</sup>:** Highly conventionalized patterns asrafi-ki-booti or teenpati-ki-booti, stars, vine creepers, and stylized poppy plants with flower; single bloom or whole plant in various shapes, mostly in medallion form or mango shape; are amongst those which can be traced back to Persian influence. They are most fond in the earlier pieces. Border of parallel lines with cross lines, like railway track crossed by sleepers, are also other popular designs.
6. **Mahi-pusht :** Mahi-Pusht or fish scale pattern is another very interesting design in Bidriware. Fish-shaped boxes are also very common to Lucknow and Bidar, but articles ornamented with fish designs are special to Lucknow. A large collection of spice boxes of fish designs is in the Ratan Tata Collection of Bidriware in the Prince of Wales Museum, Bombay. The Salar Jung Museum has also in its custody, a number of them. T.N. Mukerji attributes such patterns to the Bidri manufacturers of Lucknow. He traces the fish emblem

to "the late Kings of Oudh, occupying the foremost rank among the nobility of the Delhi Empire"<sup>15</sup>. They delighted in parading their dignity offish (Mahi Maratib) which consisted of the privilege of carrying before them in all state processions the representation of fish, made of metal and borne upon a pole, with two circular gilt bells attached to it.

7. **Phooljadi :** Phooljadi design also popular from ancient to modern times. In recent time phooljadi design adopting more by Bidri artisan. '+' sign adopt while designing the Bidriware. Silver is require for designing this design on Bidriware.

**Patterns met with in Bidriware:** One of the oldest and at the same time most beautiful patterns employed in true Bidri portrays the poppy plant, a design which recurs all over India. It is one of the most frequent patterns employed by the kinkhab weavers, the leaves being in silver and the flowers in gold.<sup>16</sup> In Bidri of Bidar the floral decoration is generally drawn in a more or less naturalistic manner.<sup>17</sup> Of geometrical decoration there is a great variety, much of which can be traced back via Persia to Egyptian designs; Lines, spots, spirals, figures of various angles, such as rhombic frets, also with rounded corners, borders originations in the exigencies of weaving, chequer and other patterns, are all employed, but, as in Egyptian ornament, the perfect circle is rare.<sup>18</sup>



Various techniques used Bidri Articles

**Variety of objects:** Most Bidriware objects are heavy and fragile and hence not very functional. Therefore, only some were

in daily use. The commonly produced objects were hookah bases, dishes, bowls (abkhora or katora), trays, vases, wash basins (sailbachi), ewers (aftaba), water bottles (surahi), betel boxes (padan, khasdan), spice boxes (dibiya), spittoons (ugaldan), jewel boxes, cot legs (palang-pae), weights for floor covering (mir-e-farsh), candelabras (shamadan), incense burners (uddan), and rosewater sprinklers (gulabpash). Among especially manufactured objects were: Shia standards (alam), cups with Qur'anic or Shia inscriptions in Arabic script, bookstands for keeping religious text (rihal), and black-scratchers (pushtkhar).<sup>19</sup> Now-a-days as many as 200 types of articles are being manufactured.

#### **Types of Handicrafts ( Bidriware) of Bidar District<sup>21</sup> and its Uses :**

1. **Decorative Statues :** Several statues of Bidri handicraft work can be manufactured and exported here like elephant, horse, god, cow, peacock, all of these statues are available in both economical as well as higher cost, the craft work of cheap cost does not contains any pure silver coating however it contains the only colour of silver painted on the craft in order to make it beautiful, but also people who are opting for expensive crafts we fill the decorative on the particular craft as pure silver metal in order to deliver a shining Bidricraft products from Bidar.
2. **Decorative Flower pots:** People through whole world use flower pot and other decorative to design their best in other to give a warm welcome to their guest and family relatives. Hence to impart such needs of the people Bidri handicraft related to flower-pot in several design and patterns are used by the creators of craft to provide a huge base to the customers of art and craft.
3. **Usable along with decorative :** There are many products in Bidri handicraft which are used by people for their daily needs such as huqqa for smoking purpose, umarkhyam for drinking wine and other liquid in order to show the fashion and style, ash trays are also designed by craftsmen in order

to fill the needs of smokers. Plates and dishes are also designed by Bidri craft without using any harmful metals to provide a well dining table decoration.

4. **Gifts and special mementos:** Now a days people use to select craft or art work to present as a gift to other people who are art loving however in order to keep in mind about the customers so that it should not be so costly, the dealers of Bidri craft are purchasing some thing different in order to meet the prime and basic needs of medium class customers. Several fifths of Bidri handicrafts are available in the market in order to gift on several events-like birthday, marriage anniversary etc. in order to keep these memories beautiful till the whole life.

#### **The other Uses of Bidriware<sup>22</sup>:**

- The shapes of most Bidris were determined by their function in the Deccani Muslim aristocratic households, for they were chiefly produced for them. Hookah bases, ewers, washbasins, spittoons, domed pandans, plates, dishes and mir-e-farsh are some of several such examples. These objects, however, were used also by the Hindu nobles.
- Other objects of daily use are the ewer (aftaba) and its matching companion, washbasin (sailabachi). Both were in use by the Hindus in pre-Islamic India, but with the establishment of Sultanate rule in parts of India in the 12<sup>th</sup> century these objects, which were in common use in Persia and the Middle East reached India, and their shapes changed the forms of traditional Indian objects. The ewer has bulbous body, pedestal foot, a curved handle and a straight spout. The washbasin has a bulbous or rectangular belly and , accordingly, a circular or rectangular top with a perforated cover in the centre. They were used both by the rich Muslims and Hindus before prayers and after meals.
- Pandan (betel box) and ugaldan (spittoon) were other objects of daily use in Muslim and Hindu aristocratic households. Since pan-chewing was an ancient Indian custom, pandans

and ugaldans were made also in Bidri from the 17<sup>th</sup> century to the early 20<sup>th</sup> century. The pandans were used for keeping betels, arecanuts, catechu, lime-paste and spices for use in pan (betel-quad). Pan played an important role in the social life of people and at court. Offering pan to a guest was a traditional Indian custom observed at courts and at aristocratic and middle-class homes. Bidri craftsmen fashioned pandans in several forms. Most of them were flattened dome-shaped, or rectangular, circular or with hexagonal body and were accompanied by a tray of matching form and decoration. Their adornment was according to the design type prevailing in a particular period. These were accompanied by two main types of spittoons, although some were fashioned in other shapes. The early examples are small in size and have a spherical chamber with a circular top and a hole in the centre. Pandans and ugaldans were used so frequently that the servants carried them when their masters went out.

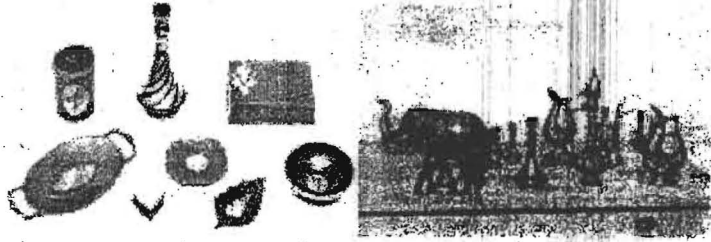
• Surahi (water-flask or goblet) was another utilitarian object used in households of all castes and communities. Naturally, they were produced in Bidri. The early examples date from the mid-17<sup>th</sup> century and were made until recently. Plates and small dishes were the other common objects. Generally circular, but rectangular and cut-corner ones also were made since the inception of this craft. Sometimes plates had a bowl decorated with matching design. The flat surface of plates gave the artist uninterrupted scope for his design.

• Bidriware is used for decorative purpose not only at homes but is also used in shops, hotels, and clubs. Cars, professional institutes and various celebrations.

• Bidriware is of great aid at household. Some of the Bidriware that can be used for daily purposes are: Tea stand, spoons, pen stands, paper cutters, Agarbatti stands, Kumkum boxes, cigarette boxes, necklaces, bangles, pedals, rings, buttons, various utensils, glasses, perfume bottles, pins, paper weights, boxes of various sizes and pen stands for reading books

(specially religious texts), and statues of great historical and religious personalities for example Swami Vivekananda, Chatrapati Shivaji Maharaj, Basavanna, Jesus Christ etc.

- Many health experts of our ancestors believe that if drinking water is kept in a pot made of Bidriware and conjoined daily it improves one's health. It cures many diseases like fits, asthma, problems related to stomach, cold and cough etc. Thus, Bidri pots are beneficial to us.
- In ancient period, Huqqa made of Bidri art was very popular. Umar-Khayyam, the great hukka used Bidri vases for storing liquor. From ancient period to modern times till date Bidriware is used by all, from aristocrats, noblemen, upper-class people to a common man. It is widely used for various purposes from health point of view to, daily purposes to luxury and enjoyment. Bidriware brought name and fame to the nation.
- As Bidriware boxes do not break easily, they are used as safes/ lockers for money, jewellery and valuables. Bidriware has been used for a wide variety of artefacts, ranging from domestic vessels to bed legs and in recent times, cigarette cases and buttons. Present day Bidri production caters mostly to a tourist demand. Smokers requisites are now cigar and cigarette boxes and ashtrays rather than hookas; also produced are necklaces, cuff-links and tie pins. A new development is the production of articles with no useful function whatsoever-wall plaques depicting folk dancers and signs of the zodiac are found, and there are found, and there are also sculptural pieces which draw their inspiration from the wall painting of Ajanta.<sup>23</sup>



### Bidriware Articles

**Conclusion :** Bidri is an important type of metalwork produced in India from the seventeenth to the nineteenth centuries. It has been worked in different media and adorned in a variety of techniques for the courts of the Deccani and Mughal kings, for the princedoms in Rajasthan and the Punjab Hill States, and for the Rajput and Maratha courts of Central and Western India. It is a type of encrusted metal ware, where one metal is inlaid or overlaid on another metal. It looks almost similar to damascene work (koftgari) with gold or silver. "Bidri" is so called because it is believed to have originated and chiefly made at Bidar in the Deccan. The Bidri objects of the first half of the seventeenth century, derives their shapes both from Persia and other Islamic metalware as well as from porcelain objects of China and Persia. Simultaneously, the influence of the decorative arts of the Mughals, becomes evident. In the mid-eighteenth century, along with the growing European objects start appearing in Bidri as well. However, in their total effect, all Bidri objects display a marked Deccani stamp.<sup>24</sup>

The varieties of workmanship of the designs consist of Tarkashi (inlay of wire), Tehnishan (inlay of sheet), Zarnishan (low relief), Zarbuland (high relief) and Aftabi (cut out designs in overlaid metal sheet). There is no hard and fast rule of adhering to one variety of workmanship, in the treatment of a single piece. Several of these worked together. A combination of Tarkashi and Tehnishan is very common. Though Zarbuland and Aftabi works are generally treated separately, it is not uncommon to

come across a combination of Zarnishan or Tehnishan and Tarkashi or in other combinations. Generally, silver is used as the metal for ornamentation. Seldom gold of rich or poor quality is used. The application of copper is indeed very rare. Because silver creates a better contrast against black, its use is more frequent. Till today the above designs continue in Bidri articles. The Bidri articles are useful for one and all so we all try to preserve this art from demising and pass the new generation.

### References:

- Bidar District Gazette, Government of Karnataka, Government Press, Bangalore, 1977.
- Choudhary Anil Roy, Bidriware, Illustrated Catalogue, Salar Jung Museum, 1961
- Handicrafts Bidriware of Bidar, Karnataka Indian Handicrafts Continuing Tradition sponsored by the office of the Development Commissioner, Ministry of Textiles, Government of India, West Block, Puran, New Delhi.
- George Watts and Percy Brown, Arts and Crafts of India A Descriptive Study, Cosmo Publications, New Delhi, 1979. pp. 47-48.
- George C.M. Birdwood, The Industrial Arts of India, Idarah-i-Adabiyat-i-Delhi, 1974.
- Hasoon Khan Sherwani, The Bahmanis of the Deccan, Munshiram Manoharlal Publishers Ltd, New Delhi, 1985.
- Jagdish Mittal, Bidriware and Damascene work in Jagdish and Kamla Mittal Museum of Indian Art, Jagdish and Kamla Mittal Museum of Indian Art, Hyderabad, 2011.
- Jamila Brij Bhushan, Indian Metal Ware, The All India Handicrafts Board, Bombay, 1961.
- Krishna Lal, National Museum Collection Bidriware, National Museum, New Delhi, 1990.
- Kulkarni A.R. Dr. M.A. Nayeem and Dr. Radhika Seshan (Ed). History of Modern Deccan, Vol.2, Abul Kalam Azad Oriental Research Institute, Hyderabad, 2009.

- Mukharji, T.N., Art Manufactures of India; Navrang, New Delhi, 1974.
  - Mukherji, T.N. Journal of Indian Art, April Issue, 1885.
  - Rahman, A (ed), History of Indian Science, Technology and Culture AD 1000-1800, Oxford University Press, New Delhi, 1999.
  - Rehman Patel, Karnataka Bidrikale, Ondu Adhayana, an unpublished Ph.D. thesis submitted to Gulbarga University, Gulbarga, 2009, pp.67-70. (Kannada)
  - Shehbaz H., Safrani, Deccani Drawings Reflections on life.
  - Speight, Bidriware, a Pamphlet issued by the Commerce and Industry Department of H.E.H, the Nizam's Government, 1933.
  - Sujit Narayan Sen, Catalogue on Damascene And Bidri Art in the Indian Museum, Indian Museum, Calcutta, 1983.
  - Susan Stronge, Bidriware: inlaid metal work from India, Victoria and Albert Museum, London, 1985.
  - www.bidrihandicraft.com, p.7.
  - www.google.bidriware.com.
  - Yazdani G, Bidar : Its History and Monuments, Motilal Banarasidas, Delhi, 1995.
  - Yazdani G., The Antiquities of Bidar, Asian Educational Services, New Delhi, 1992.
  - Zebrowski M, Bidri Metalware from Islamic Courts of India (Art East No. 1, 1982).
- <sup>1</sup> Prof. A.R. Kulkarni, Dr. M.A. Nayeem and Dr. Radhika Seshan (Ed), History of Modern Deccan, Vol.2, Abul Kalam Azad Oriental Research Institute, Hyderabad, 2009, pp. 160-161.
- <sup>2</sup> A. Rahman (ed), History of Indian Science, Technology and Culture AD 1000-1800, Oxford University Press, New Delhi, 1999, pp.302-305.
- <sup>3</sup> Handicrafts Bidriware of Bidar, Karnataka Indian Handicrafts Continuing Tradition sponsored by the office of

- the Development Commissioner, Ministry of Textiles, Government of India, West Block, Puran, New Delhi. Pp. 1-4. And T.N. Mukharji, Art Manufactures of India, Navrang, New Delhi, 1974, pp. 181-189.
- <sup>4</sup> See for detail Jagdish Mittal, Bidriware and Damascene work in Jagdish and Kamla Mittal Museum of Indian Art, Jagdish and Kamla Mittal Museum of Indian Art, Hyderabad, 2011, pp. 16-19.
- <sup>5</sup> Rehman Patel, Karnataka Bidrikale, Ondu Adhayana, an unpublished Ph.D. thesis submitted to Gulbarga University, Gulbarga, 2009, pp.67-70. (Kannada)
- <sup>6</sup> George Watts and Percy Brown, Arts and Crafts of India A Descriptive Study, Cosmo Publications, New Delhi, 1979, pp. 47-48.
- <sup>7</sup> Ibid., pp.17-18.
- <sup>8</sup> Krishna Lal, National Museum Collection Bidriware, National Museum, New Delhi, 1990, pp 15-16.
- <sup>9</sup> T.N. Mukharji, Art Manufactures of India, Navrang, op.cit. pp. 177-178.
- <sup>10</sup> Jagdish Mittal, Bidriware and Damascene work in Jagdish and Kamla Mittal Museum of Indian Art, Jagdish and Kamla Mittal Museum of Indian Art, Hyderabad, 2011, p. 19.
- <sup>11</sup> T.N. Mukharji, Art Manufactures of India, Navrang, op.cit. pp. 163-164.
- <sup>12</sup> Jamila Brij Bhushan, Indian Metal Ware, The All India Handicrafts Board, Bombay, 1961, pp.46-47.
- <sup>13</sup> Ibid, p.49.
- <sup>14</sup> Choudary Anil Roy, Bidriware .illustrated Catalogue 1961, Salar Jung Museum, Hyderabad, p. 14.
- <sup>15</sup> T.N. Mukherji, Journal of Indian Art, April Issue, 1885.
- <sup>16</sup> George Watts and Percy Brown, Arts and Crafts of India A descriptive Study, op.cit. p.48.
- <sup>17</sup> George CM. Birdwood, The Industrial Arts of India, Idarah-i-Adabiyat-i-Delhi, 1974, pp.163-164.
- <sup>18</sup> E.E. Speight, Bidriware, a pamphlet issued by the Commerce

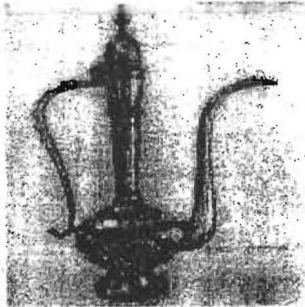


and Industry Department of H.E.H.the Nizam Government, 1933.

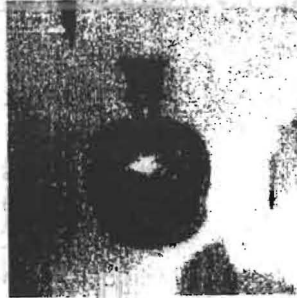
- <sup>19</sup> Jagdish Mittal, Bidriware and Damascene work in Jagdish and Kamla Mittal Museum of Indian Art, op.cit, pp.20-21.
- <sup>20</sup> See for detail H.Shehbaz, Safrani,. Deccani Drawings Reflections on life, p. 11.
- <sup>21</sup> www.bidrihandicraft.com.p.7.
- <sup>22</sup> Jagdish Mittal, Bidriware and Damascene work in Jagdish and Kamla Mittal Museum of Indian Art, op.cit., pp.22-23.
- <sup>23</sup> See for detail -Susan Stronge, Bidriware inlaid metal work from India, Victoria and Albert Museum, London, 1985, pp.33-37.
- <sup>24</sup> G.N.Pant, Indo-Islamic Arms and Armour, pp.63-68.

### VARIOUS BIDRI ARTICLES

#### Bidriware Products



Wine Decanter



Gold and Silver Work

#### Bidriware : old and new



Bidri Bowl



Paper Weight

#### Bidriware varieties

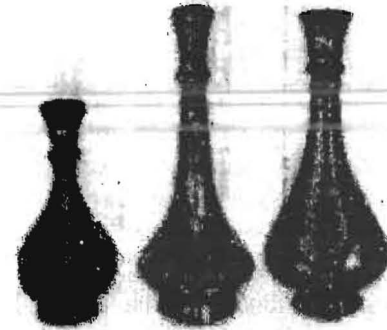


Bidriware of Hyderabad



Islamic Silver Inlaid Calligraphic

#### Bidriware Products Perfumery and Agarbatti



#### Jewelry boxes, animals and decorative

