

Design Resource

Tamta Copperware - Almora

Copper Craft Clusters

by

Prof. Bibhudutta Baral, Aruna Kumari Y., Shruti K.,
Shivangi Sharma and B. Srikanth
NID, Bengaluru

Source:

<http://www.dsource.in/resource/tamta-copperware-almora>

1. Introduction
2. Location Map
3. Tools and Raw Materials
4. Making Process
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Introduction

The history of copper craft dates back to many years ago. The art of making copper vessels is basically originated and well noticed in Almora district of Uttarakhand. Apart from Almora, the copper craft is also found in Chamoli, Champavat, Bageshwar and Pitthoragarh-other places of Uttarakhand.

The Shilpkars (artisans) belongs to Tamta community locally who are highly engaged in producing copper products, which are useful in daily life and, also during ritual and festive occasions. One can see Tamta Bazaar in Almora is filled with customers bargaining for copper products (especially water filter). Tamta Mohalla is the famous locality in old city of Almora renowned for skilled coppersmiths. Many copper products like household utensils, musical instruments, decorated articles, water filters etc., are made. Artisans locally procure copper (from Bageshwar copper mines). The sheets of copper is cut into required shape and molded as per the shape of final products to be made. To make products like pots, parts are mad separately then soldered to join. Finally the outer surface is polished for glossy finish.

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Copper container in traditional motif design.



Artisan shaping the copper sheet to make to part of a container.

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Work environment at artisan's place.



Design is being etched by chiseling.

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Unfinished parts of copper container.



Beating the copper sheet makes it smooth, strong and sturdy.

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Most demanded copper pot.



Stories from the epics are engraved on the copper sheet which in current case is in the form of fish.

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Location Map



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Tools and Materials

List of Tools Used:

- **Scissors** - Used to cut the copper sheets.
- **Prakkar** - Compass is used for marking and also for measuring.
- **Hammer** - It is used for creating dot patterns. Hammer that has a square head and rounded edges.
- **Wooden Mallet** - These are used in beating process to make the base strong.
- **Stone** - Used for shaping.
- **Metal Rod** - It used for shaping and engraving the motif designs.
- **Chisel** - It is used for creating and also for embossing design patterns.
- **File** - Used for polishing and to remove rough edges.
- **Bhatti** - Kiln for heating process.
- **Metal Scrubber** - Used to remove stains and polish the copper surface.
- **Traditional furnace** - Used for heating process.

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Raw Materials Used:

- **Copper** - Sheets of Copper is the main Raw material used in production process.
- **Fuel** - Bark of pine tree is used as fuel as it is available in local forest.
- **Soldering Material** - It is a substance made by mixing nearly eight varieties of metals. This mixture works as bonding element used to join the parts of copper products during manufacture process. This mixture is known as Ashtadhatu locally.
- **Seesa (lead)** - Used to seal the joined parts.
- **Tamarind** - It is used as natural cleaning agent to wash the copper sheets.

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The base of pitcher is beaten by wooden mallet.



Hammering is done to make/create the shape of product.

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Artisan sharpening the tool by rubbing on stone.



Traditional furnace.



Wood is used as fuel for heating.



Measuring tape.

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Flat Metal rods used for imparting designs.



Mixture of eight different metals used to seal the gaps.

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Different types of chisels used for designing.



Varieties of Hammer are used until the copper takes desired shape.

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The base of the copper is soldered by heating.



The finished product is washed with acid to get lustrous copper color.

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Making Process

Cutting:

Copper is soft metal when compared other metals like brass, bronze, iron. Hence it is easily malleable into required shape. The copper sheet is beaten to make it flat. The design outlines are marked on the product as per the shape of the product to be made. The copper sheet is then cut with scissors. Now, properly cut copper pieces are sent for annealing and shaping process.

Heating and Shaping:

Heating process is also called annealing which is done to strengthen the copper sheet. The sheet is heated on a furnace and then shaped by beating with wooden mallet. The process of heating and beating is repeated until the required shape is obtained. The heat treatment facilitates to strengthen and harden the material. After heating and shaping, the partially shaped copper pieces are allowed to cool at room temperature.

Designing:

The motifs designs are engraved on the surface by chiseling and beating processes. Chiseling is done to engrave geometrical and floral patterns. Where in beating on the objects help to obtain dotted patterns. Basically, the bigger products like pot and water filter are done in two parts. The upper part is embellished with line and geometrical designs as it is lighter, but the lower part of the pot is made with thick copper sheet, hence it is beaten to create dot patterns and also to strengthen the base.

Soldering:

The parts of the product are made separately and then joined together. These joined parts are soldered. For joining, a powder (made of suhaaga, jasta, petal, kansa, raang and nausadar) is mixed with water and applied on the joined areas. The product is again heated on furnace then allowed to dry.

Polishing:

Polishing is the final process done to obtain shine and luster to the product. After soldering process, the product is washed with diluted acid solution. Finally it is washed with tamarind solution to obtain more lustrous look.

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Copper sheet is cut as per required size.



Motif designs are engraved on the surface of sheet.



Sheet is bent to make cylindrical shaped container.



Base part is made using thick sheet of copper.

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Sheet is cut in circular shape to fix it with container.



Copper plate is beaten to make flat.



The base is fixed to the container.



Edges are locked.

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Nails are used to fix the base plate with border of container (the rounded container body).



Artisan applying paste made of metal powders to seal the gaps, which helps to avoid leakage of water.



The object is heated to start soldering process.



Object is rotated with the help of metal rods while heating.

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Object is burned at very high temperature.



Artisan inspecting to ensure proper sealing.



Chemical solution is being coated on the product.



Excess-coated solution is removed.

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The product is coated with tamarind pulp and allowed to dry.



The container is washed to remove tamarind pulp.



The product is beaten gently to give a final shape.



Chiseling and hammering done to give design motifs.

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Lid of water container is pierced with sharp tool to create cavity.



Artisan is creating floral motif on top of the lid.



The parts of the water filter are made separately and joined.



Copper water container.

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Products

Copper products are always treated as ritual objects during festive and ceremonial occasions. The traditional objects like idols of deities, Kalash (holy pot), Ghagars (pitchers), Diyas (copper lamps), vases, and spoons are made for worshipping purposes. Other objects like water filter, glasses, mugs and water pots are made which are essential for daily life.

The utensils and traditional products are beautifully embellished with embossed work. The motifs include zig-zag patterns, leaf, flower and straight line patterns. Heavy elaborated work depicting flowers, petals, curved stems creepers and images of deities. Few traditional motifs like small circular dots are made on the outer surface of the product by beating with hammer, the beating also helps to make base of the product strong. The dot pattern products are well known traditional products right from ancient days all over India and still continued.

The products are sold in local bazaar and also in local fairs held at Jauljibi, Gaunchar and Almora. Few products are exported to Nepal for marketing. The price range of these copper product vary from place to place and also as per the complexity of workmanship.

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