Digital Learning Environment for Design - www.dsource.in

Design Resource

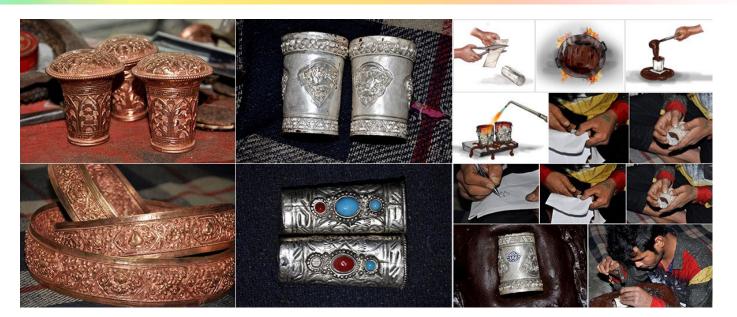
# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details



Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/introduction

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

### Introduction

Silver is one of the seven metals of antiquity, usually found with lead in nature. This brilliantly white shining metal takes second place for preciousness after gold. Silver ornaments, silver cutlery, religious figures, decorative items, and utility objects like solar panels, electric conducts, etc., are some of the products made out of silver. Since the evolution of mankind, man has used his intelligence and creativity to develop things that are useful and easily made. He started first with stones and woods, later moving to elements like gold, silver, and copper, naturally found in the form of nuggets. These metals being fairly fusible and malleable, man-shaped them with the help of firewoods and charcoal, urging their highest application in the coming ages.

The Silver artifacts date back to the 4th millennium BC when Turkish inhabitants extracted silver from lead through Cupellation. Remains of this metal in the form of coins and rings were later found from parts of Mesopotamia, marking its monetary use for centuries. During the 3rd millennium BC, silver and gold sheets were pressed against wood stencil or wax cast to make soft utility objects in the Middle East. Kurin, a Syrian village, raised itself to a Global repute with their archaic design on silver altar vessels, which has won a place in the Classical pieces. Egyptians were also found to resort to silver objects taking their ductile nature, making decorative items out of it. Here resin and mud were introduced as repoussage backing, while in 400 BC, Greece used Beeswax as a filler. Greek armor plates and Roman silver found from England and France also ended the results of the repoussage and chasing technique. Repousse and chasing are commonly used in India to create objects of silver sheets such as water vessels. As silver is ductile than gold, its thin sheets could be easily embossed and engraved, followed by natural granular facile detailed decorations. Hence different types of vessels, statues, and jewelry were widely found from scattered areas of the world, yielding elegant antiques for our references.

Embossing is a technique of creating an impression of a particular design, decoration, lettering, or pattern on another surface. In regular printing or engraving, plates are pressed against the surface to leave an imprint. However, in embossing, the high-pressure pressing raises the surfaces adding a new dimension to the object. Embossing names on credit cards, embossed Braille books for the blind, embossed jewelry items, wedding cards, and coins are few examples from daily life, underlining its aesthetic purposes to practical uses. There are different types of embossing, namely blind embossing, tint embossing, and glazing, which give varied results individually.

Embossing involves two stages; repoussage and chasing. Repoussage is a form of Toreutics in which a malleable metal is ornamented or shaped by hammering from the reverse side. While chasing being the opposite of repoussage, it is a technique of refining the front side of the work after repoussage by sinking the metal slightly. A combination of these two steps is collectively known as embossing. Repousse, a French word that means "to push" and chase refers to "channel, or indentation". This embossing process marks the least rate of metal loss because the element used is stretched to keep the surface continuous and maintain a particular thickness. The notable zenith of the technique is that traces of direct contact of the tools used are usually visible in the end

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/introduction

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

result, which is unseen in other methods, where all evidence of the working method is eliminated.



The silver embossing artisan Ram from Fatehpur (Himachal Pradesh).



Finished silver embossed artifact.



Artisan involved in the embossing process.



Copper embossed offering plate use by Tibetans during rituals.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/tools-and-raw-materials

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

## **Tools and Raw Materials**

Tools and raw materials that are used for the Silver Embossing are:

- Chisels: Different sizes of chisels are used in the engraving process.
- Lacquer: Lacquer is used as a base for silver embossing work.
- Cutter: It is used to cut the silver sheet into the required size.
- Scissor: It is used to cut the tracing paper.
- Hammer: It is used to beat the silver sheet and create embossing.
- Liners: They are used in the initial marking and in the finishing stages to refine any thin outlines.
- Planishing Hammer: It has flat rounded edges used to push out large, flat areas of metal.
- Doming Tool: These tools push out rounded areas of metal.
- Hand Gas Burner: It is required for heating the metal sufficiently for shaping.



Different sizes of chisels are used in the engraving process.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/tools-and-raw-materials

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details



Lacquer is used as a base for silver embossing work.



Cutter used to cut the silver sheet to the required size.



Various tools are used during silver embossing.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/making-process

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

## **Making Process**

The embossing technique involving repoussage and chasing may seem difficult for amateurs, but with guided training and persistent practice, even complex or delicate works can be done with almost perfection, which would be practically impossible to achieve under other techniques. The exercise of repoussage and chasing is very time-consuming due to its need for repetition of certain stages. Following are the basic procedures followed in authentic silver embossing:

First step; preparing the metal for chasing / repoussage work by annealing and cleaning. Cleaning is done to remove the excessive tar from the metal. Followed by setting up the metal and careful work with punches. This process is typically repeated many times to achieve clean and rightly shaped raw metal. Then a thin sheet of silver is placed over a bowl of a pitch. This pitch should be made slightly soft with a heat gun or hand gas burner for relief work. Chasing work starts once these elements cool down and harden. It can become extremely soft or liquefied when heated extremely, turning the burn into hazardous smoke. Hence it is instructed not to heat the pitch to such a degree that it emits dense fumes.

The pitch used for supporting the metal is best worked in the form of a bowl or board. The pitch bowl can be an iron bowl sitting on a sandbag or on a rubber ring. This helps for more excellent balance and rotation. Once the metal sits on the pitch, tools made up of steel are used for detailing work. A liner is a steel tool/punch with a very thin, slightly rounded end that is used to create the initial lines. The liner is hit on the end with a chasing hammer, pushing a thin line of silver metal into the pitch. Once all the lines are hammered, the silver metal is then turned over from the pitch, followed by cleaning and re-annealing, before going for the Repousse technique. Repousse technique is then applied, using various other tools to push the metal so that it is raised on the front of the chased piece. After finishing repoussage, the metal design is inverted, and the voids are filled with small portions of the warm pitch to help frame its shape. The pitch should be allowed to set in the voids and cool before the piece is turned over and placed back on the main pitch.

The above steps are repeated many times, for fine and cleaner impressions, before the final product is finished. Turpentine is used to remove the pitch, every time the metal is turned over. A blow/ hand gas burner can also be used to burn the extra pitch off. Safety measures like wearing gloves and protective glasses should be ascertained every time the embossing work is undertaken. As there's exposure to open flame, one should be in a work-space that guarantees proper ventilation, along with a fire extinguisher at a reachable distance.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/making-process

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

### Flowchart:



- 1. The silver sheet is cut into the required size.
- 2. Lac is heated, and molten lac is poured on the embossed sheet.
- 3. A design stencil is stuck onto the silver sheet using adhesive.
- 4. The design is embossed using a chisel and hammer.
- 5. After embossing, lac is removed by heating.



The sheet is cut to the required size.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/making-process

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details



The lac is heated to make it into a molten form.



Molten lac is poured on the embossed sheet.





The design to be embossed is drawn on paper.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/making-process

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details





The drawn stencil is cut from the paper.



The design stencil is stuck onto the silver plate using adhesive.



A silver glass is placed on molten lac, which holds it firmly.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/making-process

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details





The completed embossed cup.



The artisan carves the design with chisel and hammer following the stencil.



Once the embossing is done lac is removed by heating.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/products

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

## **Products**

Chains, pendants, bracelets, glass, lighter cover, and rings are other products sold by these silversmiths. Himachal Pradesh is also well known for its silver-plated threads used for embroidery works in the textile industry. These are in great demand across the country. The products' price range starts from 120 INR to 200 INR for every gram of the finished work.



Copper artifacts with intricate embossing design.



Silver utensils embossed with a floral pattern.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/products

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- **6. Contact Details**



Attractively embossed artifacts.



Beautifully engraved silver artifact.

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/video

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

## Video



Silver Embossing - Himachal Pradesh

Digital Learning Environment for Design - www.dsource.in

Design Resource

# Silver Embossing - Himachal Pradesh

Engraved Artifacts by Prof. Bibhudutta Baral NID Campus, Bengaluru

#### Source:

https://dsource.in/resource/silver-embossing-himachal-pradesh/contact-details

- 1. Introduction
- 2. Tools and Raw Materials
- 3. Making Process
- 4. Products
- 5. Video
- 6. Contact Details

### **Contact Details**

This documentation was done by Prof. Bibhudutta Baral at NID, Bengaluru.

You can get in touch with him at bibhudutta[at]nid.edu

You can write to the following address regarding suggestions and clarifications:

### **Key Contacts:**

Norbulingka Institute Palampur - Dharamshala Road, Sidhpur, Himachal Pradesh 176057 Mobile: +91 98821 44210 India

### **Helpdesk Details:**

Co-ordinator
Project e-kalpa
R & D Campus
National Institute of Design
#12 HMT Link Road, Off Tumkur Road
Bengaluru 560 022
India

Phone: +91 80 2357 9054 Fax: +91 80 23373086

Email: dsource.in[at]gmail.com