

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu>



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

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/introduction>

1. Introduction

2. Tools and Raw Materials

3. Making Process

4. Products

5. Video

6. Contact Details

Introduction

Madurai was originally a forest known as Kadambavanam. A merchant during his course of travel reached the kadambavanam forests and stayed their overnight. When he woke up in the morning he discovered a shivalingam, surrounded by offerings of flowers. Knowing that no human has offered flowers during the night, the merchant inferred that the celestials offered worship to Shiva each night, conveyed the matter to the ruler Kulasekhara Pandiyan. Hearing that the king decided to build a huge temple in honor of Shiva. It is believed that Shiva incarnated as an architect and supervised the construction of this temple. The king also builds the ancient city of Madurai positioned around the temple.

Madurai known as the temple city is one of the oldest cities in the world since 1st Millennium BC. It is the cultural center of Tamil nadu. It is also known as “Athens of the East”. As early as 3rd century Megasthenes greek ambassador to India visited Madurai. Madurai is also mentioned in Kautilya's Arthashastra. It is also mentioned in the works of roman historians Pliny the younger Ptolemy, the Greek geographer Strabo and also in Periplus of the Erythraen Sea. Sangam Literature like Maduraikkanci records the importance of Madurai as a capital of Pandyan dynasty. It is also known by many names like Malligai Managar, Thiruvilai Koodal etc.

Various kings like Pandyas, Cholas, Madurai Sultanate, Vijayanagar Empire, Madurai Nayaks, and British ruled the king. After the Sangam age, most of present-day Tamil Nadu, including Madurai, came under the rule of the Kalabhra dynasty, which was ousted by the Pandyas around 590 CE. The Pandyas were ousted from Madurai by the Chola dynasty during the early 9th century and remained under them till 13th century, till the second Pandiyan empire was established. After the death of Kulasekara Pandiyan, Madurai came under the Delhi sultanate. In 1801 Madurai came under the direct control of British East India Company and was annexed to Madras Presidency.

One of the main centers of attraction in Madurai is the Meenakshi Amman temple. It is the ritual center of ancient city of Madurai. Madurai is built around the Meenakshi Amman temple. The city is divided into a number of concentric quadrangular streets around the temple. The first Madurai Nayak king redesigned the city in accordance with the principles laid out by Shilpa Shastras. These squares retain their traditional names of Aadi, Chittirai, Avani-moola and Masi streets, corresponding to the Tamil month names and also to the festivals associated.

For the various celebrations and rituals happening in the temple, the god and goddess are decorated in a grand manner using various kinds of ornaments and jewels. The temple pillars and entrance to shrine is also covered using the sheet metal embossing. The statues are covered completely using sheet metal embossing. There is a group of industries and people who are into making of brass metal embossing. Mr. Pandirajan runs one such industry by name Sri Mouleswara Sculpture Manufacturing Company in Villapuram in Madurai district. They are into making of sheet metal embossing, bronze statues and other related items. They are into this business since last four generations. They have worked for some of the great temples like Sri Meenakshi amman temple Madurai, Trimala Tirupathi Devasthanam, Tirupathi etc. Now let us see one such work how it is been made.

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/introduction>

1. Introduction

2. Tools and Raw Materials

3. Making Process

4. Products

5. Video

6. Contact Details



Artisan Mr. pandirajan have been into this field from past 15 years and learnt this art form his grandfather.



Panchmukhi naag are done as per customer orders.

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/introduction>

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



Senior artisan involved in making of brass sheet metal work.



Artisan involved in the embossing process.



Sheet metal in the form of lotus flower.

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/tools-and-raw-materials>

Tools and Raw Materials

Following are the tools and raw materials required for brass sheet metal work:

- **Marker:** Used to make the sketches on the sheet.
- **Chisel:** Used to punch marks, which produce the embossing.
- **Hammer:** Used to strike.
- **Cutter:** Used to cut the sheet to required size.
- **Buffing Machine:** Used to polish the sheet metal after finishing.
- **Anvil:** Used to strike the sheet metal placing on it.
- **Acid:** Used in cleaning the sheet metal.
- **Tamarind Water:** Used in cleaning the metal surface.
- **Sheet Metal:** Main raw material required for embossing.



Metal sheets are the basic raw material for sheet metal work.

1. Introduction

2. Tools and Raw Materials

3. Making Process

4. Products

5. Video

6. Contact Details

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/tools-and-raw-materials>

1. Introduction

2. Tools and Raw Materials

3. Making Process

4. Products

5. Video

6. Contact Details



A hand file tool used to shape materials.



Tamarind used to wash the brass sheet.



Different sizes of chisels and hammers are used in engraving.

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing
byProf. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/making-process>

1. Introduction

2. Tools and Raw Materials

3. Making Process

4. Products

5. Video

6. Contact Details

Making Process

AlthoThe sheet is cut to required size depending on the design to be made. Sketch is drawn on to the sheet metal using a maker. The artist starts forming the design on the sheet using various types of chisels.

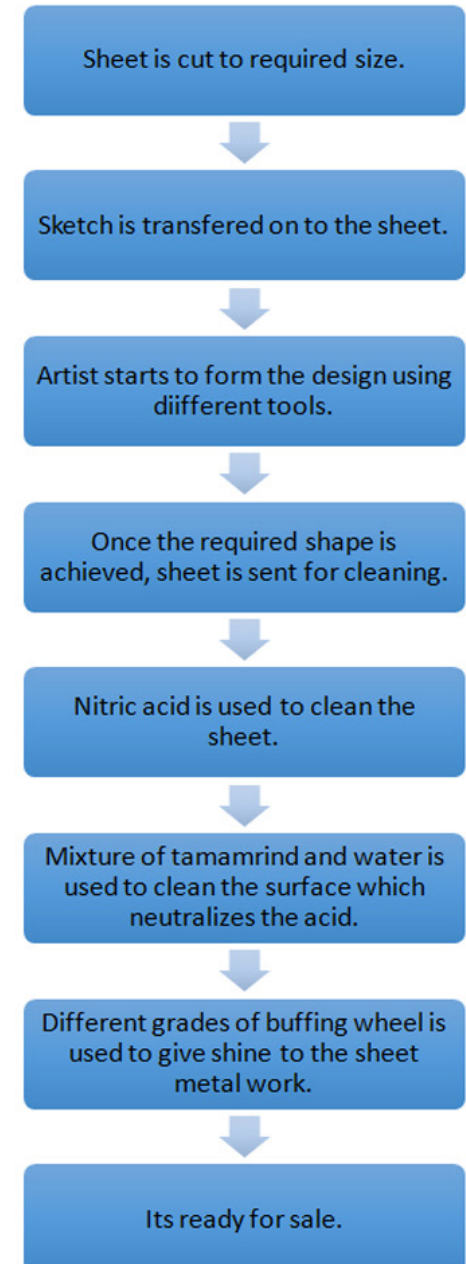
Initially one takes a flat chisel and starts punching on the lines marked and create an impression. After that, the small details within the design is marked and punched using a flat chisel. Now another flat chisel is used to punch adjacently leaving a small gap to the initial line drawn during the sketching process, which produces the embossing effect. After the above process, one uses a flat wide square punch to flatten out the sheet, which gets slightly distorted during the above process. Every time the above process is repeated to make sure the sheet metal remains flat throughout the manufacturing process. Detailing required in the designs are done during the final stage.

Once the required design is achieved the sheet metal is taken for cleaning and polishing. Nitric acid is used to clean the sheet metal to remove the dirt and stains off them.

Later a mixture of water and tamarind is used to clean the surface, which neutralizes the acid effect as well as give a natural shine.

Various grades of buffing wheel are used to give more shine to the sheet metal work. Once polishing is done, it's ready for sale.

Flow Chart:



Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/making-process>

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



The rough sketch is drawn on the brass sheet using marker.



Artisan carves the design with chisel following the rough sketch.



Detail work is embossed using small chisels.

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/making-process>



Once the embossing process is done, the embossed sheet is processed using nitric acid.



After processing, the embossed sheets are washed with tamarind water.



Sheet metal in the form of art plate.

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

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/products>

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

Products

Sheet embossing is usually done for the temple doors, Idols of Gods and Goddess, Pillars of temples, Chariots and mantapa's for the idols.

Price range is from INR 250 for the simple embossing of god and goddess of size 3square inch and INR 5000 for big size embossing of size 3 to 5 feet.



Idol of Parashuram made of metal.



An elephant head embossed in silver sheet.



Lord Ganesha vahana mouse is made out of brass metal.

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.
NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/video>

Video



Brass Sheet Metal Work - Madurai, Tamil Nadu

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

Design Resource

Brass Sheet Metal Work - Madurai, Tamil Nadu

Sheet Embossing

by

Prof. Bibhudutta Baral and Hariharasudan T.

NID Campus, Bengaluru

Source:

<http://dsource.in/resource/brass-sheet-metal-work-madurai-tamil-nadu/contact-details>

Contact Details

This documentation was done by Prof. Bibhudutta Baral and Hariharasudan T. at **NID, Bengaluru**.

You can get in touch with

- Prof. Bibhudutta Baral at [bibhudutta\[at\]nid.edu](mailto:bibhudutta[at]nid.edu)

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

Key Contacts:

Shri. Pandia Raja, Senior Craftsperson

Madurai, Tamilnadu

India

Mobile: 09003418600

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](mailto:dsource.in[at]gmail.com)

1. Introduction

2. Tools and Raw Materials

3. Making Process

4. Products

5. Video

6. Contact Details