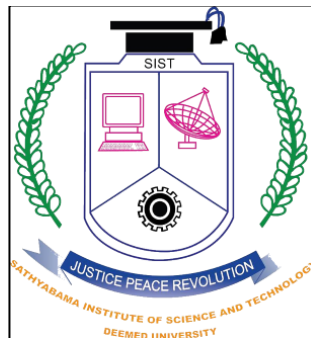


INTERNSHIP REPORT

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE AWARD OF
BACHELOR OF SCIENCE – FASHION DESIGN**

by

YAPADINNE SAI VARSHITHA (41105018)



**DEPARTMENT OF FASHION DESIGN
SCHOOL OF BUILDING AND ENVIRONMENT**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with “A++” by NAAC

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI – 600119

JULY 2023



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www.sathyabama.ac.in

SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT (S105AINT)

2023 – 2024

Name of the Student : YAPADINNE SAI VARSHITHA

Reg No : 41105018

Semester : V

Batch : 2021-2024



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT (S105AINT)

2023 – 2024

VIVA –VOCE EXAMINATION

This is to certify that the Internship (S105AINT) is the work of YAPADINNE SAI VARSHITHA - 41105018, during semester V, is a student of Fashion Design department had undergone training in EHA SILKS has been monitored by the continuous assessment from 15/05/2023 to 04/06/2023.

Submitted for Viva Voce examination held on: **06/09/2023**

Mentor

Class Coordinator

Internal Examiner

External Examiner

Head of the Department
Head of the Department
Fashion Design
Sathyabama Institute of Science and Technology
Chennai-600 119.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

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DECLARATION

I YAPADINNE SAI VARSHITHA here by declare that the Internship (S105AINT) for 21 days from 15/05/2023 to 04/06/2023 done by me under the guidance of Mrs. S. SAVITHIRI, is my original work and is prepared based upon the data and information collected during my internship period is submitted in partial fulfillment of the requirements for the completion of practical training session.

Date: 06/09/2023

Place: CHENNAI

Y. Sai Varshitha

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to the Board of Management of **SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY** for their kind encouragement in doing this Internship and completing it successfully. I am grateful to them.

I convey my thanks to **Dr. DEVYANI GANGOPADHYAY** Dean, School of Building and Environment for providing me constant support and guidance. Your dedication to fostering a positive and nurturing academic environment has made a significant impact on my personal and professional growth.

I express my deep sense of gratitude to **Mrs. S. KRITHIKA**, Head of the Department, Department of Fashion Design, School of Building and Environment, for providing me the assistance and knowledge at the right time during the progressive review.

I would like to extend my sincere gratitude to **Mrs. POORNIMA KOTA** for giving me the chance to be a part of your esteemed organization and gain practical experience in the industry. I admire, the great opportunity that has provided to us and all the elements that made a contribution toward my understanding throughout this period

I would like to express my sincere and deep sense of gratitude to **Mrs. S. SAVITHIRI** for her valuable guidance, suggestions and constant encouragement. I feel privileged to have the opportunity to be under your guidance, that paved the way for the successful completion of my internship.

Last but not the least, I would like to thank all my **FAMILY MEMBERS, FRIENDS AND RELATIVES** for their support during the Internship period.

BONAFIDE CERTIFICATE FROM COLLEGE



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

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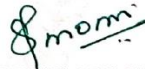
Ref: SHD/2023/04/24/60

24 April, 2023

BONAFIDE CERTIFICATE

This is to certify that **Ms. YAPADINNE SAI VARSHITHA**,
Register Number **41105019** is a Bonafide student of our Institution
pursuing 2nd year **BACHELOR OF SCIENCE in FASHION DESIGN**
during the academic year **2022-2023**. She will be completing the course in
the year **2024**.

This certificate is issued for the purpose of **Applying**
INTERNSHIP.


DEAN (STUDENT AFFAIRS)

Dr. G. SUNDARI, M.E., Ph.D.,
DEAN (STUDENT AFFAIRS)

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai - 600 119.

MAIL REQUEST FROM COLLEGE

Internship of our students regarding



Inbox



GAYATHRI N 24 Apr

to ehacare@gmail.com, FASHION, ...



Dear Sir/Madam,
I am N. Gayathri, working as Assistant Professor in the Fashion Design department of Sathyabama Institute of Science and Technology. Students pursuing B.Sc. Fashion Design degree from our department needs to complete their internship for 21 days in their Second year as a part of their curriculum. We request you to kindly permit our students for their internship in your esteemed organization for 21 days from 11th May to 3rd June 2023. Kindly confirm your acceptance by mail.

please find the attached students name list with their register number.

Karthika.J - 41105004

Yapadinne Sai Varshitha - 41105018

Best Regards

N. Gayathri
Assistant Professor
Department of Fashion Design
Sathyabama Institute of Science & Technology
Chennai - 600119

MAIL ACCEPTANCE FROM COMPANY



GAYATHRI N 24 Apr

Dear Sir/Madam, I am N. Gayathri, working as Assistant Professor in the Fashion Design



GAYATHRI N 28 Apr

to me, saivarshithareddy67503 ✓



Best Regards

N. Gayathri
Assistant Professor
Department of Fashion Design
Sathyabama Institute of Science & Technology
Chennai - 600119

----- Forwarded message -----

From: **EHA Silks** <ehacare@gmail.com>

Date: Mon, Apr 24, 2023 at 5:10 PM

Subject: Re: Internship of our students regarding

To: GAYATHRI N <gayathri.design@sathyabama.ac.in>

Cc: FASHION HOD <fashionhod@sathyabama.ac.in>

Hello Gayathri,

Good to hear from you on intership program and thank you for approaching us.

We encourage new generation and support them to learn new aspects of current market fashion and trends.

Will surely support your student to pursue new learning opportunities and their dreams.

Thanks & Regards
Poornima
Eha Silks

PERFORMANCE REPORT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT 2023

(Continuous progress report of the trainee for the period of 21 days in the industry to be submitted to HOD by the Trainee Incharge of the Organization)

1. Name of the Industry: EHA SILKS
2. Address : 8-86, Anand Complex, Main Road, Uppada-533448.
Kothapalli Mandal, E.G. District, A.P.
3. Name of the student : Yapadinne Sai Varshitha
4. Duration : 15-05-2023 to 04-06-2023
5. Total No. of days : 21 days

Evaluation of performance criteria shall be on

Note: Kindly grade the student as per her overall performance in the office during the assessment days, which will be converted to the allotted 40 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding the Units		✓			
Participation in the Industry	✓				
Handling the given work		✓			
Punctuality		✓			
Coordination With Other Workers		✓			
Oral communication			✓		
Attitude		✓			
OVERALL PERFORMANCE	Good enough to understanding & learning the new concepts. Good designing skills as well.				

Any other Remarks :

Signature of the Head of the Office:

For EHA
L. Poornima
Director

CERTIFICATE



Certificate of Internship

This is to certify that

Yapadinne Sai Varshitha
(University Reg. No: 41105018 student from Satyabhama University -Chennai)
has undergone Internship program at EHA SILKS . From May 15,2023 to June 05,2023
as part of partial fulfilment of his Full-time academic program.

Project Title: Handloom Weaving

The Trainee was found to be regular, punctual, and attentive during the period of training at our organization. As per Non-Disclosure Agreement the designs of the projects executed at EHA SILKS organization are confidential and/or proprietary information. We have limitation to share the designs of the project to external parties other than our key stakeholders. Hence Interns are advised not to share the key deliverables of the project.

For EHA SILKS

Signature

June 5th 2023
Date

INTERNSHIP DETAILS

1. INDUSTRY / ORGANIZATION: EHA SILKS

Mentor Name : **Mr. Srinivas**

Designation of the mentor: **Design Incharge**

Contact Number : **9493748773**

Address : **8-86, Anand Complex, Main Road,
Uppada – 533448 U. Kothapalli Mandal, E.G. District, A.P.**

2. INSTITUTION: SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Mentor Name : **Mrs. S.Savithiri**

Designation of the mentor: **Assistant Professor**

Student Name : **Yapadinne Sai Varshitha**

Department : **Fashion Design**

Address : **Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai- 600119 Tamil Nadu, INDIA.**

DAILY REPORT

DATE	REPORT
15/5/2023	Visiting a Company's Showrooms
16/5/2023	Visiting Weavers and Weaving Unit
17/5/2023	Design Department
18/5/2023	Basic Design Development
19/5/2023	Design Department
20/5/2023	Motif Development
21/5/2023	Motif Development on Graph
22/5/2023	Design Department
23/5/2023	Weaving Unit
24/5/2023	Design Development on Graph
25/5/2023	Design Department
26/5/2023	Design Development on Graph
27/5/2023	Weaving Unit
28/5/2023	Design Department
29/5/2023	Dyeing Unit
30/5/2023	Design Development on Graph
31/5/2023	Weaving Unit
01/6/2023	Dyeing Unit
02/6/2023	Design Department
03/6/2023	Design Department / Weaving Unit
04/6/2023	Weaving Unit

INDEX

S. No	CONTENT	Pg. No
1	INTRODUCTION	15
2	COMPANY PROFILE	15
3	ORGANIZATIONAL CHART	21
4	DESIGN DEPARTMENT	22
5	DEVELOPMENT OF A DESIGN / MOTIF	23
6	WORKS ON DESIGN DEVELOPMENT	24
7	GRAPH DESIGN DEVELOPMENT	28
8	WORKS ON GRAPH SHEETS	30
9	DYEING UNIT	33
10	BLEACHING	33
11	HEATING PROCESS	35
12	MARKING – PALLU AND BODY	36
13	DYEING PROCESS	38
14	WASHING AFTER DYEING	42
15	DRYING	43
16	BEATING PROCESS	44

17	WEAVING UNIT	44
18	YARN LAYING	44
19	DESIGN (MOTIFS) – IN YARNS	48
20	YARN ATTACHMENT	50
21	WEAVING	52
22	CONCLUSION	56
23	BIBILIOGRAPHY	57

**DOCUMENT ON EHA SILKS IN
HANDLOOM UNIT**



1. INTRODUCTION

The Uppada handloom design unit is the subject of this overview study. The purpose of this internship is to equip the handloom unit with practical knowledge, abilities, and attitudes. By seeing, speaking with relevant parties, and studying the principles of the handloom unit, this report was made .they've provided enough information of the numerous divisions within the handloom sector, including weaving, dyeing, and design. They intend to give a thorough account of the events and findings during this time period through in-depth investigation, the basics of weaving, and the art of making fabric patterns and motifs .they've provided enough having this internship has expanded my knowledge of textile production and how the knowledge they gave from the handloom design unit has changed the way they view the potential of woven fabrics.

2. COMPANY PROFILE

” VENKATA RAMA LAKSHMI FABRICS” established in the year 1979 in UPPADA, Year of Registration – 30 June 1980. This Organization has been around for 43 years.



Figure 1
Lolla Venkata Rao
(Founder)

LOLLA VENKATA ROA, founder of the Organization, began his career in the weaving sector in 1940 and he was one of the Original Directors of Kothapalli Handloom Board.

In 1986 they began manufacturing and selling Traditional Jamdhani Sarees. They started supplying government showrooms and Art and Craft Exhibition (with the support of NGO). They expanded their organization by displaying their Uppada Jamdhani Sarees and began to distribute all over the states like Vijayawada, Kakinada, Hyderabad, Madras etc. Later they extended their branches for marketing in Bombay, Delhi and Venkatagiri. In 2008 the Uppada Saree was given the Geographical Indication (GI) status, which recognizes its origin.

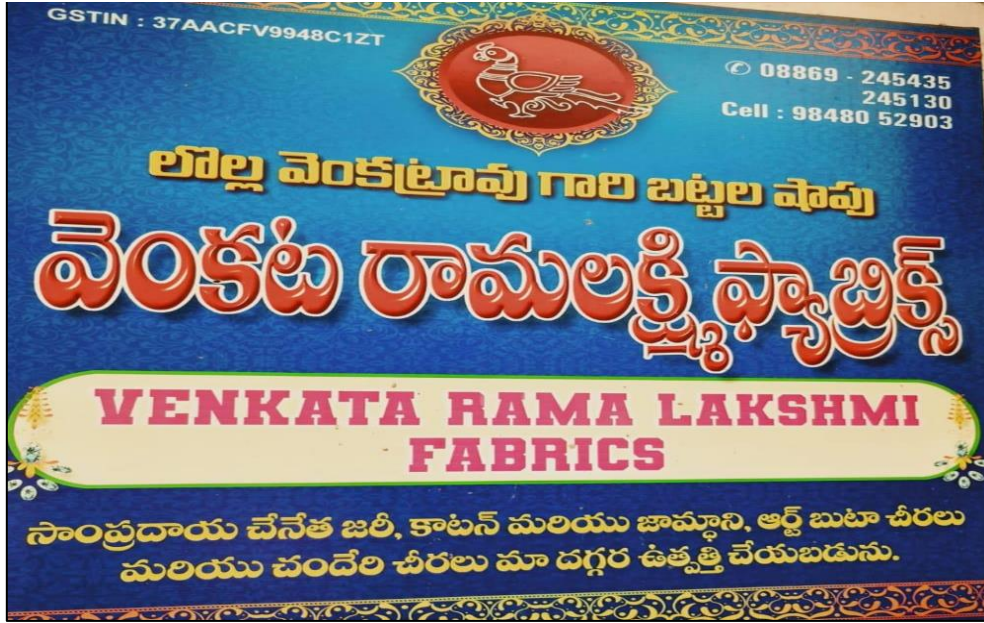


Figure 2
Venkata Rama Lakshmi Fabrics



Figure 3



Figure 4

Venkata Rama Lakshmi Fabrics – Retail Shop

Uppada Village has approximately 250 families, of which 150 family members work for Eha Silks; they have 400-500 weavers and over 1200 handlooms. Every year, they come up with approximately 36,000 sarees.

Weavers earn between 10,000 and 25,000 per month, depending on the quantity of sarees they are able to weave in a month.

This organization has wholesale and retail marketing throughout the States. The cost of a cotton or silk Uppada saree varies depending on the pattern, ranging from 5,500 to more than 2 lakhs.



Figure 5
Eha Silks (Show Room) – Uppada

Lolla Venkata Rao's son LVV. SATHYANARAYANA and granddaughter POORNIMA KOTA have led the organization over the years.

They launched the Sister Organization EHA SILKS in Chennai in 2016 and plan to establish another branch in Uppada in 2021. It has exclusive women's wear collections and is creating men's wear collections.

Their collections include heavy Jamdani silk sarees, Designer silk sarees, khadi sarees, Party Wear Designer Sarees, Fancy Sarees, dress materials and handloom fabrics of all varieties. Our range of apparels, available in a variety of Colours, designs, embroidery and patterns, can be made-to-order as per client specifications. Since their talented designers and weavers put hard to make different unique designs during manufacturing on product have earned the trust of a vast clientele that includes India's leading designers, boutiques and worldwide.



Figure 6
Eha Silks - Uppada

MARKETING CENTERS

They distribute throughout the states, mostly in Hyderabad, Madras, Vijayawada, Vizag, Bangalore, Bombay, Delhi, Calcutta, Nagpur, and Venkatagiri.

UNITS

- Weaving Unit - Uppada
- Stitching Unit – Kolkata, Jaipur.

CERTIFICATIONS

- National Merit Certificate award (Marketing) in 2016.
- National Award (Marketing) in 2018.

VISION

To work towards the achievement of a textile ecosystem in which handloom weaving and handloom weavers, on the one hand, become productive contributors to the overall economy of society, and on the other hand, handloom weaving is preserved and developed along with proportionate development in the socioeconomic circumstances of weaver families and their skill sets.

MISSION

To establish a viable, successful organization that promotes handloom weaving using modern designs, preserves and improves handloom weavers' skills, provides income, education, and dignity to handloom weaving communities across clusters, and increases the number of people who use handlooms in society.

COMPANY FACT SHEET

Basic Information

- Nature of Business - Manufacture, Wholesale & Retail.
- Additional Business - Manufacturer, Exporter, Wholesale, Trader.
- Company Partners - Poornima Lolla, Satyanarayana K, LVV Satyanarayana.
- Address - 8-86, Anand Complex, Main Road, Uppada, AP
PIN – 533448
- Industry - Indian Ethnic wear for Women.
- Total Number of Employees - 20-25
- Year of Establishment - 2021 (EHA SILKS – Uppada)
- Main Managing Partner - Mrs. Poornima Lolla.
- Annual turnover - 2022 – 23 Rs 2 Crore Approx.

STATUTORY PROFILE

- Banker - HDFC BANK
- GST No - 37AAJFE1013G1ZV

VISITING CARDS



Figure 7

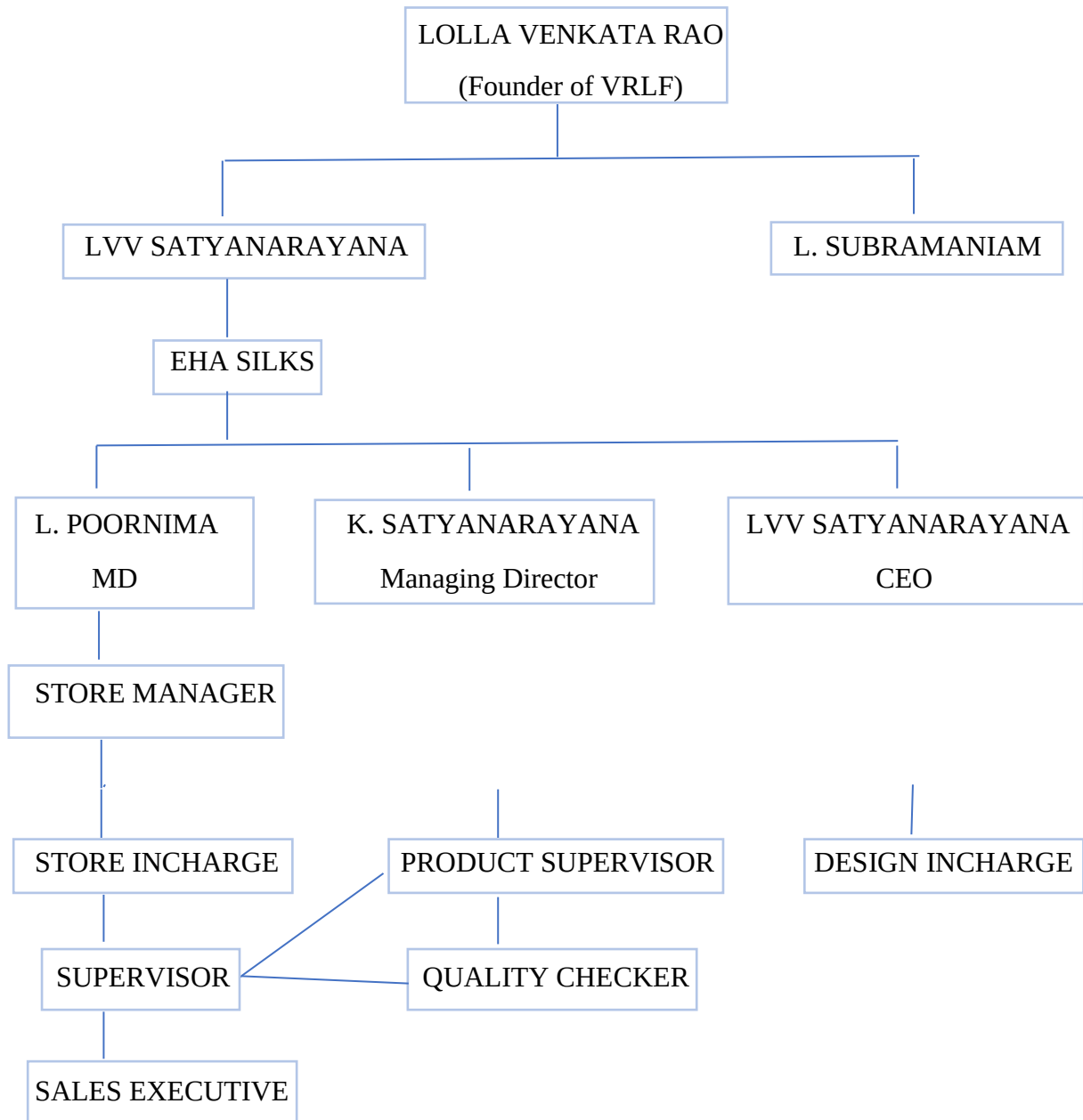
. WEBSITES

- Mail ID - ehacare@gmail.com
- Google Website - www.ehaonline.com
- Instagram - ehasilks
- Facebook - eha.india
- WhatsApp - 9491119292



Figure 8

3. ORGANIZATIONAL CHART



PROJECT

4. DESIGN DEPARTMENT

This organization produces the famous Uppada Jamdhani sarees, where they create the popular motifs which are named as Panna, Hajar, Dubli, Jal, Butidar, Tera, Charkona, Fulwar, Duria, belwari etc.

Some new designs include "Dublajaal" (like a fish net), "Phultesri" (floral pattern), "Jalarnaksha" (allover pattern) and others. Only new motifs are drawn on the graph sheets.

They do not draw the design beforehand on paper. They work on the design from their memory, and express their creative genius. Each pattern is woven with mathematical precision.

Mostly Floral, Birds and Geometrical patterns are used in these sarees.



Figure 9
National Award-Winning Design

5. DEVELOPMENT OF A DESIGN / MOTIF

Motifs is the fragment or recurring elements, which is used to create larger work by joining together. Motifs are first drawn in the sheets to get the approval.

Maximum number of designs are created to select the single design for the particular saree, nearly 300-500 designs are made for a single design to weave.



Figure 10
Motif Discussion

Motifs are created by using both traditional and contemporary designs which can be the combinations of birds, animals and floral.

When the motifs are repeated in the saree, the design is made only once in the graph sheet, which continues and connects to the correct end of the design perfectly.

Only the half part of the motifs is drawn when the design repeats on the opposite side of the motif, where the weavers connect the designs of the motif in opposite side while weaving the saree.

6. WORKS ON DESIGN DEVELOPMENT

Design Works



Figure 11

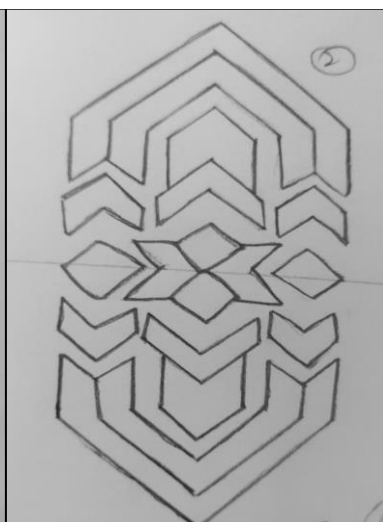


Figure 12

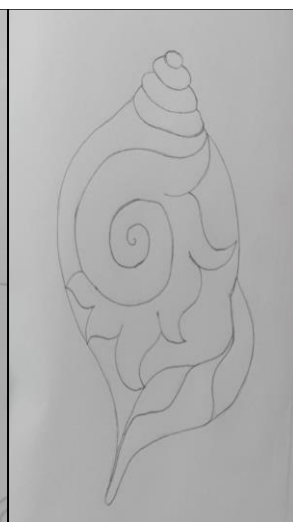


Figure 13

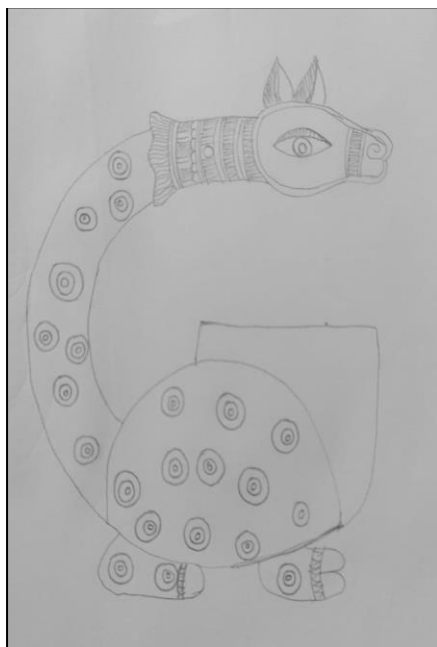


Figure 14

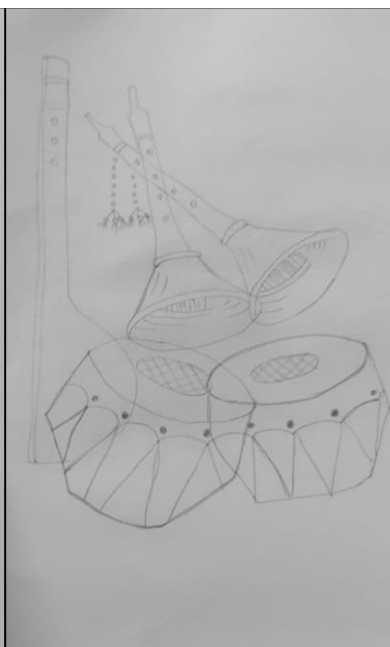


Figure 15



Figure 16

Combination of Traditional and Contemporary Motifs

These designs are called as Modern Classic Style motifs, which consists of both traditional and modern style designs. This design gives them the Transitional look to the saree. They create various designs in contemporary style according to the current trend in the market.

Design Works

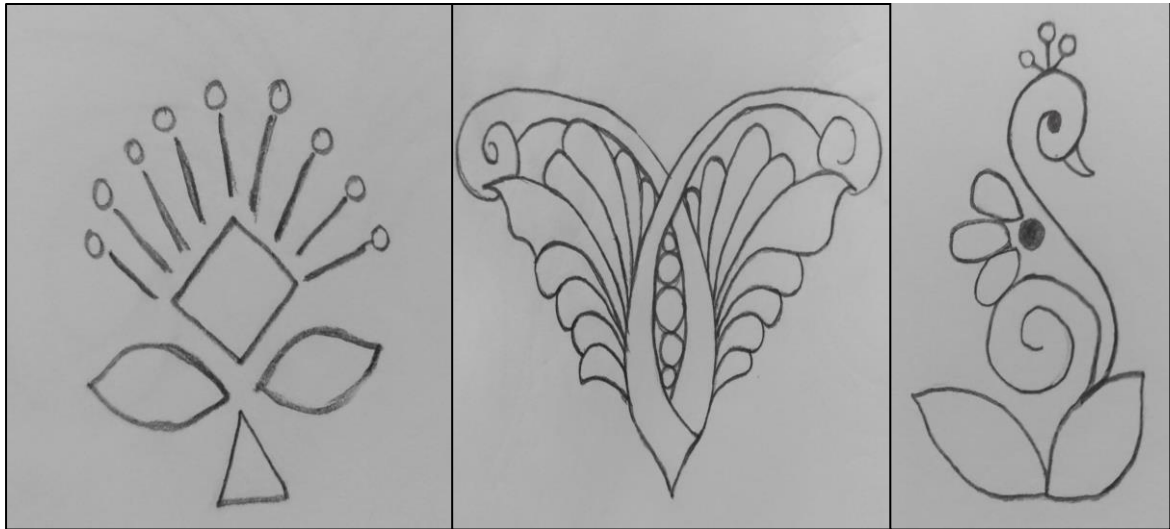


Figure 17

Figure 18

Figure 19



Figure 20

Figure 21

Figure 22

Contemporary Design / Motifs

These motifs consist of combinations of two or more designs together to create a new motif. Which gives the modern look to the woven saree. In jamdani saree's maximum designs are from the traditional inspirations where they are converted into the contemporary motifs which includes traditional look in it.

Design Works

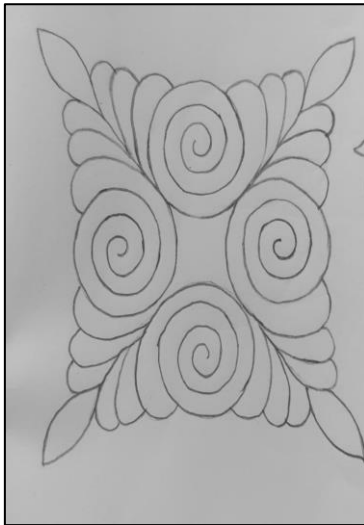


Figure 23

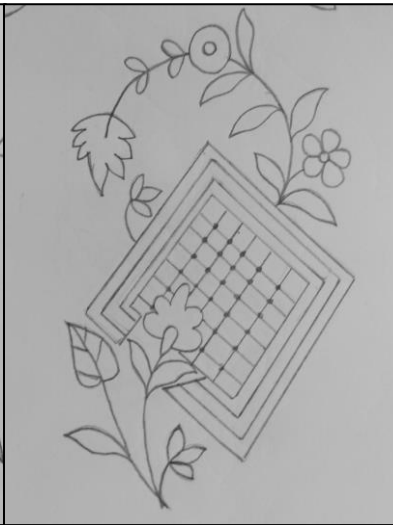


Figure 24

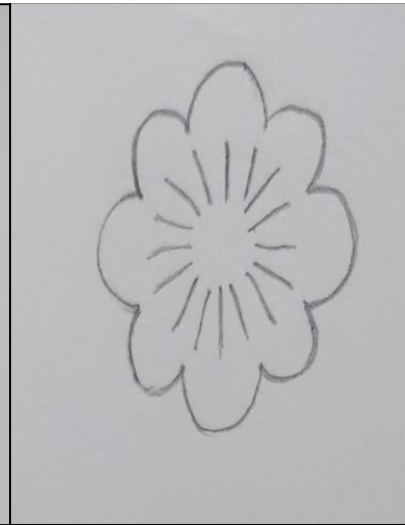


Figure 25

Repeated Motifs (Opp)

These designs are created by drawing only the half side of the motif, which they are later converted into the whole motif while weaving.

This process is made to consume less amount of time by drawing half of the design. Which makes the designer create more motifs.

Mostly this technique is used in creating the Butta patterns and repeated motifs in sarees, where they create half motifs to make the work simple.

Design Works



Figure 26

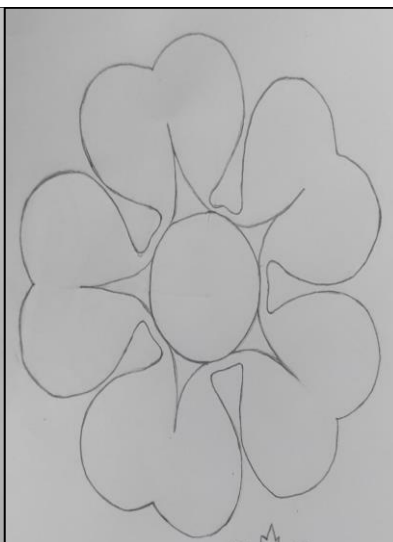


Figure 29



Figure 30

Butta Designs



Figure 31

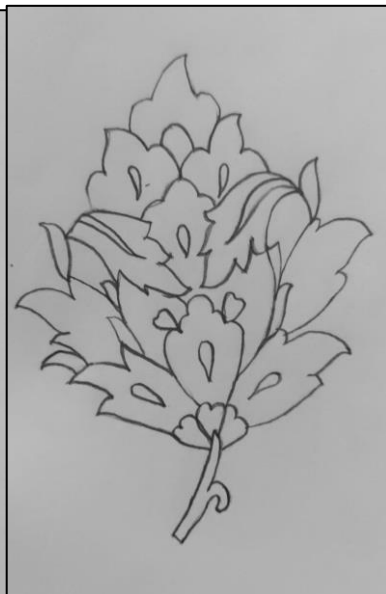


Figure 32

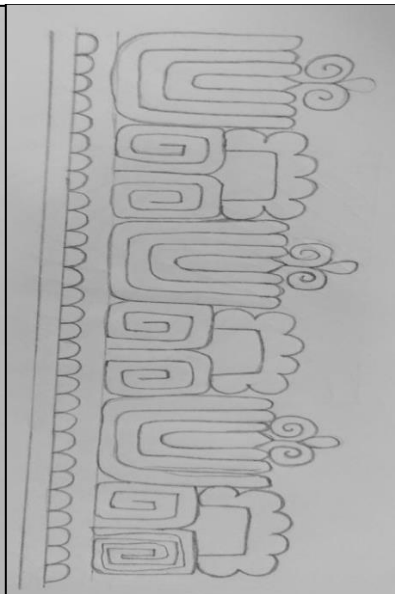


Figure 33



Figure 34



Figure 35

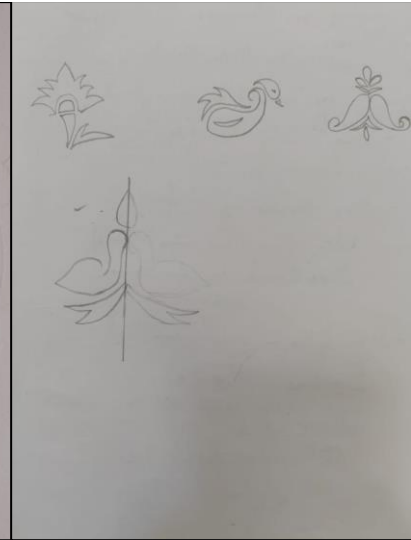


Figure 36

7. GRAPH DESIGN DEVELOPMENT

Designs are drawn on the graph sheets to weave on the saree, this has some mathematical calculations to draw on the graph sheet. Each and all single grids are calculated for design development in graph sheets.

Single box is also counted for creating a design to get the perfection in weaving.

Graph:

1 box = 1 inch

Where 1 whole box contains 10 boxes in it.

1 inch motif should be created in 4 * 4 boxes which means 4 inch (box) vertical and 4 inch (box) horizontal.

Where this 4*4 boxes increase by the motif sizes.

1-inch motif = 4 * 4 boxes (4 inches)

2-inch motif = 8 * 8 boxes (8 inches)

4-inch motif = 16 * 16 boxes (16 inches) etc,

Most Butta's are made in 1-inch motifs and the border of the sarees are made in 16-inch designs.

When we sketch the design in 4-inch boxes, while weaving the motif will be at 1 inch which is known as Butas.

At first, we have to draw the design on the graph sheet and later have to create the zig zag pattern on the design which helps the weaver to weave easily by wrapping and weft yarns. Mostly in the geometrical shapes, straight lines are used on the design.

Maximum 3 box distance should be left for designs in the curve part and at the end of the design. Mostly in the curve parts it should contain 3 box distances to create the perfect shape while weaving.

Minimum of 2 boxes and rarely a single box is left while designing the geometrical patterns, this helps the weaver to weave easily on the saree.

Creating motifs / designs on graph

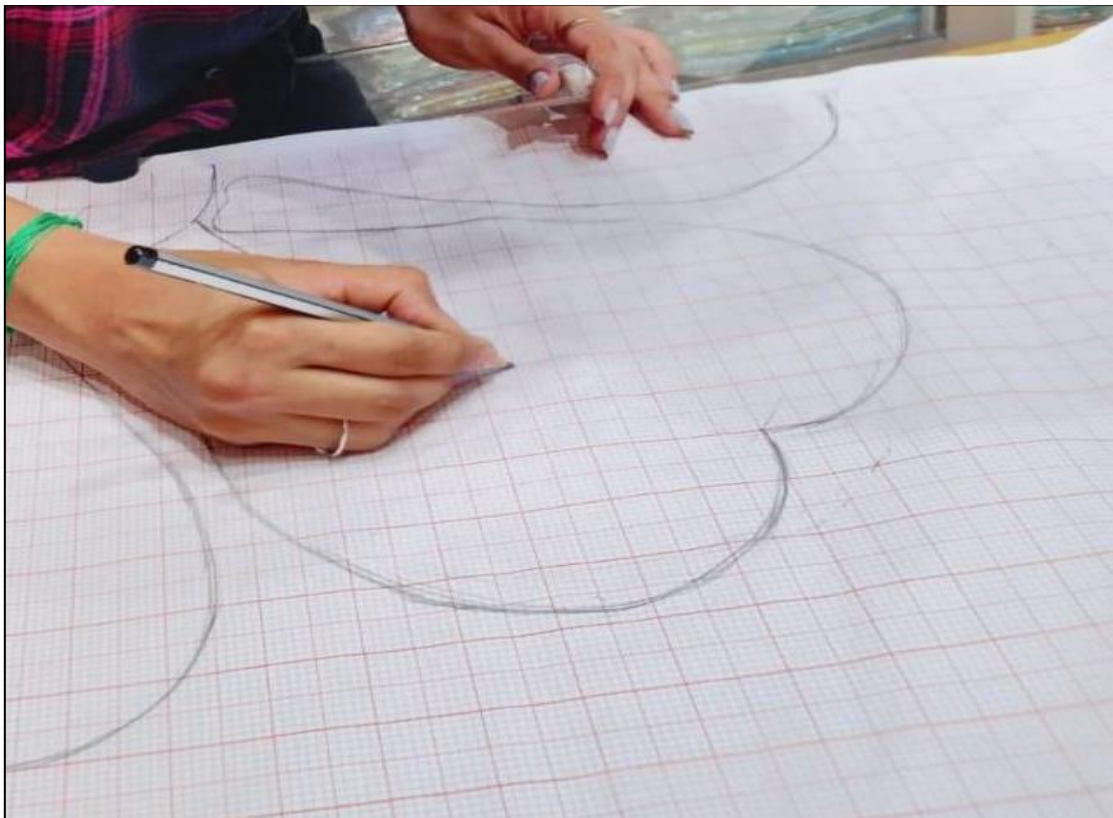


Figure 37

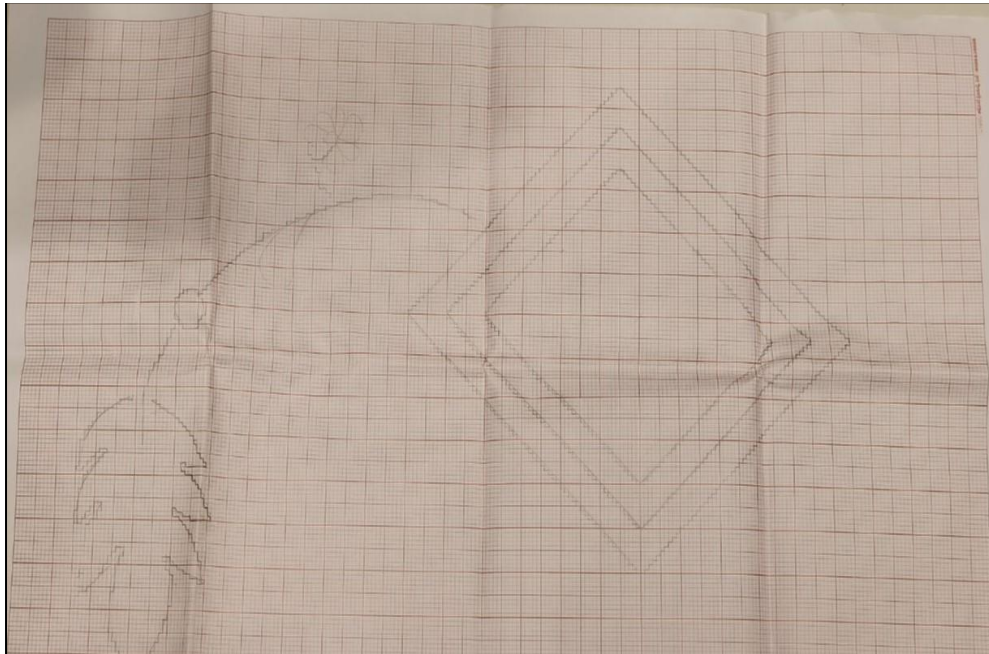


Figure 38
Zig zag pattern on design

8. WORKS ON GRAPH SHEETS

1-inch Motifs (4 * 4 box)

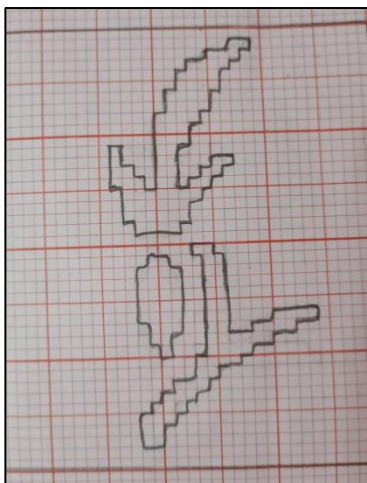


Figure 39

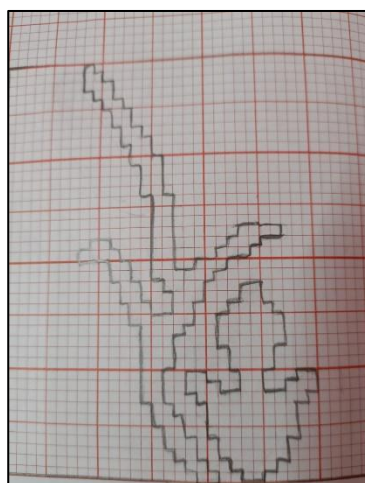


Figure 40

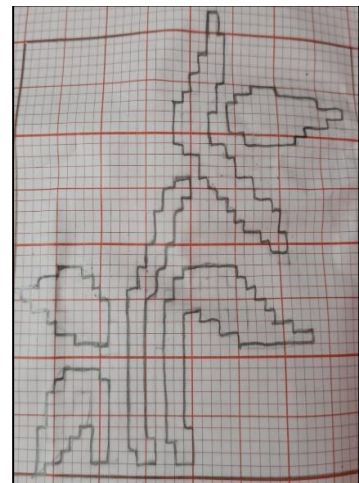


Figure 41

1-inch Motifs (4 * 4 box)

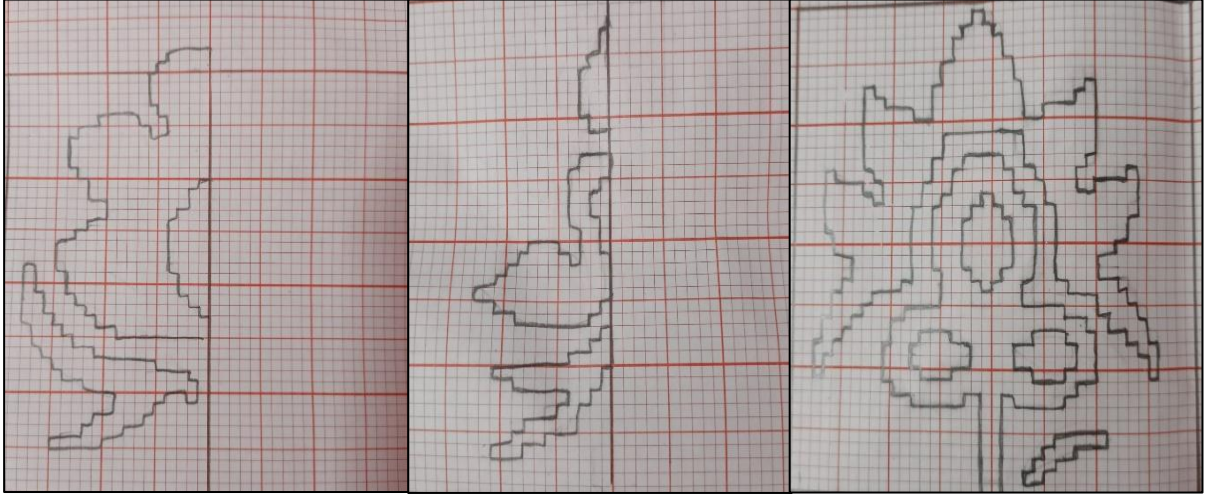


Figure 42

Figure 43

Figure 44

Repeated motif designs (Opp)

2-inch Motif (8 * 8 box)

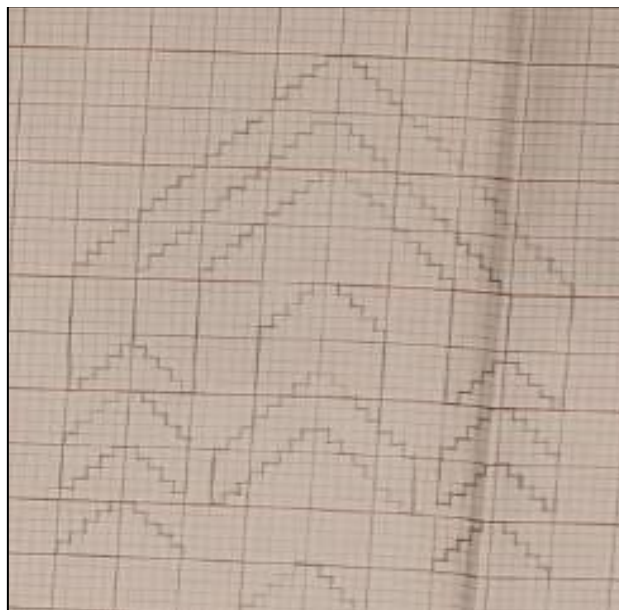


Figure 45

4-inch Motifs (16 * 16 box)

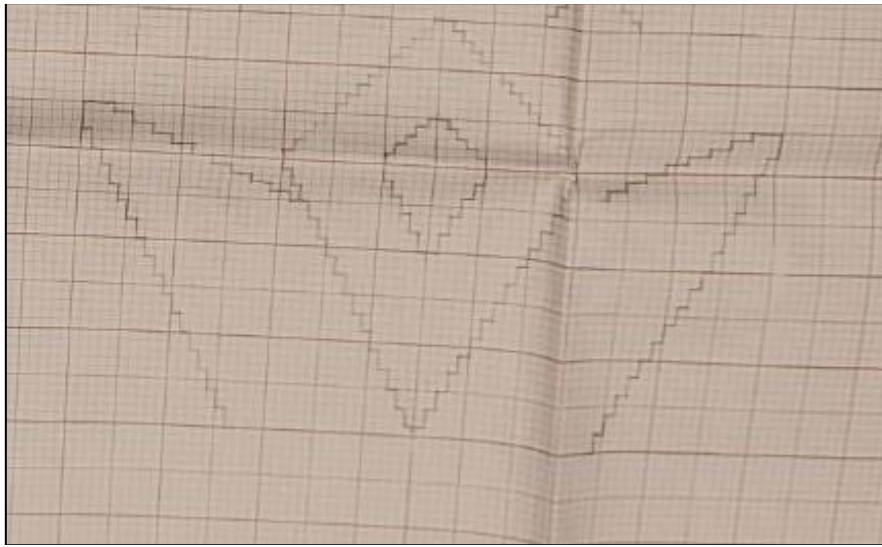


Figure 46

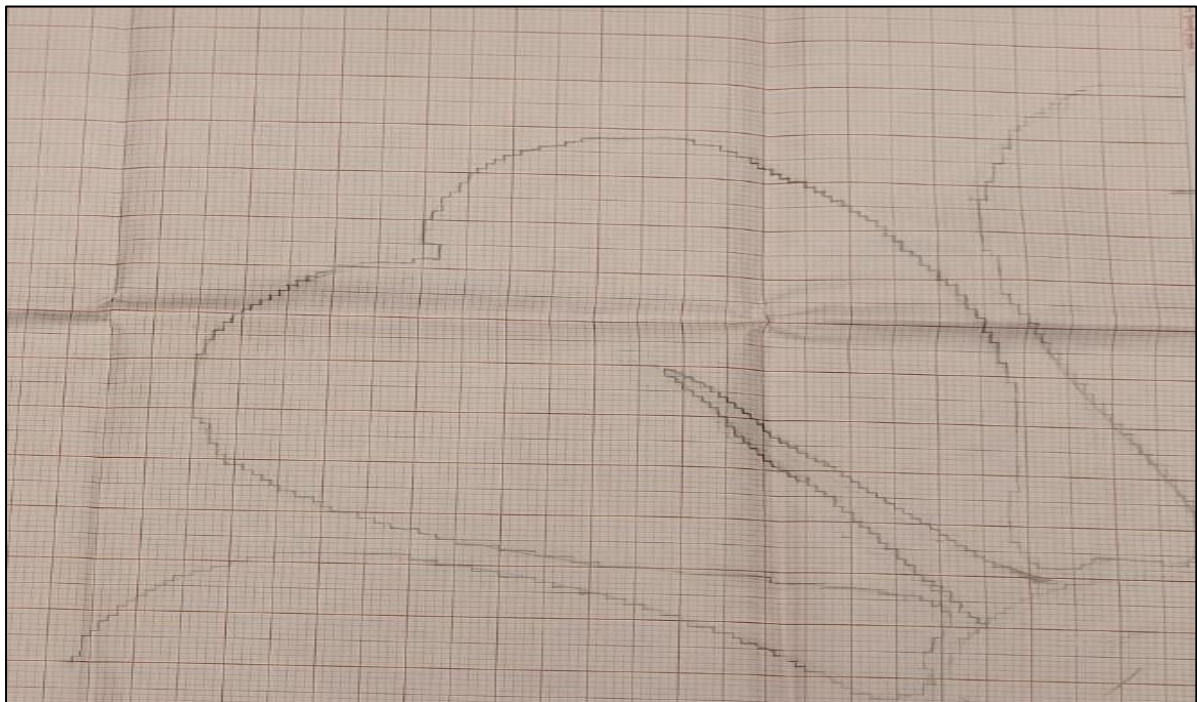


Figure 49

These motifs contain the zig zag patterns in the design in both vertical and horizontal lines, which is considered as wrap and weft to the weavers.

Each single box is considered in this graph for weaving, which helps them to lock the design in the handloom.

Where after the design is approved the color of the motifs are also decided, mostly the bright color and contrast colors are used in this Jamdhani sarees.

9. DYEING UNIT

The yarns are colored first before the weaving stage in this dyeing procedure. The following are the steps in the dyeing process.

- Bleaching
- Marking (pallu and Body)
- Dyeing
- Drying
- Beating



Figure 48
Dyeing Unit

10. BLEACHING

Bleaching is the process of bleaching fibers to remove natural coloring content. Natural coloring materials found in silk strands are primarily connected with sericin and are hence removed during degumming.

This is a pre-treatment used in the textile industry to remove the original color of the fibers; various chemicals are employed in this process to degum the fibers.

- It takes away the natural color of textile fibers.
- It makes the textile materials permanently white.
- Enhances the absorbency of textile materials.
- Make textile materials for the following step.

They employ white soaps and soda for bleaching in this technique, and these white soaps and soda are heated for 15 minutes at the highest temperature possible.

After boiling, the raw silk threads are slowly immersed in hot water for 15-20 minutes to degum.

This technique will also boost the suppleness of the yarns.



Figure 49



Figure 50

White soap and soda



Figure 51
Boiling water with white soap and sodium

11. HEATING PROCESS



Figure 52



Figure 53

Rice Husks – Before Burning



Figure 54 After Burning

To heat the water, rice husks are burned. These are the residues left over after the rice grains have been removed. The natural waste is burned.

To burn rice husks for 20 batches of wrap yarns, approximately 2-3 bags are used. After burning the rice husks, they are turned into ash, which can only be used once in the burning process.



Figure 55



Figure 56

Before Bleaching - After Bleaching

Weight of the Material Before and After Bleaching –

Raw Silk yarns

Before bleaching = 1kg

After bleaching (removing the gum and after drying) = 750gm.

12. MARKING – PALLU AND BODY

Blouse and body are separated (marked) in the yarns for dyeing here. This aids in dyeing the yarns in different colors for the body and pallu.

The yarns are laid from one end to another, where roughly 8 sarees (of the same color) are marked and colored together.

8 sarees are dyed at the same time, each strand is one of the sarees.

Where 2 Gajam are marked as pallu and blouse for each of the saree

2 Gajam = 2 meters.

This process is done for identifying the body and the pallu of the saree for dyeing.

The yarns are continually laid and marked from one end to the other before the pallu and blouse are tied separately and the body is tied separately for the dyeing process.



Figure 57
Marking Process



Figure 58



Figure 59
Yarns after Marking

Right after the marking of the body and pallu, they are separated and knotted to distinguish them for dyeing.

After being separated, the blouse and pallu are tightly packed in the plastic cover to prevent the body's color from transferring to the pallu while dyeing. The body of the saree is colored first, followed by the blouse and pallu.



Figure 60

The Pallu and Blouse are Sealed in the plastic cover.

13. DYEING PROCESS

The method of dyeing involves dye contact with a fiber as well as dye movement inside the fiber. A dyeing technique includes adsorption, which transfers color from a solution to the surface of the fiber, and diffusion, which absorbs color.

The yarns are dyed first before the fabric manufacturing stage.

The yarns are dipped into the boiled water for 15 – 20 minutes, and the steel rods are used to lift the yarns up and down for dyeing.

If one colour is done with dyeing, they dye other yarns by adding different colors to the same water. Same boiled water is used repeatedly without any wastage.

Different colors in Dyeing



Figure 61
Gold Colour



Figure 62
Sky Blue Colour



Figure 63
Pink Colour

For white color, hydrogen powder is used for dyeing.
And to get the Tusshar color, Brown, Yellow and Sky Blue are mixed for dyeing.

The colors are mixed over and over to get the different color shades for dyeing. And it is mixed in the same boiling water of previous colour. Which reduces the wastage of water during the dyeing process.

And to reduce the darkness of the colour hydrogen powder is used while mixing.
Additive color mixing is to create the new color by adding the different colors on the same water of previous one. And the subtractive color mixing is done to reduce the darkness of the color or the previous color.



Figure 64



Figure 65

Adding Of Colors

After mixing the colors to the water, the yarns are dipped into the water for minimum 15 min. At first the body of the saree are dyed separately, later the pallu and the blouse are dyed separately. after dyeing the yarns are kept for drying.



Figure 66



Figure 67

Yarns are dipped into the boiling water

It has high temperature while boiling, gloves are used to prevent their skin from heat and chemicals.



Figure 68

After dipping the yarns into the water, using the steel rod the yarns are twisted upwards and downwards to absorb the color properly.

Every 2 min the yarns are turned and twisted for 15 min. At last, after 15-20 min the yarns are twisted tightly for removal of water.



Figure 69



Figure 70

Turning and twisting of the yarns



Figure 71
Draining the water by twisting

14. WASHING AFTER DYEING

After dyeing the yarns are kept for dyeing nearly for 10 min. Later, the yarns are washed in the cool water, it ensures the potential unbinding of dye occurs at a very slow rate. Because hot water dilates the fibers and cause the dye to come out. So, using cool water for colors protect from damaging of the colors from fibers.

The yarns are dipped into the cold water at the first and later in acidic water and washed thoroughly. Acetic Acid is used in the water to wash the yarns after dyeing.

For every wash acid should be added, by using acid while washing the yarns increases the luster in the yarns and gives softness to the yarns.

It is used to neutralize the yarns to not impact the color shade of the yarns, it controls the Ph value in wash bath.

It keeps the yarns to contain its color without losing it from washing. Washing of yarns through hands with very little agitation without rubbing or twisting the yarns will assure to maintain its color with softness and luster

Hot water dyes have a dye temperature of at least 60 degree C (Better 80-85 degree C). so, after dyeing the cool water is used to wash the yarns.



Figure 72
Washing in cool water with acid

15. DRYING

After dying process, the yarns are kept for drying in the sun, which is the natural process of draining the water from yarns.

The yarns are kept under the sun for nearly 1 hour, it depends upon the climatic conditions. Here wrap and weft yarns are separately tied before supplying the yarns to the weaver.



Figure 73
Yarn Drying



Figure 74



Figure 75

16. BEATING PROCESS

Beating process is the last step in dying, after drying process the yarns are beaten using the steel rod.

This process increases the luster and softness of the yarns.

They use their maximum strength to beaten the yarns.



Figure 76
Before Beating

Figure 77
After Beating

17. WEAVING UNIT

Steps in Weaving Unit

- Yarn Laying
- Design (motifs) – In yarns
- Yarn Attachment
- Weaving

Raw materials are exported from Bangalore and Surat, Silk from the Bangalore and Zari from Surat.

18. YARN LAYING

Yarns are laid on the stands from one end to other end, this process is done for separating each and every yarn for easy weaving and to get rid of broken yarns.



Figure 78



Figure 79

Yarn Laying

While laying the yarns are beaten by sticks to check the strengths of the yarns. Typically, they lay 6 to 8 sarees at a time (1 saree = 252 inches).



Figure 80
Yarn-Beating

They create a loop for easy attachment, where each group of yarn contains 100 strands in every 45 group yarn strands, which are united and knotted. The boarder consists of more than 2800 strands, sometimes it depends upon the design.



Figure 81
Yarn Loops



Figure 82
Separation of yarns

The yarns are first separated and tied by other yarns to differentiate the weft and warp yarns; later it is layered and straightened without any damages in the yarns.

The yarns are continuously attached to the old yarns to avoid the risk, later old yarns are trimmed, it is a time-consuming process. When separating the wrap and weft yarns, sticks are used to distinguish the strands for up and down separation. The warp and weft yarns are separated up and down for easy attachment in handloom and for design(motif) making.



Figure 83
New yarns are attached to old yarns



Figure 84



Figure 85

Separation of wrap and weft yarns using sticks

After the process, the yarns are winded around the sticks, which will be sent to the design unit.



Figure 86

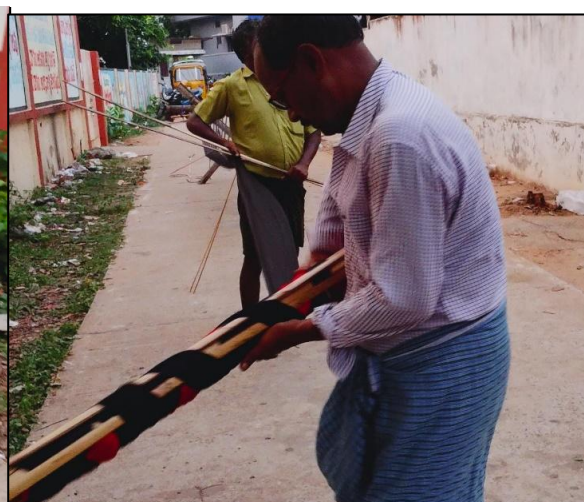


Figure 87

Yarns are winded around the sticks



Figure 88



Figure 89

Before and after laying

After laying the yarns get strengthened and sent for the design (motif) process and later for weaving units.

19. DESIGN (MOTIFS) – IN YARNS

This is the process of locking the motif designs in the yarns before weaving, three meters of thread, with 288 strands wrap and weft yarns are designed for a single saree.

The thin stick is used to count the yarns for the design using a graph, the graph design contains many boxes which are here counted as yarns.



Figure 90

Design marking in yarns using sticks



Figure 91



Figure 92

Design Discussion

The design is flipped to the strands using the sticks, and the other thread secures the knot, fisherman threads are used to secure the knots. It takes the help of cardboard or any flat object to lock the design by using fisherman threads which secures the design tightly.



Figure 93



Figure 94

Locking the design

Later at last the designs of weft and warp yarns are locked together. There are several types of locking like single Butta, entire body design, and border designs, every single motif is locked separately and finally a complete saree's motif designs are locked together using other thread before setting into the handloom.



Figure 95
Motif designs are locked together

20. YARN ATTACHMENT

After the design process, the yarns are attached to the older yarns in the back beam which passes the yarns to weave in the handloom machine. This process is done to secure the edge yarns of the saree while weaving by holding the yarns until the saree is completed. Later the edge yarns are trimmed after the completion of the saree.



Figure 96



Figure 97

Yarns Attachment

The yarns are twisted by using wax and ash or oil to the yarns, which helps them to twist the yarns perfectly.



Figure 98
Wax and ash

The yarns are attached by twisting the old and new yarns by crisscrossing (one wrap and one weft yarn) continuously. In this process every single yarn is twisted, it consumes nearly 6 hours to complete a single saree yarn twisting.



Figure 99

Figure 100

Yarn Twisting

21. WEAVING

Parts Of Handloom Machine



Figure 101

Shuttle with
weft yarn



Figure 102

Treadles



Figure 103

Wrap Beam



Figure 104
Handle



Figure 105
Shaft Frame



Figure 106
Reed

Silk Thread (Wrap Yarns) And Zari Winding.

In the process of weaving the saree, silk yarns and golden Zari are wound on the spindle for making the motif designs. 200 Zari reels are needed to weave a single saree.



Figure 107
Spinning Wheel

Zari thread is widely used for weaving, the original Zari has the unique characteristic of being created using pure gold and silver. These Zari threads are sourced from Surat, the dull Zari threads are called Kora.

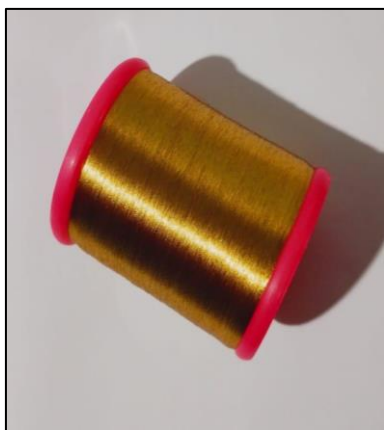


Figure 108



Figure 109

Golden Zari reel

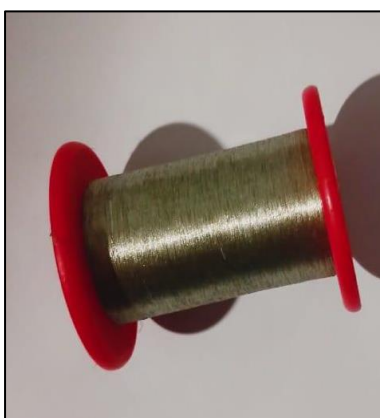


Figure 110



Figure 111

Silver Zari reel

Weaving Process

To weave a saree, starting by setting up the loom, which is the framework used for weaving. This involves assembling the loom, attaching the warp beam, and securing the warp threads to the loom. The warp yarns are the long threads that run parallel to each other on the loom. The shuttle holds the weft yarn and is used to pass it through the warp threads. By positioning the shuttle at one edge of the warp yarns, this is known as selvedge. By passing the shuttle through the warp yarns, it goes over and under the alternating threads while weaving.

After passing the shuttle through the warp yarns, the tool called beater or reed is used to push the weft yarn tightly against the previous row of weft yarns. Continue to pass the shuttle back and forth through the warp yarns, to create rows of weft. Use the beater to beat the weft after each pass, to ensure a consistent and tightly woven fabric.



Figure 112
Motif design weaving

To create a pattern in saree, the manipulative warp thread tools like harnesses or treadles are used. This allows to raise and lower specific warp threads, creating different patterns or designs in the saree. Once the saree is woven, cut the weft yarns by leaving a tail for securing the fabric. At last, the fabric is removed from the loom and the ends are secured to prevent from raveling of yarns from the saree.



Figure113
Pick handloom machine

57 Traditional **Jamdani Saree's** after Weaving



Figure 114



Figure 115
Jamdani Sarees



Figure 116

22. CONCLUSION

The internship programme gave me with an excellent opportunity to share my knowledge of the handloom industry. During this practical training, I was exposed to multiple units within the handloom industry, including the designing unit, the dying unit, and the handloom unit. It was a meaningful and developing experience that gave me vital insights into the world of textile manufacture. I had the esteem of working closely with highly skilled weavers and artisans, observing their passion over their craft. I learned to build custom patterns and motifs, as well as how the actual process of the job is done from start to finish. I encountered a supportive workplace in which team members from several areas collaborated seamlessly. I would like to express my heartfelt gratitude to all of the employees and mentors at the unit for their guidance and support throughout my internship experience.

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