



From Cotton to Cloth

Understanding self-reliance by
working with hands

Project 3

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Introduction

Swavalamban is the way in which an individual free of dependency on external supply. Swavalamban has made me self reliable and more aware about my surroundings. Other than being dependent on market and others, to fulfil my daily needs, I have started observing around myself for the solutions and supplies. Nature is an enormous resource for everything that is required in daily life. Fabric, a cloth is one the few basic needs I count can be self made and treated as the need rather than being the desire and demand to fit in today's trendsetting society. Today, where brands like H&M, Zara, Pantaloons, Max are making money by developing an era of trendsetters, fast fashion and stylish world. Money and these clothes cannot give happiness. To understand the concept of self reliance, a visit was paid to Vedchhi - Gandhi Vidyapeeth or Sampoorana Kranti Vidyalaya where Dr. Sanghmitra Gadekar aka Uma ben has been living in the vidyalaya since 25 years. She spins thread for 25 metre of cloth. She hand dye yarns with natural colors and these colors are acheived from the plants which are grown in the campus.



1. Sampurna Kranti Vidyalaya, Vedchhi, Gujarat

It was holi when the decision was made to go to Vedchhi, Gujarat for a week to learn weaving on backstrap loom. The workshop was supposed to start from 24th March till 31st March. I was nervous and excited about this journey. Before going to vidyalaya I had already been to Gandhi teerth, Jalgaon where the whole house was allotted to stay. Vidyalaya was established by Narayan Desai, son of Mahadev bhai(personal secetary of Mahatma Gandhi). After Narayan Desai, his daughter Sanghmitra Desai Gadekar aka Uma Ben and her husband Surendra Gadekar aka Baba lives in the vidyalaya since 25 years.

The vidyalaya supports education for students of rural areas. Each vidyarthi has to strictly follow rules like no non-veg, no drinking and smoking. To reach Vedchhi I had to travel in train from Mumbai to Surat for 4 hours and from there I had to take bus to Bajipura, which took another 1 hour to reach Vidyalaya. Sampurna Kranti Vidyalaya as the name suggests is a movement against the capitalist mentality in India. It helps students develop skills for their livelihood and freely learn what interests them. It shows that there is lot more richer life in villages than in cities. Uma Ben believes in swawlamban as she grows cotton plant at the backyard of her house organically, spin threads for her cloth every year and rely least on market. She says that industrialisation has ruined the thinking process of Indians. We rely so much on market that



the knowledge to survive in contact with nature is at stake. There are very few people left who have realised that the real joy is in creating and working with hands without harming our surrounding. While reading the book Khadi by MK Gandhi I came across a paragraph which says, "If the craze for the machinery method continues it is highly likely that a time will come when we shall be so incapacitated and weak that we shall begin to curse ourselves for having forgotten the use of the living machines given to us by God. "Their first contribution to Khadi - During the riots of Ahmedabad in the year 2000-2001, around 20 women of Kutch lost their husbands and were helpless and worried about their future. Uma Ben and Baba took a step ahead to help them with training in stitching, weaving Khadi, block printing and embroidery. Soon these women started a group called Vividha and Himmat and sold their work at various exhibitions and fairs at price from Rs. 100 - Rs. 500.



During workshop I met Ranjana Mondal from Orissa, Dolly from Gujarat, Smita from Gujarat, Anurag from Punjab, Roopmeet from Punjab, Ruchita from Hyderabad, Bakul from Gujarat and Pele from America. They all had come to workshop with different objectives but the common thing which connected all of them is Swawlamban. There was pride and joy on their faces when I met them. They had no rush or competition to win. Everyone helped each other during the workshop. We use to sleep, cook and eat together. The banyan tree situated in the vidyalaya was the workspace for everyone during morning and evening whereas since it was hot during afternoon few took rest and others worked and studied in library. The workshop was about weaving on backstrap loom. Before this workshop, there were spinning and natural dyeing workshops as well. Now the yarns which we were going to use are hand spun and hand dyed. I understood the fact about weaving that not single person can take the credit of cloth as it involves many members before and after weaving. The cloth we were going to weave is Khadi and only Khadi neither real nor fake. Pele taught us to twist the yarns, Uma ben taught us to make two ply yarn six ply, Ranjana and Anurag helped in warping and color selection of threads, Dolly help in weaving and understanding techniques and kids helped everyone bringing snacks. Everyone use to tie warp to banyan tree or help each other while weaving. With the



sweet sound of Kukoo, falling of leaves and dew on the surface the day use to start at 7 am. Even Uma ben, 71 years old actively participated in the workshop and learnt to weave.

Weaving Aasan

Ranjana Mondal 43 years old, from Orissa with a smile, weaves at her home and makes loom from trees branches and bamboo. She has been student of Vidyalaya for 12 years and believes that vidyalaya has given her new way of thinking. She has been Sawalambi and feel that it gives us self- awareness and keep us connected to nature. There is no rush to earn more money than sufficient as it is a never stopping cycle. She does farming for her family, spinning on amber charkha and takes workshops at various places. She wants to be self sufficient and not rely on market as she knows that market products contains chemicals harmful for us and our surroundings. She therefore taught us to weave aasan, a sitting mat for ourselves. While weaving she encouraged me to wear handloom cotton if not Khadi as the cotton is lot safer than other fabric.





Twisting, warping and weaving activity

Pele Risley Warnock, 24 years old girl who has been travelling from America to Chile, Sweden, India since six months. She has been travelling to learn and teach various skills and crafts like blacksmithing, knife making, weaving. She learnt backstrap weaving six months back in Chile and now came to Vedchhi to teach us one. She has been a wonderful person full of life, experience and knowledge. It took me a lot of courage to step out of Mumbai and here she has been travelling to different countries. She has been weaving on frame loom for 12 years and lives close to forest. She is very simple, self-reliant and independent girl who works for herself through sustainable method and is up for preserving the knowledge of traditional skills. She thinks that American youngsters are not realising the value of simple living and sustainability and continuously exploiting the resources available. She doesnot want to be one of them. She loves khadi and wears it throughout the workshop. Since India is hotter than the other places she stayed, Khadi as a fabric soothes her and being a breathing fabric reduces the heat.



Anurag, 18 years old and Roopneet, 19 years old from Amritsar, Punjab completed their XII grade last year and have been travelling all over India to learn traditional and sustainable skills like agriculture, weaving, blacksmithing, gobar products, cow shed management and vernacular architecture. They donot want any degree rather want to gain knowledge and wisdom directly from mentors. They prefer ancient method of learning which is Guru Shishya parampara, where Guru is present very close to student and the wisdom flows to the student in a very closed connection. They want self-awareness and learn to live sustainably.



Ruchita from Hyderabad came for learning spinning and understanding the mechanism of box charkha. She taught us spinning and helped us throughout the process. She use to read a lot and talk about the ideal living. She collects the organic seeds of cotton from pockets of India and encourages farmers to grow cotton organically. She wants to stay connected to nature and complains about how we are the materialistic society who want more and more. We are unconsciously consuming the chemicals in the name of hygiene, food, clothes and other daily products. She believes that it is very important for us to spread awareness about natural living and live organically.



Bakul Da arrived three day after the workshop started, he loves to spin and has been spinning since his childhood. He was born in Vedchhi and studied at the Vidyalaya. He taught us spinning and helped us in making more yarns. He has returned to learn weaving.



Dolly, 35 years old, from Gujarat came to the workshop with her youngest son Hrithik. She has three children in which the oldest son Sreedhar lives with Uma ben at the Vidyalaya and other two stay with her. Her origin is Orissa and after coming to study in vidyalaya for 4 years she got married in Gujarati family and stayed in Gujarat. She learnt cycling and stitching in vidyalaya. She earns around Rs. 200 everyday from working in other's farm and stitching. She said that while in vidyalaya she never worried about savings and responsibilities but now she has to earn more for her kids and save if something bad happens. She fears about getting divorce as she says that in Gujarat villages a man gives divorce three to four times and also demands for heavy dowry. She wants to educate her children so that she does not have to demand for any dowry from girl. She also has a girl child who goes to school in the village. She says that everyone should wear khadi or cotton only because other fabric material has chemical and is not good for health but the situation of her villagers is such that they do not listen to her but she continues to wear cotton and Khadi. She likes weaving as it keeps her calm and reduces her stress. She said that she does not have an amber charkha because she cannot afford it but she can buy yarns from market and make belt for her children, purse for herself and sell to others. Her village is one of the pockets of organic cotton farming but all the kapas or cotton is exported to



foreign countries and not been used by villagers. The day when I was planning to go to Vedchhi, I was continuously feeling angry about why I am doing this? but then when I stayed there for seven days I had the best experience so far. In those seven days I felt like I belong there and along with it, my thought process changed. I now understand the value of simple living, free learning, ethically being true, honest and being self- aware.

Today when I look at myself I feel the confidence to survive based on my skills though I still cannot gather courage to stand on my own but I know that someday I will. Experience cannot be shared but can only be felt. I experienced that the life in villages are much more richer than in cities.

Self- pride comes when we create something on our own not from buying it from market. This place has encourage me to spin and weave everyday to keep myself up with the thought of Swawalamban.



Saath me khaye, saath me khele, saath kare hum acche kaam. Jab tak sabka bhala na hoga, nahi karenge hum aaram. "Prem Sikhao" - Prayer before meal.

Jo Swavalambi hote hai vo aaj bhi apna khadi khud banate aur pehnate hai. Mai swavalambi hoon- Uma ben







Left to right - Baba, Bakul Da, Sreedhar, Anurag, Pele, Smita, Dhruva, Chitto, Ranjana, Dibbi, Dolly, Hrithik Ruchita, Guddu, Shivani, Roopneet, Mario, Prof. Raja Mohanty

2. Understanding the relevance of Swavalamban today

Gandhi Teerth Foundation, Jalgaon, Gujarat

A visit was paid to Gandhi Teerth, established by Jain irrigation group. The structure was built sustainable and scientifically in Jodhpur stone, under a green norms in view to last for centuries. Includes auditorium, an amphitheater, meeting classrooms and guest houses. Museum building has 30 interactive segments, which equipped with Audiovisual Systems, Touch screen, Bio-scope, etc. describing Mahatma Gandhi. It has multi lingual audio guided, air-conditioned museum, on the life and works of Mahatma Gandhi. It takes approx 2 hours 30 minutes time led by amiable guides.

Gandhi Teerth has a small weaving demonstration centre with four powerlooms running on solar energy, two amber charkhas, winding machine which runs on solar energy and a warping wheel. They call the powerloom produced fabric as solar Khadi and sell them as khadi to the visitors. The objective behind the demonstration centre is to reduce the idleness of the youth in the surrounding villages and give them employment. The people of Jalgaon practise farming but younger generations don't want to work hard and thus working on powerloom fetch them money without much effort. 23 years old Ramesh is son of a farmer,



he work for 9 hours a day on powerloom for Rs. 6000.

Khadi is a handspun handwoven fabric. Here in Gandhi teerth cloth made from powerloom is sold as Khadi. Their future plan is to increase the number of looms at Gandhi Teerth in order to increase the capacity of cloth produced. The objective is to run into profits with the sale in the museum.

By running machines with alternative source justifies them for not polluting the environment but at the same time is taking away the occupation of three weavers and giving employment to only one. Though the foundation is established by Gandhian foundation but could not follow the idea of Gandhi against industrialisation. Gandhi said, "Industrialisation will increase unemployment. The machine method is no doubt easy but it is not necessarily a blessing on that account. The descent to a certain place is easy but dangerous. The method of hand is a blessing."



Women working at the weaving demonstration centre.

Four women are employed for spinning and winding activity. They come from nearby village every morning at 8 am and leave from here at 6pm and reaches home by 7pm. They earn 4-6k a month depending on how many metres they spin. They are paid Rs. 600 for a bobbin of one kg. Everyday, they wind 2-3kgs of bobbins. They donot have strong financial security as their husbands works as auto rickshaw driver, security guard, teacher and retired. One of them is working for her daughter's marriage but her daughter is just 18 years of age. Since she cannot afford to support her living any more she wants her daughter to get married to a richer boy in the village. Two of the other women are young and want to educate their children. Everyone seems to be very tired and tensed. They donot like the noise of power loom as they have to speak louder and which makes throat soar. Job is the only option they have otherwise they have to work as house maids or remain jobless but the money they earn is not enough to save and fulfill their needs on the daily basis.



Women working at Gandhi Teerth, Jalgaon.



Interaction with Hemlatha Jain, Punarjeevana

Hemlatha Jain is the founder of Punarjeevana, which works with the weavers/artisans of Gajendragarh, for the revival of Patteda Anchu sarees and scarves. She comes to the Dandi studio to help us in shaping the studio and helped in dyeing and spinning. She visits various weaving clusters across the country and set up various exhibitions for sale. She says that it is a challenge to sustain in today's world where the craft is declining. Swavalamban requires a mindset and a big struggle to achieve. In today's time natural dyeing is expensive, and dying as a process is a time taking and to support basic living hand loom weavers have to produce more. The product thus becomes very expensive and rarely anyone buys it and to reduce the price of fabric, the wage of the weaver is reduced. For example, indigo natural dyeing takes 20 days. Cost of dye is Rs. 6000.

Dyers wage is Rs. 350/ kg.

Wage of yarn winding is Rs. 150 for 2.5kg.

Wage of weaver is Rs. 300/ 8hr.



3. Attempting Swavalamban at Dandi studio

After visiting Vedchhi and Jalgaon, an understanding was developed about the sustainability of the handloom weaving by achieving an understanding about economics of handloom weaving or the ecosystem, mindset of people involved directly and indirectly in weaving. In Jalgaon weaving a fabric that looks like Khadi from powerloom and selling it as khadi, whereas on the other hand talking about swavalamban, handspinning, handweaving and sustainability in Vedchhi opened two different aspects of weaving today after Mahatma Gandhi. People at both the stations called themselves as Gandhians. Both spoke about the struggles of handloom weaving and preserving khadi but there was a distinct difference between the principles they follow. The difference is the understanding of Swavalamban and practise. After coming back to Dandi Studio, an attempt has been made to follow the principles of Swavalamban by relying less on market available products and producing what's possible ourselves. From spinning to weaving convection scarf, an attempt is made to rely least on ready made product by dyeing, warping, winding and hand weaving. Basically working with hand, has made weaving very joyous and self reliant process. It has also brought in many challenges and understanding of reality of handloom industry in India. Interaction with weaver Shrinu, Hemlatha Jain and Latha Tummuru has helped to understand the reality and understand the economic of handloom



products. This semester I learnt weaving cotton cloth on frame looms. With the help of weaver Shrinu from Chirala who now works at Weavers' Service Centre, Mumbai comes to Dandi studio every weekend for weaving.

The real joy was felt when I finished weaving my utaria- convocation scarf in four weeks. It took lot of patience and way too much of excitement while weaving. Every day I use to weave for couple of hours and measure the cloth. Now when it is woven, I feel pride. I want others to experience the same. Also as a part of project I wanted to identify the difference between handloom fabric and powerloom fabric which was sold in the name of handloom. To understand it myself I started to weave on frame loom and watched the fabric closely.



Weaver Shrinu

Weaver Shrinu is from Chirala, Andhra Pradesh. Chirala is one of the biggest handloom cluster where weavers weave silk sarees like Kanchivaram, Pochampalli. He comes from weavers family and since this is the primary occupation of his family, he started weaving in his early childhood like other boys of the village. This makes me think that, I am studying design since six years and therefore has a capability to run design industry, these weavers have been weaving and producing design since childhood, so they have the potential to do miracle in the design industry of India. Shrinu being a weaver is not just a labour who works with hands, he is a technical expert of looms as well because weavers in their daily life have to solve various problems related to looms and weaving process.

Shrinu is married to a woman from another weaving community. She used to weave and spin till she had kids and took responsibility to take care of them. When I spent a day at their house in Mumbai, his wife Durga complained about being idle when Shrinu went on work and kid had gone to school. She remembered how she used to spin and weave everyday before marriage as a help to her old parents. Gandhiji in that place would have suggested her to spin threads in those idle hours. Shrinu works at Weavers' Service Centre in Mumbai. He complains about the expensiveness



and language problem in the city. He wants to go to more peaceful place than Mumbai. He is a socially consious person and thinks about the future of the world. Though he himself is a traditional weaver who weaves paithani saree now at WSC, he doesnot want his kids to become same as he feels that handweaving won't survive for much longer.



15 students from different departments across IIT Bombay took interest in weaving course. They were asked to weave on table looms for two hours in a week.

For them weaving studio was the place where their mind retained focus and freed them from different tensions of the day. Other than studying theories, solving problems, weaving was a practical craft which improved with practise and helped them set routine. For few it was the place of peace, good ambience, self growth whereas for few who had been in touch with the craft before helped them to understand the craft closer and made them value for handwoven products more. It also taught them lot of patience and helped them to calm their thoughts. With patience comes the awareness of self and an ability to be self reliable than being reliant on the market. On the other hand, we are loosing our treasure of knowledge - handloom weaving. The diverse industry of this diverse country which is the livelihood to 44lakh weavers is now at stake. Today, our desire is killing someone's need. We are forgetting that it was because of our handloom industry India was known as Sone ki chidiya. The weaving activity was a self supportive system of village, where clothes were made at home. Women use to spin and men use to weave, in many village women use to spin and weave and men did the farming. Sufficient cloth were produced for family and for selling in market.

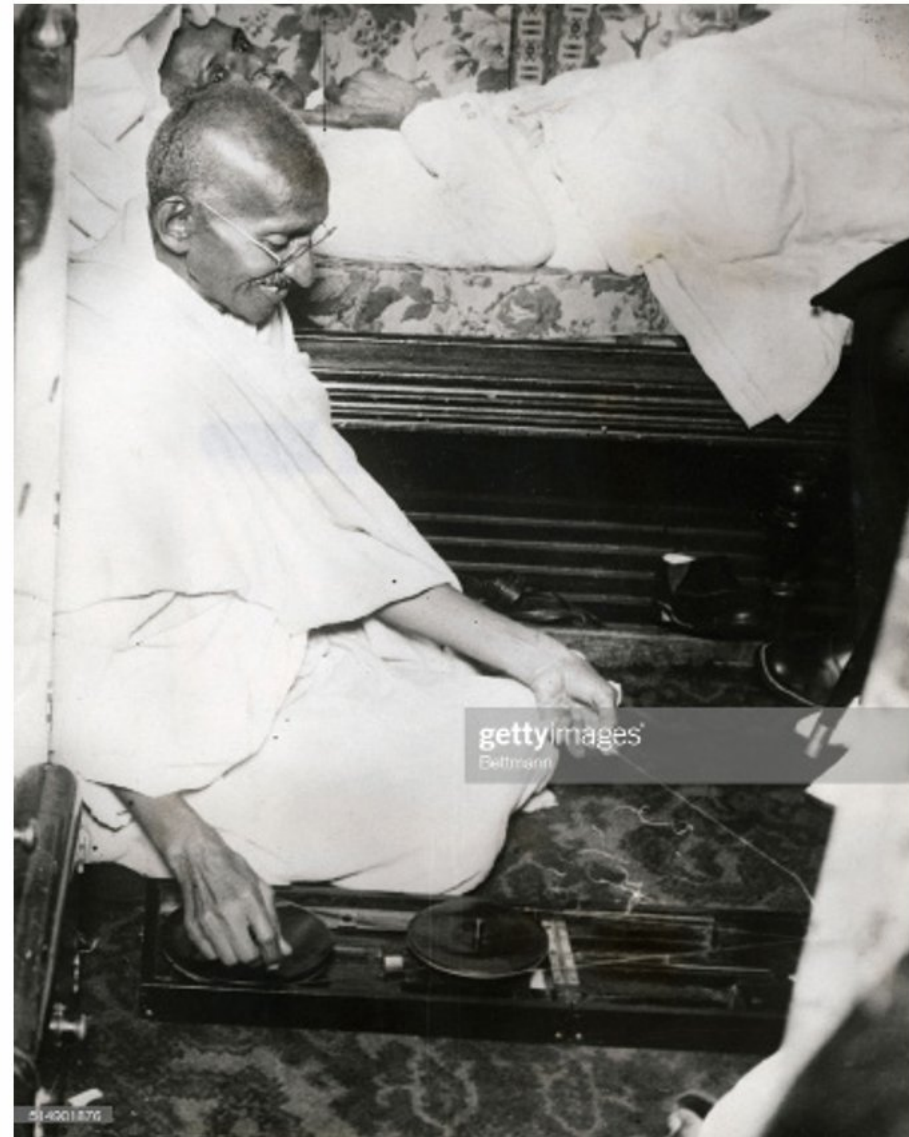


It was because of Khadi, the revolutionary fabric which brought freedom home. Gandhiji once said that if the craze of power machines increase , a day will come when we will curse ourselves for lacking the knowledge to use natural machines i.e our hands.



The weaving spirit is illimitable patience, as said by MK Gandhi. For those who weaves understands the effort and focus required to weave on handloom. Weaving is a co-operative activity. To understand the time, effort and knowlegde required to understand the process of making of cloth we are trying to work with our hands rather than relying on market. The objective is to weave our convocation scarf- which includes the understanding of the economic of handwoven cloth and a small step towards self reliance as a design student, but this doesnot mean that we are limited to only small group of people, since we have very less time to make scarfs for institute, we are starting to make a change from IDC. There is a social stigma about wearing high brands from head to toe to represent certain section of the society. This psychology has been profitable to few international rich people who runs them. Since the arrival of fast fashion, brand endoresement by public figure and perception to look better has spread, people have started looking clothes only by their price, trends and aesthetics. There is no urge among us to know who made our clothes, where they come from and the break up of the cost.

Details of the process invloved in weaving convocation scarf are as follows-





1. Yarn sourcing - 25kgs of machine spun yarns-count 74/2 are being sourced from Chirala by our weaver Shrinu for Rs. 13000.

2. Dyeing - 10 hanks of cotton yarns are dyed with indigo natural color.

The dyeing process involved-

STAGE-1 Pretreatment

- Firstly treat the RFD fabric with 10 % vegeplus+ 10 % vegeset
- Temperature 25-30 degree centigrade
- Duration 45 minutes
- Wash the fabric with normal water 2-3 times

STAGE-2 Dyeing

- Take 5 % bioindigo+5% NaOH+ 5% vegedisperse+10% sodium hydrosulphite.
- Make a paste then add in dyebath
- Temperature 35-40 degree centigrade
- Fabric/ yarn properly dip in the dye bath
- Duration 30 minutes

(After complete oxidation, first dry the fabric then wash with normal water 2-3 times)

STAGE-3 Soaping

- Take fresh water
- Take 2 % vegesuper and mix in bath .
- Temperature 25-30 degree centigrade .
- Duration 15 minutes.
- Wash with normal water properly.





Cost of Utaria

YARN COST

25kgs of yarn hanks were transported from Chirala, Andhra Pradesh to IIT Bombay.

Cost of 25kgs is Rs. 12500.

Cost of 1kg is Rs. 500 only.

Cost of 1gm is 50paise.

If weight of one hank is 100gms

Cost of one hank is Rs.50

No. of hanks required for Making 7 utaria = 10

Cost of 10 hanks is Rs.500 only.

1 utaria = 2mtrs.

7 utarias = 14mts

No. of hanks needed for one utaria = 1 and ½ hanks

Cost of yarns needed for 1 utaria = Rs.75

(including transportation charge)

DYE COST

10 kgs of dye kit cost = Rs. 6000

1gm = 60 paise

20gms = Rs.12

20gms for 5 hanks

40gms for 10 hanks

Cost of dye needed for 10 hanks= Rs. 24

Cost of dye needed for 1 hank (100gm hanks) = Rs. 2.4

Cost of dye needed for 1 utaria (150gm hanks) = Rs. 3.6

Sodium hydroxide - 5% of 250gm - 12.5gm

Cost of 250gm is Rs.137

Cost of 12.5gm is Rs. 6.87

15 hanks were dyed with 12.5gm of NaOH.

1 1/2 hanks are required for one utaria.

Cost of NaOH used in one utaria is Rs. 0.82

Sodium hydrosulphide - 10% of 250gm - 25gm

Cost of 250gm is Rs. 137

Cost of 25gm is Rs. 13.7

15 hanks were dyed with 12.5gm of NaOH.

1 1/2 hanks are required for one utaria.

Cost of NaOH used in one utaria is Rs. 0.82

DYEING WAGE

10000gm = Rs.500

150gm= Rs. 7.5

Dyeing wage for one utaria is Rs. 7.5

WINDING WAGE

2500gm = Rs.150

150gm = Rs. 9

Winding wage for one utaria is Rs. 9

DENTING & DRAFTING WAGE

14 metres = Rs. 150

2mtr = Rs. 21

Denting and drafting wage for one utaria is Rs. 9

WEAVING WAGE

1 utaria= Rs.100

Weaving wage for one utaria is Rs. 100

PACKAGING CHARGES

Paper charge, print charge = Rs. 7

Cost of material used in packaging of one utaria is
Rs. 7

It takes a day to weave one utaria

Loom rent per day Rs20

CP = Rs. 157.74 (Rs. 160)

Value charge - Rs. 109

MRP - Rs. 269 only.

Documentation of the weaving activity at Dandi studio to understand Swavalamban. Attempting to create 6 minutes communication video of the overview of the cloth making process which includes spinning, dyeing, winding, warping, weaving on table loom and frame loom. Also covering the ambience of the space.

The video is to understand the swavalmban or self reliance by working with hands.

Inspiration is the collection of videos based on traditions of India by storyloom films.



STORY
LOOM
FILMS

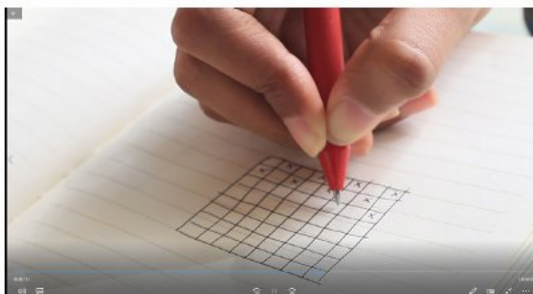
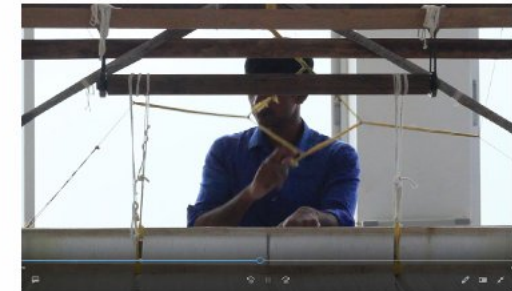
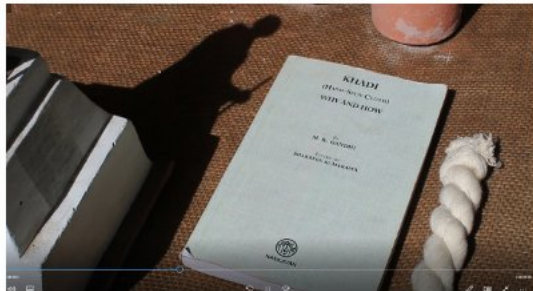




Video footages of activity at Dandi studio.

Documentation of all the activities like spinning, warping, dyeing and weaving by hands. Dandi studio got its name from Dandi March and Gandhi being the pioneer of the

Dandhi studio, encourages the self-reliance. Making cloth with hands, is not just making cloth by hand but it teaches lessons of patience, empathy for weavers, being self-reliant and believe in slow and happy living.



Conclusion

Swavalamban or the way to be self-reliant is the path less taken. I being a part of millennial fashion era has always been a shopoholic and never thought it as harmful element to our mother nature. There are two perspective that I developed about swavalamban are firstly it helps to stay consious about the sustainability ans secondly it developed the sense of self- pride when I created the cloth myself. Though it is very challenging to follow the path of swavalamban but I can create a ripple with stone on ocean of unsustainable world so that I might change for good. The problems and delays are the challenges I faced while the process of dyeing and weaving. Being self- reliant make the process longer and slow but it helps me understand the true value of work.

These learnings came due to interaction with people who are directly or indirectly connected to hand weaving, spinning, natural dyeing, machine weaving. Also the great idol, MK Gandhi who was the visionary wrote a book on Khadi which helped to understand Swavalamban and bright future of handlooms to great extent. Through this project I would like to aware myself and my Indian friends to realise the importance of being self-reliant by working and creating fabric with hands.



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VIDEOS

Storyloomfilms

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