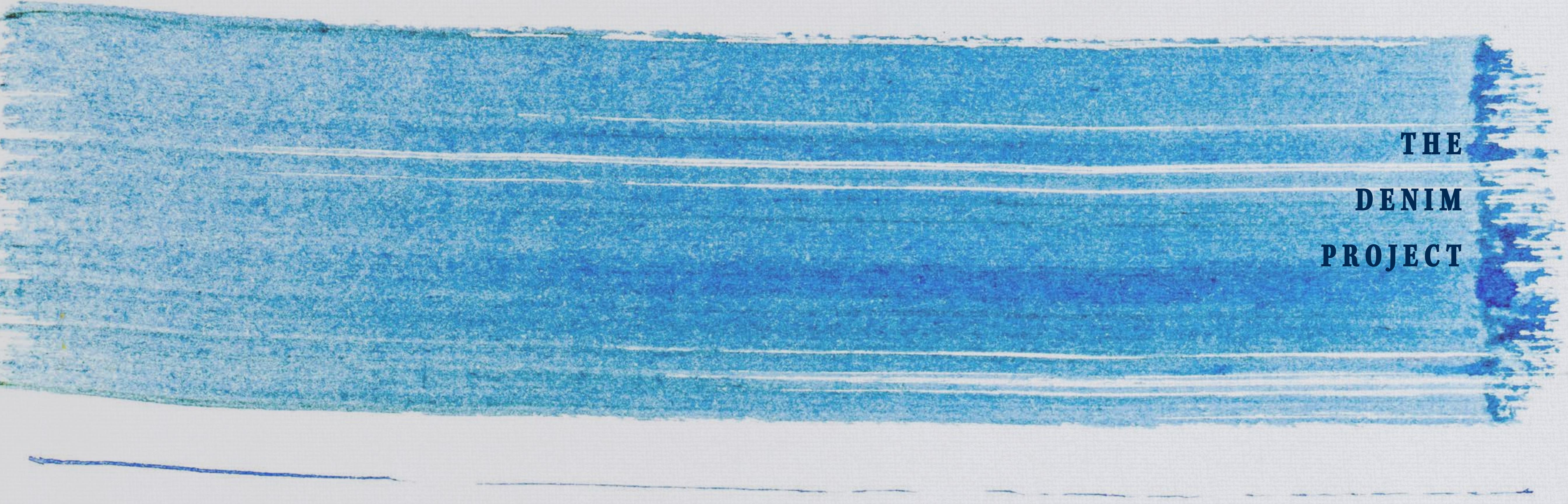
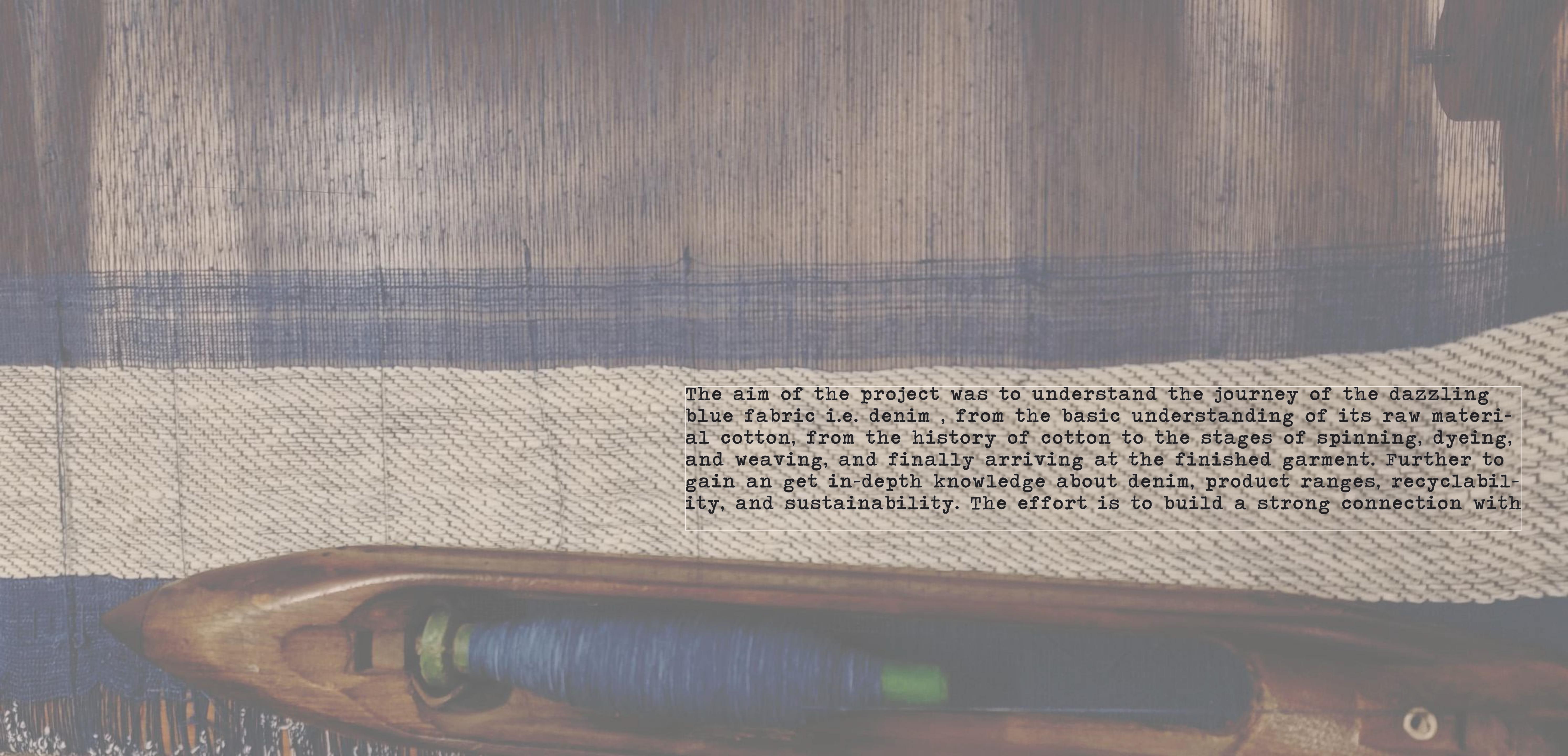


PORTFOLIO

ISHIKA AGARWAL



**THE
DENIM
PROJECT**

A large industrial loom is shown in operation, weaving a denim fabric. The loom has a complex wooden frame with many vertical and horizontal threads. A large blue spool of thread is visible on the left side. The woven fabric is a light blue color with a distinct diamond pattern. A person's hand is visible on the right side, operating the machine.

The aim of the project was to understand the journey of the dazzling blue fabric i.e. denim , from the basic understanding of its raw material cotton, from the history of cotton to the stages of spinning, dyeing, and weaving, and finally arriving at the finished garment. Further to gain an get in-depth knowledge about denim, product ranges, recyclability, and sustainability. The effort is to build a strong connection with

FIBER TO FABRIC



1

GINNING
Cotton is picked up from the fields. The seeds are separated by combing. This process is known as **Ginning**.



2

MAKING OF BALES
Ginned cotton is compressed to form bales. These bales are sent to the **Spinning mills**.



3

CARDING
The cotton fibres are loosened and cleaned. This process is known as **carding**.



4

SPINNING OF COTTON YARN
The cotton fibres are then converted into rope-like loose strands. The strands are twisted to make yarns. This process is known as the **spinning of cotton yarn**.



5

WEAVING AND KNITTING
The yarns are then used to make fabrics by **weaving** and **knitting**.

COTTON IN INDIA

COTTON, A LEADING NATURAL FIBER, IS A MAJOR CASH CROP IN THE WORLD AND IS GROWN COMMERCIALLY IN MORE THAN 50 COUNTRIES. CHINA, INDIA, USA, PAKISTAN AND UZBEKISTAN ARE THE FIVE MAJOR COTTON GROWING COUNTRIES, WITH CHINA HOLDING THE HIGHEST PRODUCTIVITY.

INDIA HAS BEEN THE TRADITIONAL HOME OF COTTON AND COTTON TEXTILES. IT PLAYS A DOMINANT ROLE IN THE INDUSTRIAL AND AGRICULTURAL ECONOMY OF THE COUNTRY. IN INDIA COTTON PROVIDES DIRECT LIVELIHOOD TO 6 MILLION FARMERS AND ABOUT 40-50 MILLION PEOPLE ARE EMPLOYED IN COTTON TRADE AND ITS PROCESSING.

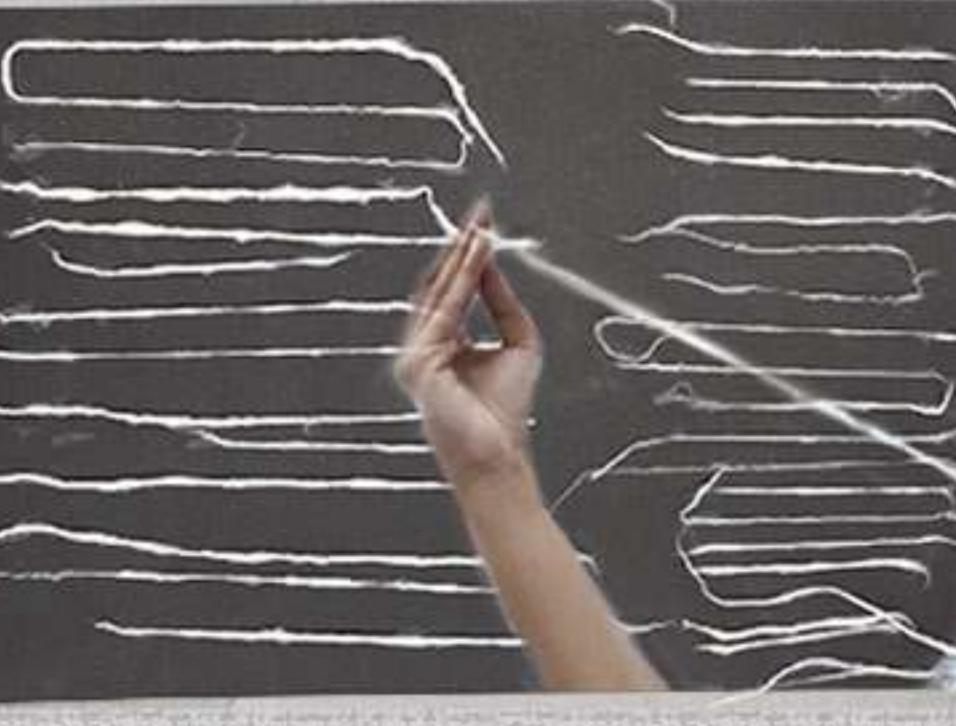
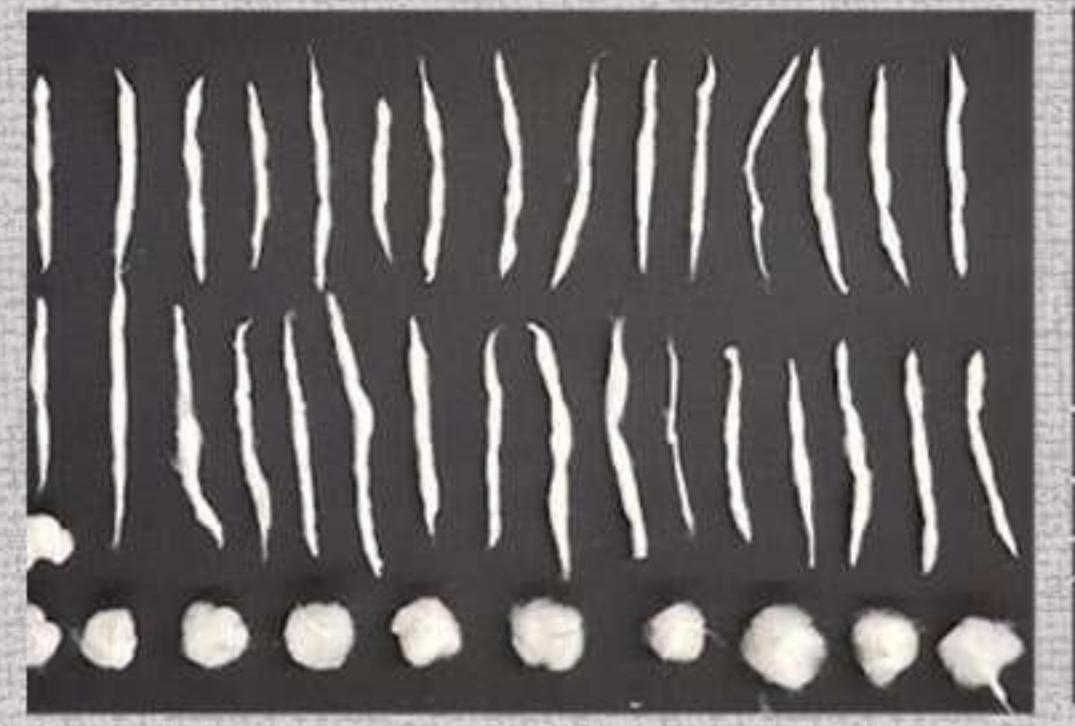
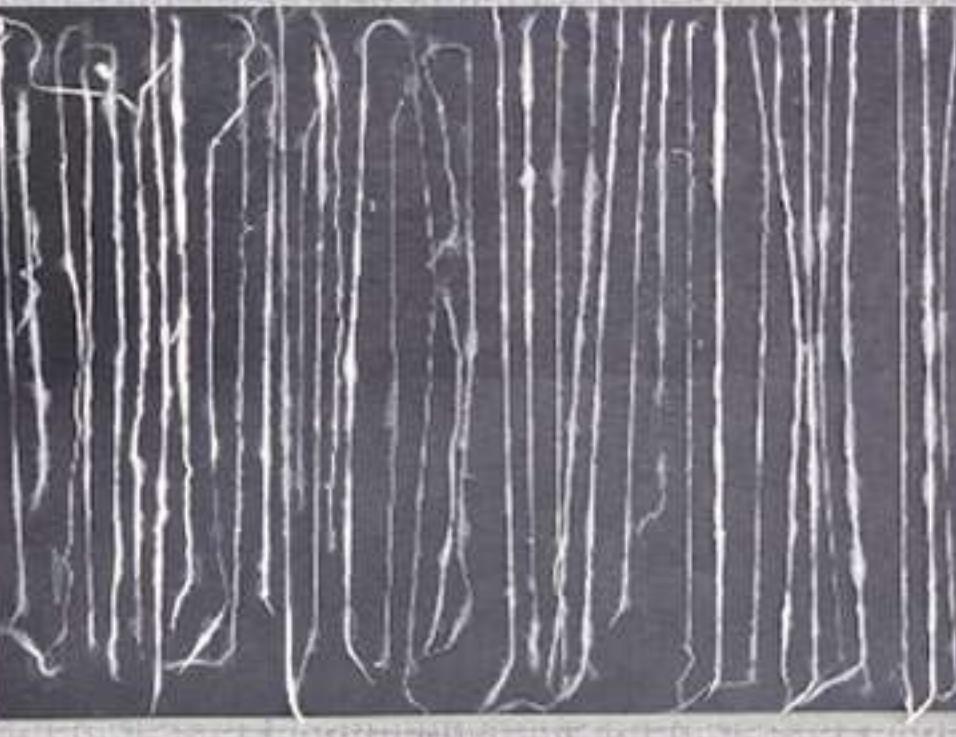
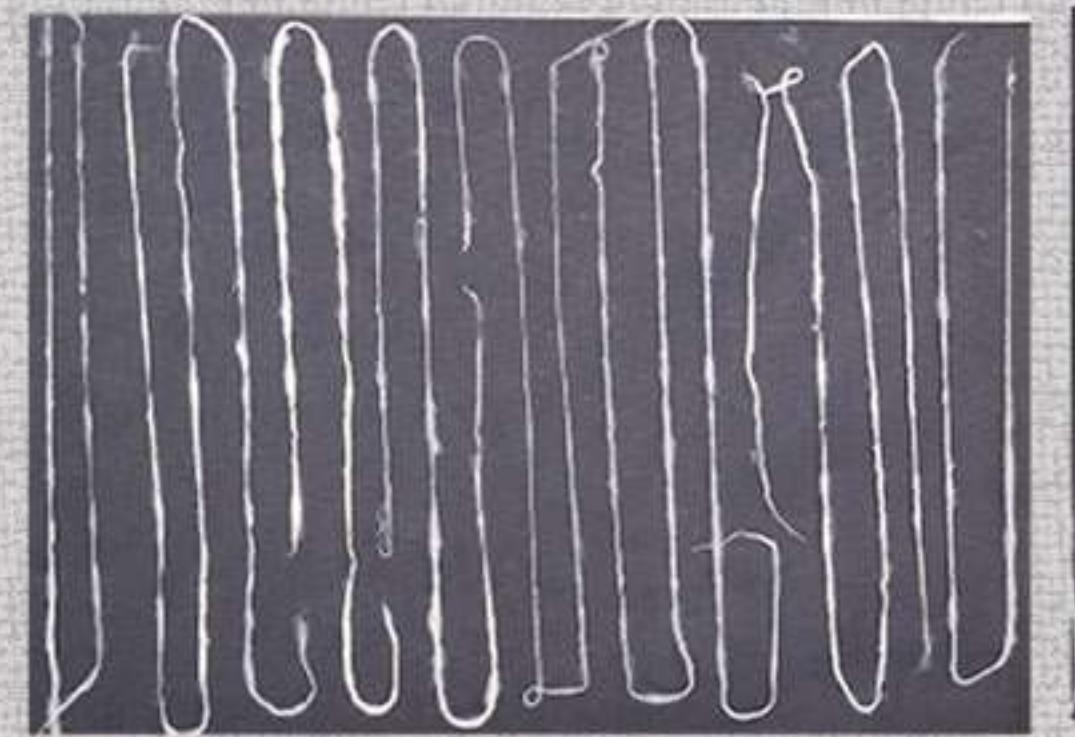
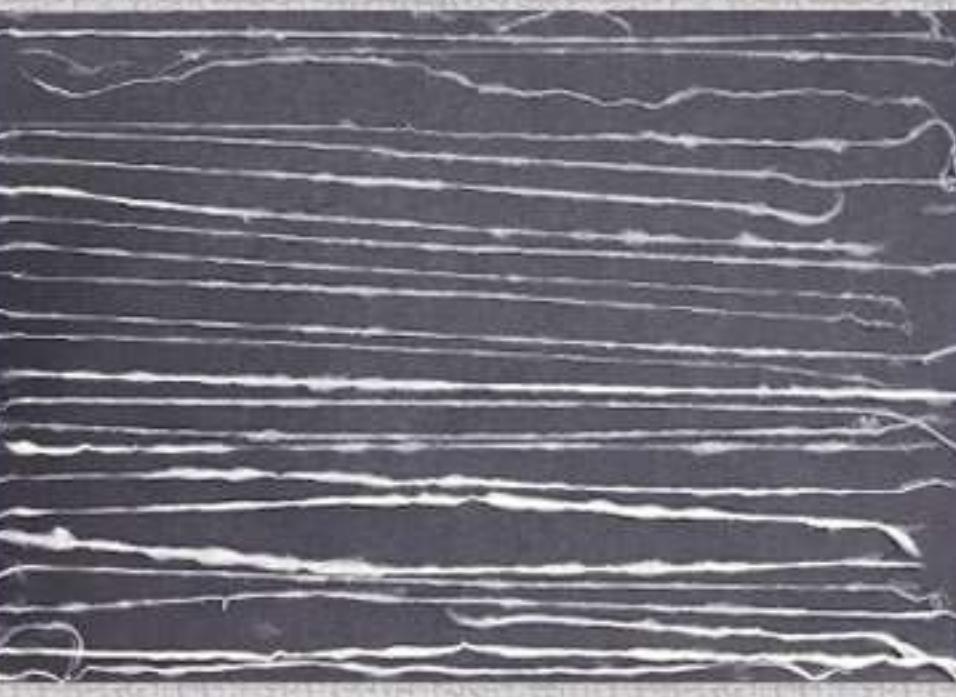
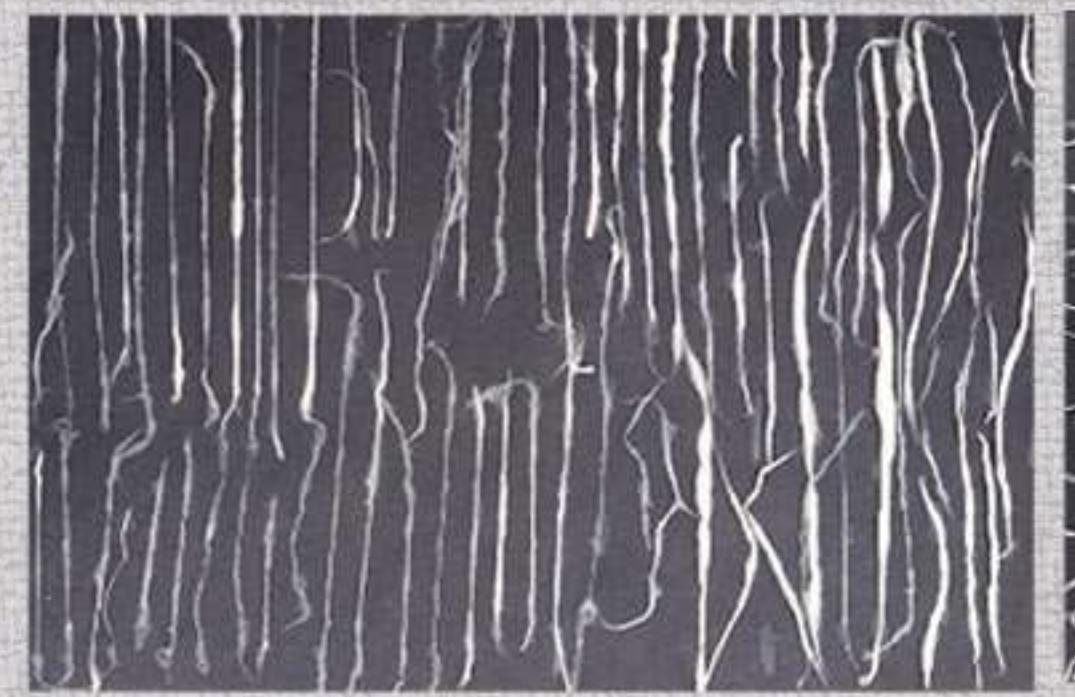
IN INDIA, THERE ARE TEN MAJOR COTTON GROWING STATES NAMELY PUNJAB, HARYANA, RAJASTHAN, MADHYA PRADESH, MAHARASTRA, GUJARAT, ANDHRA PRADESH, TELANGANA, KARNATAKA AND TAMIL NADU.

THE DOMESTICATION OF THE COTTON PLANT FOR COMMERCIAL CULTIVATION FOR CLOTHING AS WELL AS FOR OTHER FORMS OF HUMAN UTILIZATION IS CONSIDERED TO HAVE BEGUN FROM HARAPPA CIVILISATION IN THIS SUB-CONTINENT USING DIPLOID OR ASIATIC COTTONS (*Gossypium herbaceum* AND *G. arboreum*).



COTTON TO THREAD: THE ART OF SPINNING

The process started with spinning the yarns by hand, it was a difficult activity at first but with practice i was able to bring consistency in my threads. While making the threads I realised that the entire process was helping me improve my hand and mind coordination as we had to pull the cotton fibers out of the puni while simultaneously performing the action of twisting and making sure that the twisting and pulling are in perfect coordination in order to produce a good thread.





HAND SPINNING USING A HAND-HELD SPINDLE

"Pull-Twist-Hold" the mantra best suited to explain the spinning process. first we twist the end of the cotton fibers into the tip of the spindle, then spin and drop the spindle down repeatedly and then wrap the yarn on the spindle- then repeat.



Hand spun thread on a taki , also known as a spindle.

Reflection

It taught me about the dignity of labour — when you spin, you realise the effort that goes into making something and start honouring the efforts of others. It made me appreciate the value of little things and also made me more curious about knowing the making porcess from s cratch and also gain the knowledge about cotton and spinning techniques.



INDIGO DYEING

During our visit to the 11-11 workshop I got to witness the entire indigo dyeing process and came accross many amusing facts such as goat dung can be used to maintain the temperature of the vats and that vats have regenerative properties.

Indigo dye is an organic compound with a distinctive blue colour obtained from a variety of plants, the most widely used one being *indigofera tinctoria*. Indigo powder - the famous blue dye - is extracted from the leaves of the indigo plant. The leaves are harvested, dried and ground into a powder.

Indigo carmine , or indigo, is an indigo derivative which is also used as a colorant. About a thousand tons are produced annualy, again mainly for blue jeans. It is also used as food coloant, and is listed in the united States as FD&C Blue No.2 .



Visiit to the 11-11 workshop

THREAD DYEING

The process made me understand the purity of the entire process beginning from the very first step which was washing the threads. moving on to the dyeing process.

The interactive process between the hands, threads and the indigo vat helped me understand the importance of being patient while dyeing something as the number of times the threads are dipped influences the colour of the dyed material.

Preparation of the Vat



Washing process



Threads after washing



Dipping the threads in the vat

Dyed threads kept for drying



Final indigo dyed threads





HAND LOOM

We were now supposed to weave fabrics out of our hand spun yarn on a handloom. A 'handloom' is a loom that is used to weave cloth without the use of any electricity. Weaving is primarily the interlacing of two sets of yarn - the warp (length) and the weft (width), and in this case I used the non-dyed hand spun cotton threads for the weft and indigo dyed mill spun threads as the warp.

The pattern I tried to create is known as the leheria pattern. Weaving on a handloom helped me understand the connection and the interaction between threads in a fabric.

WEAVING A FABRIC ON A TRADITIONAL HANDLOOM FROM THE THREADS MADE ON CHARKHA.



Wrapping handspun threads made on charkha over a bobin



threads wrapped on bobin



shuttle



measuring the stripes



weaving leheria pattern on handloom

FINAL HANDWOVEN FABRIC



INTEGRATED DESIGN STUDIO

The brief of the assignment was to stitch a jean for a client working at the studio with the aim to document the wear and tear on the selvedged raw denim when worn rigorously.





DENIM HAS KNOWN TO REVOLUTIONIZE THE FASHION INDUSTRY MORE THAN ANY OTHER CLOTHING. FROM TWILL TROUSERS WORN BY MERCHANT SAILORS TO BECOMING WARDROBE-STAPLE DENIM JEANS HAVE COME A LONG WAY.

DESPITE THE RANGE OF INNOVATIVE MATERIALS AVAILABLE, DENIM REMAINS ONE OF THE MOST VERSATILE, DURABLE, AND HIGHLY SOUGHT-AFTER FABRICS ON THE MARKET. IT HAS EVOLVED WITH TIME AND STILL REMAINS TO HAVE THE SAME APPEAL.

THE FABRIC WAS CLASSIFIED AS A TWILL WEAVE FABRIC USING ONE COLOURED THREAD (BASICALLY INDIGO DYED) AND ONE WHITE THREAD WITH THE WEFT PASSING UNDER THE WARP THREADS. IT HAD A UNIQUE FEEL AND WAS A PERFECT FIT FOR THE WORKING CLASS PEOPLE. TODAY WE CALL IT DENIM, THE WORD DENIM COMES FROM THE FRENCH PHRASE "SERGE DE NIMES" WHICH MEANS SERGE FROM NIMES. THE MEANING OF DENIM ALLUDED TO THE WORKING-CLASS AND ONLY LATER BECAME A FASHION STATEMENT.

MUSLIN TEST FIT



FIT ISSUES:

Tight on the crotch (increase the body rise)
Length needed to be reduced

CLIENT PROFILE

Mr Premchand Yadav

Age: 42 yrs

Hometown: Gorakhpur

Work profile: Heavy lifting, welding

TOILE- NON SELVEDGE



FIT ISSUES:

Decrease body rise by 1 cm on both front and back
Length needs to be reduced

TEST FIT- SELVEDGE DENIM JEAN

FIT ISSUES:

LOOSE ON THE WAIST BY 8CM

SELVEDGE DENIM

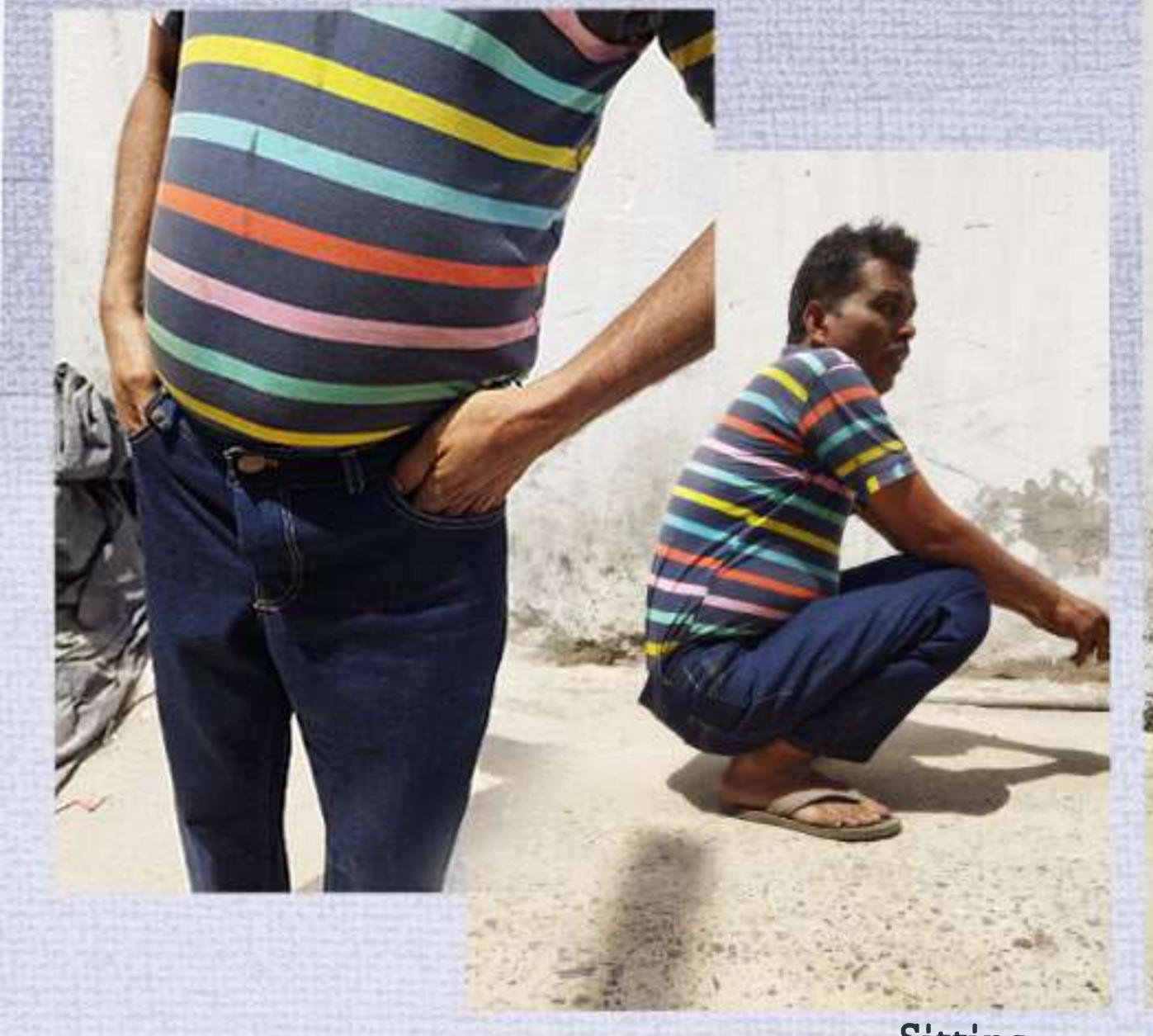
At this point of the project we were introduced to selvedge denim, being one of the original denim patterns which was a new experience. Learning about it and practically doing it helped me understand more about the fabric.

The beauty of selvedge denim fabric resides in the edges of the fabric which are closed unlike the frayed denim fabrics. Our main purpose was to preserve this character of the fabric and further understanding the patternmaking of a selvedge denim jeans.

This gave me an insight on how a jeans made out of the fabric determines the fall, fit and shape of the garment, helping me understand the influence that the play between a fabric and a garment has on the fit and fall on the body.



FINAL- SELVEDGE DENIM JEAN



Sitting



Back

Side

Front



DETAILS

side seam

REFLECTION

Working with a client was an overwhelming experience, the assignment started with taking accurate measurements of the client and then taking them forward for making the patterns for their loose fitting jean.

I had to go back and forth in order to get the perfect fit of the garment. i also got the opportunity to learn to stitch a jean from scratch, the deadlines along with the need to perfect the stitches made the process challenging but after all the hardwork seeing the smile on my clients face when the fit came perfect was a feeling i would never forget, it made the entire process worth it.

DECONSTRUCTED GARMENT



figuring out different placements
of the existing panels.



For deconstruction the garment I chose was an old denim A-line skirt, after which I tried to best understand its characteristics and then moved on to explore different forms and unconventional ways of putting use parts of the garment in ways that they are not generally used as.

This part of the project started with the understanding with denim as a fabric and we started with understanding a used denim clothing and understanding how we could reuse the fabric to its full potential. to create minimal wastage and keep the essence and understanding the process of deconstruction in its entirety.

Used the button closers i.e. the keyhole as a decorative element on the center back.

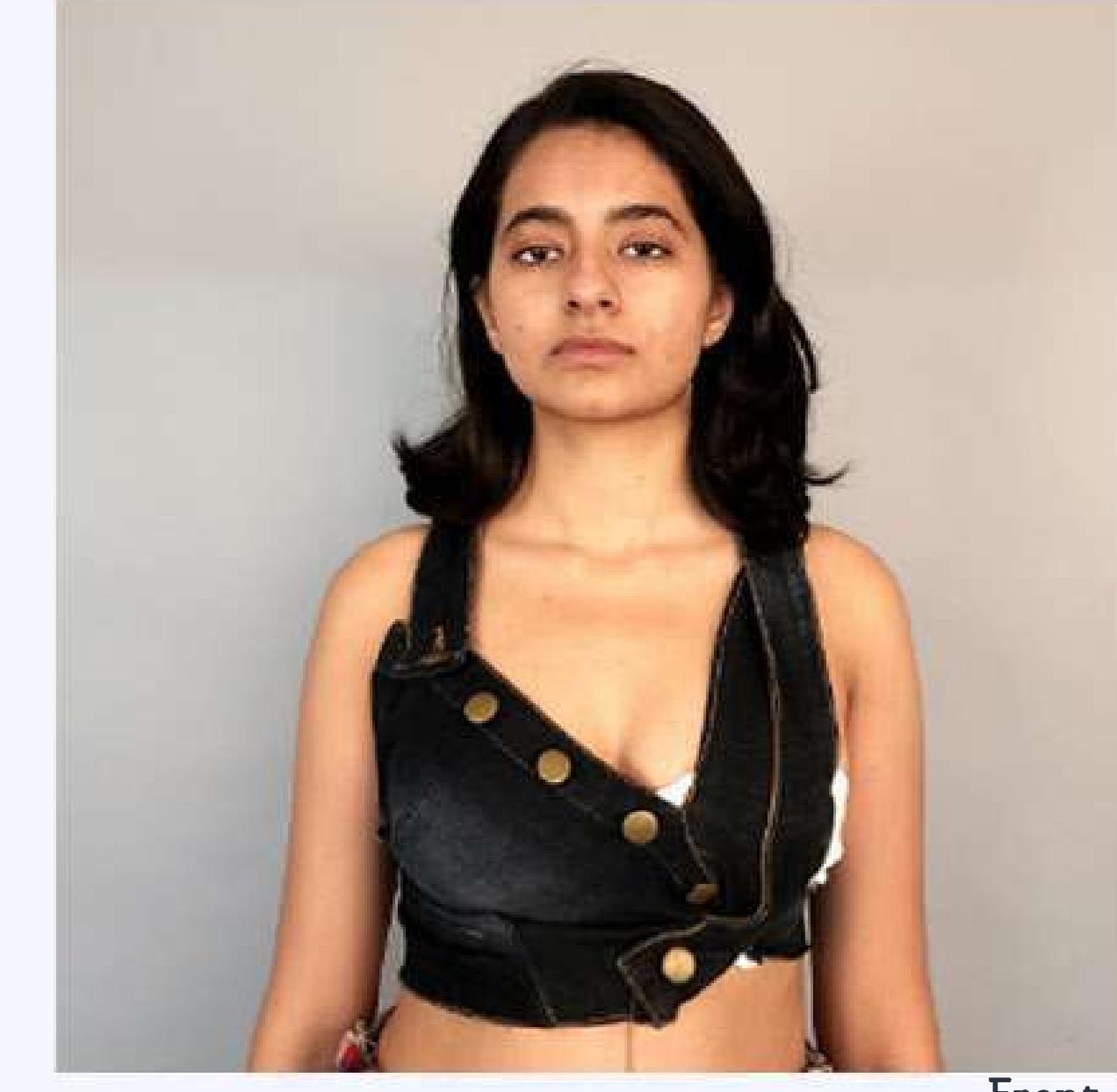
FITTING SHOOT



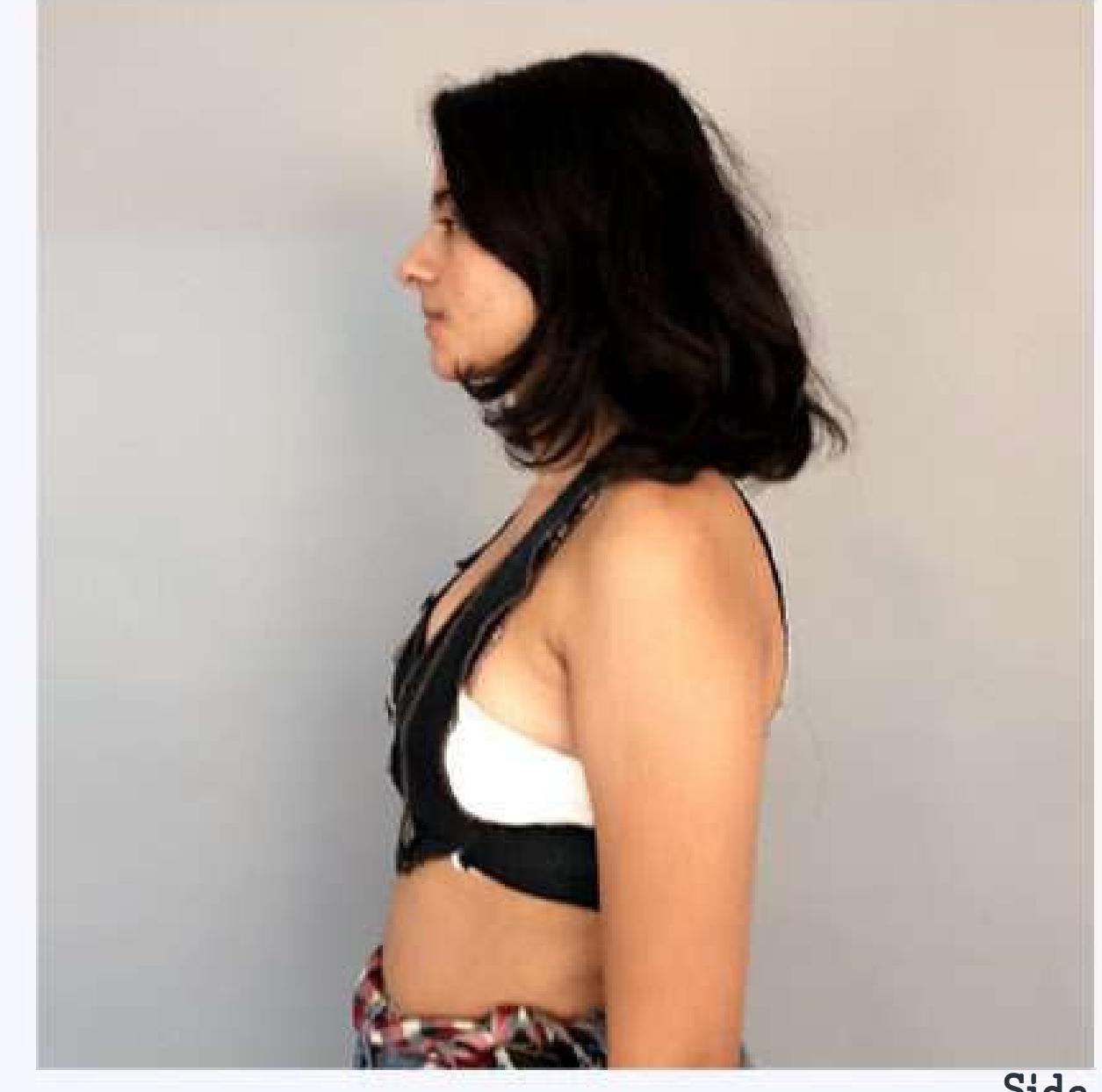
Back



Side



Front



Side



UPCYCLED GARMENT

The process started with us directly diving into the process of creating an upcycled garment and understanding its meaning along the way.

for my garment i choose one of my mothers jeans which had a very interesting yoke and dart placements, so i then deconstructed the jeans inorder to keep the yoke lines intact.futher I wanted to explore colourblocking so I used the leftover pieces from my deconstructed jacket in my garment.



Deconstructing the jeans in order to retain the back panels.





Issues faced:

The fall of the garment was not falling the way i wanted it to, attachment problems.