

SUSTAINABLE ARTISAN CLUSTER

A THESIS

Submitted in partial fulfilment of the requirements for the award of
Bachelor of Architecture degree

By

**Infant Tiffancy J
(37210016)**



**DEPARTMENT OF ARCHITECTURE
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ENVIRONMENT**

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**Accredited with Grade "A" by NAAC
JEPPIAAR NAGAR, RAJIV GANDHI SALAI,
CHENNAI - 600 119**

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DEPARTMENT OF ARCHITECTURE

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **Infant Tiffancy .J (37210016)** who carried out the project entitled “ **Sustainable Artisan Cluster** ” under our supervision from July 2021 to November 2021.

Internal Guide

Ar. JhannuPriyaa

Internal Review Member

Ar. Vijendaranath

External Guide

Ar. V.Sp.Shakthivel Raja

A handwritten signature in blue ink, reading 'Devyani', is placed above the title of the Dean.

Dean and Head of the Department
Dr. DEVYANI GANGOPADHYAY

Submitted for Viva voce Examination held on 8-12-2021

Internal Examiner

External Examiner

DECLARATION

I, **Infant Tiffancy .J** hereby declare that the Project Report entitled “**Sustainable Artisan Cluster** “done by me under the guidance of **Ar.Jhannupriyaa** (Internal guide), **Ar. Vijendranath**(Internal Review Member) and **Ar. V.Sp.Sakthivel Raja** (External Guide), at Sathyabama Institute of Science and Technology is submitted in partial fulfilment of the requirements for the award of Bachelor of Architecture Degree.

DATE: 06.12.2021

Infant Tiffancy.J

PLACE: Chennai

SIGNATURE OF THE CANDIDATE:

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J.INFANT TIFFANCY

ABSTRACT

Sustainable artisan cluster is a program aimed for fashion analysis, learning, and marketing in a sustainable manner. This cluster space is sketched to guide young fashion creators in optimising their potential. With Fashion Hub, young designers get access to the specialists in the industry and their expertise. Because of globalisation, the Indian fashion industry has become an essential component, and now one of the fastest growing economies in this sector. India has unique and noteworthy fashion that is particular to its region, hence it is difficult to give fair compensation to these artists as their works are generally intricate and elegant piece of work. In the context of in-demand fashion, Indian fashion can easily be acquired and updated in other countries without disclosing its origin. As a result, the project's goal is to acknowledge and appreciate Indian fashion and its process, as well as to gain recognition for it. And to promote India as a significant hub for international fashion events

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CHAPTER 1

1. INTRODUCTION

Fashion is an art form that encourages and inspires individuals to express oneself. Fashion design is a type of art that focuses on the creation of clothing and several other lifestyle accessories. Style is not only the approach or manner in which one wears; it is also the attitude. Fabrics are the artistry, which is transformed to another level by creation of a style with the right attitude. The goal is to develop an environment for fashion to stage Indian fashion in a premium vogue. This connects fashion's nodes by functioning as an interactive, dynamic and enlightening forum for assorted fashion professionals. It brings together fashion seekers, trendsetters, professionals & entrepreneurs to empower them with the right platform and paving way into an inventive fashion world for fashion graduates and start-ups. The design is planned to be commercially viable, hence the drafted version includes all forms of synchronisation to supply, manufacture and trade, conduct workshops for the finished goods.

1.1 AIM:

The aim is to design fashion innovations by intersecting fashion with technology and sustainability, a start-up platform for young designers and to uplift the face of the handloom sector. It will also serve as a galleria and will provide workshops to inspire more fashion passionate students.

1.2 OBJECTIVE OF THE PROJECT:

The following are the three broad aims that this study intends to achieve:

Identify:

To study the handloom industry and identify the issues that can be addressed through the scopes of architecture .To understand all the processes involved in fashion technology with its own characteristics spatial requirements.

Formulate:

To formulate a project brief with a solution for the identified issues.

Design:

- To design a space that stays within the soul of occupation but uplifts the face of the industry.

- To erect an interactive, creative space for various specialists in the fashion industry.
- To create a domain that combines fashion, culture, entertainment and business

1.3 SCOPE:

SOCIAL:

Encourage a suitable environment for fashion people to congregate. Conduct a seminar or a literacy programme to raise awareness and comprehension on sustainable fashion. Popularize handloom fashion to stimulate intercultural understanding in fashion.

ECONOMY:

Attract more people, resulting in an increase in the economy, and providing job opportunities for young designers to enhance their skills.

EDUCATIONAL:

Exploring traditional handloom fashion in Coimbatore, promoting emerging talents and supporting native community by creating a programme promoting traditional handloom fashion.

1.4 NEED FOR THE PROJECT:

Encourage and nurture young fashion stylists is important for any industry to bring a wide Point of view and opportunity. Though there are more than 25 colleges for Fashion design colleges in Coimbatore, most of the graduates do not take up fashion as their career. With this platform, they get to groom their ideas and showcase their talents within the country and globally. Coimbatore with a 50,000 crore market has skilled proficiency, cheap labour & all infrastructure setup needed to fulfil all demand pooled from the global fashion markets and to generate more potential jobs through the promotion of native handlooms and effective marketing. This strengthens and reinvigorates the indigenous handicrafts by establishing a foundation for knowledge growth and the craft's viability.

1.5 CHALLENGES:

ICONIC:

The building has to be symbol of the fashion professional stream catering to evergreen ideas, concepts and also to all pioneering and ground breaking projects. The challenge would be to create and merge a space retaining the fashion industry's glamorous image along with its principles.

VISIBILITY:

Creating an interface for the fashion market by establishing a structured market space and an area to launch events.

PLATFORM FOR YOUNG DESIGNERS:

It aids in raising awareness of the present trend with sustainable, up scaled commodities and establishing a powerful innate environment, aesthetically.

1.6 METHODOLOGY:

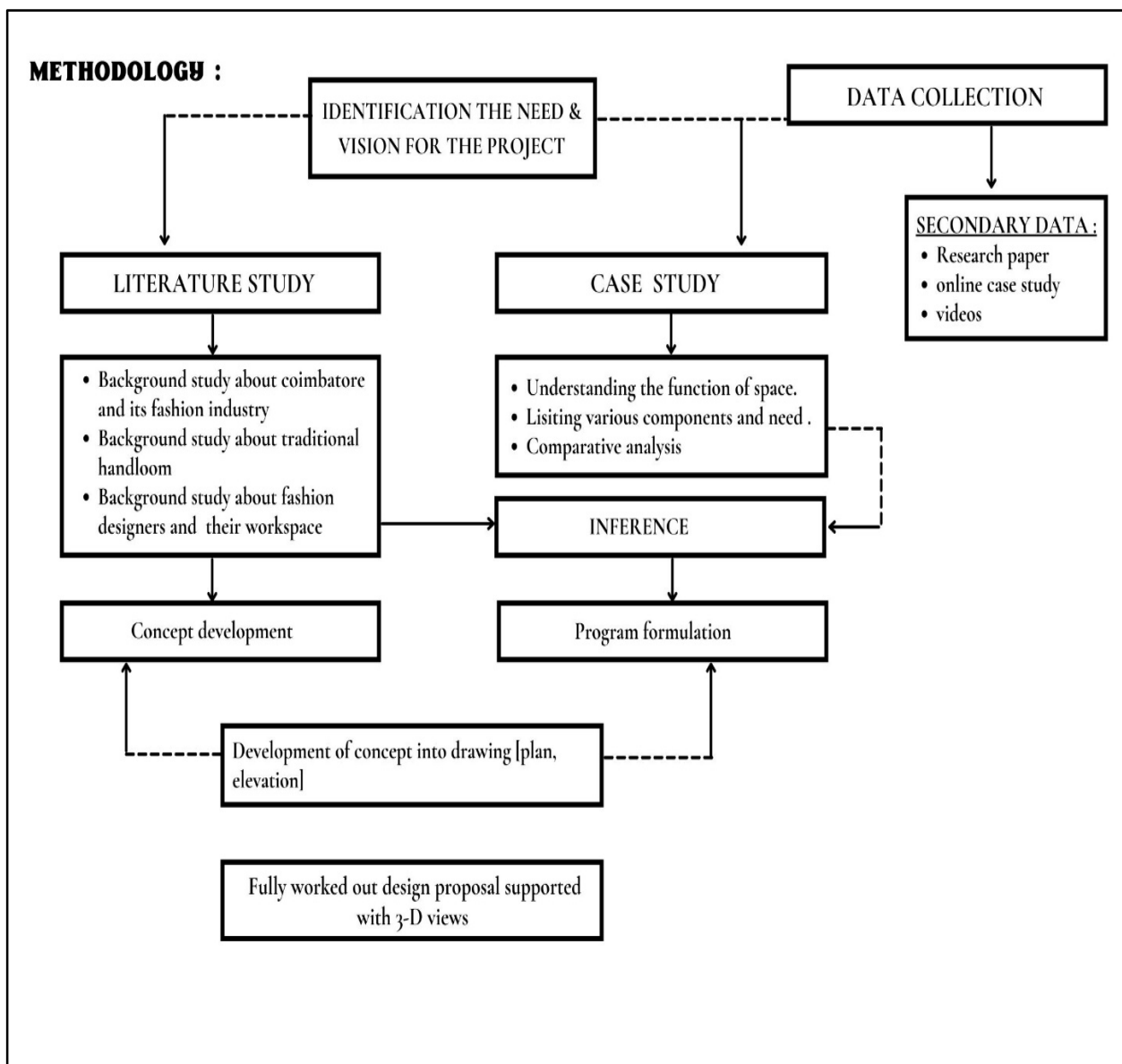


FIGURE 1.1

METHODOLOGY:

IDENTIFICATION THE NEEDS & VISION FOR THE PROJECT :

- To identify the project necessity and vision and desired result.

RESEARCH AND BACKGROUND STUDY:

- To investigate the significance of fashion designers and traditional handloom workshops, with a focus on producing them on a national and worldwide scale.

SITE AND CONTEXT STUDY:

- To research and analyse the chosen place and its context, as well as to document the fashion business in the entire region

DEVELOPMENT OF DESIGN PROGRAM AND AREA STATEMENT:

- To fully comprehend the project's requirements based on a critical study and then compare them to the planned area programme.

DESIGN DEVELOPMENT AND EXECUTION:

- To understand the needs of the user and the customer through design development, typology, expression, and material continuity

FIGURE 1.1

STAGES	AREA OF EXPLORATION	RESEARCH METHODOLOGY
NEED IDENTIFICATION OF THE CLIENTS	Understanding the possible results anticipated by the project's proposal and the potential benefits that may be obtained for the revitalization of traditional handloom and the promotion of workspace for emerging designers.	obtain details of the clients need through smart city
STUDY ON FASHION DESIGNER AND THEIR WORKSPACE	- Study of different types of fashion designer . - Study about their workspace . - Study about the informal space for fashion designer .	- Various studies and research about the designers workspace to understand the requirement in various directions - the study is done by the means of research papers, books, articles.
STUDY ON TRADITIONAL HANDLOOM	- Study about the process of weaving . - study about the standard measurement of the instrument used for weaving . - Study the spatial aspect of the weaving . - Study about the temperature and material and all other aspects for weaving .	Research through various articles, books, research paper on the subject.
SITE AND CONTEXT STUDY	- location - Accessibility - Architectural character on the region - Neighborhood context -the immediate surroundings of the site including data on zoning and buildings and other impacts on our project . - zoning and size. - legal information ownership ,restrictions or covenants ,council related information . - Natural features & man made features .	Through site visits and referring to the google maps and the master plan and land use map of the region .

FIGURE 1 .1

STAGES	AREA OF EXPLORATION	RESEACH METHODOLOGY
	• circulation vehicle and pedestrian movements in, through and around the site. • consider the timing of these movements & duration of heavier patterns. • Utilites service that are situated in or near the site along with distances ,depth s and materials . • climate • Sensory -the addresses the visual ,audible and tactile appsects of the site ,such as views, noise. • Human and cultural -the cultural ,psychological behaviora and sociological aspects of the surrounding neighborhood. Activites & patterns ,density ,population ethnic patterns .	
CLIMATE ANALYSIS	• Understanding the climatic conditions of temperature ,rainfall ,wind direction ,sunpath ,humidity ,various seasons and tempertaure range over various months . • study of sun angles at the site and shadow analysis . • understanding the climate requirements and arriving appropriate solution	• Analyzing climate data available in google • software analysis for sunlight and shadow angle. • case study to understand the response to the climate .
ZONING AND DEVELOPMENT CONTROLS	• Finding development control rules like max .Ground coverage ,max permissible FAR ,height restriction , setback norms,fire safety norms , parking norms and other service norms for the particular projects	• Study of DCR pertaining to Coimbatore . • NBC,TNCBDR • Norms to refer for project near the site.
USER INDENTIFICATI ON	• Need identification of different users, circulations ,behavioral pattern and access permission	• understanding different perspectives from point of views of varied users like fashion designers, weavers ,students, vip guests, administrators, working staffs , security personals.

FIGURE 1.1

1.7 DESIGN INTENT:

The intent is to focus on how the indoor and outdoor space is merged to flow with a movement and to give an iconic building, where form follows function.

PRIDE OF THE PLACE:

The space designed should be an iconic campus for the industry that should change the way people think of this industry, which in turn would positively affect the face of the industry.

EXPERIENCE:

The experience created by the space should be an inspiring and elevate space for the designers and weavers and aid in the creation of state of the art products and designs.

INTEGRATION:

The space is framed to integrate the needs of all its stakeholders and users for maximum outcome from the industry.

ARCHITECTURE:

The planning and detailing should be in accordance with the spirit of the place and the spatial quality needed for the weavers.

CHAPTER 2

BACKGROUND STUDY

HISTORY:

STORY LINE OF COIMBATORE BUILT IN COTTON:

INTRODUCTION:

Coimbatore ,kongunadu area of western TN home to cotton textile surrounded by western ghats, rich soil blessed with cauvery waters



SENATOR CLOTH

OUTSKIRT OF COIMBATORE

COIMNATORE -Home to 2500 textile manufacturing companies ,hence biggest manufacturing centre in india -also hesiery mills supply to large brand in the world.



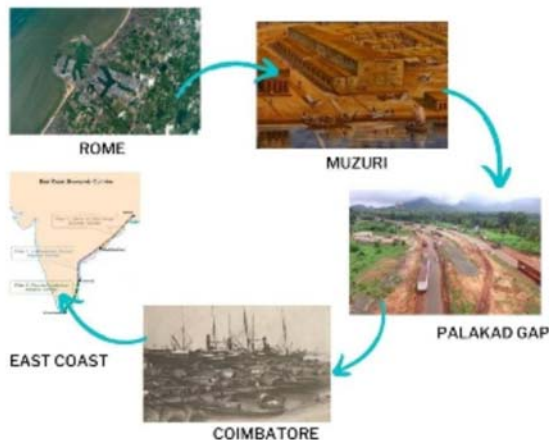
ANCIENT TRADE ROUTE BETWEEN ROME AND PENINSULAR INDIA:

It is said that there was a Roman settlement in the outskirts of Coimbatore region, 2000 years ago.

- This helps them to produce cotton that the senator in ancient rome wore.
- . Due to vagaries of time, traces have disappeared.

TRADE ROUTE :

Traders of rome lands in the ancient part of muzuri, further south in kerala the road wound through the palakad gap into Coimbatore -to move on to east coast.



EXACAVATION OF ROMAN

COINS:

- . Unearthed roman coins, dated 27 BCE
- 14 BCE, regin: Augustus Caesar coins with Constantine images were found, dated 306 CE-337 CE.
- coins belonging to the reign of Tiberius



OTHER FACTS:

. For the 1st few years of the common era india drained the roman empire of its

- precious metal resources-forcing them to resort to desperate measures to maintain balance of trade-Roman 'karor' book.

Goods were moved through peruvazhi highway with the aid of elephants/

- horses/bullocks +manual labour.reference: Peruvzhi-built by chola king adhitan 10 BCE found in rock aiyasamy hills around 20 km from Coimbatore

CHOLA DYNASTY:

9TH Century-medieval chola empire took over the kongunadu and gold were added into the chola treasury-acquired by exporting-this gold was used in the roof of natarajatemple , chidambaram by prantakachola..



EAST INDIA COMPANY:

- European gave impetus to CMBT due to its weather hill station coffee-tea plantation..european also contributes new varieties of cotton
- Sir Robert Stanley 1841AD-1936AD- brought industrial revolution in CMBT.
- Founding of spinning & weaving mills in 1888, with the help of SpNarasimhanaidu.
- Advent of european brought technology & trade development @ large scale.
- Rail connectivity.cycle was introduced by William in 1895 to access remote markets.

INVASION OF ALAUDIN KHUJIS:

- Changed the political upheaval across peninsular India.
- Farmers,weavers, soldiers, traders.help the vijayanagar empire.

- Settled, creating new wave of settlers.
- Farmers from andhra.karnataka bough seeds from their region added crop diversity.



REORGANISATION OF COIMBATORE:

- Weavers of CMBT began living in PETTAI area-hub of textile trade.
- Tax collector of this region settled in oppanakara street • due to flourishing commercial activities military garrison established fort was built
- CMBT headquarters for 30 polygars -under the yoke of hampi.



FIGURE 2 1

2.1 TYPES OF TRADITIONAL HANDLOOM WEAVING MACHINE:

PRIMITIVE OR VERTICAL LOOM:



FIGURE 2 2

- A primitive loom is generally done by sinking the frame into the ground and worked inside the pit by both feet.
- The framework is of bamboo.
- This loom is still used for weaving silk pieces, silk shirting, and sarees, this is how throw shuttle loom operates.

S

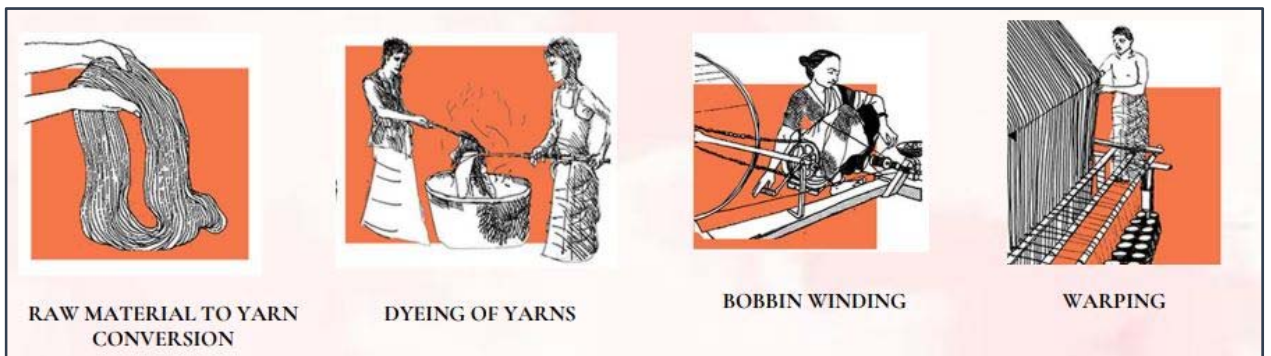
PIT LOOM:

PRO
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:



FIGURE 2 3

- This loom is created by sinking four posters into the ground and with an overhang sley. The thread work is done inside the pit, so that the warp threads may absorb moisture resulting in better weaving.
- In this looms the combination of sley & shuttle boxes is utilised.



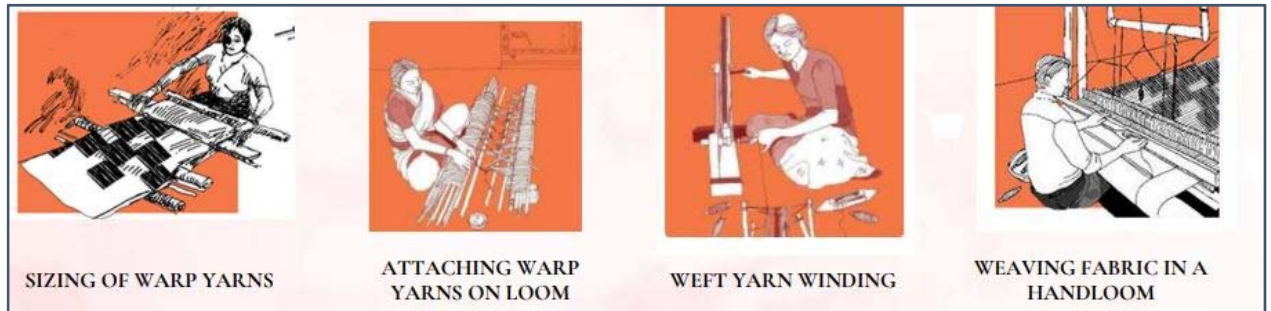


FIGURE 2.4

INFRASTRUCTURE:

MAINTENANCE OF TEMPERATURE CONTROL:

Weaving of silk and fine cottons requires careful management of ambient temperature and humidity levels inside the weaving unit.

BALANCED HUMIDITY:

Weaving also requires a balanced humidity level to be maintained in the work areas. If this is not ensured, the twisted yarns of the warp and weft will tend to break easily.

ADEQUATE LIGHT:



FIGURE 2.5

In keeping with the design and planning principles of vernacular architecture, large openings of doors and windows are placed opposite to each other on both the longitudinal sides of the room. The weavers prefer to work in an environment with dispersed lighting. This is to avoid straining of their eyes for very intricate works, they light a bulb for this purpose which hangs from their looms. This helps them to look for breakages, or other defects while weaving.

The walls should be of light colours to create the dispersed light effect. It is suggested that an illumination level of 200 Lux should be maintained for weaving plain grey cloth, in day light. The Indian Values are too much low in comparison to IES standard

(Illuminating Engineering Society, 1973) which recommend an illumination level of 750 Lux for the same type of cloth.

REGULAR AIRFLOW:

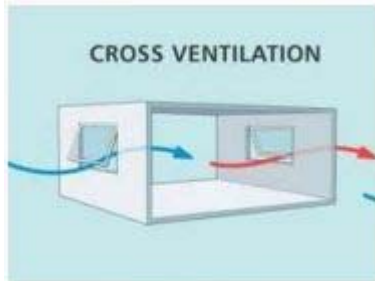


FIGURE 2 6

Traditional houses are constructed in a way so as to allow regular airflow and ensure maximum and cross ventilation. Small thread particles tend to be present in air during the process of weaving, cross ventilation clears the room of such particles.

SOFT FLOOR:



FIGURE 2 7

Traditional houses have mud floors. This feature facilitates the digging of pits required to work on the traditional pit looms. A soft ground is useful even when frame looms are erected without a pit, for these are often installed with the support of short stone pillars, occasionally accompanied by stone benches as well.

LINEAR SPACES FOR STRETCHING OF LOOMS:



FIGURE 2 8

The living and work spaces are arranged in linear sections. Traditional homes are built in longitudinal sections, which enable the stretching of looms as the weaving progresses.

SPACES REQUIRED FOR WEAVING PROCESS:

FOR DYEING YARN:



FIGURE 2 9

FOR DRYING OF YARN:



FIGURE 2 10

FOR SPINNING OF CHARKA:



FIGURE 2 11

Open/semi open space/closed space with facilities for heating and water drainage with a minimum of 2mx2m dimensions. Space for aasu + max 2 people to (squat) sit and work+ space for small objects is 2mx2m

Semi open or closed space with shade. Hung onto a rod or bamboo stick from ceiling. Minimum space required is 2m x 2m.

Closed space is required space for charka + space for one person to squat sit and work+ space winding equipment +other small paraphernalia is minimum 2mx1m

FOR LOADING OF YARN ONTO THE LOOM:



FIGURE 2 12

Long Closed Space With Maximum Natural Light Or Long Open Area. Long Space, Length Min 5m Width

FOR WEAVING:



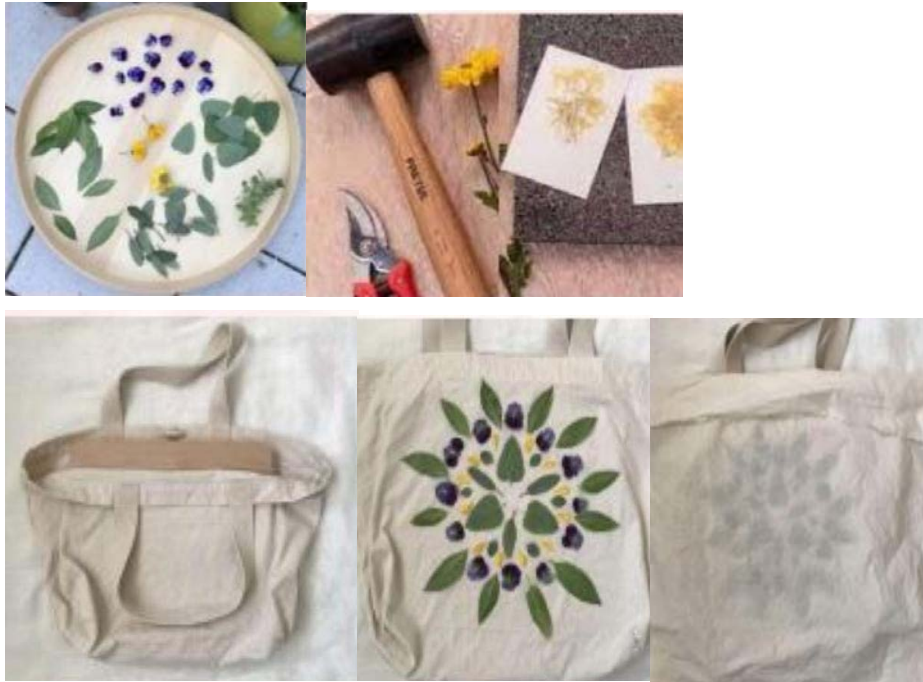
FIGURE 2 13

Closed space with maximum natural light space for storage of the final products and raw materials. Usually stored in aluminum mirmas. Area of loom (rolling facility) + pit + small paraphernalia is 2.4mx2.4m for traditional loom is less than 2.4mx6m general storage space required is minimum 3mx 3m.

PRINT FORMS:

HAMMER METHOD OF ECO PRINTING:

- collect the petals and leaves
- prewashed the fabric (I used a cotton bag and extra piece of fabric on top.
- equipment (the wooden board and hammer) and collected the flowers and leaves



• FIGURE 2 14

- Then I put the chopping board inside the bag - behind one layer of fabric.
- arranged the plants in a mandala - beginning in the centre and working my way out
- Then I put the chopping board inside the bag behind one layer of fabric



Figure 2.14

- took the hammer and began to pound the plants - slowly and with precision.. carefully hammered around the outline to get a clear print
- let it dry and soak that fabric into preservatives like vinegar water+solutions and let it dry
- Final piece

METHOD ECO PRINT:



FIGURE 2.15

- Gather & Pre-soak All Materials
- Assemble Your Plants & Fabric for Printing
- Roll & Bind Your Prints
- Prints With Steam
- Final piece of the product

2.1.2 BLOCK PRINTING PROCESS:

Step 1: Block Carving

It is the Chhipa Community (Rajasthan) that possesses a majority of block carvers, dyers and printers in India. Block carving is the first step in the block printing process and like many other crafts in India, has been in existence since time immemorial. The block-carving artisans make use of tools such as small hammers, chisels and drills to be able to carve elaborate patterns into wooden blocks.

After the carving process, these blocks are dipped in mustard oil and allowed to rest for at least a week. This helps prevent cracking of the blocks upon exposure to dry conditions. The carvers also drill miniature holes into the wooden blocks to allow the wood to breathe. This also extends the life of a wooden block for few decades.

Step 2: Application of Dye

After the carving process, dye is applied to the wooden block surface with the help of a 'sieve'. The wooden block is gently pressed onto the palette of dye before being applied against the fabric.

Step 3: Treatment of Fabric

The chosen fabric for block printing is first washed to remove all the starch. Fabrics such as saree lengths usually require dyeing. This is done before the printing process begins. For hand block printing, the craftsman will lay the fabric on a printing table, stretching it across the entire length and hold it in place with tiny pins.

Step 4: Printing

Block printing has a special technique that needs to be followed in order to get the desired results. Printing always begins from left to right. A plank of wood is used to even out the colour on the tray. The craftsman dips the block into a dark outline colour and applies it to the fabric. This is done repeatedly along the length and breadth of the fabric.

Step 5: After Treatment

Once the hand block-printing process is complete, the craftsman scatters some fine saw dust onto the wet dye to prevent smudging of the design. The fabric is then left to dry out in the Sun. Different dyes may be used for block printing on cotton and silk fabrics. Some of the common cotton dyes include indigo sol, pigment dyes and rapid dyes. The traditional colours used for block printing are red, black, brown, mustard and orange.

2.1.3 SCREEN PRINTING PROCESS:

Step 1: The design is created to start, the printer takes the design they want to create on the finished product, and prints it out onto a transparent acetate film. This will be used to create the stencil.

Step 2: The screen is prepared

Next, the printer will choose a mesh screen to suit the complexity of the design, and the texture of the fabric being printed. The mesh screen is then coated with a layer of light reactive emulsion, which will harden when developed under bright light

Step 3: The emulsion is exposed

The acetate sheet featuring the design is then laid onto the emulsion-coated screen, and the whole thing is exposed to a very bright light. The light hardens the emulsion, so the parts of the screen which are covered by the design remain in liquid form.

If the final design is going to include more than one colour, then a separate screen must be used to apply each layer of ink. To create multi-coloured products, the printer must use his skill to design each stencil, and line them up perfectly to ensure the final design is seamless.

Step 4: The emulsion is washed off, creating the stencil

After the screen has been exposed for a set time, the areas of the screen not covered by the design will have turned hard. Any unhardened emulsion is then carefully rinsed away. This leaves a clear imprint of the design on the screen for the ink to pass through.

The screen is then dried, and the printer will make any necessary touch-ups or corrections to make the imprint as accurate as possible to the original design. The stencil is now ready to be used.

Step 5: The Item Is Prepared For Print

The screen is then placed on the printing press. The item or garment being printed is laid down flat onto the printing board, underneath the screen.

There are a number of different presses, including manual and automatic styles, but most modern commercial printers will use an automatic rotary carousel printer, as this allows several different screens to work at once. For multi-coloured prints, this sort of printer can also be used to apply the separate colour layers in quick succession.

Step 6: The ink is pressed through the screen onto the item

The screen is lowered down onto the printing board. Ink is added to the top end of the screen, and a squeegee is used to pull the ink along the full length of the screen. This presses the ink through the open areas of the stencil, imprinting the design on the product underneath. If the printer is creating multiple items, then the screen is raised and a new garment is placed onto the printing board. The process is then repeated. Once all the items have been printed and the stencil has served its purpose, the emulsion is removed using a special washing fluid so the mesh can be reused to create new stencils.

Step 7: The product is dried, checked and finished

The printed product then passes through a dryer, which 'cures' the ink and creates a smooth, colourfast finish. The final product will be checked and washed thoroughly to remove any residue, before being passed on to its new owner.**Steam printing process:**

A steam basket is placed in a crock pot or slow cooker. Place the packets of prepared eco print silks on top of the steam basket. Turn the crock pot on low. Leave it for 3 hours. Shut off the crock pot. Let this cool down to room temperature on its own, leave it overnight or you can leave it longer, up to 30 hours. During this cooling period, the vibrant colours bond with the fabric and deepens the hue.

CHAPTER 3

3. LITERATURE STUDY

3.1 INDIAN CONTEXT

3.1.1 THE GANGA MAKI TEXTILE STUDIO:



FIGURE 3.1.1

Architect: Studio Mumbai

Client: Chiaki Maki, Rakesh Singh Venture

Built Up Area: 1300 square metre

Location: Bhogpur, 30 kms from Dehradun, Uttarakhand

Purpose: Integrated Weaving Studio

ACCESSIBILITY:

The site is accessible from a single point and is at the foothills of nature, 6kms east from Dehradun airport

CLIMATE:

Subtropical climate, up to 40 degrees summer & falls below 5 degrees during winters.

ABOUT:

The Ganga Maki studio is a collaboration project initiated by the Japanese Maki studio and sponsored by one of India's renowned architecture firms, Studio Mumbai.

The project is a unique blend of traditional workmanship and locally sourced materials.

CONCEPT:

Ganga Maki Textile Studio relies on a tight link with the sun and the moon since we plant indigo on current farming terraces. The design language was influenced by local building traditions, expressing a cohesive framework concerning the facility that situates itself within the constraints of its structural and socio-cultural setting.

ZONING:

- The order of spaces ascends from one of the most public to the most private.
- The areas are thoughtfully placed depending on user population and their needs, as well as the connection of man, nature, and built form with external spaces.

- The workshop and manufacturing are made up of four L-shaped volumes that are organised in a horseshoe configuration around the courtyard—the project's heart—where a water trough is placed to reflect a full moon.
- Surrounding structures house eating equipment and facilities and visitor housing, as well as a gallery and store and a cow barn.

FUNCTIONAL ANALYSIS:

UNITS	AREA	USER NO
WASHING & DYE	300	
CANTEEN	50	15
WEAVER WORKSHOP	400	30
RESIDENTIAL FACILITIES	200	10
UTILITY ROOM	20	
CHIAKIS WORKSHOP	100	1
GALLERY	80	20

MATERIAL & STRUCTURE ANALYSIS:

DESCRIPTION	ANALYSIS
STRUCTURE	LOAD BEARING
MATERIAL	BRICK ,STONE
WALL FINISH	LIME
ROOF	SLOPING ROOF WITH MARBLE, CORRUGATED CEMENT, BAMBOO
HEIGHT OF WALLS	4 TO 6M
WALL THICKNESS	30
FLOORING	STONE
FOUNDATION	STONE
NO OF STOREY	1

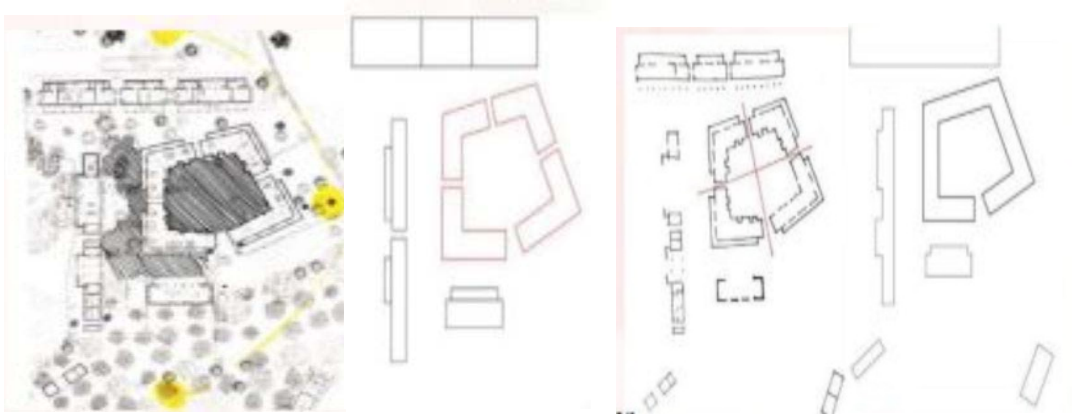
Ganga Maki View:



FIGURE 3.1.1



FIGURE 3.1.1



SUN:

- The orientation of the building is such that the buildings are mutually shaded.
- The courtyard is the most shaded area due to the presence of trees and buildings on all four sides.

REPETITION:

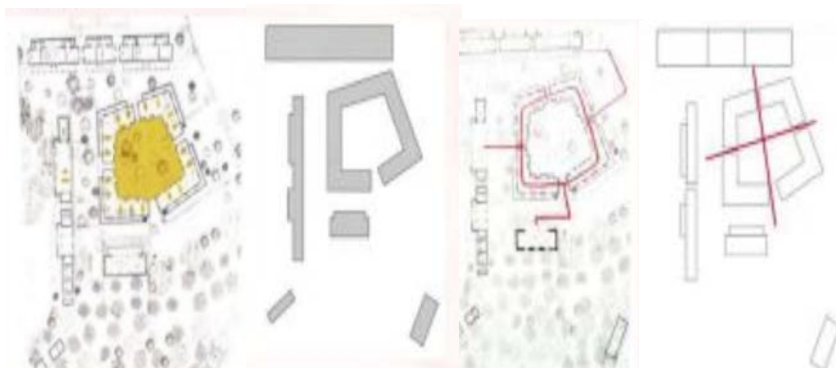
The complex has a combination of mainly two forms. All the forms are repetitive

AXIS:

- The main axis passes through the center of the courtyard and this area is the main activity area. A water trough is positioned in the courtyard to reflect a full moon.

HIERARCHY:

There is a hierarchical order of spaces organization from servant to served spaces.



LIGHT SOURCE:

- The courtyard act as a the main source of the light to the building all the sides of the workshop are open,allowing sunlight inside.skylights are additional source.

OPEN BUILT RATIO:

- 70% of total area consists of open spaces which act as circulation zones and the void organizes the spaces and makes it effectively inclusive.

CIRCULATION:

- The circulation is clearly defined by the different levels in the site and the buildings. The landscape helps to define the path

BALANCE AND SYMMETRY:

. The main axis divided the form into two symmetrical pe halves and thus creates a sense of balance.

FIGURE 3.1.1

INFERENCE:

- The studio design demonstrates how to incorporate the designer and the weavers into the same area while giving equal weight to both. The pattern is entirely constructed with the weavers' local context in mind. The lighting in the area is diffused (ideal for weaving) and the building is constructed using novel roofing techniques.
- The area is focused on a courtyard, offering the people working in the studio a welcoming atmosphere. To avoid odours and heating, the dye house is located apart.
- Other facilities include a canteen, a guest house, a gallery, an administration room, stores, and a wash facility.
- The building is constructed using materials that are readily available in the area.
- To decrease the possibility, the studio has 16 looms divided into four separate rooms.
- The higher platform is for females who knit threads and other items, while males utilise looms in the area below.



3.1.2 DILLI HAAT - JANAHPURI:



FIGURE 3.1.2

Architect: Archohm Consults

Location: Janakpuri, New Delhi, India

Area: 16000 square metre

Project Year: 2014

Client: Delhi Tourism & Transport Development Corporation

Climate: Hot in summer (April- July) and Cold in winter (December- January). The average temperature varies from 25.

ABOUT:

Transportation Development Corporation had invited entries for a DilliHaat in Janakpuria:

- Massive site with a large residential audience, in a part of Delhi that had very few places to go out to. DTTDC has promoted music all across Delhi with its concerts and other initiatives.
- This was the underlying layer that bonded the overall program of formal and informal shops to sell crafts and celebrate culture and to inject a new life into this part of Delhi.

CONCEPT:

Dialogue between the past and the present, an appreciation of the traditional and its adaptation in contemporary times, both in concept and in construction. The conception of the program is as large a design intervention as its physical manifestation. Formal, informal and open shop spaces are created to bring in the required sensitive adaptations of malls markets and bazaars into this haat.

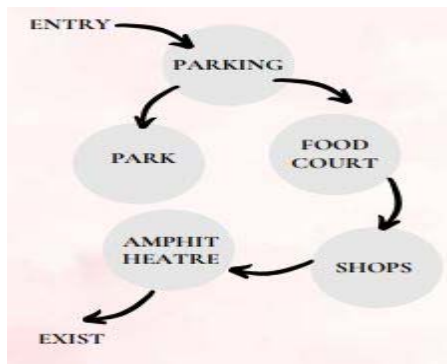
ZONING:



FIGURE 3.1.2. 1

The site was a large six-acre northwest facing contiguous piece that turns southeast towards the end. The plot is bound by the main bus terminus on one side, the Tihar jail (a national prison) on the other side and a large commercial road in the front.

ENTRANCE:



Complex is planned with two entrances; a primary face with vehicular and pedestrian zones and a secondary rear entry for pedestrians into the craft-only zone.

FIGURE 3.1.2.2

TICKET COUNTER ANALYSIS:

The placement of the baskets was overwhelming. Low Heighted entrance appeared compact and dull.

CENTRAL PLAZA:

The central zone gives a rhythmic flow to the space as it leads to different zones of the haat. The flooring pattern gives the essence of the central zone. These arches allow partial light to enter the exhibition hall.

PERMANENT STALLS:

- Typical craft shops (9.62 sq m), made up of rubble stone from outside and brick wall from inside to keep the aesthetics.
- The circular shape of these haats allows us to have a full haat.
- The space between the two has been well utilized by putting planters.
- These are built in the most natural stone masonry, covered with the most technologically advanced tensile canopies.



FIGURE 3.1.2.3

SECTIONS:

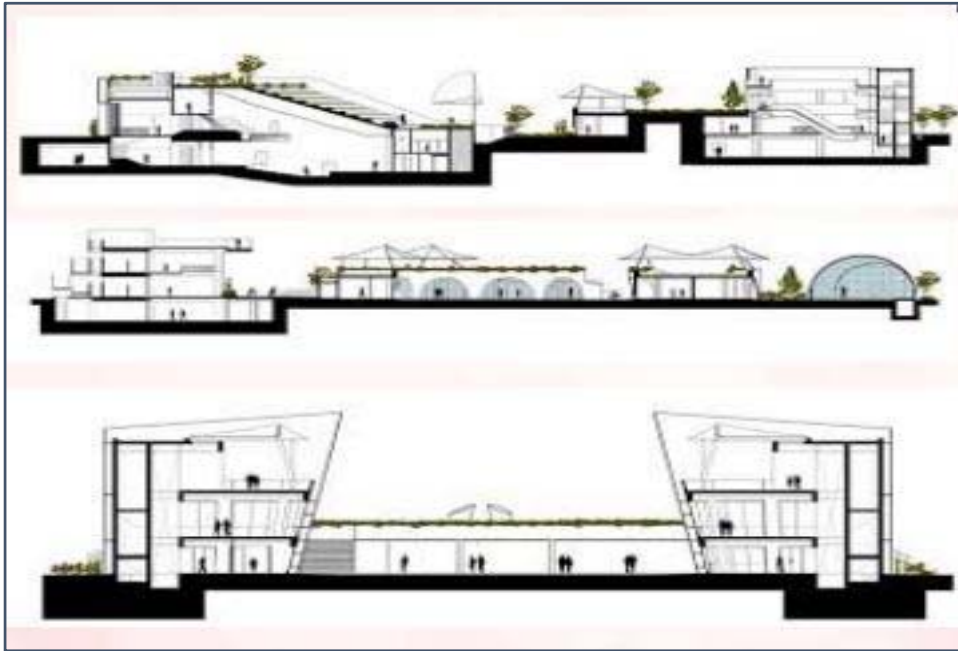


FIGURE 3.1.2 4

3.1.3 PARIS FASHION DISTRICT:

ABOUT PARIS FASHION DISTRICT:



FIGURE 3.1.3 1

Long known as the fashion capital of the world, Paris offers something for every shopper, regardless of your style, budget, and interests. Known as places of pleasure, annually hosting many media celebrities and personalities, potentates, and billionaires. The clothing of France is famous throughout the world

RETAIL SHOP:



FIGURE 3.1.3 2

Paris fashion district is a combination of both retail outlets and wholesale shops. It has a wide variety of collections ranging from clothing, footwear, luxury products and even art and flowers. Each has a many options like retail and wholesale purchase.

ACCESS TO PARIS FASHION DISTRICT:



FIGURE 3.1.3 3

Road transport of goods is above all practical. Due to the size of the country and its location in the middle of Europe, but also due to its importance as a country with large manufacturing industries, French roads continue to be among the most important for European-wide international road freight transport. International goods transport for its part is dominated by sea transport. This means of transport is economical, and France is easy to access because of its extensive sea coast.

PLAN AND LAYOUT:

Paris acts as the center of the fashion industry and holds the name of global fashion capital. The city is home to many prime designers, including Chanel, Louis Vuitton, Givenchy, Balmain, Christian Louboutin, Pierre Cardin, Yves Saint Laurent, Roger

Vivier, Thierry Mugler, Christian Dior, Jean Paul Gaultier, Hermès, Lanvin, Chloé, Rochas, and Céline. Top of Form The Avenue des Champs-Élysées is the avenue of luxury and beauty of France and is the location of many headquarters of upscale fashion, jewelry and beauty houses. It is often compared with the 5th Avenue of New York City and the Avenue Montaigne, an adjacent avenue that is also known for its prestigious fashion headquarters since the 1980s. The fashion houses have been traditionally situated since the 17th century in the quarter around the Rue du Faubourg Saint-Honoré. Other areas, such as Le Marais, a traditional Jewish quarter, have also included the clothing industry. The city's numerous fashion districts consolidate it as a fashion capital

3.1.4 LA FASHION DISTRICT:



FIGURE 3.1.4

Los Angeles Fashion District is the hub of the L.A. fashion industry, featuring more than 2,000 independently-owned retail and wholesale businesses with apparel, accessories and footwear for the entire family. The district is also home to the lively Santee Alley, LA.

RETAIL SHOP:



FIGURE 3.1.4 1

About 80% of the L.A. Fashion District is dedicated to wholesale business. Retail shopping is an integral part of the district. Retail stores in the Fashion District are independent, not the brand name or chain stores that you'll find in a typical shopping mall.

PLAN AND LAYOUT:



FIGURE 3.1.4 2

From style makers like Anine Bing, Michael Costello, and Heidi Merrick to fresh streetwear boutiques like Nice Kicks, Holy Grail, and Blends LA, the LA Fashion District is an evolving and trendsetting epicentre of style. With 4,000+ independently owned and operated retail and wholesale businesses, we can find everything from luxury brands to affordable trends in apparel, footwear, accessories, jewellery, flowers, fabrics and more

WHOLESALE MARTS (FOR TRADE MEMBERS):

On the corner of 9th and Los Angeles streets major wholesalers like California Market Centre, San Pedro Wholesale Mart on the corner of 11th and San Pedro streets; and LA Mart (located inside The REEF) at South Broadway and Washington Boulevard

WOMEN'S:

The vast majority of the LA Fashion District is devoted to women's clothing, and you'll find boutiques across the area. Particularly popular corridors for women's stores are Pico Boulevard between Main and Santee streets; Santee Street between 9th and Pico; and Wall and Maple streets between Olympic and 12th

MEN'S ATHLETIC AND CASUAL WEAR:

Main, Los Angeles, and Santee streets from Pico Boulevard to 16th Street

FLOWERS:

A six-block collection of wholesale and retail flower vendors located within the Fashion hub.

TEXTILES:

The four-block area from 8th Street down to Olympic Boulevard between Maple Avenue and San Julian Street has the textile reign.

KIDS':

Kids clothing (formal and informal), is centered on the two square blocks of Pico Boulevard and 12th Street between Maple Avenue and San Julian Street.

WEDDING AND PROM GOWNS:

Santee Street from Olympic Boulevard down to 14th Street.

3.1.5 ELISSA STAMPA FASHION DESIGN STUDIO:

LOCATION: Istanbul, Turkey

SITE CONTEXT:

- The office is located in Güngören is a small industrial and working class residential district of Istanbul.
- The office is surrounded by textile and clothing stores.

ARCHITECTS: Slash architects

CLIENT: Vakko& power media

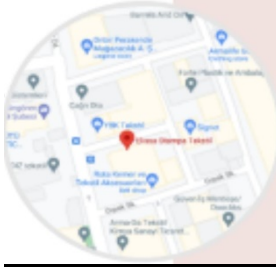
TYPE: Office

YEAR OF COMPLETION: 2010

ELISSA STAMPA FASHION DESIGN OFFICE :

LOCATION:

Istanbul, Turkey



SITE CONTEXT:

The office is located in Güngören is a small industrial and working class residential district of Istanbul.

The office is surrounded by textile and clothing stores.

CONNECTIVITY AND ACCESS:

Istanbul international airport: approximately 38.3 km

Harem Bus terminal: approximately 23.5 km

Railway station: approximately 23 km

CLIMATE:

warm and temperate

BUILT UP AREA:

360SQM



ACCESS POINT:

The entrance to the site is from the North direction.

It is accessible via two distinct primary roads because it is located in the centre.

FIGURE 3.1.5 1

CONCEPTS:

- The sustainable approach is the fundamental design philosophy employed in their design and has been more emphasis on interior design
- The primary objective of the slash architects was to extend the exhibition walls possibilities.
- The showroom display windows vary according to the office agenda and works as an interface of information.
- Creates a pleasant enthusiasm through the flexibility of all the façades of the office.

ZONING:



FIGURE 3.1.5 2

PLANNING ASPECTS:

- The entry is accessible to visitors with a compact waiting space accentuated by the use of green shelving with a natural and organic approach of the design office.
- The office's main programme consists of two open office work areas and a showroom that serves as a meeting space.
- The open-office areas are on one side, and the service units and major display space are on the other.
- As a staff lounge, a chill out room is constructed at the end of this primary circulation corridor.
- The office circulation is planned as an experience corridor, with all of the major office programmes visible from this corridor.



FIGURE 3.1.5 3

- The semi-transparent bookshelves on the open-office facades can be dynamically adjusted by office staff.
- They serve as a window show for the office personnel while still maintaining the seclusion of the workplace interior.

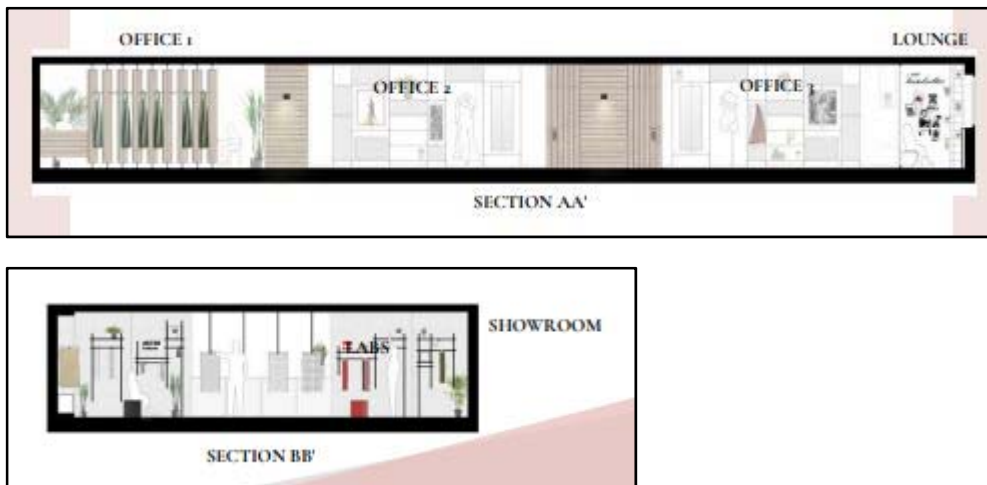


FIGURE 3.1.5 3

INTERIOR DESIGN FEATURES:

Amescite details and modest details were used to create the dramatic touches for the building. The design office components have been developed with a friendly warm environment in mind



The office entrance includes wooden panels that serve as a semi-opaque exhibition wall, displaying the year's current shades.

The bookshelves that have an elegant touch of natural wood and steel have features such as mirrors, frames, shelves and textile baskets which bring a functional usage to the separators.

Glass walls feature semi transparent bookshelves, decorated with books, picture frames and plants.



This makes the office seem larger than it is, still provides privacy for workers behind the glass, but also encourages accidental collaboration between colleagues as they see each other working throughout the day,

FIGURE 3.1.5 4



As we walk down the corridor, we come across the showroom display window, which all visitors to the office will see.

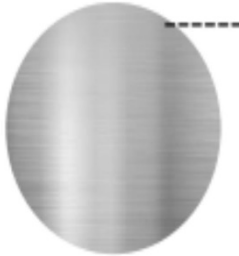
MATERIAL USED:

- The materials and textures are selected as naturally as possible, taking into account the sustainable attitude and design style of the design studio.

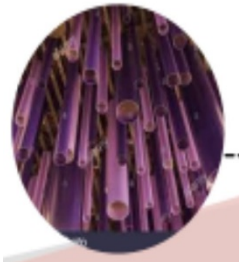


Real Oak Wood is used.

This location is intended to improve the office's brand awareness while also establishing a fresh corporate identity.



Durable and thin steel has been used for the furnitures



Pulvercolored pipes used for showroom

FIGURE 3.1.5 4

CHAPTER 4

4. AREA ANALYSIS

4.1 DESIGN PROGRAM:

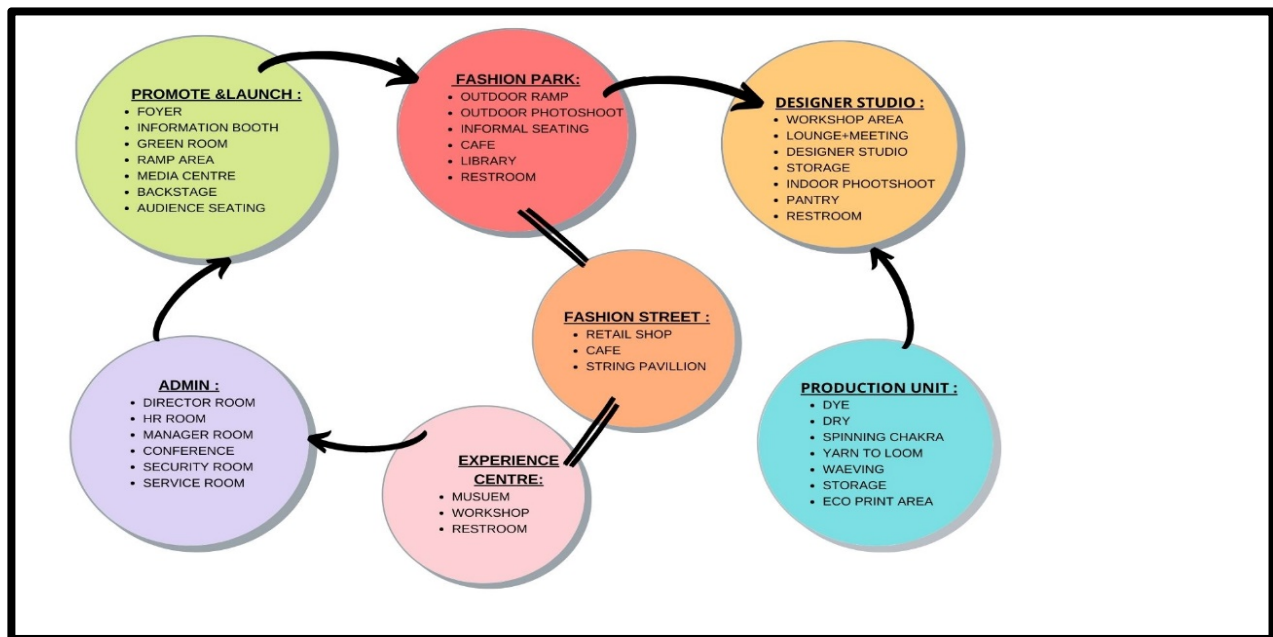


Figure 4 1

4.2 USER ACTIVITY:



figure 4 2

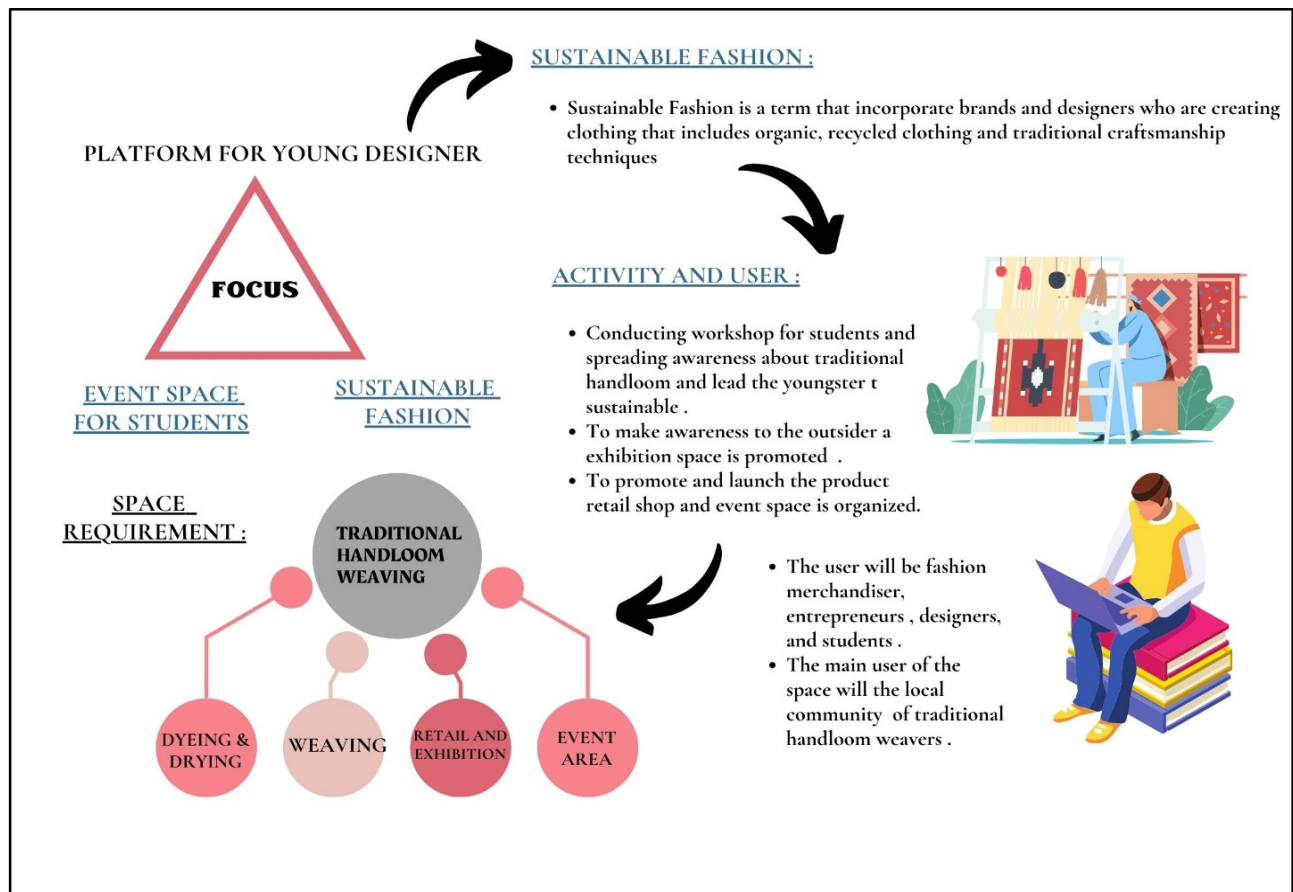


Figure 4 2

4.3 Standard analysis

4.3.1 TNCDRBR AND NEUFERT:

OFFICIAL AREA ANALYSIS:

Floor area description:

- Private offices
- Multiple workstation
- Reception area

The office requirement is divided into 2 parts:

- Public space is calculated as an individual space for every no. of people and circulation space.
- Non-public space. Example: Machine room, Equipment room depending upon equipment size and circulation space.

The space requirement of employees depend upon various factors like the type of work, use of equipment & degree of privacy per no of visitors.

FURNITURE REQUIREMENT:

Proper furniture arrangement enhances the functionality and beauty of office space. The adequacy of furniture is influenced by its flexibility, durability and adjustable nature.

WRAPPING COUNTER:

The drawing at the bottom of the page illustrates some of the clearances required for a wrapping counter. Given the nature of the activity involved a counter height of 889 to 914 mm, would accommodate the majority of people. Horizontal clearances must accommodate the maximum body depth of the larger person within the activity zone and the maximum body breadth of the larger person in the circulation zone. Depending on the intensity of the operation and the number of clerks, the circulation and the activity zone can be combined and the clearance between the front and rear counter reduced to 762mm.

CONFERENCE HALL:

The conference hall is an important part of the office which is required to conduct meetings. The conference hall consists of different shapes of tables. Arrangements and area, according to the numbers of persons to be seated. Consideration must be given to clearances and circulation around the larger conference table, as indicated

LIGHTING OF CONFERENCE HALL:

Accent lighting, Conference hall require 300LUX (QT,A.TC), T-Tubular ,TC-Compact tubes, QT Halogen lamp.

EXHIBITION AREA:

Art galleries/exhibition areas are used for collecting and displaying various forms of material evidence. Nowadays they are considered as a cultural centre. The normal human angle of vision starts 27' up from eye level. For the standing viewer, this means that well-lit pictures should be hung 10m away with the top not more than 4.9m above the eye level and the bottom about 70 cm below. It is necessary to allow a 3.5 m² hanging surface per picture. 6-10 m² ground surface per sculpture and 1 m² cabinet space. Favoured viewing space is 30 to 60 up measured from the point in the middle of

the floor. Sill height of 2.13 m for pictures and a viewing range of 3.0-3.65 m for sculpture.

ACOUSTICAL TREATMENT:

The minimum standard of sound reduction is likely to be required in an auditorium in a city to protect it against external noise is of the order 65 db. This reduction should be provided on all sides, but it would be reasonable to make the roof insulation. The insulation of the internal walls should be adequate to protect the auditorium from these noise sources and the insulation should not be bypassed by openings, doorways, etc.

These are obtained by the spectator perception and good viewing angle.

- a) Good view without head movement, but slight eye movement of about 30
- b) Good view with slight head movement and slight eye movement approx. 60
- c) Maximum perception angle without head movement is about 110.

PROPORTION OF AUDITORIUM:

Adequate absorbing surfaces should be provided in the hall to control reverberation. Such areas include rear walls, balcony parapet, concave surfaces etc. Porous materials are used for absorbing the sound, such materials are quilts, wool, gypsum board, etc.

PARKING ANALYSIS:

Four-level basement parking is allowed, in which 15% is open or surface parking and 85% is covered parking.

Other details:

Maximum floor height is 4.5m. Dimension of vehicle Car - 5.0m x2.5m.

RAMP SLOPES:

The maximum ramp slope should be 20 %. For slopes over 10 %, a transition of at least 8 feet long ends the ramp at one-half the slope of the ramp itself. Ramps may be straight, curved, or a combination.

RETAIL SHOPS:

- Occupation in stores - 1 person per 5 to 6 sq m; 1 person per 1.8 sq m in peak hours.
- Shelf Units - Shelf units should not be higher than 1.8m and not lesser than 0.3m.

SHOP WIDTH

This is the most important dimension as it involves column spacing and frontage of stores. The most commonly used shop widths are 6, 7.6, 9.14 m, the last being the most flexible one. For the benefit of more reactionary readers, the agramacreos indicates the basic design criteria related to contemporary pushcart planning. The model depicted comes equipped with jaguar founders and custom made tall frame of any description. Programming and design process for a retail store developing an alternative is important.

CHAPTER 5

5. SITE ANALYSIS

5.1 Contextual Analysis



Figure 5. 1

SITE LOCATION: Avinashi Road, Peelamedu, Coimbatore

Coordinates: LAT=11.0590535N LONG=77.072095E

Population: 16lakhs [2011]

Total Site Area: 15.05acres

Tourist foot print:

Coimbatore being one of the major city in Tamilnadu is known for its tourist attraction. It functions as a common intersection for Ooty, Mettupalayam&Coonoor. Beyond this comes the Nilambur junction, from here the road branches into two, one traversing southwards to Madukarai to form the Coimbatore by-pass while the other continues westwards to Avinashi which merges with the National Highway 544. Roads are development indicators, which show Coimbatore had grown mostly in the eastern and the western sides.

SITE CONTEXT:

The site is said to be the Southern India's Manchester city. It serves as a suburban region that has developed into a business hub. The location is on Avinashi Road an arterial road of Coimbatore.

SITE GEOMETRY:

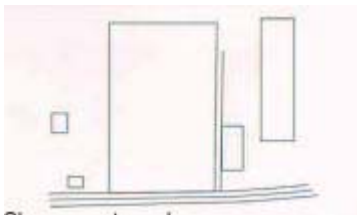


Figure 5 2

Shape: rectangle

Site dimension: 305x200m

REGULATIONS:

Mini plot width/frontage =9m

Rear set back =3m

SITE FEASIBILITY:

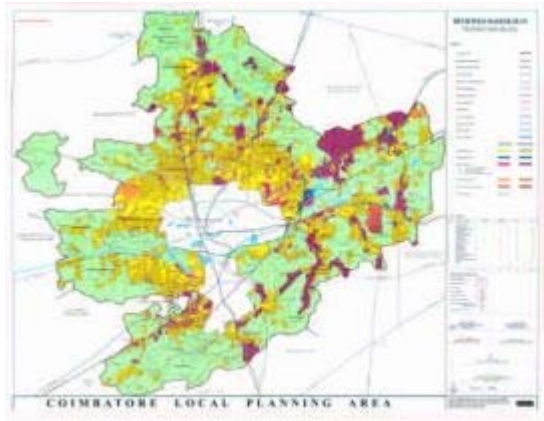


Figure 5 3

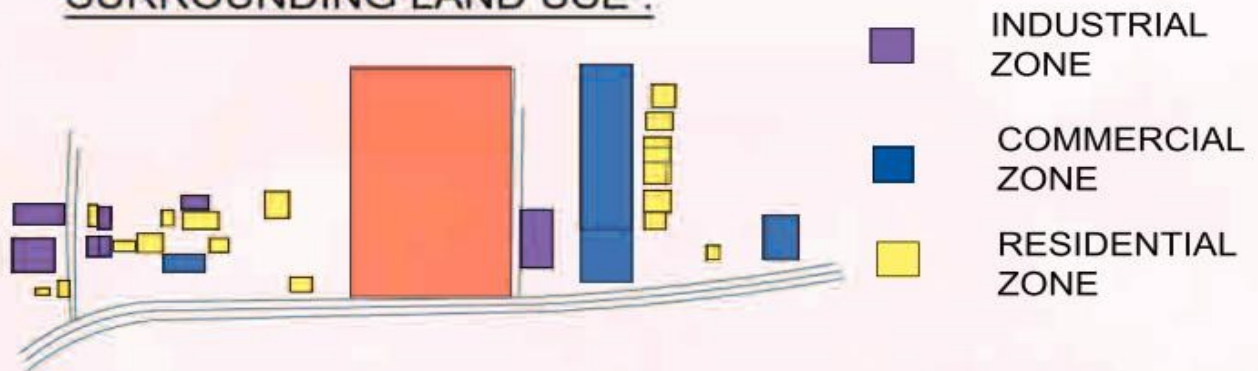
Coimbatore is one of southern India's best known textile hub. Not only does this region turn a profit from its textile sector. But it also provides students with knowledge. In Coimbatore there are several fashionschools. The essential necessity of a fashion designer is textile. The region of Coimbatore is known for its cotton quality and dyed fabric. More than 40% of cotton produced in the Tamilnadu is from Coimbatore Urban Agglomeration, while the crop is being grown in the pockets of Madukkarai, Annur, Kinathukadavu and Pollachi District. Peelamedu, Coimbatore is an important hub that connects the fast- growing business sector. The rapid growth of this place as a commercial and residential hub could be attributed to its geographical advantage in terms of the connectivity to other parts of the city.

5.2 Site analysis:

NEIGHBOURHOOD ANALYSIS :

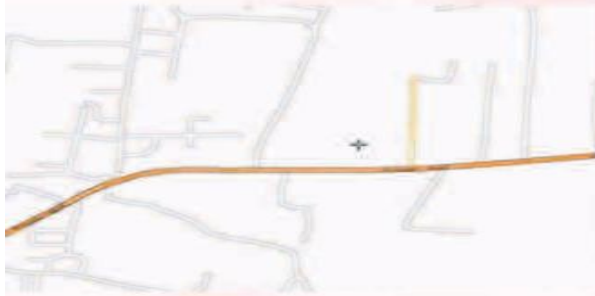
NEIGHBOURHOOD ANALYSIS :

SURROUNDING LAND USE :



Surrounding Land Use

ROAD HEIRARCHY AND WIDTH :



■ ATERIAL ROAD =12 M

■ LOCAL ROAD =4M

The traffic pattern is also an essential commodity for the building, as weekends have no traffic and weekdays have minimal traffic at night.

AMENITIES :



Le Meridien
hotel-100m



KGM Hospital
-750m



Maheswary
marble -100m



Police station
-850m



Dindigul Thalappakati
-850m



Royal care
hospital-2km



Gokulam park
hotel-680m

Figure 5 4